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Return to the Sources: Revival of Traditional Nomads' Rights to Common Property Resources in the Code Pastoral of the Islamic Republic of Mauritania**

ABSTRACT

Despite their economic importance, herders are generally neglected both by the governments of African countries and international donors. During the 1990s, nomadic livestock raising accounted for 75 percent of Mauritania's agricultural output, but received only 10 percent of the country's agricultural budget and donor support. In the past, there were few specific regulatory protections of nomadic economic activities. This article analyzes the content and impact of the Code Pastoral (enacted in 2000, effective in 2004) of the Islamic Republic of Mauritania. This law is a prime example of adapted, effective legislation. It recognizes the traditional common property regime practiced by nomads on pastoral lands classified as public domain and validates use-rights, a shift from exclusive ownership rights. The law is pragmatic, having been drafted by herders themselves to defend against the increasing encroachment of rangeland by farmers. It builds on traditional rules and Islamic law (sharia). The Code's 46 short articles define the law's objectives, lay down basic principles and rights through legal and customary notions, and provide for realistic, self-executory conflict resolution procedures. Appeal to state tribunals is envisaged as a last resort. The initial results

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** Due to the nature of this article, the *Natural Resources Journal* was not in a position to verify many of the sources cited. Additionally, the French translations are the author's own. Nevertheless, it is thought that the information and perspectives presented will be of interest to the reader and of importance to the ongoing dialogue regarding land-use issues. For questions regarding the article or source materials, please contact the author using the information provided in the author's footnote.

indicate that the Code Pastoral has been a positive development for livestock raising in Mauritania.

I. THE ECONOMIC AND ADMINISTRATIVE CONTEXT

Agriculture represents up to 30 percent of the Gross Domestic Product (GDP) of the Sahelian countries of north-central Africa and provides income for a majority of the population. About 75 percent of agricultural activities involve livestock raising. In Mauritania in 1996, agriculture produced 27 percent of the nation's GDP, and 71 percent of that consisted of livestock raising—19 percent of the total GDP. By comparison, mining activities accounted for only 18 percent of Mauritania's GDP. Even so, livestock raising received far less funding from donors and government than sedentary agriculture.¹

The Code Pastoral is the first law regulating nomadic livestock raising in Mauritania. This is remarkable because “the pastoral system,”² based on mobility (regular east-west movements and annual north-south migration, *la transhumance*³) constitutes the economic activity best adapted to arid areas. Only mobility enables the exploitation of scarce, widely scattered and shifting water resources, grazing grounds, and salt licks. Mobility ensures the sustainability of cattle production while preserving the ecosystem.

Traditionally, nomads were the ruling elite in the territory now known as Mauritania. Livestock, notably camels, were the backbone of the region's survival. The nomads' culture evolved around the herd. Rainfall and the finding of grazing grounds and watering places dominated life.

The military occupation by the French starting in 1904 changed this. A sedentary colonial power, the French administration distrusted

1. The World Bank funded agriculture with approximately US\$150 million over the last 30 years. Of five credits, only one was dedicated to herders, totaling only about US\$10 million. Recently herders received more attention. See J. HALL & F. LE GALL, WEST AFRICAN PILOT PASTORAL PROGRAM (WAPP): PROGRAM ACHIEVEMENTS AND FOLLOW-UP (1997).

2. Defined by A.M. Bonfiglioli as: “The pastoral system is an economic production system based on the herd . . . considered as capital, an element of wealth, and as a factor of production . . . susceptible to produce revenue. At the heart of this system the pastors search for strategies to satisfy, in an unstable environment, a minimization of risk objectives.” A.M. BONFIGLIOLI, WORLD BANK, TECHNICAL PAPER NO. 214, AGRO-PASTORALISM IN CHAD AS A STRATEGY FOR SURVIVAL 29, box 4 (1993).

3. “Transhumance” was defined in an earlier draft of the Mauritanian Code Pastoral as: “*la ‘transhumance’ est le mouvement cyclique et saisonnier des animaux en vue de l’exploitation des ressources pastorales d’un territoire donnée.*” Translation: “The seasonal migration, ‘transhumance,’ is cyclical and seasonal movement of livestock intended to exploit the pastoral resources of a given territory.” 1998 Mauritanian Code Pastoral, art. 3, para. 4 (1998 draft). See also *infra* note 78 for the definition in the Malian Charte Pastorale.

nomads because they are difficult to identify, let alone to tax, they cherish freedom, and are often quarrelsome.

The Mauritanian national government has inherited this attitude of distrust.⁴ Neglect of herders' interests has been further aggravated by misguided donor intervention. Donors funnel their money through the Mauritanian administration, which prioritizes the interests of the sedentary population above those of the nomadic herders. Encroachment of farmers into rangeland areas, unsuitable for rain-fed agriculture, has been the consequence. This trend is responsible for substantial loss of productivity.⁵

Until recently, the literature on dryland agricultural development ignored pastoralism. However, the value of nomadic livestock raising is slowly being recognized, as herders are using marginal resources and "turn[ing] wasteland into food."⁶

4. See G. Conac, *Le Développement Administratif des Etats D'Afrique Noire*, in LES INSTITUTIONS ADMINISTRATIVES DES ETATS FRANCOPHONES D'AFRIQUE NOIRE, at X (G. Conac ed., 1979): "Les systèmes administratifs coloniaux obéissaient tous à une logique de la domination. Il s'agissait avant tout d'assurer la souveraineté de l'Etat colonisateur. Visant le maintien de l'ordre public et de la défense des intérêts métropolitains, ces administrations étaient par nature autoritaires." Translation: "All the colonial administrative systems were geared toward a logic of domination. Of first importance was the respect of the sovereignty of the colonial state. These administrations were, by nature, authoritative, given that they intended to maintain public order and ensure the defense of metropolitan interests." Conac goes on to explain that the independent governments adopted the institutions and regulations of the colonial power, fearing otherwise desegregation. *Id.* at XV, XXX. This assessment is shared by A. Daddah, *La Mauritanie en Panne de Modernisation*, in REVUE INTERNATIONALE DES SCIENCES ADMINISTRATIVES 199, 199–200 (1997): "La greffe institutionnelle opérée durant la phase coloniale et au cours des premiers années d'indépendance s'est traduite par l'émergence des traits partagés par nombre d'administrations africains. Au plan endogène, notamment, la logique d'une administration omnipotente et monopolisant la gestion des ressources nationales . . . a graduellement conduit à l'hypercentralisation . . . de l'administration et du pouvoir." Translation: "The import of institutions which occurred during the colonial phase and shortly thereafter had as a consequence, that many African administrations share the same characteristics. In the endogenous sphere, especially, the logic of an omnipotent administration monopolizing the exploitation of natural resources . . . has gradually led to a hypercentralization . . . of the government and power."

5. The effects of such encroachment on productivity generally are discussed in H.E. Dregne & N.T. Chou, *Global Desertification: Dimension and Costs*, in DEGRADATION AND RESTORATION OF ARID LANDS (H.E. Dregne ed., 1992), quoted in S.J. Scherr, *Dryland Degradation and Poverty*, in DRYLANDS, POVERTY, & DEVELOPMENT, SUMMARY OF PROCEEDINGS OF WORLD BANK ROUND TABLE: SUMMARY OF PROCEEDINGS 70 (June 15–16, 1999 in Wash., D.C.). Scherr expressly argues that "conversion of rangelands to grain production" is responsible for accelerated land degradation. *Id.*

6. A.M. Frérot, *Impact de la Réforme Foncière Sur la Gestion de L'Espace Pastoral en Mauritanie*, in 32 OPTIONS MÉDITERRANÉENNES, SÉRIE A: SÉMINAIRES MÉDITERRANÉENNES 39 (1996). See also E. MWANGI & S. DORN, CAPRI Working Paper No. 47, BITING THE BULLET: HOW TO SECURE ACCESS TO DRYLAND RESOURCES FOR MULTIPLE USERS (2006).

II. OWNERSHIP VS. USE RIGHTS

Established legal traditions have also been responsible for the neglect of herders. Roman law provided the foundation for the Western understanding of "ownership" as an exclusive possession of a *res*, the right to do whatever one pleases, including willful destruction, to the exclusion of everybody else. This notion applies to land as well as personal property. The "owner" may, at his sole discretion, exclude third parties from the use of his land, even if he has no need for the land himself. Such a legal system serves agrarian societies with sedentary farmers well. Intensive agriculture requires capital investments and work, and therefore necessitates protection against strangers harvesting fruits they have not sown. Given the influence of Roman law on the French Code Napoleon of 1801, it is only natural that the French colonial power imposed this type of legal system on Mauritania. Such an approach is ill-suited, however, for a population following a nomadic lifestyle.

