

The role of Qashqai nomadic communities in reducing vulnerability to recurrent drought and sustainable livelihoods development in Iran



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Introduction

More than 90% of Iran's surface is arid or semi-arid land and pastoral communities have always played an important role in food production by developing creative and sustainable systems for the use of scarce natural resources. Although migrating pastoralists number only about 2% of the entire population (1.3 million pastoralists) according to government figures, they satisfy about one quarter of the country's livestock needs.

The pressures of drought, debt and pro-sedentarisation policies are driving pastoralists to abandon their livelihoods systems and settle permanently in villages and cities. However, there is lack of jobs for settled pastoralists. Furthermore experiences with industrial livestock production—the main alternative to pastoral livestock production—have not been promising.

This case study seeks to understand how local pastoral communities could play in the management of drought in Iran. It begins with an examination of the range of organisations that are involved in drought management in Iran. The next section focuses on the experience of the drought of 1999-2001 in the words of Qashqai pastoralists from the south of Iran. Their testimonies make a strong case for increasing the involvement of local communities in managing natural disasters that affect them.

The tragic earthquake that struck the Iranian city of Bam in December 2003 has made a big impact on this report. The response to the earthquake served to spark a debate in the Iranian media, and interest among the public, on the strengths and weaknesses of Iran's disaster management plan and strategy. The first and most tragic observation was that so-called "natural disasters" do not necessarily need to result in disasters— they can be avoided and their impact mitigated. The two earthquakes that hit California and Iran just days apart in December 2003 both measured at about 6.5 on the Richter Scale, but whereas only 3 people were killed in the California earthquake, roughly 43,000 dead according to official numbers have been registered in Iran.

The government has been heavily criticised in the weeks following the earthquake for its lack of preparation and poor coordination for such a disaster, even though it is widely known that Iran is one of the most earthquake prone areas on earth. And while Iranians have been very eager to donate money and goods to the earthquake survivors, many have organised their own deliveries for fear that their donations would not end up in the hands of the victims.

Following the earthquake, Ms. Jamileh Kadivar, MP for Tehran made the link between the Bam disaster and the state of governance in the country. "When the institutions that run this country are constantly arguing with each other and constantly faced with challenges and crises and one institution is trying to eliminate the other, we cannot create a society which benefits from order and security." She went on to say, "If our politicians were really motivated to develop the country for all its people then our development projects would not lie half-finished for years on end, our villages wouldn't be empty of their populations, traffic and pollution would not have reached crisis point in our cities and our tourism sector would not be as inactive as it is today".

This public and critical look at the government's record is a very positive step and should be welcomed by the government as it is necessary for developing alternatives and for building the political will to implement them. However, one striking feature of all the criticism— whether voiced in parliament, in newspapers, or in academic journals— has been the lack of systematic and in-depth analysis of “what went wrong”. As is the norm in Iran, a huge public outcry follows a major and tragic national disaster and loud calls are made for improvements to the system. But there are very few specific recommendations based on analysis of laws, policies, budget and on-the-ground experiences. The tragedy is never forgotten, but the call for improvements fades from our consciousness.

This case study attempts to present a more in-depth look at the system for managing natural disasters in Iran and particularly the new National Comprehensive Plan for Relief and Rescue. There are both positive and negative aspects of the comprehensive plan, but perhaps the most important recommendation would be to design a national plan that put the citizens of the country at its centre. The current plan is supposed to be implemented by a maze of overlapping committees and working groups with no clear picture of how a local community could negotiate its way through such a system to play a more active role. Legal obstacles to registering non-governmental and community-based organisations present another major difficulty in envisioning a national plan that could involve local communities since legal registration is a prerequisite for any social group to become active. Lastly, the development of a *national* plan with local community involvement would require local communities to be organised into coalitions or unions at the *national* level. Since this is currently not the case, the recommendation is to start building up experiences from the most local levels, with the ultimate goal of arriving at a full national plan of cooperation.

Context of the case study

The drought

Iran suffered three consecutive years of major drought from 1999 to 2001. Estimates put the statistical probability of such a drought at once in 30 years. A largely arid and semi-arid country with wide weather fluctuations, Iran is accustomed to drought. However the recent drought was particularly hard-hitting. Variation between and within provinces was high, but it has been estimated that 25 out of 28 provinces were affected in some way and that 37 million people— half the population— were affected. Even parts of the country with high levels of precipitation in normal years were severely impacted.

Although the drought was less severe each year of its duration, the social and economic impact was greater as it progressed; an estimated 90% of the population were impacted in the last year. Rural food producers— farmers and pastoralists— were the hardest hit. The drought compounded stresses already present in the rural economy, particularly poor and inefficient management of water and land. The long-standing conflict over access to land between farmers and pastoralists also became more acute.

Pastoral communities currently comprise some 2% (1.3 million people) of the total population of Iran and meet about 25% of the livestock needs of the country. Pastoralists depend largely on grazing livestock for their livelihoods but rangelands were under severe pressure due to the drought. During the last drought rangeland production fell to half that of a normal year in many

provinces, and less than that in some. The livelihoods of pastoral communities suffered in numerous ways: animal mortality increased, production of meat, milk and wool fell and sale of animal increased. The UN estimates that the drought affected more than 75 million animals (out of a national total of around 90 million), and immediate small stock losses were about 800,000. The negative impact of the sale of animals—the source of pastoralists' wealth—was compounded by the decline in animal prices at the same time that the price of important staples such as flour increased, thus trapping pastoralists in a terms of trade collapse. The most obvious and severe effect of drought on pastoral communities is the abandonment of their traditional livelihoods system and settlement in villages, suburbs and cities.

Background on the Koohi Sub-tribe of the Qashqai Tribal Confederation

The largest group of migratory nomadic pastoralists in Iran is the Qashqai Confederation. The Qashqai live and migrate through parts of the Zagros Mountain range of southern Iran (see attached map), mostly within the province of Fars. Their environment is quite arid, with an average annual precipitation in Fars of about 300mm. Faced with the aridity and high variability in the amount and distribution of rainfall— and therefore available forage in their environment — the Qashqai have developed complex natural resource management strategies to exploit the uncertainties by recognising and working with the patterns that emerge in nature. This has led them to a livestock-based livelihood system based on migration in order to make the best use of precipitation patterns. The Qashqai have traditionally migrated with their herds from summer to winter pastures twice per year and gained their livelihood from meat, dairy, wool, and other animal products.

The Koohi Sub-tribe is one of dozens of sub-tribes of the Confederation. Their summer pastures are located to the north of Shiraz, the capital of Fars province, near the town of Eqlid and their winter pastures are located to its south near the town of Farashband. The total distance travelled by the Koohi sub-tribe is about 860 kilometres. In general the best grazing areas are in the summering grounds, particularly those near the Kooshk-e Zar wetlands, but there are also some good grazing areas in the wintering grounds – particularly at the foothills of the mountains. According to the Koohi, in general, all areas which have little or no human impact are good for grazing but unfortunately there are few such places left. Level of precipitation is also a very important indicator of quality of grazing land.

The Koohi Sub-tribe includes 573 tentholds with a total population of about 3,500 people according to current calculations by the members of the sub-tribe. It should be noted that these figures include the migratory population only; if the settled population were added the figure would rise to about 1,000 tentholds or families. The official estimates are slightly lower: according to the 1377 (1998) national census of nomadic pastoralist populations there are 536 tentholds with a total population of 3,264 (49.2% female). According to the same census, 52.76% of the Koohi are literate and of this 41.7% are female. In total, the province of Fars has about 145,000 migratory pastoralists in the various summering grounds of the province (the highest number of any of the provinces) and about 170,000 in the wintering grounds (the second highest figure).

The livelihoods patterns of the Koohi (and all Qashqai in general) have changed greatly over the past several decades, particularly since land reform. Today their production is no longer

primarily for self-subsistence. They sell their various animal products and buy a wide range of consumer items (mainly food and fuel) from the market.

Raising livestock is still the cornerstone of their economy, but there are clear signs that the situation has been changing. According to estimates from the Koochi, before the land reform of the early 1960s they had 40,000 to 50,000 heads of livestock. They kept a wide variety of animals, including sheep, goats, camels, donkeys, horses and to a more limited degree, cows, to satisfy a variety of needs, from food to transportation to clothing and shelter. The livestock were owned by the leaders of the clans and tribes while the other members of the tribe worked as shepherds and herders.

Today the role of the traditional leaders has been greatly undermined: they have been stripped of their power and this has contributed to changes in their livelihoods systems. For instance, agriculture is playing an increasingly important role as an income earner. In the past although they planted some crops this was usually for personal use only. Today growing crops (near their summer and winter grazing areas) is playing an increasingly important role, although it tends to be the more financially privileged families that can afford to do this, the main constraint being access to land. According to estimates by the Koochi, about one fifth or one sixth of them have access to agricultural land (on average about 5-6 hectares of land per tenthhold) both in the summering and wintering grounds. The main crops grown are wheat (for personal use) and barley and corn (for sale).

Both the size and the diversity of their herds are on the decline. The Koochi estimate that they currently have about 30,000 to 40,000 livestock, but also point out that their own population has increased from about 300 tenthholds to about 600. Today sheep and goats dominate the herds while camels, donkeys, horses and cows are all fast dwindling in number. According to the national census of nomadic pastoralists of 1377 (1998) the composition of nomadic herds in the various summering grounds of Fars province is as follows: 51% goats, 47% sheep, 1% donkeys and the rest camels, donkeys, horses and cows. The main reasons for this are replacement of animals by motorised vehicles for transportation and market orientated herding which favours sheep and goats. In fact, meat is by far the most important pastoral livestock product because it brings the best price. By contrast there is much less dairy production because the women are less willing to do the hard work involved for relatively little cash benefit.

Other sources of income include employment in the service sector and handicraft production (women only). In the summering grounds some of the Koochi offer their labour to local farmers, either for a wage or for one fifth of the product. In the wintering grounds they rent agricultural land to grow crops or they offer labour to local farmers. In general, the older members of the tribes continue herding while the younger generation look for new kinds of work. According to the census about 40% of the Koochi are employed¹. Of this, roughly 59% raise livestock, 10% work in the agricultural sector and 31% work in the handicrafts sector. Throughout the province on average 51% of nomadic pastoralists only raise livestock as their main source of income, 32% raise livestock and grow crops, 15% raise livestock, grow crops and keep orchards and 2% raise livestock and keep orchards.

¹ The term "employed" includes all people 6 years of age and older who have worked for the 7 days prior to the census, or who don't have full-time work but worked for at least 2 of the 7 days prior to the census, or those who are engaged in seasonal work (as long as they are not looking for other work during their off-season).

The main expenses of a Koochi tenthold are for food, fuel, health, education, clothing, housing in

What happened in the Iranian land reform?

