

ETHNOGRAPHIES OF CONSERVATION

Environmentalism and the Distribution of Privilege

Edited by David G. Anderson and Eeva Berglund



Berghahn Books
New York • Oxford

ENVIRONMENTALISM IN THE SYRIAN BADIA

The Assumptions of Degradation, Protection and Bedouin Misuse

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The Syrian *Badia*,¹ the vast semi-arid steppe land which makes up nearly 80 percent of the state's land mass, has been at the heart of centuries of significant political struggle between pastoral Bedouin tribal authority and the power of the centralised state. In the early twentieth century, with the end of the Ottoman Empire and the imposition of a League of Nations Mandate, the French authorities first set about encouraging the Bedouin to govern themselves. But after finding that inter-tribal raiding and skirmishing were affecting France's development plans, they vigorously pacified the area. For the last half of the twentieth century, the independent state has sought to complete the dismantling of the Bedouin tribes of Syria. Failing to successfully coerce Bedouin to settle, the government undertook to strip its leadership of all power and authority. The *Badia* was nationalised and all tribal holdings ceased to be recognised in 1958. By the 1960s, the language of environmental degradation, desertification and overgrazing entered the political vocabulary of technicians, diplomats and politicians alike. Most technology transfer to Syria was aimed at taking over greater areas of the *Badia* and converting them into important agricultural crop-producing regions. Today, the Bedouin, having been pushed back ever deeper into the *Badia*, are regarded by the state as destroyers of their own homelands, accused of overgrazing precious shrubs and grasses, hunting the gazelle and oryx into extinction, and carrying no concern for or knowledge of the sustainability of this fragile land. However what emerges in this study is that a political understanding between government and tribal leadership has supported the continued existence of alternative systems of land use among the Bedouin which is unofficially tolerated, but officially denied.

Historical background

Throughout the eighteenth, nineteenth and early twentieth centuries the Syrian *Badia* was the source of significant environmental contestation with use rights for graze, browse and water passing from the hands of the weaker pastoral nomadic tribal groups to those Bedouin tribes with military superiority. The authority of the Ottoman Empire hardly reached this region and its border area with agricultural lands, the *Ma'moura*, was the site of constant skirmishes between central authority and pastoral nomadic tribes (see Figure 7).² When the central authority of the Ottoman State was strong the Bedouin were generally pushed back from the borders of the *Ma'moura* deep into the *Badia*. Weakness or distraction of central authority would generally mean that the Bedouin could expand into the *Ma'moura* and sometimes beyond into well-established agricultural zones. With the end of the Ottoman Empire and the imposition of a League of Nations Mandate, the French authorities set about encouraging the Bedouin to govern themselves, perhaps influenced by some romantic eighteenth and nineteenth-century image of the 'noble savage'. Bedouin tribal leaders were supported by a special French administrative unit, the *Contrôle Bedouin*, which was outside the jurisdiction of the French civil administration. This unit encouraged traditional Bedouin law and conflict resolution to operate in the *Badia*. Occasionally, skirmishes overspilled into agricultural areas governed