Nomadic use rights may be defined as "permission to use a common resource intermittently." The concept of exclusivity is unknown. Whether the resource base stretches over a vast area and is unstable (e.g., grazing areas) or whether it is fixed (e.g., watering places and salt licks), not one single person or clan is entitled to exclusive use of the resource base, because its accessibility may be critical for the survival of other users and their herds. Exclusivity is also not required for the effective use of the resource. A given resource may be sparse while being also abundant, if it is scattered over a wide geographical area, and such a resource is renewable over time if used "reasonably." The periodic nature of the resource makes it abundant when it exists (following rains), but too scarce to support the survival of anyone depending on its exclusive use alone (during droughts).

Nomadic use rights illustrate that property rights are power relations between people. Each tribe may exploit specific grazing grounds, possibly far apart, which may vary according to season and rainfall. However, several tribes may share the same watering station for their livestock. "Access" therefore does not mean free access for all: custom and tradition regulate who is authorized to use the resource.⁷

A common property management regime, subject to well-defined rules of access, guarantees optimal resource use, a "fair" sharing of exploitation that permits the regeneration that is critical for survival. According to "property rights theory" of the 1960s, social controls over the

7. The so-called "tragedy of the commons" therefore does not apply here.

use of resources in short supply define such optimal regulation.⁸ These controls are established by traditions embodied in the Muslim law of sharia via principles consistent with common sense and equitable burden sharing. The necessity of survival and the fear of transgressing a religious prohibition enforce these rules.

Sharia recognizes five principles (which are not expressly repeated in the legislative text of the Code Pastoral):⁹ (1) recognition of

8. D.W. BROMLEY & M.M. CERNEA, WORLD BANK DISCUSSION PAPER No. 57, THE MANAGEMENT OF COMMON PROPERTY NATURAL RESOURCES 49 (1989): "The Swiss summer pastures are 'collectively owned' but can hardly be described as degraded; this points to a fundamental issue . . . [that] the summer pastures of Switzerland are collectively owned *precisely because they are of low productivity*. . . . Notice that we did not say that such pasture lands are of low productivity because they are collectively owned" (emphasis in original). In other words, common management is the most appropriate form of ownership for optimal efficiency in use.

9. In regard to the relevance of sharia principles, some doubt may arise due to the fact that the express reference to Islamic law in the June 14, 1999 (second to last) draft of the text has been omitted in the first case, and replaced by *loi* in the second case in the final version of the Code. The original read: "*La présente loi portant code pastoral en République Islamique de Mauritanie, a pour objet (1) La définition, conformément à la Chaaria islamique et à ses pratiques coutumières, des principes d'une gestion rationnelle de l'espace pastoral mauritanien, de manière à y assurer la préservation et la promotion du pastoralisme dans le cadre d'une évolution dynamique du développement rural.*" Translation: "The object of this law, which is called the pastoral code of the Islamic Republic of Mauritania, is that (1) the definition conform to the Islamic sharia and the customary traditions of the principles of a rational management of the Mauritanian pastoral space and resources, in order to preserve and promote livestock herding in those spaces within the framework of dynamic evolution of rural development." Mauritanian Code Pastoral, art. 1 (1999 draft) (on file with author). "*Le séjour des animaux dans les espaces vitaux des agglomérations rurales telles que prévues par la réglementation en vigueur, est régi par la Chaaria.*" Translation: "Sharia regulates the sojourn of livestock within the vital spaces of rural communities, as provided for by the existing legislation." *Id.* art. 16. However, the author has been told by the drafters that these are only formal editing changes and do not alter the substance.

Indeed, the applicability of sharia principles to all legal issues has been set forth in the 1991 Constitution of Mauritania. Ordonnance No. 91-022 of July 20, 1991 (amended June 25, 2006) (adopting the Constitution of Mauritania). The Constitution is preceded by a recital which proclaims, *inter alia*, "*Considérant que la liberté, l'égalité et la dignité de l'Homme ne peuvent être assurées que dans une société qui consacre la primauté de droit, soucieux de créer les conditions durables d'une évolution sociale harmonieuse, respectueuse des préceptes de l'Islam, seule source de droit, et ouverte aux exigences du monde moderne, le peuple mauritanien proclame, en particulier, la garantie intangible des droits et principes suivants.*" Translation: "Considering that liberty, equality, and human dignity may only be assured by a society which respects the rule of law, desiring to create sustainable conditions for a harmonious development of society, *respecting the teachings of Islam, unique source of law*, and open to the requirements of a modern world, the Mauritanian people proclaim, in particular, the guaranty of the following rights and principles" (emphasis added). Also, the civil law refers to sharia as the final resource if specific regulations are not found: "*Pour combler les lacunes de cette ordonnance, il est fait référence au rite malékite. Pour lever toute équivoque dans la version*

collective use rights to pastoral resources (*le caractère collectif et l'usage commun des ressources pastorales*);¹⁰ (2) recognition of the protection of vital space around villages (*la protection de l'espace (et, en partant, des ressources) vital(es) de la cité—Hima*)—nomadic camps must not be installed in this zone; (3) prevention of damage to planted fields by stray livestock; (4) the right of a nomadic herder during the annual migration (transhumance) to spend three nights within the vital space of villages, an exception to the rule which protects the Hima; and (5) joint responsibility of herders and farmers to exercise vigilance in the protection of livestock and crops.

Prior to the enactment of the Code Pastoral, Mauritanian law regulating natural resources such as land, forest, and water followed the rules of exclusive ownership, disregarding time-honored customary and sharia principles, resulting in hardships for herders.

Access to land guaranteed by traditional use rights was terminated by the state in favor of exclusive ownership. The central authority intended to demonstrate its power by redistributing land to sedentary farmers. Since the state became the source of these rights, they were derivative rights, stripped of all cultural and religious content, resulting in space that was otherwise available to herders becoming vulnerable to “trespassing” by farmers through progressive encroachment of (unsustainable) fields into grazing zones.

Forests, another traditional common property resource, are regulated by Mauritanian law.¹¹ Article 32 prohibits livestock from entering such recognized forests. This ban applies only to nomadic herders, because the legislation allows exploitation by flocks of neighboring village populations.

Water use is regulated in a more comprehensive and inclusive manner. The Code d’Eau¹² protects access by everyone, not just herders,

française de ce texte, la version arabe fait foi.” Translation: “To fill any gaps in this legislation, the rite *malékite* will apply. The official language is Arabic.” Code of Obligations and Contracts, Ordonnance No. 89-126 of Sept. 14, 1989, art. 1179 (J.O. special edition of Oct. 25, 1989, amended by Law No. 2001.031 of Feb. 7, 2001) (Ministère de la Justice, Mar. 2005) (final provisions).

10. According to a Hadith (saying) by the Prophet Mohammed, water, pastures, and fire are collective property (fire meaning firewood). “*Les gens sont associés à trois choses: l'eau, le fourrage et le feu.*” Translation: “People are concerned by three things: water, fodder, and fire.” ABU DAWUD, IBN MAJAH & AL KHALLAL, *VERSET CORANIQUES, HADITHS ET EXTRAITS DES CONVENTIONS INTERNATIONALES RELATIVES A L'ENVIRONNEMENT*, MINISTÈRE DU DÉVELOPPEMENT RURAL ET DE L'ENVIRONNEMENT, MAURITANIE (C.A. Ould Cheikh et al. eds., 2006) [hereinafter *VERSET CORANIQUES*]. Hadiths of the Prophet Mohammed are considered a source of law.

11. Code Forestier, Ordonnance No. 97-007 of Jan. 20, 1997 (Mauritania).

12. Code d’Eau, Ordonnance No. 85-144 of July 4, 1985 (Mauritania).

to surface waters by declaring them public goods.¹³ Conversion to private property by decree is not prohibited, however, and it is left to ministerial discretion to define the limits of the public interest.

Recently, initiatives to accommodate both the interests of nomadic herders and those of sedentary farmers have sprung up. Several West African herders' associations have created a representative association (L'Union Inter-africaine des Organisations Professionnelles de l'Elevage, or U.I.O.P.E.); it was formally constituted in December 1999 in Nouakchott, Mauritania's capital. The drafting of appropriate legislation is one of the objectives of this movement.

III. OVERVIEW OF THE MAURITANIAN CODE PASTORAL

The Mauritanian Code Pastoral¹⁴ reflects Mauritanian traditions. The drafting was preceded by country-wide, in-depth appraisals of the situation "in the field." Representatives of all interest groups concerned were consulted. The law is therefore supported by all relevant stakeholders and sponsored by the *Ulema*.¹⁵

The Code is a well-written piece of legislation.¹⁶ It is short (only 46 two- to three-line articles), concise, well-structured, and easy to read and

13. The conflict of interests between farmers, who use receding waters of ephemeral lakes in the east of Mauritania (*Hodh Al Gharbi*), called Tamourt, for flood recession agriculture, and nomads who water their herds there, gave rise to disputes among donor-supported projects. GIRNEM (Gestion Intégrée des Ressources Naturelles dans l'Est de la Mauritanie, which is funded by *Gesellschaft für technische Zusammenarbeit (GTZ)*), favored the herders, while PGRNP (Projet de Gestion des Ressources Naturelles en zone Pluviale), funded by the World Bank, favored the farmers by financing fences around the Tamourt "Goungel." Eventually passages for the herds were negotiated.