Land reform refers to a series of laws in 1963 that the Shah was fond of calling the "White Revolution." In order to understand the nature and impact of land reform it is important to keep in mind that:

1. The European concept of "feudalism" never existed in Iran. Unlike the European serfs—who went with the land and had no rights at all— Iranian agricultural systems were based on a concept more akin to collaborative management. Different elements of production (land, water, labour, animal traction and seeds) each had an agreed share (usually one-fifth each) in the product, and whoever put in each factor got the corresponding share of the crop once common expenditures (such as field guards, craftspeople, etc.) were taken off the top.
2. The land reform included, more important than the land distribution, the nationalisation of all natural resources, including rangelands, forests and water.
3. In the case of pastoral nomads, this meant that land that was ancestrally theirs, and which they managed sustainably and held as common property, was alienated from them and taken over by the State.
4. Since then the nomads have had to obtain individual grazing permits based on a state expert assessment of the carrying capacity of the range. The notions of carrying capacity are based on old approaches to range ecology and management that were mentored by Utah State University, now considered fundamentally in error.
5. The present system of individual short-term permits means that the nomads are unable to work together to apply the principles of sustainable use.
6. It also means that the government, unable to manage the rangelands (about 90% of the usable land in the country), has now decided to give it to the private sector—but usually not to the traditional holders of rights to the range. It is usually given to those with power and influence, who use it, more often than not, for speculation.

wintering grounds, tents in summering grounds, fodder, and transportation of animals. Many of these are relatively new expenses, such as fodder² and rental to farmers for grazing on the stubble of their crops, or are much greater than they were in the past, such as for clothing, food, etc. In fact the Koochi say that although their cash income has increased in the past several decades their expenses have also increased a great deal. In recent years consumption patterns have changed greatly, under the direct influence of the changing consumption patterns of Iran's villages and cities, facilitated by enhanced communications and transport. The result has been a desire for greater consumption and therefore greater costs of living. For example, rice has become a staple whereas in the past it was seen a luxury. Owning audio visual equipment, computers and mobile telephones are also increasingly seen as necessities for mobile communities— particularly

² In the past the animals survived on the natural vegetation of the rangelands but today there is much less vegetation so they are forced to hand feed their animals.

among the youth. According to national census data on average about 26% of migratory pastoralists in Fars use some form of motorised vehicles, 41% have radio/audio equipment and about 6% have televisions.

These cultural factors, as well as the rejection of raising livestock as a form of livelihood by the youth, have led to widespread migration to villages and cities. Another effect of modern urban life has been the increasing use of illegal drugs by pastoralists, especially among the youth.

The Qashqai have developed a complex social structure which is intimately connected with their indigenous systems for natural resource management. Customary regulations for natural resource use and management were developed and enforced by traditional tribal leaders at various levels of the structure of the confederation.

The Qashqai Confederation comprises six tribes (tayefeh) including the “Shish Bayli” tribe. The Koochi Sub-tribe (tireh) is one of about 20 sub-tribes of the “Shish Bayli”. The Koochi sub-tribe is divided into 14 clans (bonkoo), and each clan is divided into several households, or more accurately, tentholds (obaa). These organisations will be referred to in the general term, “pastoral organisation” in this paper. Each tenthold is composed of related families and is the smallest unit of the Qashqai social structure. Generally, families making up tentholds will migrate together, and both in the summering and wintering grounds tend to camp and work near each other as a unit.

The head of the confederation (khan) and the heads of the tribes were essentially responsible for political and strategic decision-making, coordination of all the tribes and mobilisation. The heads of each of the sub-tribes (kalaantar), clans (kadhodaa) and tentholds (reesh sefid) were more involved with decision-making about natural resource management.

Socio-political and economic changes that have enveloped Iran in the last several decades have fundamentally influenced and changed life for the Koochi sub-tribe and other pastoralists. One of the major driving forces behind these changes has been land reform (see text box, above). The pre-1963 land reform pastoralist communities used common property management systems. The land reform programme of the Shah brought about the nationalisation of all natural resources, including rangelands, forests, water and wildlife; individuals were granted use of land based on a specific short-term grazing licensing system. Thus pastoralists were alienated from their common property land and customary rights and their incentives for proper management and sustainable use of land were weakened. Nationalisation has further marginalised pastoral communities by not only fragmenting and destroying their summer and winter pastures, but also by impeding on their migratory routes.

Rangelands became state property and continue to be governed by principles of range management which have recently been refuted. Nationalised rangelands were turned over to agriculture or to a national system of protected areas both of which resulted in environmental degradation. While these policies have continued and intensified under the Islamic regime, since the reign of Mr. Rafsanjani, the government has adopted a dual policy of support (with subsidies and services) and a relentless effort at sedentarisation. This has been arranged with some encouragement from the World Bank.



Figure 1 Because of fragmentation of their migratory routes, pastoralists, like members of the Koochi Sub-tribe, above, are forced to migrate along roads by truck

Brief introduction to the host project

The present case study is embedded within a larger ongoing project entitled *Reviving nomadic pastoralism in Iran - Facilitating sustainability of biodiversity and livelihoods—A learning by doing project*. Working within the framework of the host project allowed the researchers to conduct the case study in a very limited time by building on the relationships that the authors had already established with one pastoral community in Iran – the Koochi Sub-tribe. Some of the recommendations that conclude this case study are guided by lessons learned so far in the host project, therefore a brief presentation of the host project will be useful in situating the case study in context.

The project to revive nomadic pastoralism seeks to promote sustainable livelihoods and conservation of biological diversity among nomadic pastoralists in arid and semi-arid rangelands of Iran and greater Central Asia. Fundamental aspects of this project are revival and strengthening of traditional social organizations and culture, as well as collaborative and community management of ecosystem health and biodiversity.

The initial pilot project focuses on one sub-tribe of nomadic pastoralists in central Iran (the Koochi Sub-tribe). The larger goal is to perfect a modular, scalable, self-replicating, iterative model in which migratory pastoralists themselves are the central decision-makers, and in which the processes and projects undertaken are appropriate to each group's unique culture, present status, strengths and limitations.

The project, which was launched in January 2003, began by identifying the main problems, and possible solutions, of the sub-tribe. Following the identification and categorisation of the main

problem areas members of the sub-tribe tried their hand at writing project proposals aimed at projects which could contribute to solving each of the main problem areas. They also sketched out their overall vision for the project. Project funds will be used to implement some of the projects that have been devised by the sub-tribe. The results of the problem identification, project proposal and visioning exercises are presented in Annex 2.

In order to implement the projects and to rehabilitate the traditional social structure destroyed by the recent decades' economic and social developments, the local community has formed "The Koochi Sub-tribe Nomadic Pastoralist's Sustainable Livelihoods Council". This council consists of representatives from all clans comprising the sub-tribe through elections at the lowest social organisational level (tenthhold). The council has recently been officially registered as a non-profit company due to restrictions which make it difficult to register non-governmental organisations. Subsequently, the sub-tribe created a Community Investment Fund or *sandug*, with initial funding donated by a non-governmental organisation, designed to fuel small-scale economic development initiatives. The Council will act as an advisory and (as needed) decision making board and will facilitate social mobilisation. Preliminary project plans have also been pursued for a number of initiatives. The profits from any investment made with *sandug* funds will be returned to the *sandug* for further investment. Once the level of investment reaches an adequate level for their needs, the sub-tribe will use any "excess" funds to establish new *sandugs* in other sub-tribes and tribes, with a view to spreading this community investment system throughout the entire Confederation.

The *sandugs* support two main functions: a) wealth generation for empowerment of the sub-tribe; and b) conservation of their landscape including their rangelands, water sources, and a unique wetland. The wetland and its related landscape are now being established as the first official Community Conserved Area with the endorsement of the government of Iran.

Besides the Koochi Sub-tribe and Cenesta the main partners are various branches of the Iranian Government including the Ministry of Agriculture and Rural Development, the Organisation for Forests, Rangelands and Watershed Management, and the Organisation for Nomadic Pastoralists Affairs. International partners include IIED, UNDP/GEF and IUCN/CEESP's Working Group on Sustainable Livelihoods. All partners from outside the Koochi community operate through its Council of Elders and all major decisions are made by them.

Organisations working on drought relief in Iran

Local institutions

Organisations working at the local level in Iran are either governmental or non-governmental. It is important to note that local-level governmental organisations are simply representatives of national organisations, implementing policies that are made in Tehran at the local level. All government policies are determined in the 5-year development plans of the Planning and Management Organisation. Therefore government agencies at the local level will not be treated as "local" institutions in this study.

The only governmental organisations which are constituted at the local level are the village councils which have been active since 1999. Village councils ("Islamic Councils," as they are called under the law) are the representatives of the Ministry of Interior at the local level and the

members are elected by local residents. “Pastoral councils” are also planned but have not yet been established.

Levels of expectation and excitement about the councils were high at the outset, but their level of effectiveness seems to be mixed. Elections take place every 4 years and the turnout for the 2003 elections were much lower throughout the country than the first round in 1999 which saw a massive turnout largely because the councils are seen to be ineffective in addressing people’s needs.

Very few active NGOs exist at the local level; most have been newly established and lack basic capacities and resources. Because of difficulties in officially registering NGOs, many NGOs have been registered as non-profit companies under the law of registering companies. The strongest NGOs tend to be concentrated in the capital. Thus the main local, non-governmental institutions are traditional community based organisations (CBOs) which are informal organisations, not officially recognised by the government. The precise structure, roles and functions vary throughout the country, but it is clear that these organisations have traditionally played a central role in decision-making about natural resource management, including drought.

In recent decades as the role of the central government has increased and modern development approaches have been adopted, CBOs have been weakened and in many cases have started to dissolve. Remaining elements of CBOs are stronger at the grassroots levels rather than at the higher levels of the structure. For example, in pastoral communities the structures are still meaningful at the level of tentholds, clans and sub-tribes whereas the tribes and confederations have effectively been dissolved.

During the past few years with greater government interest in public participation and the greater involvement in international processes related to sustainable development there is increasing interest in the role of indigenous knowledge in natural resource management. Nevertheless there is still little understanding of the role of CBOs in creating, using and preserving traditional knowledge. Another major obstacle in rehabilitating CBOs is that they are not officially recognised by the government.

Non-governmental organisations

There are no NGOs in Iran that work specifically on drought or any other natural disaster. Many civil society groups get involved in relief efforts at the time of a national emergency, but these efforts are usually organised by the Iranian Red Crescent Society (IRCS) to deliver relief or raise funds. However IRCS is not a non-governmental organisation in Iran (see below for more information about the IRCS). Also, there seems to be greater activity by various civil society groups following a “sudden” disaster such as an earthquake or flood rather than more gradual disasters such as drought.