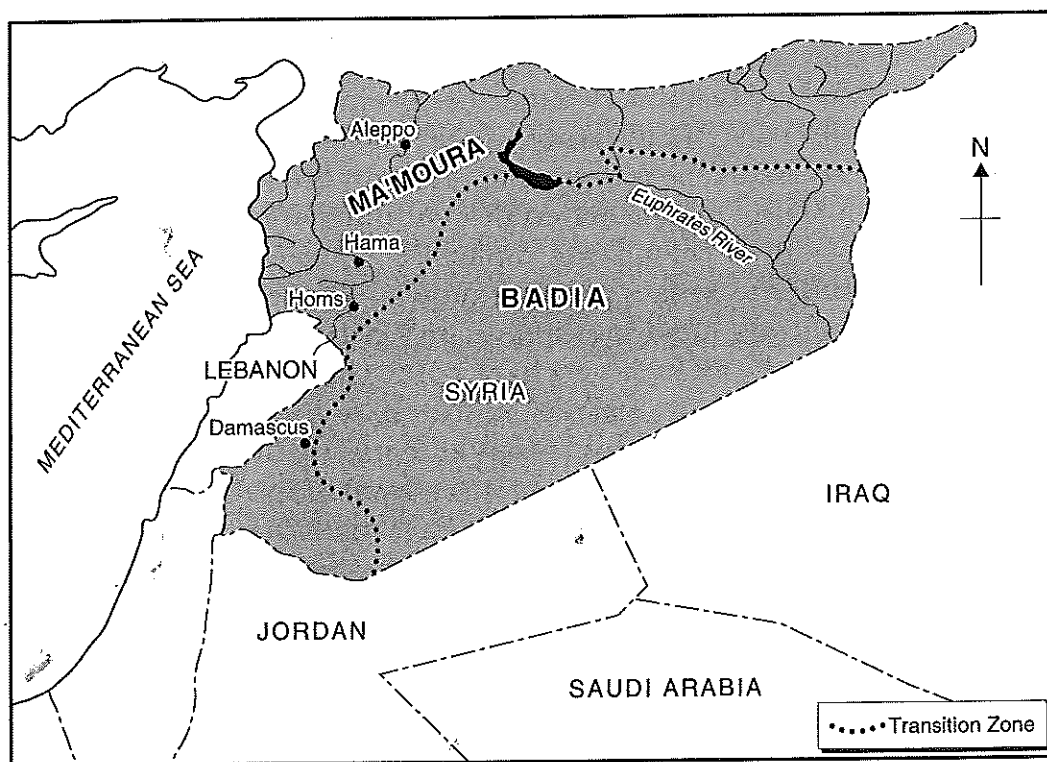


Figure 7 Syrian Badia and Ma'moura

by a separate colonial administration. But as long as French interests were not affected, the Bedouin were informally allowed to operate as a *de facto* 'state within a state'.

However, with the discovery of oil in the region, the French Mandate power became concerned with protecting a potentially important international investment. After finding that inter-tribal Bedouin raiding and skirmishing were affecting the laying and protection of oil pipelines from the interior to the Mediterranean coastline, the French reversed their original policy and vigorously pacified the area, stripping the tribes of their semi-autonomous status, and coopted the leadership into the urban elite of Damascus, Hama and Aleppo. This was accomplished largely through grants of private ownership of vast swathes of the common tribal grazing areas of the *Badia*, voting rights in Parliament, privileged access to foreign education for the sons of Bedouin leaders, and significant monetary compensation (France 1923–1938).

The establishment of the independent nation-state in the late 1940s and 1950s saw the continuation of several decades of sustained effort to control and break down pastoral tribal organisation. Much of the tribal leadership was coopted into the elite urban political scene. Land holdings, once held in common, were increasingly registered in the names of tribal leaders and converted into farms. The Bedouin tribes of Syria, and Northern Arabia in general, struggled with two opposing forces: one compelling them to settle on the edges of the desert and engage in marginal agricultural production, the other forcing them to move away to seek multi-resource livelihoods and pastoral subsistence across several national borders (Abu Jaber et al. 1978, Lancaster 1981, Chatty 1986, 1990). In September 1956, after several years of continuous skirmishing in Homs, Hama and Aleppo, the government summoned all the major tribal leaders to Damascus. This was ostensibly an effort to arbitrate the conflict between the tribes and sign a 'peace' treaty. The occasion was also used as the first official and formally documented step in dismantling any government recognition of a population which had no fixed abode, did not receive any state services, and was not accessible to control either by police forces or security services. Failing in its efforts to entice Bedouin to move out of the control and orbit of their leaders, and to settle on farms in the *Ma'moura*, the government undertook to strip the Bedouin leadership of all power and authority. In 1958 the *Badia* was nationalised and all tribal holdings ceased to be recognised by the state, the entire area coming under 'state ownership' (Masri 1991, Rae 1999). With this measure the government believed it had completed the dismantling of the Bedouin tribes which had begun nearly fifty years earlier with the French neo-colonial administration.