14. Loi No. 2000-044 of July 26, 2000, portant code pastoral en Mauritanie, Journal Officiel de la République Islamique de Mauritanie [J.O.] [Official Gazette of Mauritania], July 15, 2003, available at www.glin.gov [hereinafter Mauritanian Code Pastoral]. See also Decret No. 2004-024/PM.MDRE of Mar. 16, 2004, portant application de la Loi No. 2000-044 of July 26, 2000 relative au code pastoral, Journal Officiel de la République Islamique de Mauritanie [J.O.] [Official Gazette of Mauritania], Mar. 3, 2004, available at www.glin.gov (implementing the Mauritanian Pastoral Code) [hereinafter Implementation Decree].

15. *Ulema* are the authorities of Muslim faith.

16. The Code was drafted by a team of Mauritanian jurists and Islamic law jurisconsults, well versed in modern French law and sharia, advised by technical experts. The drafting and editing committee consists of the following members: Cheikh Hamdene Ould Tah, expert in Muslim law, jurisconsult; Cheikh Sidaty Ould Tar, Fakhiah; Hassan Ould Taleb, Président du GNAP (Groupement National des Associations Pastorales (Mauritanie)); Isselmou Ould Abdel Kader, expert juriste bilingue, administrateur, Hakim et Wali, Ministre de Commerce et du Tourisme in 2002-05; Mahomed Ould Sidi Mohamed, expert en aménagement de territoire; Hamoud Ould Sidi Ahmed, expert juriste, DEAR (Direction de l'Elevage, et de l'Aménagement Rurale dans le Ministère du même nom); Dr. Dirk Florent Thies, project manager for GIRNEM (funded by GTZ); Stephan Neu, technical con-

understand. It reflects the drafters' priorities, opening with a clear policy outline and emphasizing conflict avoidance throughout. If conflicts do occur, a realistic path is provided for their resolution. One of the main goals of the legislation is to avoid armed conflict between herders and farmers, which is an age-old dilemma.¹⁷

A. The Objective of the Code

The objective of the Code is to implement a rational administration of the Mauritanian grazing range (*l'espace pastoral*), strengthening herders' rights. The principal concepts and rights of herding are defined. Thus, Article 10 stipulates the mobility of herders and protects their access to pastoral resources. Pastoralism is defined as livestock raising based on permanent or seasonal mobility,¹⁸ and herders are those keepers of livestock who depend on mobility for reaching "pastoral resources." These are defined in Article 4 as water (above and below surface level), grass and tree or brush grazing areas (*pâturages herbacés ou*

sultant to the Ministère de l'Élevage et de l'Aménagement Rurale, GTZ expert; Dr. Dah Ould Khtour, socio-economical and livestock expert; and Dr. Elke Boehnert, agricultural and livestock expert.

17. See, for example, the murder of the herder Abel by the crop farmer Cain in THE BIBLE, 1 Mose 4. See also THE KORAN, Sura 21, The Prophets (Al-Anbiyâ), verse 78: "And remember David and Solomon—[how it was] when both of them gave judgment concerning the field into which some people's sheep had strayed by night and pastured therein, and [how] we bore witness to their judgment." (Translation from THE MESSAGE OF THE QUR'AN, DAR AL-ANDALUS (Muhammad Asad trans., 1980)). Other examples include the storyline from the film SHANE (Paramount Pictures 1953) by George Stevens starring Alan Ladd; the storyline from the film RIO BRAVO (Warner Bros. 1959) directed by Howard Hawks and starring John Wayne and Dean Martin; and the comic *Lucky Luke: Des Barbelés sur la Prairie* (Dupuis 1967), written by Goscinny and illustrated by Morris. On a more serious note, the war between Mauritania and Senegal, or rather the civil-war-like killing of citizens of each country by members of the other in the spring of 1989, was triggered by a violent conflict between nomadic Mauritanian herders and Senegalese peasants on the banks of the Senegal river in the vicinity of Bakel. These incidents recall the legislation of Sheikou Amadou, emir of the Islamic state Dina, in the inland delta of the Niger River (1818–64). The centerpiece of his code of 1821, also called Dina, establishes the rules for the annual crossing of the river by Fulbe (*Peuhls* in French) herds, militarily protected, into the pasture land of the (hostile) Bambara. The calendar and the modalities are respected to this day. See A.H. BA & J. DAGET, L'EMPIRE PEUL DU MACINA, 1818–1853, at 64–65 (1955); J. PAGOT, ANIMAL PRODUCTION IN THE TROPICS 446 (1985). To ease potential tensions, local conventions are entered into between the transhumant and the population located along his expected trajectory, and are regularly updated to reflect shifting power relations. See Thomas J. Basset & Moussa Koné, *Grazing Lands and Opportunistic Models: The Political Ecology of Herd Mobility in Northern Côte d'Ivoire*, in AT THE FRONTIERS OF LAND ISSUES 25 (International Colloquium, Montpellier, France, May 17–19, 2006), available at www.mpl.ird.fr/colloque_foncier/Communications/Resumes.pdf.

18. Mauritanian Code Pastoral, *supra* note 14, arts. 3, 7.

aériens), and salt licks (*les carriers d'amersal et les terrains à lécher*). Pastoral resources are common goods that accrue to the nation.¹⁹ The area in which these goods occur, *l'espace pastoral*, defined in Article 5, is public domain and is reserved exclusively for use by mobile livestock.²⁰ The Code emphasizes this essential principle by stipulating expressly that any appropriation of pastoral resources by an individual person or entity is illegal.²¹

This protection extends to necessary access-ways to a particular resource.²² Obviously, a particular resource, even though technically common property, cannot be exploited by the public when access is blocked by surrounding private property. Article 11 defines "access to the resource" as a guaranty of free access for the herder *and* his animals—special circumstances defined by law excepted. Article 6, furthermore, protects this access right by a lien (servitude). Anticipating the possibility of large-scale development schemes, the Code prohibits such public enterprises if they are likely to harm the vital interests of the herders.²³

The Code avoids the issue of expropriation without compensation²⁴ by simply attributing specific use rights to herders, rather than ownership rights. Also, the articles conferring these use rights expressly provide for their execution within "the limits of the law."²⁵ This precaution ought to forestall potential claims of damages for expropriation.

The Code thus creates a new hybrid property right that is neither full common property nor exclusive property: it is a common property right granted by the state through a law, distinct from mere recognition of a preexisting right, but based on and closely modeled after it, and created in favor of a specific socioeconomic group.

19. "*Le principe de la communauté des ressources est de droit.*" Translation: "The legal principle of common resource ownership is recognized." *Id.* art. 8. "*Les ressources pastorales . . . appartiennent à la Nation.*" Translation: "The pastoral resources . . . belong to the Nation." *Id.* art. 9.

20. *Id.* arts. 5, 13. A close reading of the definition reveals, however, that the editing process was not quite as smooth as would be desirable. Whereas Article 5 defines *l'espace pastoral* pursuant to its functions, Article 17 of the Implementation Decree, *supra* note 14, opens the possibility of defining such area by decree. Articles 9 and 17 of the Decree allow for other legal restrictions that may, however, not infringe on pastoralism. A sensible interpretation overcomes such hurdles.

21. "[T]oute forme d'appropriation exclusive de l'espace pastoral est illégale." Translation: "It is illegal to appropriate pastoral space for exclusive use only." Implementation Decree, *supra* note 14, art. 14.

22. *Id.* art. 5, para. 2; *id.* arts. 6, 11, 15.

23. Mauritanian Code Pastoral, *supra* note 14, art. 12.

24. 2006 MAURITANIA CONST. art. 15.

25. Mauritanian Code Pastoral, *supra* note 14, arts. 6–7, 10–12.

B. Pastoral Resources: Water and Salt Licks

Water is the most precious pastoral resource. Articles 21 through 27 regulate and protect access to water by livestock. The principle of free access to a water source is already established in Article 4, where surface or subsurface waters (*les eaux superficielles ou souterraines*) are included in the definition of “*ressources pastorales*,” free access to which is guaranteed by Articles 6 and 11. The Code specifies in Article 24 that places where water accumulates, and which serve to water herds, are of *utilité pastorale*. Such *utilité pastorale* are protected automatically by law. However, artificially created watering points designated specifically for use by herders (*infrastructures hydrauliques et points d'eau à vocation pastorale*) have to be declared as such by administrative act. Such water points may not be physically altered by private works that would impede herders' access.²⁶ Private water hauling installations on public wells automatically become public goods, guaranteeing access for herders' animals.²⁷

The same policy of unrestricted access for livestock applies to salt licks (*carrières d'amersal*). These may not be privately appropriated or managed, built over, or otherwise rendered inaccessible.²⁸

C. Conflict Avoidance

The Code's centerpiece is Chapter V, *Gestion Des Conflits Pastoraux*, which comprises 11 articles (Articles 33–44). In this chapter, the Code strives to avoid potential conflicts between herders and settlers and between different groups of herders.²⁹ It does so by separating the conflicting parties wherever possible. If conflict does ultimately arise, it is to be settled through arbitration. Going to court is only to be used as a last resort.³⁰

To avoid conflict through separation of the parties, the administrative authority may regulate specific uses in specific geographical areas. For example, Article 33 allows for the prohibition of planting in certain pastoral zones. Conversely, the installation of campsites in prox-

26. *Id.* art. 25.