Governmental organisations

Various government ministries, departments and organisations are involved with disaster preparedness and relief at various stages and according to their own mandate. The most widespread criticism of governmental response to natural disasters is that there is no single effective plan for dealing with disasters. In fact, the Comprehensive National Plan for Relief and Rescue was ratified in 1382 (2003), but it is not yet widely known or debated. It was highlighted in the

media during the post-Bam earthquake coverage, but mostly for being ineffective. The Plan is run by the Disaster Task Force and is discussed in great detail throughout this report.

Disaster Task Force

The Disaster Task Force (DTF) is the governmental body responsible for the implementation of the Comprehensive National Plan for Relief and Rescue which was ratified in 1382 (2003)—see legislation and policy section, below for more information on this plan. However, the DTF had existed before the introduction of the Plan and was also responsible for coordination of natural disaster preparation and response. With the introduction of the Plan the responsibilities, members and constituent parts of the DTF have been clarified or changed. DTF is headed by the Minister of Interior and its secretariat is hosted at the Ministry of Interior.

The DTF has a largely coordinating and monitoring role, but it contains a complex web of working groups which are also responsible for implementing projects. Its coordinating role is reflected in its structure: DTF is made up of representatives from relevant government organisations and it has bureaus at the provincial and department levels. The responsibilities and policies of the DTF are broadly laid out in the Plan and are presented at length in the section, below, on policy and legislation.

The cluster of specialist working groups on prevention and risk management of the DTF (introduced through the Plan) presumably replace the National Committee on Mitigation of Natural Disasters (NCMND) which was established in 1993 to discuss and address research and policy questions. NCMND consisted of one coordination committee and 9 sub-committees that each deal with the following topics: earthquakes; plant pests and frost; reconstitution of the rangelands and combating drought; floods; air pollution; hurricanes; rescue and relief; compensation of losses; and health. The topics have been streamlined under the present arrangement to omit the groups on hurricanes, rescue and relief and compensation of losses.

Under the previous system the members of the rangelands and drought sub-committee were: the Ministry of Agriculture and Rural Development, the Ministry of Energy, Iran Meteorological Organisation, the Ministry of Interior, the Department of Environment, Islamic Republic of Iran Broadcasting Company, and the Ministry of Post, Telegraph and Telephones. The sub-committee was headed by the Ministry of Agriculture and Rural Development. Under the present system the drought specialist working group is still headed by the Ministry of Agriculture and Rural Development. The members, terms of reference and internal regulations of each specialist working group are drafted by the head of that specialist working group and must be approved by the national working group on preparedness (another new component of the DTF introduced through the Plan) and the DTF.

Risk management specialist working groups can be established at the provincial level if needed. The need is assessed— and the members of the provincial working groups decided— by the provincial preparedness working group. The provincial preparedness working groups are established under the supervision of the provincial DTF. These are working groups with representatives from 17 organisations and are headed by the provincial governor's deputy for development affairs (under the Ministry of Interior). The provincial DTFs are established under the supervision of the national DTF and include representatives from 26 organisations and are headed by the provincial governor (under the Ministry of Interior). The head of the DTF at the district level can call for the establishment of any specialist working groups at that level as

needed. The district DTFs include 18 members and are headed by the district governor (under the Ministry of Interior). All of the activities of the district DTF must take place under the supervision of the provincial DTF.

Before the introduction of the comprehensive national plan, the DTF was seen to be doing little prevention or rehabilitation work and to be dealing with natural disasters on a case-by-case basis, organising their activities after the event had taken place. Even in its relief work, there was very little monitoring of its activities or extension of its outreach efforts to involve local communities and civil society. The comprehensive plan has not been in action for very long (less than one year) so it may be too soon to judge the effectiveness of the plan and the new DTF structure.

However, it could be useful to see how the DTF has acted following the recent earthquake in Bam which was a great test of its new structure. Unfortunately, the experience of Bam does not speak well for the government's new and comprehensive plan to deal with natural disasters and the old criticisms of lack of coordination and planning are being repeated again.

According to a joint WHO/Ministry of Health rapid assessment of the area following the earthquake, "Co-ordination and management are not yet effective enough. Support in terms of supplies and human resources is adequate, but lack of proper management and insufficient co-ordination has been counterproductive."

The daily newspaper *Kayhan*, said that although Iran has a Disaster Task Force at the national level and in each city, the DTF is not structured in such a way as to have the power to take charge of disaster management when a disaster strikes. They criticised the DTF for being badly managed and coordinated and suggest that this was the reason why the responsibility for relief was given over to the armed forces 3 days after the earthquake.

On the other hand, Dr. Ahmad Ali Noorbala, the Director of the Iranian Red Crescent Society criticised in a press conference the intervention of other agencies in the IRCS's relief activities and also the government's decision to delegate the management of the post-earthquake operations to the armed forces. He said that this was in contradiction to the Comprehensive National Plan for Relief and Rescue since under this plan the management of relief and recovery in disasters is the responsibility of the IRCS. He also criticised the role played by the state broadcasting company for publicising and rallying support for the Imam Khomeini Relief Fund, rather than for the IRCS, which according to the Plan and article 44 of the 3rd development plan, puts the responsibility of coordinating disaster relief aid squarely on the shoulders of IRCS. He added that the Imam Khomeini Relief Fund was not distributing the aid fairly among the people. He said that IRCS expertise was not used at all, but that they chose to remain silent in order to prevent open conflict.

In the days following the Bam earthquake and the influx of international help to the country, the coordinator of the group of "Rescue Without Borders" criticised Iranian officials for their lack of coordination in responding to the earthquake, adding that the attention to details in implementing activities and also the speed of response in other countries that he had worked in, including Turkey, India and Nigeria had been better than Iran.

In the daily newspaper, *Shargh*, the MP Mohammad Reza Tabesh was reported as saying that a parliamentary report on the Bam earthquake shows that the fact that there was no organisation or structure in place for immediate response to the earthquake made the impact of the earthquake

much worse. He added that the 1,600 international relief staff that were present in Bam were as effective as the 30,000 strong Iranian team.

Ministry of Agriculture and Rural Development

Forest and Rangeland Organisation

The Forest and Rangeland Organisation (FARO) is the government body responsible for the management of the country's rangelands (among other things) and its policies thus have an important impact on the livelihoods of pastoral communities. The drought-related activities of FARO focus on prevention and mitigation through their central programme of “establishing equilibrium between livestock and rangelands”. Over-grazing by pastoralists is up to five times the carrying capacity of the land according to FARO estimates.

The programme is very unpopular among pastoralists themselves. It is based on the premise that the main cause of deterioration of rangelands, desertification and drought is unsustainable use by pastoralists due to overpopulation of livestock. The main thrust of the programme is the sedentarisation of pastoralists and imposition of alternative livelihoods systems. Pastoralists maintain that their numbers have actually *decreased* in recent years and that any unsustainable use is due to the fact that they are forced onto increasingly small plots of land. Furthermore, they say that the land that is taken from them is used unsustainably by farmers and industrialists.

FARO is also involved in a variety of drought-related projects such as providing fodder during drought, improving water storage and distribution and vegetation in rangelands and developing an early warning system with the national meteorological organisation. Some of these projects are coordinated and funded by the Disaster Taskforce of the Interior Ministry (see below for more information on the taskforce). FARO is also keen to take advantage of the latest modern technology in rangeland rehabilitation and prevention of desertification—with mixed success. For example, in the mid 1990s FARO conducted projects aimed at inciting clouds to rain.



Figure 2: Water tankers distribute water to pastoral communities

As with DTF, FARO seems overwhelmed by the scale of their task: they are responsible for the management of some 50 million hectares of rangeland. Because of lack of funds, their programmes tend to be quite limited in their impact. Furthermore, they say that their work is hampered by lack of coordination between various government programmes.

Within FARO there is a growing movement for greater civil society participation – particularly by NGOs – and for greater recognition of the role of indigenous knowledge and customary law. However, this has not yet taken the form of a unified policy within the organisation and there remain many contradicting policies. For example, FARO has a history of establishing NGOs in order to have a pool of “friendly” NGOs that it can choose to work with. At the level of local communities, it is difficult to see how pastoralists could want to participate in the activities of an organisation that they perceive as threatening their way of life.

According to the 3rd development plan the short-term goals of FARO in relation to rangeland management are:

1. Management of livestock grazing (issuing grazing permits controlling when livestock enter grazing areas and how long they are allowed to stay)
2. Distribution of water
3. Watershed and groundwater management for range vegetation
4. Stemming urban migration to sustain rural production
5. Grants, insurance and facilities for drought-stricken populations

The long-term goals are:

1. Predicting rainfall and sharing information with executive branches of the government
2. Predicting droughts, their extent and patterns
3. Extension to pastoralists and farmers on drought
4. Calculating the number of livestock appropriate for non-drought years
5. Activities of the Committee on sustainable water use and management in agriculture, industry and for drinking
6. Promoting new crops suitable for dry lands
7. Promoting policies for changing rain-fed crops to irrigated crops
8. Increasing insurance for agriculture and pastoral products

Office of Nomadic Pastoral Affairs

The Office of Nomadic Pastoral Affairs (ONPA), also within the Ministry of Agriculture and Rural Development, has as its main aim the provision of suitable services to improve and develop the social and economic situation of the country’s nomadic pastoralists and to improve their productivity. ONPA’s objectives include: providing services to nomadic pastoralists; helping to sedentarise them; introducing industrial models of livestock production; helping pastoralists with marketing of their products; and, helping them to establish co-operatives.

The ONPA sedentarisation programme provides each tenthhold with a house, 10 hectares of irrigated crop land and access to pasture, through low interest credit. The programme has met

with hesitation from pastoralists and in any case would only be available to a small proportion of pastoralists because of the high costs involved.

ONPA also aims to give technical support such as fodder and water provision (the former through pastoral cooperatives). Pastoral cooperatives are established through, and under the supervision of, the ONPA under the laws of the Ministry for Cooperatives. The main aim of the pastoral cooperatives is to provide services to pastoralists who are officially recognised as such (this means they must have a pastoral identity card), but currently their activities are limited to selling rationed food items³ and fodder to pastoralists. Each pastoral tenthhold must pay 350,000 rials (about \$42 USD) to become a member of a pastoral cooperative. The sale of livestock and agricultural produce is predominantly done privately, but cooperatives seem to be a more attractive offer for farmers than herders: on average 0.8% of nomadic pastoralists in Fars marketed their livestock through cooperatives while 2.8% marketed their agricultural crops in this way.

In general the ONPA has few funds to spend on natural disasters and therefore must rely mostly on their regular budget for any drought-related activities. They could apply for extra funds but this would require a strong justification on a province-by-province basis on the effects of drought.

Department of Environment

The Department of Environment (DoE) has a strategy of emergency response mainly to protect wildlife, plant species and biodiversity in the hardest hit areas. Although their main focus is not mitigation, prevention, or development of early warning systems, DoE has received assistance from UNDP in capacity building for drought mitigation and management in areas where biodiversity is most threatened, such as wetlands and the habitats of the Asiatic Cheetah, an endangered species.