Formal state transformation of Bedouin land use

The 1960s were a period of strenuous government land reform, including not only the formal seizure of all commonly held tribal land but also the confiscation of the large tracts so recently awarded to individual Bedouin tribal leaders as private holdings. Much of these confiscated holdings were given to urban merchants, favoured politicians, and entrepreneurs for large-scale industrial development of cotton and wheat production in the *Ma'moura* and other less arid areas of the *Badia*. Following a three-year-long drought in the early 1960s, in which over two million sheep died, the government instituted a programme to alleviate the problems caused by this ecological disaster. The government set about reviving the livestock industry without also restoring authority to tribal leaders, or tribes to their traditional lands. Terms such as environmental degradation, desertification and overgrazing came to be used by technicians, diplomats and politicians alike when discussing the Bedouin and their use of the *Badia*. Development aid and technology transfer to Syria was aimed at taking over greater areas of the *Badia* and converting them into important agricultural crop-producing regions. A United Nations-sponsored project was set up to revitalise the pastoral sector of the Syrian economy, but not the structure of its society. Its foremost goal was to stabilise the mainly pastoral livestock population. This proved extremely difficult since the agricultural and livestock technicians running the project – mainly trained in the West – did not understand Bedouin methods of animal husbandry.³ In turn, the Bedouin had no trust in government – especially in light of the recent confiscation of grazing land, and the explosive expansion of agricultural development over nearly a third of the best rangelands of the *Badia* (Al-Sammame 1981: 32).⁴

International experts assigned to the Syrian government declared the *Badia* degraded due to overstocking and poor indigenous range management practices (see ILO 1964, FAO 1965). At the same time, government and international agencies concerned themselves with the revival of the sheep livestock industry. In Syria and much of the developing world, development and conservation efforts have been largely based on the assumption that human actions negatively affect the physical environment. Problems such as soil erosion, degradation of rangelands, desertification, and the destruction of wildlife have been viewed as principally due to local, indigenous misuse of resources. Recent studies have clearly shown that models of intervention developed in the West have been transferred to the developing world with no regard for the specific contexts of the actual receiving environments or peoples (e.g., Sanford 1983, Anderson and Grove 1987, Manning 1989, Benkhe et al. 1991). The Western, urban notion of wilderness as untouched or untamed land, for example, has pervaded conservation thinking and been broadly exported to the developing world. Parks and nature reserves in many parts of the world were created by first

evicting indigenous people. What is now beginning to be recognised, however, is that the very ecosystems which conservationists wish to protect from people were, in part, maintained if not created by the indigenous human inhabitants and their livestock.⁵

Without any empirical studies or baseline data from which to judge, first one and then other international development agencies joined the government in declaring the *Badia* severely degraded. This in turn led to special programming and project development based on Western philosophies and technologies derived mainly from the United States and Australia. Foremost among these were the concept of sustainable yield and the goal of improved productivity. These concepts originated in North America and were rapidly adopted in Australia. They were derived from the experience of cattle ranching in the first half of the twentieth century, where both the cattle and the land upon which they grazed were part of a system of private ownership. Furthermore, the land had formal, inflexible borders which could not be contested or altered in anyway. Since that time – nearly fifty years on – policy-makers have defined the major concern of pastoral regions of the developing world to be similar to that of ranchers in the United States and Australia, namely overstocking leading to certain ecological disaster. In this view the problem has a technical solution – destocking. However the central assumption underpinning these sets of assumptions is that pastoral ecosystems are potentially stable and balanced, and become destabilised by overstocking and overgrazing. This bias has led to the establishment of a multitude of development projects that promoted group ranching, grazing blocks and livestock associations. These schemes have failed, however, leading to a fundamental questioning of the basic assumptions underlying this tradition of range management. Behnke et al. (1993) have admirably shown that pastoral systems are not equilibrium systems. Instead they are continuously adapting to changeable conditions, and their very survival depends upon this capacity to adapt. It is, in fact, the 'conventional development practices themselves that are the destabilising influences on pastoral systems, as they have prevented traditional adaptive systems from being used' (Pimbert and Pretty 1995: 5).