27. *Id.* art. 22.

28. *Id.* arts. 27, 28, respectively. Accessibility to salt licks is treated like accessibility to water due to a Hadith: “*J'ai demandé au Prophète . . . la concession de la mine de sel de Maarib, qu'il m'accorda. Mais les gens dirent qu'elle est comme de l'eau de la source. Il revint alors dur sa décision.*” Translation: “I asked the Prophet . . . the concession of the Maarib salt mine, which he granted. The people said, however, that the mine is like the water of the spring. He then reversed his decision.” Al Beyhaghi, *Souane el Koubra*, in 3 VERSET CORANIQUES, *supra* note 10.

29. Mauritanian Code Pastoral, *supra* note 14, art. 44.

30. *Id.* art. 39.

imity to agricultural zones may also be forbidden.³¹ These regulations may also be enacted for certain periods of the year. The Implementation Decree encourages local conventions among the stakeholders to regulate land use.³²

Conflict avoidance through separating incompatible users is encouraged in particular by Articles 18 (authorizing the *Hakim* to regulate by decree (*Arrêté*) the planting of fields or the establishment of camps); 19 (regulating areas of permanent installation through development plans); 20 (regulating establishment of villages in zones with potential for pastoral uses); 25 (regulating activities in the proximity of watering points); and 29 (establishing rules protecting salt licks).

If conflict does occur, however, it is to be resolved first through negotiations among the parties (*à l'amiable*).³³ Should these direct negotiations not lead to settlement, the second step is the appeal to a higher arbitral commission consisting of representatives of the parties and the administration closest to the place of discord.³⁴ Only if both arbitrations fail does the third step authorize submission of the case to the local court (*tribunal de Moughata*)³⁵

The arbitral commissions are small and designed to find compromise. Each commission renders its verdict on the spot. Compensation is to be granted to the aggrieved party by the other party pursuant to Article 37. If the conflict does go to court, judgment is rendered within 15 days.

The local level commissions respect the principle of decentralization. The speedy rendering of decisions mirrors the sharia courts, which deliver judgment in one session, and serves the parties' interests for reestablishing peace. According to Elisabetta Grande, "[w]hat matters is the group, and what is important is either peace within the group or between one group and its neighbors."³⁶ After all, "the legal process is designed to re-establish social peace in order to prevent feuds."³⁷

31. *Id.* art. 37.

32. *Id.* art. 17.

33. *Id.* art. 33 (first sentence).

34. Mauritanian Code Pastoral, *supra* note 14, arts. 35–38.

35. *Id.* art. 39.

36. Elisabetta Grande, *Alternative Dispute Resolution, Africa and the Structure of Law and Power: The Horn in Context*, 43 J. AFR. L. 63, 64 (1999).

37. *Id.*

The Mauritanian tradition of informal conflict resolution based on moral persuasion rather than forced execution is embodied in the Code's rules. This tradition distinguishes between the following outcomes:³⁸

Itidhar: withdrawal of the complaint, and mutual exchange of excuses;

T'arguiba: symbolic amends through praise of the injured party and offering of gifts;

Sorba: collective excuse of the transgressor's clan through the visit of an important delegation to the opposed party; and

Tawid: indemnification in kind or through money.

Conflicts may also arise among the herders themselves, such as when improperly installed campsites result in the commingling of livestock, or when one herder blocks another herd's access to their watering site. Such conflicts are to be resolved by a separate commission pursuant to Article 44, created ad hoc by local decree.

The rules of conduct during transhumance, the period most likely to generate conflict, are precisely established by tradition in Mauritania:

Lemrah specifies the roaming zone of the herd during the night next to the tent of the herder/owner;

Metlag specifies the most direct access path for the livestock from camp to the grazing ground in the morning, and its return in the evening (this corridor has to remain open);

Elmessyah specifies the nocturnal grazing area; and

Elmirad indicates the space between the camp and the water source (no camp may be set up there).

Tradition expects from herders mutual respect, hospitality, and positive intervention to prevent conflicts. Every herder must install his camp so that his animals, on their march to pastures and watering spots, do not cross, commingle, or otherwise interfere with the animals of another camp.

At water holes, tradition also regulates use priorities. Human needs are served first (*Rwaya* or *Kharza*), followed by the needs of herds in emergency situations. Next come cattle, then sheep and goats, and finally camels. In the case of water holes installed by villagers, the same sequence is followed, but with village needs taking priority. When two

38. These references to sharia and those following were provided in a personal communication from Isselmou Abdel Kader, member of the drafting committee for the Code Pastoral, to the author in Nouakchott in 1999.

herds arrive at a well at the same time, these rules apply, with the needs of the herd that arrived first taking precedence over a herd arriving later.

The drafters of the Code had confidence in the adherence to “their” law because of (1) its predictability, since the text clearly stipulates what rights are granted to whom, while it remains flexible in resolving conflict through reliance on customary regulations that are known to the population, and (2) its simple institutions to implement, oversee, and execute its regulations. Execution is key to any law. Imported texts and court systems generally fail because they fit poorly with local culture, tradition, learning experience, and budgetary resources. By allowing recourse to court only as a “last resort,” the Code reduces this risk.

The arbitration rules of the Code split responsibility for resolving conflict between the two existing centers of power: the state authority (through its local representative), and the stakeholders themselves (the litigants). Combined, they are obliged to compromise, thereby reducing friction between locals and the central power. This system also tends to guarantee the respect of established rules, since both sides limit each other’s leeway in reinterpreting them.

The Code is characterized by an appropriate combination of substantive rules with adapted institutional support. It fosters the self-regulating powers of society by providing the space, flexibility, rules, and institutions tailored to the community’s needs. The society can live by its own principles, and solve its problems first from within—a “bottom-up” approach. State authority only assures the respect of the rules. It does not impose new, foreign obligations, or unfamiliar institutions to which the victim has to resort in order to right a perceived wrong. The Code thus embodies a concept articulated by Stephen Cornell and Joseph Kalt, that institutions only work when the system of power sharing and power generation provided therein closely corresponds to the inherent traditional understanding of what is considered the norm:

The key lies in culture: it is only the implicit and informal contracts of culture that stand out as the meta-enforcers of a society’s mechanism of control and organization. . . . Cultural norms form the glue that holds a society’s formal and informal institutions of social control and organization together. . . . [S]uccessful tribes have institutions that not only provide a match between cultural norms and formal structures; they are also adequate to the task at hand.³⁹

39. STEVEN CORNELL & JOSEPH P. KALT, *WHERE’S THE GLUE? INSTITUTIONAL BASES OF AMERICAN INDIAN ECONOMIC DEVELOPMENT* 13–14, 21, 28 (1991) (Harvard Project on American Indian Economic Development, Paper No. PRS91-1). *See also* STEVEN CORNELL & JOSEPH

Thus, the perceived weakness of the Code, namely that the rules of behavior underlying the judgments reached in the arbitration procedures are not expressly spelled out, is really its strength. Through reliance on traditional knowledge, comprising both culture and sharia, the drafters have combined substantive regulations with an institutional framework that is well-adapted to enforce these regulations and is acceptable in the cultural environment in which it is applied. This approach marks the Code's divergence from existing legislation. Ordinarily, legislation follows "the simplifying logic of the state shared by colonial and post-colonial leading elites . . . [and falls victim to] the illusion . . . that enactments are the law, and that an enactment backed by the power of the state is enough to solve problems."⁴⁰

However, the Code not only captures existing custom, regulations, and law. It carries them forward within a coherent and binding form. It gives tradition structure and life, respecting the wisdom that, "in a traditional, very highly structured society . . . behavior cannot be modified except within the framework of already existing conventional social constraints."⁴¹

The Code embodies another, almost revolutionary, notion—that different regulatory principles may be applicable to the same issue in different localities within the national territory. The colonial doctrine, adopted by the successor state, holds that an issue has to be regulated uniformly across the entire national territory. Land or water rights and obligations would have to be the same for everyone. This does not suit a situation where the ecology and land use differ widely (highly valuable oasis and irrigated lands, shifting rain-fed pastures, dryland and desert) and where strong traditional attachment to land persists, deeply embedded in customary and religious beliefs, which vary according to ethnic affiliation.

Uniformity of law is beneficial only when the law attaches to identical facts and is backed by strong executory force (such as effective

P. KALT, SOVEREIGNTY AND NATION BUILDING: THE DEVELOPMENT CHALLENGE IN INDIAN COUNTRY TODAY (2003) (Joint Occasional Papers on Native Affairs No. 2003-03), available at www.jopna.net/pubs/JOPNA03_sovereignty.pdf. Cornell and Kalt are professors at the University of Arizona and Harvard, respectively.