Iranian Red Crescent Society

The Iranian Red Crescent Society (IRCS) is a member of the International Federation of Red Cross and Red Crescent Societies. It focuses mainly on relief aid during emergencies such as providing tents, blankets, rations, etc. IRCS has a large network of volunteers and presents itself as a non-governmental organisation but its funding comes directly from the Ministry of Health, therefore it is widely seen in Iran as a *governmental* organisation. Furthermore, it is represented in governmental bodies like the DTF— an opportunity denied to NGOs that are independent of the government. In one sense the IRCS creates the government's closest link to local communities in times of disaster by mobilising the public and local NGOs to help in relief operations, however, its volunteers contribute by providing free labour to deliver aid, not by participating in policy and decision-making. But on the other hand IRCS is very selective with the NGOs that it works with. For instance, they have invited the cooperation of non-governmental organisations that are recognised by the cabinet—an almost impossible condition to fulfil for NGOs that are truly independent of the government.

The Comprehensive National Plan for Relief and Rescue was drafted by IRCS according to article 44 of the law of the Third Plan for Economic, Social and Cultural Development.

³ A national universal system of rationing was established during the Iran-Iraq war for essential food items and is still in place.

According to the plan the IRCS is responsible for coordinating relief and non-governmental aid and assistance (see legislation and policy section, below, for more information).

Islamic Republic of Iran Meteorological Organisation

The IRIMO plays a key role in providing the government with data that helps to determine the arrival and extent of a drought. IRIMO has a drought specialist research group which responds to the research needs of various government departments as needed. Following the last drought the drought research group created a draft plan of action for drought research which would take a more long-term view. The aim of the project is to better understand the negative consequences (losses) of drought and to plan better for minimising risk. One of the main aspects of the proposed research project is to define indicators of drought for each province based on its geographical, climatic and economic conditions.

United Nations

FAO

The FAO in Iran aims to support the government in developing appropriate policies for food and agriculture. In the case of drought, if the drought is severe enough to be declared as a national emergency the FAO participates in a UN assessment mission. Such missions are usually followed by assistance to mitigate the effects of the drought, usually “band-aid” solutions such as providing drinking water or seeds for farmers. The main recipients of such relief are the general public (through the provision of drinking water) while food producers take second stage despite being the hardest hit, sustaining up to 90% of the damage inflicted by droughts. Among food producers farmers tend to receive much more attention than pastoralists.

The FAO, with the support of the government, is attempting to steer its approach away from these “band-aid” solutions and relief efforts towards developing long-term policies aimed at preparedness and mitigation. Although there have been no major initiatives on drought in the past 3-4 years (since the end of the last drought), a TCP project specifically addressing drought has been prepared and is awaiting approval. The TCP project aims at the formulation of a national strategy and action plan on drought management and mitigation for the agricultural sector through capacity-building for the government, and enhancing inter-sectoral cooperation.

The FAO is in a good position to assist the government in enhancing inter-sectoral cooperation which is clearly one of the weak points of the government: key policies are in conflict with each other— even within the same ministry. Another challenge is to support institutional change since new ideas tend to be introduced by individuals and support for them tends to fade away once key individuals leave. Although there is hope that the government is finally seeking a more long-term approach to drought, the fear is that any new changes in the government tend to be quite fragile as they rely on the political support of key individuals.

UNDP

UNDP initiatives related to drought are usually short-term. For example, as mentioned above, UNDP leads the UN assessment mission during a severe drought. During the most recent drought, UNDP conducted field research to assess the ecological damage of the drought and has subsequently prepared a plan of action. The report was distributed to international donors and

media, putting the spotlight on Iran's severe situation. Currently however, UNDP has no field-based projects related to drought, nor an explicit policy focusing on drought and local communities.

In 2001 UNDP Iran was involved in organizing the first Regional Seminar on Drought Mitigation. UNDP has also been assisting the government of Iran to prepare a short-term programme to expand watershed management and rainwater harvesting in areas hardest hit by drought.

UNDP relates Iran's unsustainable use of its natural resources to population expansion, loss of indigenous knowledge leading to the inefficient management of water resources, overgrazing, weakening of rural communities and traditional sustainable livelihood systems. Empowerment of local communities, sustainable management of water resources, and bottom-up policies and approaches are part of UNDP's solutions, but with an absence of field projects on drought it is difficult to see how UNDP will implement their ideas.

World Bank

The World Bank has proposed a plan for a disasters insurance fund to the government. The proposal has been discussed by the ministries of housing, interior, and economics and finance over the last 2 years. If the ministries come to agreement then the World Bank would give Iran a loan of about \$100 million (USD). The government would have to insure every house in the country and it would have to have a plan to support families that could not afford the insurance. The Comprehensive National Plan for Relief and Rescue calls for greater coverage of insurance schemes in case of natural disasters but it is not clear whether this will occur with World Bank assistance.

Current legislation and policy relevant to drought

The 5-year Plans for Economic, Social and Cultural Development represent the government's main policy document on all matters and each plan is recognised as law throughout its duration. They define the main policy lines for all ministries and departments and the annual work plans and budgets of each government ministry and organisation are based on the 5-year development plan. The first plan was effectively launched after the end of the Iran-Iraq war in 1989. The 4th development plan will begin in 1384 (2005) if it is ratified on schedule (if not then it could be delayed by a year or two).

The current (and third) development plan refers directly to natural disasters in one article:

Article 44: In order to prevent and mitigate the impact of natural disasters, to prepare the public and to specify the roles of all [governmental] executive organisations in responding to natural disasters, the Iranian Red Crescent Society (with the cooperation of the Ministry of Interior and the national voluntary militia, (basij)), is responsible for producing a comprehensive plan with the cooperation of all relevant [governmental] organisations and for having it approved by the cabinet within the first year of the Third Plan for Economic, Social and Cultural Development. The plan should include provisions for disaster management, raising public awareness and preparedness and mechanisms for the participation of [governmental] executive organisations, the state

broadcasting company and mass media, executive initiatives, funding sources and administration, etc.

Note: The national voluntary militia (basij) will become a member of the country's disaster taskforces.

As a follow-up to this law, the IRCS prepared the Comprehensive National Plan for Relief and Recovery, which was ratified by the cabinet in 1382 (2003). This is the first comprehensive national plan to address natural disasters. Some elements of the plan are:

General

- A definition of “disaster”, and also “national disaster” as a disaster which is too severe for one province to address on its own; the level of a disaster (local, provincial, or national) is decided by the head of the DTF on the recommendation of the provincial governorate;
- The plan recognises 4 stages of the disaster management cycle: prevention, preparedness, relief and reconstruction;
- One of the main objectives of the plan is to channel public voluntary aid and also the input of non-governmental organisations;
- The main strategies are: research, implementing projects, investment, coordination, attracting popular participation, more efficient use of existing resources, enlisting the necessary support from all parts of government, the armed forces and particularly the voluntary militia;

Disaster Task Force

- The establishment of the DTF with the objectives of overall policy-making, national planning and the highest level of monitoring of disaster related plans and programmes;
- The composition and responsibilities of the DTF; when a disaster takes place all ministries, governmental organisations and the police and armed forces are supposed to cooperate fully with the directives of the head of the DTF;
- The establishment of provincial offices of the DTF under the supervision of the national DTF; the composition and responsibilities of the provincial office of the DTF; when a disaster takes place all the governmental organisations, police and armed forces at the provincial level are supposed to cooperate fully with the directives of the head of the provincial office of the DTF (the governor of the province);
- The composition and responsibilities of the district level offices of the DTF; all of the activities of the district offices of the DTF must be under the supervision of the provincial office of the DTF; when a disaster takes place all governmental and non-governmental organisations, police and armed forces are supposed to cooperate fully with the directives of the head of the district office of the DTF;

Preparedness working groups and their specialist working groups

- National and provincial preparedness working groups: formed and operating under the supervision of the DTF to manage and follow up on all preparedness activities stipulated in this law; the responsibilities of the national and provincial preparedness groups are

broadly stated; the main responsibilities are the management and follow-up of all activities related to the preparedness stage of the disaster management cycle;

- The national preparedness working group will be assisted by 3 clusters of specialist working groups: the operations specialist working groups, the prevention and risk management specialist working groups, and the education specialist working groups; the responsibilities of the 3 clusters of specialist working groups are broadly defined;
- Certain ministries and organisations have the added responsibility of cooperating with the DTF to improve awareness of disasters and to prepare for them through education; the role of each ministry in terms of educational activities for disasters is stipulated;
- The operations specialist working groups are composed of the following 12 specialist working groups on rescue and relief; health, transportation, communications, fuel supplies, security and police, management of water, sewage and electricity, housing, agricultural and animal husbandry and industry and mines. Each of the 12 specialist groups is headed by a ministry or other relevant governmental organisation;
- The prevention and risk management specialist working groups are composed of the following 6 specialist working groups on earthquakes and tremors, pests, plant diseases and frost, drought and rangeland rehabilitation, floods, air pollution, and climatic/atmospheric disasters (such as hail). Each of the 6 specialist groups is headed by a ministry or other relevant governmental organisation;
- The education specialist working groups are composed of the following 5 specialist working groups on public education, specialist education, education in schools, education through mass media, and education in the state broadcasting company. Each of the 5 specialist groups is headed by a ministry or other relevant governmental organisation;
- The responsibilities of these 23 specialist working groups must be defined by the head of each working group and ratified by the DTF and the national preparedness working group;
- The specialists working groups members are nominated by the leader of the national working group and approved by the DTF and they must each meet once every 2 months;
- The operations specialist working groups will also be established at the provincial level under the overall supervision of the national working group;
- Risk management working groups will be established in each province if needed. The need and the members of the groups will be decided by the provincial preparedness working group;
- The head of the DTF at the departmental level can call for the establishment of any specialist working groups at that level as needed;
- The relief and rescue specialist working groups will be headed by IRCS;

Budget and donations

- All help and assistance from non-governmental sectors (both national and international) shall be received and distributed by IRCS. All help and assistance from governmental

sectors (both national and international) shall be received and distributed by DTF. The receipt and distribution of assistance by any other organisations is banned;

- The MPO is responsible for including in the national annual budget a budget line for the various stages of disaster management in the country. This budget will be handed over to DTF which will distribute it based on its own policies, strategies and perceived needs;
- The provincial councils for planning and development must dedicate a part of their annual budget to the various activities related to the 4 stages of the disaster management cycle and this will be spent on the advice of the provincial DTF;
- All provincial departments and organisations must put all of their resources at the disposal of the provincial DTF as needed when a natural disaster occurs;

Insurance

- The secretariat of the DTF, along with the national insurance company of Iran, is responsible for extending the coverage of insurance against natural disasters throughout the country;
- The Ministry of Economic and Financial Affairs is responsible for extending insurance coverage to at least 50% of all residential and commercial enterprises by the end of 1383 (March 2005) and for creating the possibility of making insurance coverage against natural disasters mandatory throughout the country by the end of 1388 (March 2010);
- The responsibility of extending insurance to all agriculture and livestock herding will be the responsibility of the Ministry of Agriculture and Rural Development according to the law of insurance fund for agricultural products of 1362 (1983).