In Syria, the first large-scale international development project in the 1960s focussing on livestock and range 'rehabilitation' ran into trouble within a few years. After four years of poor results, a handful of specialists with the Food and Agriculture Organisation (FAO) and the World Food Programme (WFP) launched a campaign to convince the concerned agencies of the importance of studying the human factor. They argued that unless development programmes were in harmony with the customs and ways of life of the pastoral populations, the rangeland development scheme would fail. Bedouin as well as government cooperation was required in order to solve the problem which the government perceived was simply one of rising livestock numbers.

In 1967, Draz (1977) came to appreciate that the traditional Bedouin system – which operated informally – was alive and healthy in spite of government efforts to impose a modern, Western system of management. Given the poor government project results, he recommended that the Syrian government reconsider its position vis-à-vis the human population and revive the Bedouin tradition of *hema*⁶ and thus return control over range conservation and management of grazing lands back to the Bedouin. This recommendation was as a response to what was perceived by government to be a 'tragedy of the commons', an open-access free-for-all. The government and its international advisors had assumed, as was common throughout international development circles, that with access to the grazing lands of the *Badia* no longer controlled by the Bedouin, as a result of the nationalisation of all tribal land holdings a decade before, these areas were naturally becoming degraded from overstocking and overuse.

The assumption in international circles and in government was, of course, that the 'nationalisation' programme had actually taken effect and access to pasture in the *Badia* was actually open and free to use on a first-come, first-serve basis. In fact, the Bedouin continued to use the *Badia* as they had done for centuries before, negotiating between and within tribes for access to resources. The basis for this system of land use had been undermined by the recent government decrees, but it had not been destroyed. Draz's recommendations for a return to a system of communal ownership was an indirect recognition of the de facto existence, if technically illegal, of an alternative tribal system of resource allocation. His suggestion appealed to the Syrian government's socialist orientation and the proposal was accepted.

After several years of trial and error a programme of *hema* cooperatives was implemented in the early 1970s whereby block applications by tribal units for control over their former traditional grazing lands were generally granted by the government. Power and responsibility within a cooperative was assumed then to be in the hands of cooperative members, in some cases mainly made up of one tribe. Its members were assumed to have a participatory role in the programme, taking part in meetings to determine the price of animal fodder, feed supplements, and in its earlier days, credit facilities for members.⁷ Some tribal groups accepted this government administrative superstructure and restricted access to tribal lands. Others, however, did not and many moved away to Saudi Arabia and Jordan. By the mid-1990s the government claimed to have over 400 *hema* cooperatives covering approximately 5 million hectares of the *Badia* (Syrian Arab Republic 1996).

Throughout the 1960s and 1970s, the government was concerned mainly with raising livestock numbers (FAO 1972a). Each failure to meet a production goal was blamed on the degeneration of the grazing land, the loss of grass and ground cover as a result of Bedouin overstocking and over-

grazing of the *Badia*. The government response to these failures was to create numerous research stations, fencing off more grazing land and restricting access by Bedouin to greater swathes of the *Badia*. The first of these was at Wadi Azeeb between Homs and Hama. This research station was set up on the land confiscated from Malawi and Hadiidiin tribes during the attempt to find a peaceful solution to their long-standing feud in 1956 (Rae et al. 1999). Besides introducing exotic sheep to improve the already superior local breed, the fat-tailed Awassi, the station management fenced off, seeded and planted shrubs common to Australia. The most prominent of these were the *atriplex* species, a particularly drought- and saline-resistant plant, but which local livestock found uninteresting. No scientific study was ever undertaken to determine whether or not the rangeland was overgrazed or suffered from 'desertification'. Only in the late 1990s have studies comparing aerial photographs of the *Badia* in the 1930s and the 1990s been undertaken, with surprising conclusions.⁸ The government, advised by international experts (FAO 1972b, Peterson and Van de Veen quoted in Rae 1999: 8), continued to set up research stations, fencing off tens of thousands of hectares, in its efforts to protect and conserve flora which they assumed was under threat from local users.