40. Grande, *supra* note 36, at 64. See also CLAUDE LEVI-STRAUSS, *TRISTES TROPICQUES* (1955): "Chez les musulmans comme chez nous, j' observe la même attitude livresque, le même esprit utopique et cette même conviction obstinée, qu'il suffit de trancher les problèmes sur le papier pour en être débarrassé aussitôt." Translation: "I notice the same booklike attitude with Muslims as with us, the same utopian spirit and the same stubborn conviction, that it suffices to find a solution for a problem on paper in order to have it solved immediately."

41. BONFIGLIOLI, *supra* note 2, at v (speaking of the "Sahelian agropastoralists in Chad,": the author would add "and cultural conditioning").

courts). This is not the case in Mauritania. By applying different rules tailored to different circumstances, the Code accomplishes an eminently sensible thing: it adapts the law to reality.⁴²

IV. THE CODE AS BEST PRACTICE

The Code may be considered a “best practice” in legal writing because it utilizes: (1) normal language, following the Hadith of the Prophet Mohammed: “always speak to the people in such a way that they can understand you”;⁴³ (2) short and precise articles; (3) clear structure: policy choices are set out first, definitions of terms with traditional/legal context are provided, and implementation arrangements are all organized in logical sequence; (4) content that is culturally embedded in the society’s tradition (as opposed to an imported ideology); (5) fair balance of interests of competing parties—nomadic herders versus sedentary farmers; and (6) simple, context-adapted institutions that take advantage of existing facilities and personnel already on site. There is no need for additional equipment, works, training, or funds.

V. PROSPECTS FOR APPLICATION OF THE CODE

The Code was ratified on July 26, 2000, following six months of discussion in the National Assembly and the Senate.⁴⁴ It was published on July 15, 2003.⁴⁵ The Implementation Decree considered necessary for application⁴⁶ was published on March 16, 2004.⁴⁷

Official implementation of the Code started in mid-2004. Projects funded by GTZ and the World Bank have begun to integrate the Code’s content into their projects and actively promote knowledge about the

42. The Code only applies to areas qualified as *espace pastoral*, hence not to oasis or irrigated areas. See Mauritanian Code Pastoral, *supra* note 14, arts. 1, 5, 7.

43. AMADOU HAMPATE’BA, *VIE ET ENSEIGNEMENT DE TIERNO BOKAR* 127 (1980).

44. Such debate is unusual in Mauritania and demonstrates the heightened interest the parliamentarians took in the text.

45. Mauritanian Code Pastoral, *supra* note 14. Publication followed intervention by the World Bank through projects managed by the author.

46. The interpretation, that application of the law requires an implementation decree, is not shared by the author, but is held by many French lawyers, as revealed in discussions with the author in Mali as well as in France. Unfortunately, this can delay the application of a law by years (four in the case of the Mauritanian Code Pastoral and five in the case of the Malian Charte Pastorale). See Malian Charte Pastorale, *infra* note 76.

47. Implementation Decree, *supra* note 14. Publication followed pressure exerted by the World Bank through projects managed by the author.

law through sketches, pictograms, community gatherings, and other appropriate interventions.⁴⁸

However, the full implementation of the Code may still entail a long process, as a 2005 report by PADEL/ICARDA⁴⁹ reveals. The population does not truly comprehend any new legislation unless it is brought to their doorstep through workshops and training sessions, and the local authorities, expecting *per diems*, react likewise. Dependence on donor-funded project work will cause some time to pass before the population is fully aware of the new law.

On the other hand, the Implementation Decree's innovative feature of expressly authorizing local conventions on land use, which are effective against the administration,⁵⁰ might promote faster adoption. Article 18 even exhorts the administration to encourage (*favoriser*) the emergence of such conventions. Donors rely on this tool to promote awareness of the Code and implementation of their community-based projects.⁵¹ Sustainable natural resource management has to start at the community level. Changes result from "conservation practices and investments, and collective action," says Sara Scheer,⁵² especially when

48. For information on natural resources management in the regions Guidimagha and Hodh el Gharbi, see Coopération Mauritanio-Allemande, Programme ProGRN, Natural Resources Management, www.eco-consult.com/glc/ (last visited May 20, 2009) (describing the successor project to GIRNEM, which closed in 2004). See also WORLD BANK, REPORT NO. AC1931, MAURITANIA—COMMUNITY-BASED WATERSHED MANAGEMENT PROJECT (Feb. 26, 2006).

49. C. DUTILY-DIANE & M. EL MOURID, IMPLEMENTATION OF THE PASTORAL CODE: TOWARDS THE EMERGENCE OF A LOCAL CONVENTION (Dec. 2005). This report was published in cooperation with PADEL (Programme d'Appui au Développement Local, which translates as the Program to Support Local Development) in Niger, www.ruig-gian.org/~eau/DOCS/DDC/DDC_PADEL.htm (last visited May 20, 2009) and ICARDA (International Center for Agricultural Research in the Dry Areas), www.icarda.cgiar.org (last visited May 20, 2009).

50. According to the Implementation Decree, *supra* note 14, art. 17: "*Les conventions locales font foi entre utilisateurs directs devant les institutions municipales et administratives.*" Translation: "Local conventions bind the immediate users and are to be respected by the municipal and administrative representatives."

51. Karl P. Kirsch-Jung & Lars T. Soeftestad, Regulating the Commons in Mauritania: Local Agreements as Tool for Sustainable Natural Resource Management, Presentation at the 10th Biannual Conference of IASCP in Bali, at 12 (June 2006) (discussing the Decree), available at www.indiana.edu/~iascp/bali/papers/Kirsch_Jung_Karl.pdf. According to Kirsch-Jung, the local conventions have totally reduced illegal wood-cutting and charcoal preparation in the areas they cover, by giving "governance" back to the local users. This is a major success in the resource-scarce habitat.

52. Scherr, *supra* note 5, at 71. Likewise, the Fourth Regional Workshop on Natural Resource Management in West Africa, held in Niamey, Niger, October 12–17, 1998, recommended in its conclusions to "strengthen the capacities of communities to play their role in the planning and implementation of natural resource management actions as well as to

they entail consciously embracing traditional behavior. The Code heeds this recommendation.

The Implementation Decree thus embraces a “bottom-up” approach encouraged by some World Bank⁵³ projects, and sanctions the user conventions generated by those projects. Due to the shortcomings of the administration in general, and lack of funds in particular, the burden of negotiating and promoting the local conventions rests with donor-funded projects. While such investment is to be commended, it also highlights a crucial weakness in the concept of land management of the drylands: practical coordination of such conventions. Encouragement of multiple use of land and resources is the right approach, and the assumption that the local users know best how to go about it, based on their experience and tradition, is welcome. With human nature being less than ideal, however, power grabbing and greed by stronger neighbors may in practice result in the expansion of newly legitimized spheres of use rights to the detriment of others if the administration does not mediate and develop plans ahead of time, as it is in theory required to do. Given these concerns, it is probably best to let the local population work out their power equilibrium, as they always have.

Reports about express adherence to the rules of the Code—as opposed to the traditions and customs (*us et coutumes*) underpinning its regulations—are not yet known to the author,⁵⁴ nor are arbitral decisions based on its Chapter V. Based on discussions with local stakeholders in Mauritania, however, the author is confident that the Code will be honored because it embodies current wisdom on dryland management,

enhance their responsibilities.” See also John Lindsay, Senior Att’y, Dev. Law Serv. of the U.N. Food and Agric. Org., Laws as an Enabling Tool in Community-Based Natural Resource Management, Plenary Presentation at the World Bank’s International Workshop on Community-Based Natural Resource Management in Washington, D.C. (May 10–14, 1998).

53. These projects include the Second Livestock Project (1985) and the Rainfed Natural Resource Management Project (1994). Information about World Bank projects is available at www.worldbank.org (last visited May 20, 2009).

54. For studies analyzing the regulatory framework of the Pastoral Code and its Implementation Decree, putting forth some judgment on the implementation issues, problems, and prospects, see, for example, D.O. Khtour, *Droit Sur Terre Aux Homes des Nuages: Elaboration et Application du Code Pastoral Mauritanien*, in *ELEVAGE ET GESTION DES PARCOURS AU SAHEL, IMPLICATIONS POUR LE DÉVELOPPEMENT* (E. Thielkes et al. eds., 2001); MOHAMED AHMED M.M.O & T. SOMMERHALTER, *THE PEOPLE OF THE CLOUDS IN SEARCH OF THEIR RIGHTS: FIRST EXPERIENCE WITH THE APPLICATION OF THE MAURITANIAN PASTORAL CODE* (2003); C. Hesse, *Les Approches de la Gestion des Pâturages et les Projets de Développement: Quelles Perspectives?*, presentation at Regional Workshop entitled *Managing the Range: Whose Responsibility, Whose Right?*, in Niamey, Niger 2–6 (Oct. 2000); DUTILY-DIANE & EL MOURID, *supra* note 49.

namely to empower local people to actively protect their own environment.⁵⁵

A parallel may be drawn with the philosophy underlying current natural resource protection via “conservation by the people,” in the words of James Murombedzi.⁵⁶ This approach strives to involve the people who live in the area as guardians, heighten their consciousness of the value of the environment for their cultural identity (even if not any longer for mere survival), and turn the sustainable use into a monetary resource, either through guardian salaries, sale of local products, or tourism. The Arabian Oryx Project in Oman,⁵⁷ a UNESCO World Natural Heritage Site, is such an example. Threatened with extinction by poaching, a project to reintroduce oryx was initiated by Sultan Quabus in 1982, with the local tribe of the Harasi as their guardians. The exclusion of a neighboring tribe (Benu Janabah) created friction and caused some destruction. Hence, mutual understanding of sharing the benefits of the “resource use” had to be reached, akin to the local conventions proposed by the Code.