The draft of the fourth development plan has been prepared and is currently awaiting discussion and approval by the new parliament, which was elected in February 2004. Presumably the Comprehensive National Plan for Relief and Rescue which is now in place contains all government policy on disaster management; therefore the draft does not have any articles or sections dealing specifically with natural disasters. However, there are some relevant paragraphs, which indicate that in spite of having the national plan, the government wants to highlight some issues, particularly earthquakes. For instance, the draft plan calls for:

- Improvement of buildings throughout the country to make them resistant to earthquakes;
- Improved organisational structure and management of weather data collections networks and improved national and international networking;
- Several articles are dedicated to the issue of reforming the governance system in the country and facilitating the participation of civil society; these are presented in the section on recommendations for the 4th development plan regarding civil society;
- A foreign currency account is to be created for the excess earnings from oil and gas revenues relative to annual expected revenues and is to be spent on strengthening certain areas of the economy; at least 10% of these funds dedicated for the non-governmental sector will be given to the Agricultural Bank for distribution to the agricultural non-governmental sector;

- One of the objectives for rural development is the sedentarisation of at least 50% of the country's nomadic pastoralist population; and,
- Calls for the continuation of the livestock and range equilibrium plan.

Besides the content of the development plans, it is also important to examine their past performance. In general, many of the programmes in each of the plans have not been implemented. According to the 1999 UNDP Human Development Report for Iran, Iran lacks the executive, technical and information capacity required for the full successful implementation of the plans.

A recent civil society assessment of the reasons for lack of implementation of environmental laws (including the policies of the 5-year development plans) pointed to the following factors:

- *Weakness of civil society institutions;*
- *Lack of responsiveness of many government agencies;*
- *The tradition of vertical, non-participatory and paternalistic style of governance in the country;*
- *The prolonged war with Iraq, which further weakened participatory government in the country, due to the requirement of a regimented and controlled society that happens in most countries at war;*
- *Weakening of capacities in the public sector due to a brain drain as a result of poor pay, and the lack of ability to take advantage of trained and competent personnel. The struggle of the years since the revolution for ideological purity often also pushes many competent technocrats out of the public sector;*
- *The creeping corruption that has been talked about by both civil society and very high level authorities, which is due to the inordinate role of the state in policy and operational spheres, to the lack of transparency and accountability of the government, and to the tremendous economic poverty that has beset the country.*

The Koochi Sub-tribe and the drought of 1999-2001

According to the Fars Metrological Department, in 1999 the northern parts of the province of Fars received about half of the long-term average annual precipitation. In the central parts of the province there was 80-90% less precipitation than normal and in the southern parts 100% less than normal. The average annual rainfall for the entire province is 300 mm. During the drought, the average temperature was 1-2 degrees centigrade greater than the long-term average during the spring and summer, and during autumn and winter about 0-1 degrees centigrade greater.

In 2000 most areas of the province received more precipitation than the year before, but still only about 50-70% of their long-term annual average. In 1380 (2001) the average annual rainfall for Eqlid (located in the summering grounds of the Koochi) was 444.3 mm and for Firoozabad (located near their wintering grounds) it was 104.5 mm.

The total annual precipitation for 5 rainfall stations in the province of Fars for 1961-2000 is presented in Annex 3. The following tables from the Iran Meteorological Organisation show various precipitation patterns for the province.

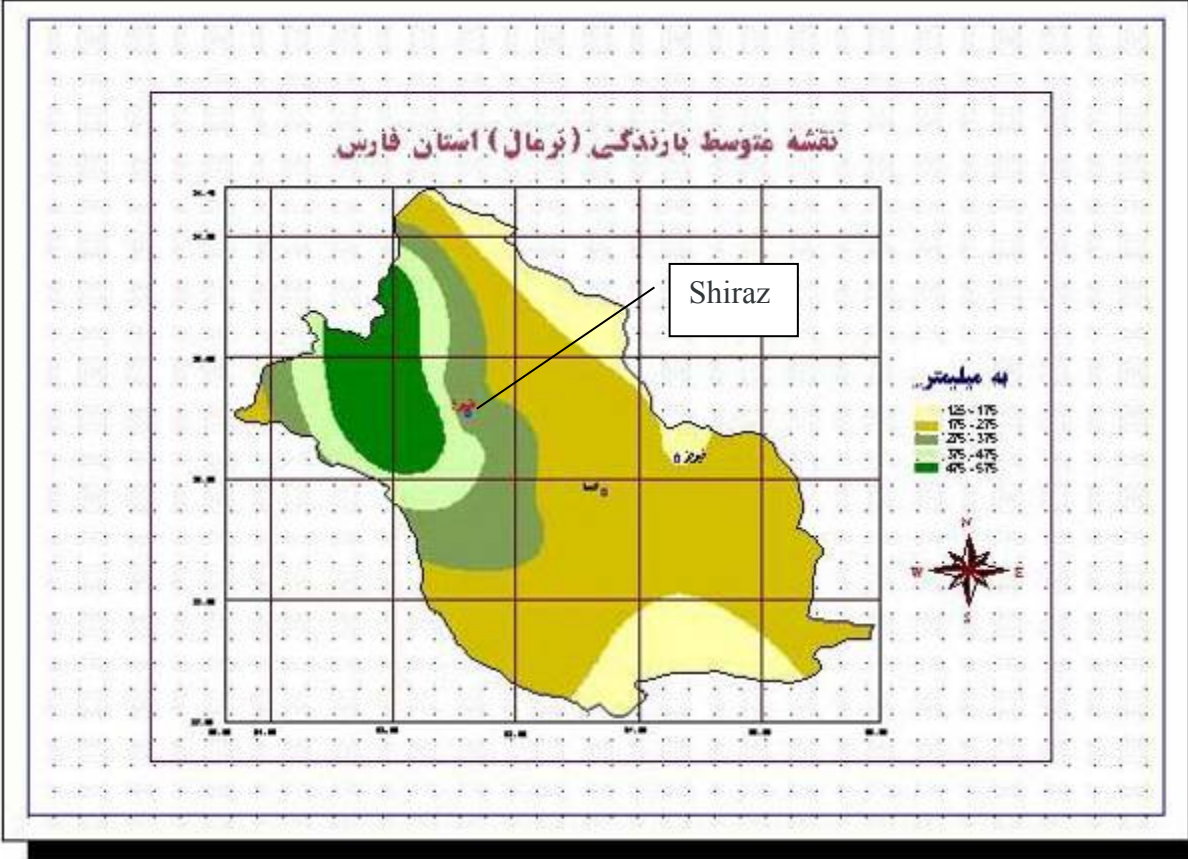


Figure 3 Average annual normal precipitation levels (mm)

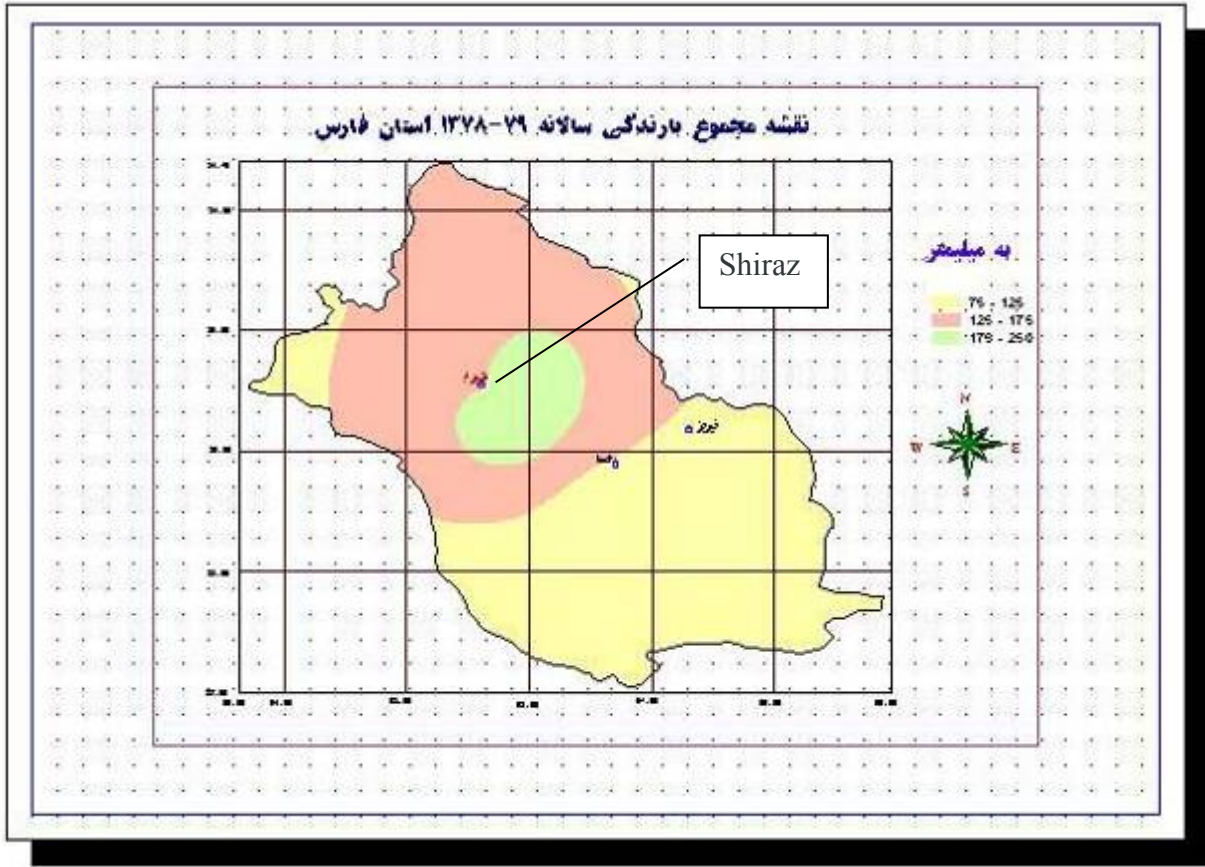


Figure 4 Annual rainfall in Fars Province, 1999-2000 (mm)