Ironically, these projects also attempted to integrate the Bedouin membership of the *hema* cooperatives into the government's conservation projects. The rationale behind these measures and pilot projects was to attempt to rehabilitate rangelands, protect threatened plant and shrub species and stop the incursion of thorny bush. The government hope had always been that the Bedouin would appreciate the benefit of fencing and exclusion and be inspired to do the same on traditional land holdings under cooperative 'management'. Unfortunately this did not happen. Instead, the Bedouin expressed resentment at traditional common lands being confiscated for government experiments, which they perceived brought them no tangible benefits (Chatty 1995, Roeder 1996).

Despite numerous ups and downs caused by changing legislation, and inadequate restraint on the spread of agriculture into the *Badia*, the current situation, which allows Bedouin occasional voice in the government organisation of the *hema* cooperatives, is an improvement over the rigid government regulatory schemes of the 1960s. The two factors underpinning the formal organisation of the *hema* cooperatives were flexibility and a complicity in accepting the continued operation of traditional Bedouin systems of exploitation and marketing. These fundamental factors have resulted in a national programmes which *de jure* strips Bedouin systems of land use and resource allocation of all authority, but *de facto* recognises that these traditional operating systems, flawed as they might be, do exist.

Western conservation philosophy in practice in Syria

In the past decade, government concern has shifted to global issues of conservation, land mismanagement by indigenous populations, and the extinction of wildlife through the uncontrolled hunting of local residents. Much like East Africa, Syria is now playing the conservation card in a bid to enter the modern fraternity of nations concerned with biodiversity. Again like East Africa and other parts of the world where the philosophy of conservation protectionism has been exported, the Syrian government blames its indigenous Bedouin populations for the sins of its elite classes and other powerful ruling groups.

Government-organised parks and protected areas first made their appearance in America and Europe during the last century. Significant areas of land were set aside as wilderness, to be preserved 'untouched by humans', for the good of humanity. In 1872 a tract of hot springs and geysers in northwestern Wyoming was set aside to establish Yellowstone National Park. The inhabitants of the area, mainly Bannock, Crow, Sheep-eater and Shoshone native American Indians, were driven out by the army, which took over management of the area (Morrison 1993).

In the United Kingdom, conservationists, mainly foresters, stressed that the public good was best served through the protection of forests and water resources, even if this meant the displacement of local communities (McCracken 1987:190). This expertise and philosophy was exported abroad to all of Great Britain's colonial holdings. Now, a century later, most national parks in Latin America, Asia, Africa and the rest of the developing world have been and, to an extent still continue to be, created on the model pioneered at Yellowstone and built upon by the early British colonial conservationists. The fundamental principal of operation remains to protect the park or reserve from the damage which the indigenous local communities inflict.

As was the case in the formation of Yellowstone National Park, armies or colonial police forces in Latin America, Africa, Asia and much of the developing world have been employed to expropriate and exclude local communities from areas designated as 'protected', often at great social and ecological costs. Forced removal and compulsory resettlement, often to environments totally inadequate for sustainable livelihood, were common practices.

Accompanying this forced removal was the view that indigenous people who rely on wild resources are 'backward' and so need help to be developed.⁹ Occasionally, the land upon which these indigenous people lived, was deemed better used for modern agricultural practices. The situation of the Maasai in Kenya and Tanzania is another example (Jacobs 1975, Lindsay 1987). In 1904, in an effort to pacify the Maasai and to clear preferred land for European settlers, the British government created the Northern

and Southern Maasai Reserves. Subsequently, over the next ten years, the Colonial government abolished the Northern Reserve and forced its resident population to move, effectively denying them access to much productive rangeland. It prohibited all hunting of wild animals on the reserve. These reserves served the purpose of preserving primitive Africa where 'native and game alike have wandered happily and freely since the Flood' (Cranworth 1912: 310 quoted in Lindsay 1987: 152).