The design of the St. Katherine Natural Protectorate, established in 1996 in the Sinai, may serve as another example supporting the argument that the Code will be respected. From its inception, the protectorate included the local Bedouins as guardians of flora and fauna. The “community guards” (*haris al biyah*) are selected because of the esteem in which they are held by the tribe, their familiarity with the region and its wildlife, and their commitment to preservation and restoration. The scheme relies on a concept adapted from traditional tribal law (*urf*), a rule indicating that the protection of a certain area or species is the task of one particular individual, and its destruction or infringement considered as aggression on his personal honor, making the violator liable to pay him damages.⁵⁸

55. See generally MWANGI & DORN, *supra* note 6.

56. J.C. Murombedzi, Program Officer, Cmty. & Res. Dev. Program of the Ford Found. in South Africa, *The Evolving Context of Community-Based Natural Resources Management in Sub-Saharan Africa in Historical Perspective*, Plenary Presentation at the Washington, D.C., Workshop (May 1998) (on file with author). The four steps in the historical evolution of environmental protection processes are: (1) conservation against the people; (2) conservation for the people; (3) conservation with the people; and (4) conservation by the people. *Id.*

57. For an overview of the Arabian Oryx Project, see www.oryxoman.com (last visited May 20, 2009); J.A. Spalton et al., *Arabian Oryx Reintroduction in Oman: Successes and Setbacks*, 33 ORYX 168, 168–75 (1999); D. Insall, *Oman*, in ANTELOPES PART 4: NORTH AFRICA, THE MIDDLE EAST AND ASIA, IUCN GLOBAL SURVEY & REGIONAL ACTION PLANS 69 (D. Mallon & S. Kingswood eds., 2001).

58. J.J. Hobbs, *Sinai's Watchmen in the Wilderness*, ARAMCO WORLD, May/June 1999, at 12, 18–20.

VI. ENVIRONMENTAL REGENERATION FOSTERED BY THE CODE

A. In General

The Code fosters mobility, essential for herders in drylands with sporadic and erratic rainfall, north of the “isohyète 400 mm” (the geographical limit for rain-fed crops). The *espace pastoral* regulated by the Code lies primarily in the east of Mauritania, encompassing the provinces (*Wilayas*) of Hodh el Gharbi, Hodh Ech Chargui, and Assaba. The area is characterized by sparse grass cover and isolated trees and bushes. Valleys and plains develop intense grass coverage following rains, with multiple species and beautiful flowers that grow quickly and bear fruit, but return to barrenness within weeks.

The nomads are familiar with the ecological particularities of these drylands. They realize the necessity of protecting the vegetative cover on which their herds rely. The practice of *tetrag*, meaning that an area must not be overgrazed to the point where plants are unable to regenerate by producing seeds, is second nature to them. Before overgrazing occurs, the herd moves on. Grass actually thrives when grazed:⁵⁹ the animals fertilize the ground through their droppings; a cropped plant regenerates faster when not left exposed to the dehydrating forces of sun and wind; and some species of grasses, bushes, and trees thrive on the saliva of the animals, underscoring the symbiosis.

Tradition also dictates that water resources be exploited prudently. The nomads will not let their beasts drink where wells are in danger of running dry. This follows from the principal of *zesou et ghab*, according to which resources should never be totally depleted, but rather allowed to regenerate, and according to which there should always be something left for the most needy in case of emergencies.

Nomads embody the adage that the vocation of man is to improve on nature. Nomadic herders do improve on the environment, being integrated into its biological cycles. They prevent desertification. The Code

59. See S.J. McNaughton, *Grazing as an Optimization Process: Grass-Ungulate Relationships in the Serengeti*, 113 *THE AM. NATURALIST* 691 (1979); S.J. McNaughton, *Grasses and Grazers, Science and Management*, 3 *ECOLOGICAL APPLICATIONS* 17 (1993); S.J. McNaughton et al., *How Can Primary Productivity Be Measured in Grazing Ecosystems?*, 77 *ECOLOGY* 974 (1996). See also Colette C.C. Wabnitz et al., *Regional-Scale Seagrass Habitat Mapping in the Wider Caribbean Region Using Landsat Sensors: Applications to Conservation and Ecology*, 112 *REMOTE SENSING OF ENV'T* 3455, 3456 (2008) (speaking of sea grass and green turtles: “The presence of green turtles . . . may have had substantial ecological and evolutionary effects, increasing the productivity of seagrass in the same way as grazers in terrestrial grasslands”) (emphasis added).

Pastoral thus promotes an activity that is fully compatible with sustainable environmentalism.

One word of caution, however, may be in order. The ideal nomad or “Bedouin” does not really exist anymore. Sedentarization, the lure of fast money through spoliation of the environment, and the influx of immigrants have all changed the cultural context. Degradation by local people occurs; otherwise there would have been no need to create the parks mentioned above, or to legislate the rules set forth in the Code in the first place. Hence the necessity of sustained project work to promote the Code: familiarity with the content of the regulations facilitates their adoption and observation; and although they are based on custom and tradition, it is possible those are not wellknown by all anymore.

B. In Particular

The drylands of eastern Mauritania harbor precious natural resources that are threatened by encroaching farmers, in particular: (1) the desert’s seed bank; (2) migratory bird sanctuaries; and (3) indigenous crocodiles.

1. *The Seed Bank*

Contrary to common perception, the Sahara desert has not moved south in recent times, but rather, it oscillates. The density of the *Acacia flava* forest around the city of Timbedra, for instance, meets the same description given to it by authorities of the colonial administration in 1912. The same holds true regarding the density of the fauna around the well of Fougues which was dug under the Sultan Oulad M’Barek in the eighteenth century.⁶⁰

Dry spells alternate with more humid periods,⁶¹ and green grass reappears following rains. This ability of grasses to regenerate after prolonged dry spells is due, in large part, to the endurance of the seeds in the ground. Bushes and trees are adapted to sustain dry spells by relying on their extensive root systems and by shedding leaves. The southern

60. ABDEL WEDOU D OULD CHEIKH, ELEMENTS D’HISTOIRE DE LA MAURITANIE, INSTITUT MAURITANIEN DE RECHERCHE SCIENTIFIQUE, CENTRE CULTUREL FRANÇAIS, NOUAKCHOTT 110 (n.d.).

61. See, e.g., *Climatic Flip, or Blip? U.S. May Be Entering New Weather Era*, WASH. POST, Jan. 20, 2000, at A1: “[I]t is possible that PCO [Pacific Decadal Oscillation] phase affects such remote events as rainfall in China and the periodic droughts in the Sahel region in Africa. ‘Rainfall in the Sahel has been low for 20 years,’ Leetmaa [Ants Leetmaa, head of the National Oceanic and Atmospheric Administration’s Climate Prediction Center] said, ‘but started coming up in ’94.’” The accelerated warming of the earth over the last decade may alter these facts, making preservation of the wetlands even more important.

frontier of the Sahelian dunes along the *route de l'espoir* from Noaukchott to Nema is rimmed by ephemeral, flat, extended lakes. These wetlands, boasting large acacia trees and bushes, are called "Tamourts." They have existed for millennia. These wetlands preserve the humidity of the soil even during the most severe droughts. They preserve the seeds, and also shelter fauna and flora that can readily repopulate the drier places around them at the next rains.

Recession crop farming, however, and untimely drainage of these lakes for irrigation threaten this regenerative cycle of nature and risk depletion of the water table beyond its natural regeneration capacity and ecological cycles. Farming around the Tamourts also deprives the herder of a watering place and takes hundreds of kilometers of surrounding grasslands out of the economic and ecological cycle.⁶² Planting in lands too dry for sustained farming also greatly accelerates desertification.⁶³

Reckless exploitation of the Tamourts, a millennia-old resource, saps the vegetation's regenerative vigor and hurts its resistance during dry spells. Articles 23, 26, and 27 of the Code provide for procedures to prevent the construction of permanent hydraulic facilities that would reduce the water levels of these lakes and wetlands.