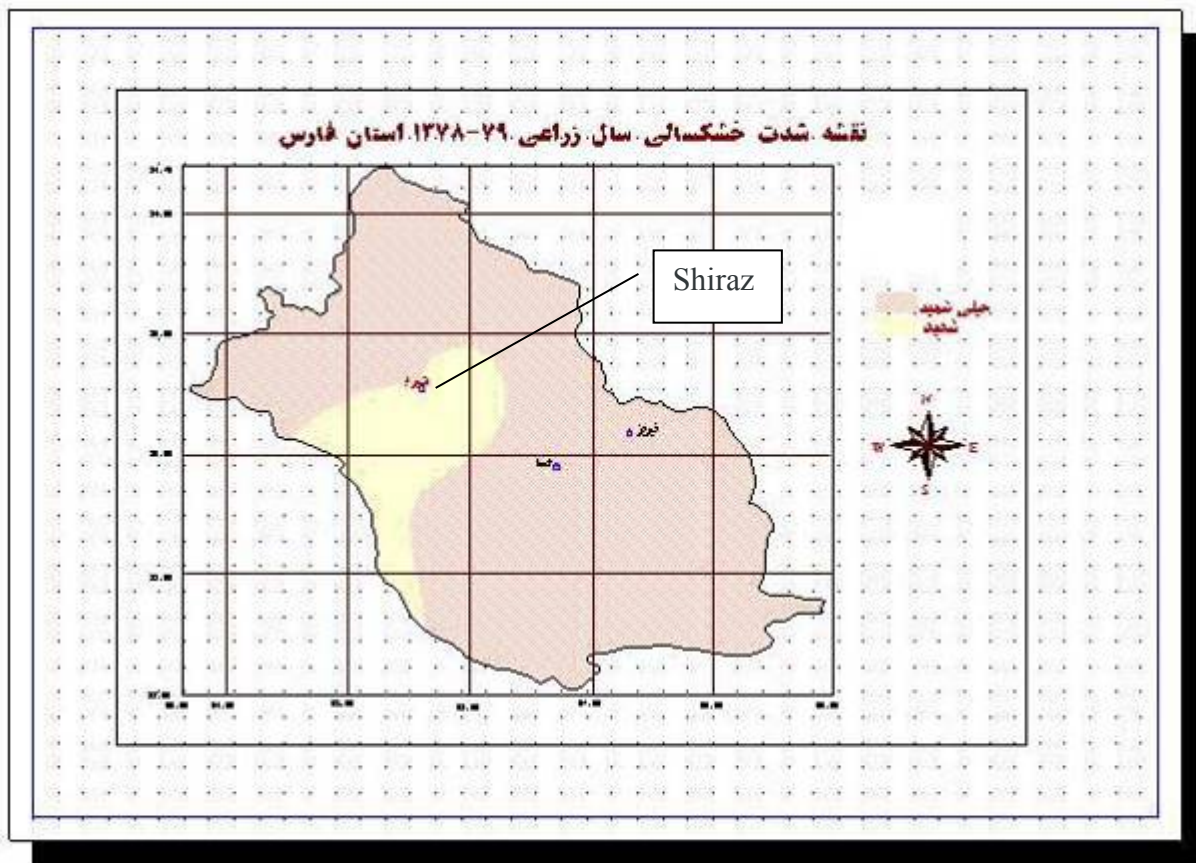


Figure 5 Severity of drought in Fars, 1999-2000 (pink area represents very severe drought and orange area represents severe drought)

Most of the information in this section is drawn from a workshop held with the Koohi Sub-tribe in their summering grounds near Eqlid in the summer of 2003. The workshop was held in Turkish, the language of the Qashqai. About 50 members of the Sub-tribe participated in the discussion, including all members of the Council of the Sub-tribe of Koohi Migratory Nomads for Sustainable Livelihoods. Supplementary information was gathered through smaller group interviews with members of the Council and some written sources.

The Koohi reported that they had lived through droughts of varying degrees of severity every 4 to 11 years for the past 40 years. However although they were clearly no strangers to drought, they emphasised that the frequency, severity and particularly the impact of drought on their livelihoods had been increasing over this period.

Impact of the drought on livelihoods

Drought is one of the most important determinants of the quality of life for nomads. As with all droughts the drought of 1999-2001 essentially served to intensify the pressures that pastoralists face even in non-drought years. Currently, the most important pressures they face are: coping

with less land and living with greater costs. It is clear that their main problem is access to grazing land and this is not exclusive to drought years.

The entire Sub-tribe now has only 35,000 heads of livestock and we are under continuing pressure to sell them. My father had 1,500 sheep and I only have 300 left. The land that we have is not even enough to sustain this reduced number because farmers are continuously taking our land.

We don't have enough land and so are forced to sell our animals.

Drought leads to a downward spiral of debt and poverty culminating in the most extreme cases in the sale of a family's entire herd (the source of pastoralists' wealth) at low prices and their permanent settlement in villages and towns. According to their own rough estimates, on average about 10% of the Koohi settle in villages, towns and cities each year, however they stress that in some years there is no sedentarisation.

In drought years the supply of animals goes up and demand goes down so we are forced to sell a sheep for a fifth or sixth of the price that we know it is worth.

Another cost burden is the cost of fodder. As their access to rangelands becomes more limited, and the available land is increasingly degraded, pastoralists are forced to buy fodder for their animals. During the drought, in some cases the Koohi bought fodder in the summering grounds and transported them to the wintering grounds by truck, otherwise they would have been forced to buy fodder from merchants in Farashband (a town near the wintering grounds) at high prices. The most important fodder that they purchase is barley but alfalfa, corn, by-product of turnip sugar factories, hay (from beans, chick peas and lentils) are also important. Lastly there is some use of a concentrated feed which is made from a mix of corn and chemical fertiliser.

Buying fodder and renting land are our two greatest costs. We have to borrow money to buy the fodder and then when it's time to repay we have to pay interest and we get stuck in a loop of debt. We are then forced to take our children out of school.

The situation is not the same for all Sub-tribe members because grazing permits are granted on an individual basis and individual circumstances differ. The situation seems to be worse in the wintering grounds than the summering grounds. On average, about 50% of the Qashqai do not have grazing permits for wintering grounds.

The most vulnerable people are those who do not have grazing permits for the wintering grounds because they have to pay rent for land and buy fodder.

Therefore drought leads to increased cost (especially fodder) and decreased revenues (because of falling livestock prices) so it pushes pastoralists further towards debt. The drought— or any other external pressure— simply intensifies existing burdens. The most extreme impact on livelihoods is sedentarisation: permanently abandoning pastoral livelihoods for other livelihood systems such as farming or trading. Sedentarisation is a much more common result of drought than it used to be (see section on the historical comparison of the drought management cycle, below, for more details). In some cases families become sedentary temporarily during the drought when there is not enough water and vegetation and then they begin migrating again when the drought is over.

When asked how some members managed to continue migrating despite the droughts and other pressures they responded, "We are taking our last breaths". Some say that they have stayed because they don't know how to live any other way, but making ends meet is difficult.

Those that have continued migrating are mostly in debt. Even if they wanted to, they could not repay their loans to the bank.

A few pastoralists (mostly the youth) are even forced into illegal but more lucrative lines of work such as trafficking. In some cases pastoralists cut back on their own food to buy fodder for their animals.

Social and cultural reasons are also impacting to decrease the numbers of pastoralists who continue to migrate and make their living from herding livestock.

The younger generation have gone to school and are literate. They are no longer willing to make their livelihood as pastoralists. It's clear that the number of migrating pastoralists will continue to decrease.

Finally, the drought acts to increase conflict in the community: people are forced to compete even more than usual for scarce resources and this leads to conflict. There are no incentives for cooperation because rewards and punishments are handed down to individuals and not the community as a whole.

Action taken by relevant organisations to support the Sub-tribe

The organisations that pastoralists have turned to for support in recent years are governmental or para-governmental organisations. Most important among these are FARO and ONPA. Other organisations such as the Disaster Task Force and IRCS were basically unknown to them. None of these organisations is seen to be giving even the minimum of support they need. Their two main complaints against the government were their pro-sedentary policies and allegations of corruption.

One of the main forms of support for rural communities after a natural disaster is government loans but pastoralists themselves say that the loan schemes are riddled with corruption and are also very bureaucratic. It is clear that with the current limitations pastoralists do not see these loans as a viable solution.

After the recent drought, the Majlis [parliament] approved banks loans for farmers and pastoralists, but the loans were only received by people with connections and influence.

If there are any loans to be had, the head of the Ministry of Agriculture and Rural Development announces it to the rural communities and farmers. If the loans are specifically for pastoralists then the rural folk bribe someone in the loan office, then they find someone with a grazing permit to use his license to get the loan. They pay both parties off to get the loan. In fact, unless civil servants receive a bribe they don't do anything! No one has ever received a loan without handing out a bribe.

We know that the government gives grants to each province for pastoralists. But instead of pastoralists receiving the funds directly, it's the ONPA that receives those grants. I don't know how they spend them.

The government doesn't really help and even if they offer a small loan this usually involves a very bureaucratic process.

Corruption was also mentioned in relation to state provisions of fodder. Pastoralists questioned why fodder provided by the government was being sold to them at *market* prices: if fodder merchants were making a profit at market prices then why was the government selling fodder at for-profit market prices and furthermore, what was it doing with that profit?

The government was offering us fodder at the same price as the fodder merchants – so there is no difference between the government and a business! We prefer to buy from the merchants because it is a much simpler process. Even if we have to pay back in instalments with an interest rate we prefer to do business with the merchants.

The pastoralists' cooperatives⁴ are another organisation that could help during disasters, but they were also accused of corruption. There is a clear lack of trust in the cooperatives— whether in drought or non-drought years. They say that the cooperatives essentially act as profit-making businesses.

The cooperatives don't do anything special during a drought. The only thing they usually do for us is to sell the subsidised supplies that we are all entitled to according to the government's ration system. On the one hand we're happy to receive subsidised sugar and flour, but on the other we don't know what they are doing with the profits of the cooperative. The cooperatives are just like any other business – they make a profit for themselves – the only difference is that their goods are more expensive than the regular shops. The cooperative sells a tent for 2.8 million rials that you can buy in a regular shop for 800,000 rials. They sell barley that is normally 1,000 rials per kilo for 1,800 rials. We're forced to buy from the cooperative because it allows us to pay in instalments and we don't have enough money to pay in one instalment.

With respect to specific emergency-related government interventions, the pastoralists had less direct experience of government programmes. They had never heard of the Disaster Task Force and when asked about non-financial support they mentioned the activities of the Red Crescent, but also spoke of corruption.

I remember there was a storm a few years ago and the Red Crescent Society brought some tents— supposedly for us. Well, the trucks never reached us— they stopped in Farashband and the tents were sold there for 2 million rials each.