In 1992, Syria negotiated funding for a project to rehabilitate rangeland and to establish a wildlife reserve in the Palmyra *Badia*. A choice area, one of the few remaining unrestricted camel grazing terrains in Syria, was selected by an international conservation expert as the ideal site for the reintroduction of the Arabian oryx and gazelle. A two-metre-deep trench was dug out by bulldozer to define a rectangular area 75 miles long and 25 miles wide. It was called *Taliila*, and its scar is visible on satellite images. This trench effectively prevented access to *Taliila* by Bedouin with their herds and trucks. The Syrian request for international funding was accepted and the Food and Agriculture Organisation (FAO) was drawn into the operation of the project as it appeared to have a development focus of improving food security. The project proposed to address three interrelated issues: diminishing grazing land, disappearing wildlife, and increasing requirements for supplemental feeding of domestic herds. As before, the assumptions underlying these objects were that the Bedouin had overgrazed the *Badia* thus diminishing grazing land, and had over-hunted large mammal species like oryx and gazelle, thus contributing to their extinction in the region. Furthermore, they were overstocking their herds, thus requiring feed supplements.

The project also proposed to restrict the Bedouin from land over which they had both formal and informal usufruct. At the completion of the third year of the programme, it was intended to dispossess the Bedouin altogether from the area earmarked for the animal reintroduction effort. The project proposed to incorporate some of the land holdings of three *hema* cooperatives into protected ranges, to set up restrictions on access by Bedouin and their domestic herds, and to run a programme to introduce new plant species. After two years of this three-year effort, the project expected to have obtained a high enough 'forage production ... to enable domesticated animals and wildlife to live in harmony on the land' (FAO 1995: 7). In the third year of this project, physical boundaries were to be established and 'the reserve will only be devoted to wildlife grazing' (FAO 1995: 7). In other words, at the close of the project, the Bedouin and their herds were to be completely excluded from an important area of rehabilitated rangeland. At no time were the Bedouin consulted or informed about this looming dispossession.

The programme is now in its second, three-year cycle and, not surprisingly, many of its goals have not been achieved. Although there is a

recognition that the 'integration and effective collaboration of the beneficiaries to the programme' is required for sustainability, no visible effort has been made in the technical description of the project to incorporate the Bedouin in its planning, development or implementation. Instead, or in addition, the project document specifies that similar schemes in Saudi Arabia and Jordan will be studied in order to increase the likelihood of success in Syria.¹⁰ The indigenous Bedouin population, however, are only to be involved peripherally in the analysis of field data. Representatives from the *hema* cooperatives are to be involved in the data-recording process and in the discussion of results in order to 'develop their awareness on environmental protection' (FAO 1995: 11). The wildlife reserve, *Taliila*, which received eight oryx from Jordan's Shawmary Reserve and sixteen gazelle from Saudi Arabia, will remain the home for these animals for the foreseeable future. The Bedouin have been excluded from any role in the planning and management of the reserve, and even the four 'local' guards at the entrances of the reserve are drawn from the town of Palmyra.¹¹

What is striking from this inventory of 'facts' is the short memory of government. The lessons learned in the 1960s appear to have simply been forgotten: pastoralists cannot be separated from their animals or from their common grazing land. Furthermore, the underlying assumption of this project seems to be again turning back to the old bias that it is pastoralists that are overgrazing or overstocking, and that the solution is to reduce herd numbers and restrict their access to land in order to protect its carrying capacity. These assumption are not only wrong (see, for example, Behnke et al. 1993, Pimbert and Pretty 1995: 5), but simply provide a scapegoat for a problem rather than looking for sustainable solutions. Such a search requires the inclusion of the affected population. The Bedouin need to be part of the project. Their perceptions of the problems, their causes and their possible solutions need to be taken into account. Their needs for their own herds, their access to grazing land, water and supplemental feed need to be considered as well. For without accommodation of their needs, Bedouin will not support the project, rendering the international wildlife reintroduction effort unsustainable in the long term.