2. Migratory Birds

The Tamourts are important feeding grounds and resting places for migratory bird species, such as the European stork. The migration of the European stork stops at the Tamourts of the southernmost fringe of the Sahara, while other species continue southward to more plentiful grounds. The Tamourts, like the Natural Park of the Banc d'Arguin, at the northwest coast of Mauritania,⁶⁴ constitute an important ornithological hot spot. The promotion of its regional biodiversity has not yet received the local and international attention and protection it deserves. By

62. For a dispute between farmers and herders around the Tamourt "Goungel," close to Aioun Al Atrouss, in the years 2002–04, see *supra* note 13.

63. See Scherr, *supra* note 5. "[M]any of the global 'hot spots' for land degradation are in the drylands, threatened by salinization, nutrient depletion, *conversion of rangelands to grain production . . .*" *Id.* at 70 (emphasis added) (quoting S.J. SCHERR & S. YADAV, LAND DEGRADATION IN THE DEVELOPING WORLD: IMPLICATIONS FOR FOOD, AGRICULTURE AND THE ENVIRONMENT TO 2020, FOOD, AGRICULTURE AND THE ENVIRONMENT DISCUSSION PAPER NO. 14 (Int'l Food Pol'y Res. Inst. ed., 1996)).

64. T. MONOD, L'ILE D'ARGUIN (1983); RÉPUBLIQUE ISLAMIQUE DE MAURITANIE, PARC NATIONAL DU BANC D'ARGUIN, RAPPORT DE COORDINATION (1997); see also E. Mahe, Contribution à L'Etude Scientifique de la Région du Banc D'Arguin (1985) (unpublished Ph.D. dissertation, Académie de Montpellier, Université des Sciences et Techniques du Languedoc) (on file with author).

species and quantities these birds would qualify for protection under the Ramsar Convention.⁶⁵

3. *Indigenous Crocodiles*

The Tamourts are home to an indigenous crocodile species⁶⁶ that has survived there for thousands of years from a time when the area received a higher average rainfall. Needless to say, this species would be acutely endangered if its habitat is drained for cultivation and dries up. Hunting by farmers who have immigrated from Mali further threatens the species, whereas the local herders never bothered them. If the Tamourts were preserved in their natural state according to the principles set forth in the Code, the herds would benefit, and the survival of this rare species would be safeguarded.

Next to the protection of the herders' economic base, one of the main anticipated benefits of the Code would therefore be the preservation of "the intrinsic value of biodiversity,"⁶⁷ and the protection of ecosystem integrity. Indeed, there will not be pastures worth protecting if the local environment cannot regenerate according to its ecological cycles, and access to them would be rendered a moot issue. Thus the Code complies with and heeds, almost inadvertently, the admonitions of the three major environmental conventions, namely the Convention on Biological Diversity, the Convention on Climate Change, and the Convention to Combat Desertification.

VII. COMPLIANCE WITH INTERNATIONAL CONVENTIONS

The three United Nations environmental conventions—on Biological Diversity, on Climate Change, and to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification—all have the same basic purpose: sustainable environmental protection in or-

65. The Ramsar Convention on Wetlands, www.ramsar.org (last visited May 20, 2009).

66. On recent findings concerning these crocodiles, see T. Shine et al., *Rediscovery of Relict Population of the Nile Crocodile Crocodylus Niloticus in South-Eastern Mauritania, with Observations on Their Natural History*, 35 *ORYX* 260 (2001); P. Lluch et al., *Le Crocodile du Nil, Crocodylus Niloticus Lourneti 1768 Dans le Tagant* 111–112 *BULL. SOC. HERP. FR.* 5 (2004); see also E.W. BOVILL, *THE GOLDEN TRADE OF THE MOORS* 4, 183 (1978), citing *THE HISTORY OF HERODOTUS*, book IV. These crocodiles are "cousins" of the ones surviving in permanent lakes in Chad, and the mountains in the west of Mauritania around Atar. See Hillary Mayall, *Desert-Adapted Crocs Found in Africa*, *NAT'L GEOGRAPHIC NEWS*, June 18, 2002, available at http://news.nationalgeographic.com/news/2002/06/0617_020618_croc.html?fs=www3.nationalgeographic.com&fs=plasma.nationalgeographic.com.

67. I. SERALGEDIN, *CULTURE AND DEVELOPMENT AT THE MILLENNIUM* 10 (1999) (photo documentary to accompany an exhibit at the World Bank). At the time, Seralgedin was Vice President of Special Programs at the World Bank.

der to preserve and foster human survival in the environment.⁶⁸ The objectives of the Convention on Biological Diversity⁶⁹ include “the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits.”⁷⁰ The objective of the Convention on Climate Change⁷¹ is to “[allow] a time-frame sufficient to allow ecosystems to adapt naturally to climate change . . . [and] to enable economic development to proceed in a sustainable manner.”⁷² The Convention to Combat Desertification⁷³ includes in its objectives: “to combat desertification and mitigate the effects of drought . . . through effective action at all levels . . . with a view to contributing to the achievement of sustainable development in affected areas.”⁷⁴

All three conventions apply to arid Mauritania. The Code heeds these conventions’ objectives by establishing a framework for the exploitation of natural resources consistent with the preservation of the local ecology, and by protecting natural habitats against destruction through farming.

VIII. COMPARABLE LEGAL DEVELOPMENTS IN SAHELIAN COUNTRIES

Mauritania’s Sahelian neighbors share to various degrees its ecological characteristics, nomadic livestock raising, and traditions and beliefs; and they have likewise developed, or are in the process of developing, legislation addressing pastoralism.⁷⁵

68. For graphic descriptions of the disasters befalling human society when ecological determinants are ignored, see JARED DIAMOND, *COLLAPSE: HOW SOCIETIES CHOOSE TO FAIL OR SUCCEED* (2005).

69. Convention on Biological Diversity, June 5, 1992, 1993 U.N.T.S. 143, available at www.biodiv.org/convention/articles.asp. Mauritania signed on June 12, 1992, and ratified on August 16, 1996.

70. *Id.* art. 1.

71. United Nations Framework Convention on Climate Change, Mar. 21, 1994, available at www.unfccc.int/essential_background/convention/background/items/1349.php. Mauritania signed on January 20, 1994, and ratified on June 12, 1994.

72. *Id.* art. 2.

73. United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, Dec. 26, 1996, available at www.unccd.int/convention/menu.php. Mauritania signed on December 26, 1996, and ratified on August 7, 1996.

74. *Id.* art. 2(1).

75. Burkina Faso, Chad, Guinea, and Senegal have all either enacted, or are in the process of enacting, pastoral legislation. Only Mali and Niger are discussed here.

A. The Malian Charte Pastorale

The Malian Charte Pastorale was promulgated in 2000, and entered into force in October 2006.⁷⁶ The text was preceded by intensive on-the-ground preparatory work. It is a clear, precise, and detailed law of 68 articles. The Malian Charte Pastorale pursues the same policy goals and protects the same values as the Mauritanian Code Pastoral, namely: (1) mobility of herds; (2) sustainable use of the resources; (3) equitable access to the resources; (4) decentralization and participative management of the pastoral resources required for the survival of the herders' animals; (5) recognition of the tasks and responsibilities of herders' associations; and (6) peaceful exploitation of the resources and conflict avoidance.⁷⁷

The Charte distinguishes itself from the Mauritanian Code in a number of ways. First, it contains more elaborate and detailed definitions; for example, it defines transhumance⁷⁸ and cross-border movements (*déplacements internationaux*).⁷⁹ Second, all stakeholders have to agree on the path of the transhumance *and* its calendar. The pathways (*pistes pastorales*) are specifically protected⁸⁰ against encroachment by farmers.

Similar to the Mauritanian Code Pastoral, the Charte contains detailed conflict avoidance and resolution provisions.⁸¹ As in Mauritania, the text provides for extra-judicial solutions (*à l'amiable*). However, the

76. Loi No. 01-004 of Feb. 27, 2001, portant Charte Pastorale du Mali [hereinafter Malian Charte Pastorale]. The Malian Charte Pastorale contains 68 articles and is implemented through a decree adopted on October 18, 2006. The text of the law as adopted was considerably shortened and condensed during the drafting process of about three years—from 98 articles initially down to 68 articles. The character and general thrust of the law have not changed. Some of the changes, however, underline the arguments advanced here.

77. Malian Charte Pastorale, Exposé des Motifs, at 2 (explaining goals of the Charte).

78. Malian Charte Pastorale, *supra* note 76, art. 3(4): “*La ‘transhumance’ est le mouvement cyclique et saisonnier des animaux en vue de l’exploitation des ressources pastorales d’un territoire donné.*” Translation: “Transhumance is the seasonal cyclical movement to exploit the pastoral resources of a given territory.” Compare with the Mauritanian definition, *supra* note 3. The movement of animals *within* the territory, districts, and villages of Mali is also regulated. Malian Charte Pastorale, *supra* note 76, arts. 14–22.