To understand the action taken by government organisations during a drought it is important to understand how they support pastoralists in general during *non-drought* years. The members of the Sub-tribe see the government as essentially working against them, favouring settled communities— especially farmers— and adopting policies that directly or indirectly lead them to sedentarisation themselves. They see FARO as their main antagonist and the ONPA as being too weak to support them.

FARO wants to destroy us. They don't even try to cover it up. They want to take all our lands from us. Pastoralists have no supporters.

No one gives us any answers— not the police, not the judiciary, not our members of parliament. The people who we rely on for help are usually on the side of the villagers or come from the villages themselves so we are always losing.

⁴ Cooperatives in Iran are established in rural and pastoral areas by the government. The cooperatives are governed by the law of cooperatives and the Ministry of Cooperatives and are based on an imported Danish model. Members of the boards of cooperatives are appointed by government.

Who is responsible? No one accepts responsibility for pastoralists. So far, no one has been concerned about them. The organisation that is supposed to be responsible for pastoralists is the ONPA but it doesn't have enough power. It has to do whatever the Ministry of Agriculture orders it to do. There is not one single independent supporter of the entire pastoralist populations of Iran.

The government is widely criticized by pastoralists as taking every opportunity to appropriate their last remaining lands for agriculture by settled rural communities.

To sum it up: there is no such thing as help or support for pastoralists because of drought or other natural disasters. I don't know—maybe they help other tribes and not ours—but I would warrant that other tribes are worse off than we are. I think all the relief must be geared towards the farmers. This is a fact.

They also say the government supports farmers in other ways without extending the same support to them.

Farmers have a guaranteed price for their crops [the government guarantees prices on certain key crops for farmers] but we don't have guaranteed prices for our livestock—even though we are important livestock producers in this country.

Tribal expertise/knowledge and the disaster management cycle

Traditional knowledge related to drought management is part of the vast body of traditional knowledge related to natural resource management. The development and application of this knowledge relied heavily on the social organisation of the tribes with each member playing a role according to their position in the pastoral organisation.

Pastoralists divide their traditional drought-related activities into two main groups: activities before the disaster and activities after the disaster (roughly comparable to preparedness and relief and rehabilitation). Preparedness activities were led by a variety of mechanisms for drought prediction. Drought was predicted in a number of ways. The most common early warning system was based on observation of weather patterns.

Usually around the first of Esfand [21 February] you can tell whether the year will bring a drought. It's just like the saying, "saali ke nekoost az bahaarash peydast" [a good year is heralded by a good spring].

In addition to this simple prediction, the sub-tribes would send scouts (*peeshgharaavol*) to the ranges about 20 days before the planned day of the migration. These scouts were experts at assessing the condition of the grazing lands and would bring back news that allowed the tribe to adjust the date or duration of the migration if necessary to avoid the harshest impact of the drought— by delaying the date of migration or extending the time spent on the migratory routes pastoralists could decrease the amount of time they would stay in the wintering grounds and therefore ease their impact on the drought-stricken wintering grounds (droughts were more common in wintering than in summering grounds). Furthermore, even in non-drought years an early arrival at the wintering grounds would risk consumption of the vegetation before it had begun to seed. The scouts would also clearly stake out the grazing area of each tenthhold in advance of their arrival in order to avoid conflicts later when they all arrived together. Scouting was therefore important in both drought and non-drought years by enabling pastoralists to estimate the best time to arrive at the grazing lands.

One sub-tribe of the Qashqai Tribal Confederation, the *Hoolegooh*, who were known as *monnajem* (astronomers), were specialists in predicting the chances and duration of drought. They used their knowledge of vegetation patterns, wind patterns and cloud patterns to predict rainfall and drought. This allowed them to prepare themselves well in advance for any drought.

Some of them are so expert that in the autumn they can predict a drought in the following year. They can even predict the time of rain during the day. They figure this out from the direction and patterns of the wind. For instance, based on the way the wind is blowing now they will tell you whether there will be rain in 5 months time.

Emadi has detailed indigenous knowledge of rainfall patterns and preparation for drought among another branch of the Qashqai Tribal Confederation, the Ghareghani clan of the Ghareghanli sub-tribe which is a part of the Dare-Shori tribe.

The knowledge and ability of nomads to predict drought and rain is reflected in the time spent observing and categorising the climate (winds, cloud, temperature and moisture), nature (flora and fauna), animal behaviour (seasonal bird migration, domestic animal behaviour) and also astrological coincidence. For instance, rain is classified in different ways according to its style, season and intensity.

The Ghareghani nomads are aware of the main characteristics of rainfall, and classify rainfall in different ways according to style, density, season, and associated events (thunder, lightning and storms etc.). The second important aspect of their awareness is their sophisticated definition for an optimum rainfall of pasture and farming in each particular situation. The third important aspect is that they change grazing routes and patterns according to rainfall.

In terms of the impact of the rainfall, Ghareghani say that rainfall has positive as well as negative impacts on both pasture and animal husbandry, but the best pattern is for rainfall to continue from middle autumn to late spring in the winter quarter, with enough snow in the summer quarter for the enrichment of natural springs.

If a drought was predicted then pastoralists would try to avoid a heavy impact on their own livelihoods and on the environment by making adjustments in the timing and duration of their migration as indicated above. First, they would adjust the timing of the migration (in most cases it was the migration from the summering to wintering grounds that was affected because drought has been more common in the wintering grounds). In order to avoid facing drought pastoralists would start their migration later and thus spend less time than usual in the wintering grounds. Second, they would extend the duration of migration, also to arrive at the wintering grounds later. This enabled them to take advantage of the relatively good vegetation in the high mountains of the migration route and also arrive later at the drought-stricken wintering grounds. In some cases they would extend the migration period to as much as two months. If the migration route itself was also impacted by drought then they would move to higher pastures where there was better chance of rainfall and vegetation.

In addition to changes in migration patterns, pastoralists also sold off some of their livestock in years when drought was predicted. Based on years of experience, pastoralists had developed expertise on assessing the number of livestock that a certain area could feed given the vegetation cover of that area. Therefore if they predicted that they had too many livestock given the vegetation cover they would sell some of their animals before setting off on migration.

Despite these efforts to prepare for a drought it was inevitable that some families were hit hard by drought. Rehabilitation efforts were driven by a sense of community identity and solidarity. To understand these efforts it is important to realise that traditionally the livestock of a sub-tribe was owned by a small proportion of tentholds while the remaining tentholds did not own livestock but worked as shepherds. The livestock owners were the leaders of the various levels of the pastoral organisation: the heads of the confederation, tribes, sub-tribes and clans. In some cases other families also owned sheep. In exchange for their labour the shepherding tentholds were provided a guaranteed livelihood and protection.

The most hard-hit tentholds would face bankruptcy (losing all their livestock) and would be forced to leave the tribe and settle in villages and cities. However, the collective sense of identity and honour made it unthinkable for the rest of the sub-tribe to consider losing one of their own due to bankruptcy. Therefore if any livestock-owning tenthold's livelihood was hit hard by the drought those who were still relatively well off would support them. This support was given in the following ways:

- *Gifts/grants*: The head of the pastoral organisation would take the initiative to collect gifts in the form of livestock, fodder or funds from members of the tribe depending on their ability to make a contribution for the affected tenthold(s).
- *Loans*: Loans were given in the form of livestock and were based on a negotiated agreement. A certain number of livestock were loaned to the bankrupt tenthold for a certain period of time (usually 5 years). The family receiving the loan would take care of the new herd and propagate them. After the period was over the family who had given the loan would take back the original number of livestock that they had loaned in addition to half of the new herd. This system was known as *nim soudi*. For example, a family who had lost everything in a drought would receive a loan of 20 sheep on a 5-year term. After the five years the family has 100 sheep. They would return the 20 loaned sheep and also half of the remaining number, i.e. 40. In some cases the new herd would simply be divided half-half. This mechanism no longer exists on the same scale as in the past; in some cases it operates only when the families are very closely related to each other.

Some tribes have developed breeds of livestock that are particularly well suited to arid conditions and have a good chance of surviving drought. A recent article by CENESTA in *Seedling* magazine details the experiences of some of these pastoralists in their own words.

The traditional breeds make do with whatever plants and shrubs are available, whereas the new breeds only graze on the best shrubs. When those are finished we have to buy feed for them. The new breeds are not well-suited to their environments – we all know that they are not as resistant to cold and drought as the traditional ones.



Figure 6 Traditional pool used for collecting water for herds, made by digging a pit to collect rain water (wintering grounds of the Koochi Sub-tribe)

The Qashqai and other pastoralists have also developed systems for rehabilitating rangelands and improving vegetation. For instance, they have developed a system of planting seeds of wild plants along the migration route (small bags filled with seeds were carried around the necks of sheep and goats and the seeds would spill out of small holes in the bag as the herds migrated across the mountains), assessing the number of livestock that a rangeland could carry in any given season and adjusting their numbers of livestock accordingly, discussion and agreement on the price to sell livestock, and finally leaving fallow certain areas of grazing lands that were being exhausted.

Historical comparison of the drought management cycle

Drought is a regular occurrence for pastoralists in the province of Fars. Over the past 40 years they have become accustomed to seeing less rain in 5-6 year cycles. However, the impact, patterns and frequency of drought, as well as social responses to it, have all changed greatly over the past decades. Perhaps the most significant change is that before the weakening of pastoral organisations there was less post-drought sedentarisation whereas this has become a very regular and predictable occurrence now. Interestingly, one of the main indicators used informally by pastoralists to express the severity of a drought is the numbers of pastoralists that are forced to

sedentarise as a result. There is a special term for sedentarisation among the Qashqai, *eldan dushmak*, which means “separating from the tribe” in Turkish.

The last severe drought that the Koochi Sub-tribe remember was roughly 50 years ago (roughly 1960-1962) when 50-60% of Qashqais were forced to settle in villages and towns. They refer to this drought as *qara yil*, “black year” in Turkish. Subsequent severe droughts followed by mass sedentarisation have also been referred to as *qara yil*.

We all waited for rain but it didn't come. Many livestock and camels died and livelihoods were destroyed. Some people had to carry their own possessions and became known as posht-e beh kool [those who carry their possessions on their backs]. Most of these people settled in Farashband, Firoozabad and Shiraz.

Besides the changing impact of drought, patterns of drought also started changing from the mid 1980's.

The drought of 1363 [March 1984 to March 1985] was the first drought where the wintering and summering grounds were both badly affected. Until then it was usually only one or the other. We were forced to sell the weakest and thinnest animals or send them to the cities by truck. This was the second very large wave of sedentarisation.

The duration of drought also seems to be increasing. The Sub-tribe say that the drought of 2000 is not really over since there is less water and vegetation than normal in the wintering grounds this year. They call this year—2003—a “semi-drought” year.



Figure 7 The winter pastures of the Koochi Sub-tribe during the “semi-drought” winter of 2002/3.