The scenario is not as bleak as would first appear since recently a quiet effort in the direction of mobilising community resource management, of encouraging the formation of small 'user' groups, and of building capacity and managing institutional change has begun. For the past two years workshops – initiated by the FAO – have been held at or near the site of the oryx reintroduction project. These have aimed at introducing the concepts of participation into more than just the vocabulary of project personnel. They have brought together government technicians, project personnel, extension teams and the Bedouin. These workshops have been moving, step by step, towards drawing all sides together to work towards a common goal – maintaining the wildlife reserve while at the same time permitting limited

resource use by the Bedouin and other inhabitants of the area. The end goal is to achieve further capacity building and truly participatory resource management.

Government efforts to rehabilitate the Syrian desert rangelands in the 1960s initially failed to meet their objectives. Only when the human element was integrated into project development was there some success (Draz 1977). Thirty years on, government and international development agencies again proposed to rehabilitate parts of the desert and to establish a wildlife reserve – without any Bedouin consultation (FAO 1995, Roeder 1996). The lessons learned decades before appeared, briefly, to have been forgotten. Now, however, as a new century dawns, the Syrian government and its international conservation partners are once again looking at the delicate balance which needs to be maintained between pastoralists, conservationists and the environment. Through the medium of participatory resource management, sustainable conservation and development is being sought.

Conclusion

While international conservation and development experts appear to be operating on one level of abstraction based upon imported Western philosophy and technology, the Syrian government seems to have accepted that alternative traditional tribal systems of natural resource use do exist and have some merit. In 1999, for example, a serious drought in Syria resulted in the Minister of Agriculture being pressured by traditional Bedouin leaders and other supporters to lift the ban on Bedouin livestock grazing in all government research stations and plantations in the *Badia*. This pressure was countered by the conservation and international expert group which strongly opposed such a move. It was assumed by the conservation team and other international experts that this would result in a 'free-for-all' and seriously harm the progress that the government research stations had made in the past two decades. The Minister of Agriculture decided to open the government lands to Bedouin herders, in view of the severity of the drought. As Rae (1999) has shown, the Bedouin migrations into the government grazing areas was not an 'open-access' tragedy of the commons. In spite of predictions to the contrary, it followed traditional tribal patterns of natural resource use during drought.

Today, the Bedouin have been pushed back ever deeper into the *Badia*. The Syrian government has taken over to protect the environment from the indigenous population which has lived on it for centuries. It is attempting to revive the 'degraded' *Badia* by reseedling and planting. It has also set about reintroducing large mammal species that have been extinct for half a century, if not more. The imminent failure of these efforts highlights the

political nature of environmental protectionism in Syria, which is based on assumptions, mainly of Western origin, that governmental control and authority requires a sedentary population. However what emerges from this study is that a political understanding between government and tribal leadership has supported the continued existence of alternative systems of land use among the Bedouin, which is unofficially tolerated but officially denied. This *de facto* recognition, it can be argued, points to the philosophical and political bankruptcy of state policy which is supported by convenient but untested 'pseudo' scientific assumptions imported from the West and parts of the former colonial empires of Great Britain and France.