79. Malian Charte Pastorale, *supra* note 76, arts. 23–26.

80. *Id.* arts. 52–53. See also *supra* note 3. The inclusion of these clauses has been praised in regional workshops. Note, however, that the clarification in an older text (at the end of Article 60 in the July 1999 draft) reading: “*A ce titre, elles sont inaliénables, imprescriptibles et insaisissables*” has been omitted. Translation: “In this context, they [the pastoral pathways] cannot be transferred, cannot be acquired by prescription and cannot be seized.” This editorial change may not be a change of substance, since the article refers to the classification of public domain. Nevertheless, the old language sounded like a stern warning and programmatic note in favor of the herders.

81. Malian Charte Pastorale, *supra* note 76, tit. VII, arts. 59–61.

emphasis and the tone differ: the Code provides for an appeal to a state tribunal as *ultima ratio*, only when all other negotiated avenues have been exhausted,⁸² whereas the Charte provides for judicial procedures as the standard method of conflict resolution, although they must be preceded by a consultation effort.⁸³ This different approach is likely to render the consultation effort a mere formality in Mali, unlike the Mauritanian Code's deliberate fostering of communal solutions.

Overall, Mali's Charte reveals a less liberal approach than the Mauritanian Code. The Charte places more reliance on state authorities by making actions and permissions dependent on state agency personnel.⁸⁴ The Code, by contrast, acknowledges that herders' rights are already vested, and lends the state authority to the protection of those rights. Though this difference between the Mauritanian Code and the Malian Charte may appear rather intangible, it is an important one that reflects the differing mentalities of the respective governments, parliaments, and drafting teams (practitioners in Mauritania, professionals in Mali). Another reason for the difference may be that the Mauritanian Code expressly relies on traditional rules and implicitly on sharia, and therefore does not need to specifically regulate many situations, whereas the Mali Charte seemingly attempts to cover the subject matter comprehensively. This outcome is ironic because Me. Hubert Ouadraogo, a co-drafter of the Charte, justified using the term "charte" instead of the term "code" by arguing that "charte" conveys a more flexible guideline whereas "code" implies comprehensiveness.⁸⁵ It appears that the opposite result has been achieved.

82. Mauritanian Code Pastoral, *supra* note 14, art. 39.

83. Malian Charte Pastorale, *supra* note 76, art. 60. Note, however, that four articles regulating the mediation efforts in an older text (Articles 73 through 76 in the draft of July 1999) have been omitted in the final version.

84. For instance, despite its obvious intention to strive for brevity, the Charte expressly mentions every time that herders' access to certain natural resources is free and not subject to any tax or commission. For example, Article 38 expressly mentions free access to the water of rivers ("*ne donne pas lieu à la perception d'aucune taxe ou redevance*"). Title IV, titled Right of Access to Pastoral Resources ("*Du droit d'accès aux ressources pastorales*"), contains 19 articles regulating this access (Articles 27 through 46), whereas Title V, titled Protection of Pastoral Space and Guarantee of Pastoral Use Rights ("*De la protection des espaces pastoraux et de la garantie des droits d'usages pastoraux*") contains only two articles (Articles 47 and 48). Also, concerning the access of herders to fields after the harvest, a significant change occurred during the drafting process: the old version of the text (Article 42 of the text of July 1999) specified that the fields *must* be opened to herders ("*doivent être ouverts*"), whereas the final version as adopted only allows such access to happen (Article 35: "*peuvent être ouverts*").

85. E-mail from Hubert Ouadraogo to Isselmou Abdel Kader (co-drafter of the Code) & John Hall (at the time, task manager for the Mauritanian pastoral World Bank projects)

B. The Code Rural of Niger

In Niger the Code Rural,⁸⁶ together with a number of implementation decrees⁸⁷ (notably the Decree “*fixant le statut des Terroirs d’Attache des Pasteurs*” from January 1997⁸⁸) regulates herders’ rights, obligations, and interests. Unlike the other two laws, the Code Rural does not only address herders, but also regulates all rights in relation to land tenure and natural resource exploitation.⁸⁹

This law has been researched and developed since 1985. As is the custom in francophone countries, numerous national and international conferences, roundtables, and workshops have been held to discuss proposals and drafts. The resulting text, however, is inadequate at least as far as livestock raising is concerned. Clauses relating to herders are scattered over a number of regulations. The government’s purported intent is to concentrate all regulations pertaining to “land” in the Code Rural, thereby guaranteeing cohesiveness and facilitating access to the relevant law in one place. It is a noble objective. However, with the ambition to regulate every detail, the result would inevitably have been either an unwieldy code, or the multitude of scattered decrees we have now.

More disturbing than the form is the heavy hand of the state evident in the letter and the spirit of the law. For example, whereas Article 5 of the Code Rural proclaims the principle that all rights to natural resources are equally protected, whether they originate in traditional rights

(Sept. 28, 1999) (on file with author). The Council of Ministers contemplated calling the text “loi.”

86. Ordonnance No. 93-015 of Mar. 2, 1993, portant principes d’orientation du Code Rural (Code Rural, Recueil des Textes, édition 2004, Comité National du Code Rural, Secrétariat permanent) (Niger) [hereinafter Nigerian Code Rural].

87. Currently the subject matter of herders is covered by a large array of laws and decrees in Niger, scattered in various texts, such as the law regulating the use of water (Code d’Eau) or land tenure, for example. These regulations are, however, in the process of being assembled into a cohesive “Code Pastoral,” a process that started in the mid-1990s and is still ongoing.

88. Decree No. 97-007/PRN/MAG/EL of Jan. 10, 1997, portant organisation, attributions et fonctionnement des institutions chargés de l’application des principes d’orientation du Code Rural (Niger).

89. Attempts to gather all regulations relating to herders have been under way since the mid-1990s. Mamalo Abdoul, Directeur auprès du Secrétariat Permanent du Code Rural du Niger, delivered a presentation at the 2006 Montpellier Symposium in which he stated that a draft text is now in its final stages. A summary is available at http://www.mpl.ird.fr/colloque_foncier (follow Résumés hyperlink on left side of page; then scroll to page 31) (last visited Apr. 4, 2009). Mamalo Abdoul’s contribution is at the top of the page. As of January 2009 a new version was being discussed among stakeholders, however, its tenor does not change the argument advanced here.

or written law, Article 3 of the Decree of January 10, 1997,⁹⁰ stipulates: “*Les ressources naturelles font partie du patrimoine commun de la Nation. Une obligation de mise en valeur pèse sur toute personne titulaire des droits reconnus par la loi sur l’une quelconque de ces ressources,*” which translates to: “The natural resources are part of the common heritage of the Nation. Every person endowed with rights recognized under the law on any one of these resources has the obligation to enhance them.” Article 13 continues, with a certain logic, “*les communautés pastorales qui ne respectent pas les obligations légales ou réglementaires de mise en valeur peuvent être privées de leur droit de jouissance prioritaire,*” which translates to: “herders’ communities that do not respect the legal or regulatory obligations of enhancement may be stripped of their right of priority usage.” A detailed procedure is set up for state agents to supervise these provisions of the Code Rural and to impose sanctions, if required.⁹¹ This, of course, recalls socialist supervision by “big brother,” but more to the point, it legitimizes the hassling of the local population by government employees, in particular as the concept of “*mise en valeur,*” coded for planters, leaves ample room for discretion when applied to livestock herders.

IX. CONCLUSION

In the Sahelian countries, we see a trend toward drafting legislation that establishes rules for nomadic herders and their livestock based on traditional law. This is a positive development. Recognition of community-based, traditional management techniques for common property resources is essential for the preservation of the renewable, yet scarce, natural resources of the region. It is also essential for the survival of herders and their animals. The legislation not only secures the economic base for mobile livestock agriculture, which in arid regions is much more profitable than planted agriculture (be it rain-fed or irrigated), but also serves to protect the environment. Further, recognition of use rights granting access to the resource, as opposed to exclusive ownership rights, is more appropriate to achieve these goals, and better adapted to the Sahel’s particular environment. At the same time, such legislation complies to a large extent with the obligations under the three international conventions aimed at protecting the environment.

The Mauritanian Code Pastoral benefits from a clarity of language that lays out clear policy priorities. The Code is the most liberal of the three laws discussed here, confirming mobility and access to pastoral re-

90. Decree No. 97-006/PRN/MAG/E of Jan. 10, 1997, Portant réglementation de la mise en valeur des ressources naturelles rurales (Niger).

91. *Id.* arts. 36 et seq.

sources as a traditional, pre-existing right, which is now protected by state authority. While also based on the custom prevailing in their countries, the Malian *Charte Pastorale* allows for more administrative discretion to regulate herders' movements; and the Nigerian Code Rural appears to make the exercise of herders' rights subject to administrative approval. These laws appear to form a gradient from a more liberal to a more authoritarian approach, from guaranteeing the liberty of the herder to access "his" resource to creating a revocable permission by the state.

The Mauritanian Code Pastoral embodies its own executory regulations by relying on existing structures and involving state authorities only to the extent that their co-management responsibility is engaged. Through reliance on customary rules and behaviors, and the principles of sharia, the Mauritanian Code avoids the enumeration of lengthy regulations. With only 46 short articles, complemented by the 28 articles of its Implementation Decree, the Mauritanian legislation is by far the shortest and most appropriate legislation in the Sahel.