Notes

- 1 The term *Bedu* or Bedouin means, in Arabic, someone who lives in the *Badia*. It connotes, therefore, a person whose way of life is characterised by raising herds of domesticated animals and moving them about a tribally defined area in search of pasture and water.
- 2 Land ownership and use rights in Syria were derived from Islamic law. There are four categories of land classification. These are: *mulk*, full private ownership rights, generally granted on land which is cultivated; *miri*, or state land the use of which was allocated to tenants; *matruha*, or public land which was for general use or assigned collectively to a group of settlements; and *mawat*, or dead land which was neither occupied or left for the use of the public. Most of the *Badia* was regarded, from the perspective of central authority as *mawat* land. The Bedouin, however, based their claims to the latter on *urf* or customary law, which recognised varying levels of rights to use and possess the benefits which derived from this land, namely water and grazing. These tribal rights were fluid, evolving and transforming as tribes contested the extent and boundaries of each others' territories or *dirah*.
- 3 Bedouin animal husbandry is based on risk minimisation rather than the more common Western market-profit motivation. See Shoup 1990: 200.
- 4 The Bedouin 'dry-farmed' cereal crops during years of good rain, but the large-scale cultivation in this arid zone had never occurred before.
- 5 The common Western, urban notion of wilderness as untouched or untamed land has pervaded conservation thinking. Many policies are based on the assumption that such areas can only be maintained without people. They do not recognise the importance of local management and land-use practices in sustaining and protecting biodiversity. Nearly every part of the world has been inhabited and modified by people in the past, and apparent wildernesses have often supported high densities of people (Pimbert and Pretty 1995). In East Africa, for example, the rich Serengeti grassland ecosystem was, in part, maintained by the presence of the Maasai and their cattle (Adams and McShane 1992). There is good evidence from many parts of the world that local people do value, utilise and efficiently manage their environments (Nabhan et al. 1991, Oldfield and Alcorn 1991, Abin 1998, Novellino 1998), as they have done for millennia. These findings suggest, in complete reversal of recent conservation philosophy, that it is when local or indigenous people are excluded that degradation is more likely to occur: 'It suggests that the mythical pristine environment exists only in our imagination' (Pimbert and Pretty 1995: 3).

- 6 The term *hema* means to protect or to safeguard. It is said that in early Islamic tradition large swathes of pasture areas and grain fields were set aside as *hema* in order to provide feed for the herds of the Bedouin military units serving in the expansion of the Empire.
- 7 Today perhaps two thirds of Syria's Bedouin population belong to *hema* cooperatives and associated schemes, although government reports (Al-Sammame 1981) suggest that number is nearly 90 percent.
- 8 Francoise Debaine, a geographer from the University of Nantes, has conducted a study which compares aerial photographs of the *Badia* from the 1930s with satellite images from the 1990s. Her findings (2000) show that although there has been some degradation in parts of the *Badia* during this sixty-year period, it has not usually been in areas grazed by livestock of the Bedouin.
- 9 Occasionally the 'primitive' or 'backward' habits of the indigenous people were regarded as attractive for tourism and, in carefully regulated circumstances, a limited number of groups, such as the San in areas of the Kalahari, were allowed to remain in or near traditional lands.
- 10 The Jordanian Dana Project did not originally integrate the indigenous population into the planning and implementation of the project. In its first few years it relied on a combination of passive participation (limited employment as wardens or guards) and a programme of monetary compensation to buy off the indigenous Bedouin and secure their promise not to use the grazing areas earmarked solely for protected wildlife (Antoine Swene, personal communications). Since then lessons have been learned and a more progressive approach is being applied to other conservation projects in Jordan (Johnson and Abul Hawa 1999). Information on the Saudi oryx and gazelle project at Mahazat As-Said Reserve has been limited to brief public relations information in the IUCN Bulletin (no. 3, 1993) and the occasional article in *Oryx* (the official publication of the Royal Society for the Preservation of Flora and Fauna). It is very unlikely that there has been any indigenous pastoralist participation in the planning or implementation of this wildlife reserve which could be regarded as a 'scientific research station' rather than a project aiming at long-term conservation sustainability.
- 11 During a consultation visit in 1997, I engaged in a discussion about the hiring of local Bedouin for the reserve as a way of beginning to integrate them into the project. The British wildlife expert at the time rebuked my suggestion, saying that 'Bedouin would not work for the salaries I am offering'. The sums concerned were minimal – a matter of US\$20 or US\$30 a month, less than the standard local wage. The significance of local, indigenous participation for the long-term success of the project, however, seemed to have been lost on the wildlife expert.