In terms of government support during a drought, the pastoralists reported little change since the first drought they mentioned, the “black year” of 1962: there has never been any significant support from the government.

Their own responses to drought, however, have changed drastically. Their use of traditional knowledge and natural resource management systems have decreased tremendously although

they are still not insignificant. There is interest in reviving traditional systems of drought and range management but they feel that this would be impossible under current policies that severely limit their access to land.

In the past we used to leave some lands fallow to give them time to recover and this technique worked very well. But now it's unthinkable because there is so little land left for us that we can't afford to leave part of it unused.

In the past we spent about 2 months on the migration route twice each year. During this time when we were en route the summering and wintering grounds both had time to recover. We would arrive at the summering grounds just in time—when the vegetation was full and lush. Now we are forced to migrate by truck because the migration routes have been taken over [for agriculture, industrial development, urban sprawl and roads]. The migration now only takes one day so we arrive at the summering grounds very early. We're not allowed to stay at the wintering grounds any longer according to our grazing permits and in any case there would be nothing for our animals to graze on if we did stay. Of course the rangelands become deteriorated but what can we do? The only families that continue to endure the hardships of migration on foot are those that are too poor to rent trucks.



Figure 8 While cars and trucks speed by, a Koohi pastoralist and his herd migrate to their summering grounds. Many animals are lost each year in car accidents.

Furthermore, now that there are modern communications and there is no chance of making adjustments to the date and duration of the migration route, the scouts have become redundant. As a result there is a new incentive for pastoralists to migrate as soon as possible: to lay claim to their piece of land in the grazing grounds.

Another major change has been increased dependence on bought fodder. This allows pastoralists more flexibility, but it also represents a new cost. In the past— even as recently as the drought of 50 years ago— it was not common to buy fodder for the herds, nor was fodder as easily available

as it is now. In the late 1960's the more wealthy and educated members of the tribe were able to establish connections with sources of fodder for their livestock, such as waste by-products from a sugar factory. Furthermore, new breeds, which started to be introduced at about the same time tend to be less hardy and therefore more reliant on fodder. Using fodder may help pastoralists survive harsh conditions and drought, but as it becomes more common it represents an important additional cost (excerpt from above-mentioned article in *Seedling* magazine):

Our traditional breeds managed with whatever was available – and because the rangelands were healthier there was much more available. For example, our sheep used to go into the desert in the winter and there was plenty for them to graze on. Now we have to buy feed for them. We did that very rarely in the past – for instance, because of drought. And there are many other increased costs.

Now we have to hand-feed our herds for about 8 months of the year. They only have enough to eat from the rangelands for about 4 months per year.

These increased costs represent one of the main sources of pressure on pastoralists and factor into the greater tendency to abandon pastoralism and sedentarise following a drought. When asked why the traditional breeds had been increasingly replaced by new breeds even though they were better suited to the environment, pastoralists pointed to economic and socio-cultural factors, and sometimes to a combination of the two, including the pressures of the recent drought. These reasons show a greater dependence of pastoralists on the market than existed in the past.

Of course there are various reasons in each region for the decline of traditional breeds, but I think it basically comes down to a matter of cost. Our costs kept increasing till about 10 or 15 years ago when keeping the traditional Sangesar breed just wasn't cost effective anymore. The new breeds are better suited to consumer demand. The Sangesar sheep are small so there's not that much meat and they have large fat tails, but people avoid animal fat these days because they say it's bad for you. The new breeds we have adopted are larger, with less fatty tails. The drought over the past years has made our work very unprofitable.

It [Land Reform] brought about a big change in our lives. Cooperative work within the family doesn't exist anymore. In the past the extended family would go to yeylaagh (summer pastures) and work together. We used the milk and wool – not just the meat – because there were enough people to do that labour-intensive work. But now that we don't have that labour force anymore our livestock are more geared towards meat production.

Nevertheless, coordination still takes place on a number of important issues relevant to drought within the sub-tribe at the level of the clan and the tenthhold. For instance, members of the same clan agree on the time of their migration (although they have to work within the restrictions on timing of migration set by the government). They also collaborate on the purchase and marketing of livestock products and other goods. During the recent drought the Koohi used these traditional mechanisms:

- The leaders of the clans met to discuss and agree on the best ways for using the resources of the rangelands during the drought; their main strategy was to try to leave the winter grazing area (where the drought was more severe) as soon as possible;

- joint decisions were taken about buying fodder and transporting water to wintering grounds; fodder was bought in the summer pastures to prepare for drought in the winter pastures;
- they tried to prolong the migration route in order to arrive at the pastures later in the dry season (only among clans that continue to migrate by foot);
- there was a limited use of the *nim soudi* system of loans (particularly for very vulnerable families and among very close family members), but trust is an important prerequisite for the success of this system;
- some members of the sub-tribe who were better off shared their fodder with those who were less well off (mostly limited to close family relatives); and,
- they made some rough predictions about the weather and drought by observing the behaviour of the *monajem*: “If the *monajem* stay longer in the summer pastures then we take this as a red alert”.

Delaying and/or prolonging the time of migration and the period of use of the pastures has proved to be the least effective application of the traditional mechanisms. This is because these activities are very highly regulated by the government and there is very little flexibility for pastoralists regarding the timing of pasture use. Furthermore, since many of the migration routes have been destroyed and pastoralists increasingly rely on road transportation they are not able to prolong their migration period as in the past. The Koohi reported that in drought years they even have to resort to hand-feeding their animals on the migration routes.

Lessons learned and recommendations

Drought in Iran is a regular occurrence and although the timing and duration of a drought is not precisely predictable, we can certainly predict that droughts will continue to happen. Tragically, although droughts have always occurred, their environmental and livelihoods impacts have become more severe over the past several decades according to pastoralists themselves. This has happened over the same period that natural resource management systems have changed radically and traditional pastoral organisations have been weakened. The factors that affect the livelihoods of local communities during drought are similar to those that affect them during non-drought years; drought simply serves to increase existing pressures. These observations suggest that droughts would not necessarily turn into disasters if we could plan and manage our natural resources better, to live with the regular ups and downs of nature.

Drought must be examined, on the one hand, in the context of current and ongoing problems related to natural resource management and pastoral livelihoods, and on the other within the context of the national system for natural disaster planning and management, the Comprehensive National Plan for Relief and Rescue. It is important to understand how the plan works, the responsibilities of each organisation involved in it, the role of civil society including local communities, and how the plan can be improved through critical monitoring and evaluation.

However, we should not assume that policies and practice related to natural resource management are simply determined by technical knowledge and judgement; power is also an important factor. As was seen above, one of the most repeated criticisms of the Koohi against the government was the extent of corruption and the lack of accountability. They repeatedly

expressed their frustration at not having any supporters in the government and they implied that they did not have any mechanisms for lodging their complaints or taking government staff to task for their decisions and actions.

Power imbalances cannot be addressed within the context of any single project or plan, but the following recommendations attempt to contribute to a national system which is transparent and open to accountability.

Empowering pastoral communities

Pastoralists have substantial interest in drought mitigation: as a community that depends directly on natural resources for their livelihood they are among the first to feel the impact of drought, and the impact on their livelihoods is more acute than on those of urban communities.

Pastoralists are also the keepers of valuable traditional knowledge which recognises the interconnectedness of drought, livelihoods and community. Tribal leaders, traditional pastoral organisations and institutions are key in ensuring the sharing of relevant information, joint decision-making, conflict resolution, and mobilisation of support for drought-stricken families.

The principal of collective action for collective benefit is one of the most important comparative advantages of traditional pastoral organisations. Under collective systems of natural resource management, there are strong incentives for acting for the collective good rather than for individual gain. By contrast, under modern systems management incentives serve to promote individual benefit rather than the benefit of the group. For example, access to government-owned land on the basis of temporary grazing permits issued to individuals has led to a situation of the “tragedy of the commons” where each individual permit holder, not being assured of their long-term access to a grazing lands, have become disenfranchised from the land and are now engaged in a race to take the maximum benefit from the land in the short-term. Another example can be given of police records that show that during the last drought conflicts within communities increased substantially, while under traditional collective systems mutual support has increased in times of stress.

Collective action is not just required at the level of each local community, but also what is needed is groups of like-minded communities forming alliances (in the form of confederations, unions, coalitions or movements) to influence the government at higher levels. While local communities in Iran have become fragmented and operate effectively on a very micro level, the government is present at all levels from the village to the nation. Therefore, to have an effective *national* strategy for natural disaster management with local community involvement would require local communities to be organised into coalitions at all levels and ultimately at the national level. This is far from being the case, but it is difficult to see how the government could even open a dialogue with local communities at the national or even provincial level because local communities in Iran do not have an organised presence at these levels. In the past pastoral communities have clearly understood the need for forming alliances with each other and this is the basis for the formation of tribes and confederations.

It is true that the role of traditional pastoral organisations has been increasingly weakened, as has social solidarity, but they are still important factors in determining the behaviour of pastoralists, especially at the level of the clan and tenthhold. The comparative advantages of traditional pastoral organisations in dealing with drought, mentioned briefly above, merit a closer look at

the possibility of creating hybrid organisations which could address modern needs but also benefit from past experiences and wisdom.

The immense social, economic and political changes of the past decades make it impossible to consider reviving pastoral organisations exactly as they were before land reform. The challenge is to create organisations that would address modern needs and concerns while keeping certain useful elements of the traditional organisations. For instance, traditional pastoral organisations were often quite top-down, with individual leaders who were in a position of power sometimes abusing their power with little accountability for their actions. Hybrid organisations offer the possibility of rebuilding organisations with more emphasis on principles of participatory decision-making, accountability and equity. At the same time their positive traditional elements would encourage the community to accept and trust the organisation, would cause minimal disruption to their culture and sense of identity and would foster a sense of ownership. As mentioned above, one of the main outputs of the *Sustaining Pastoral Livelihoods Project* has been the establishment of a council for the sub-tribe. This council has a constitution and clear rules and accountability reflecting modern needs, but is also comprised of one member representing each clan of the sub-tribe, reflecting the need to respect the traditional structure of the sub-tribe.

The strongest incentive for pastoral communities in cooperating together for drought management would be to see an improvement in their livelihood. This would lead to a curtailment on the relative independence that they have become accustomed to. For the more powerful members of the sub-tribe it would mean sharing power with an elected council, and for council members it would mean opening themselves to being held accountable. Some of these outcomes may not seem attractive at first, but for those who are keen to continue a migratory lifestyle, these solutions offer a chance at survival. On the side of government, the greatest incentive would be to have more success in their own projects and policies and greater public support because they could count on the cooperation of their constituents. But this would also mean giving up some of their power as well as being open to being held accountable.

The Koochi council believes that they could play an important role in the drought management cycle on the condition that the *sandug* has adequate funds. They said that it would probably be best to approach this objective in several phases, the first phase of which would involve activities that would bring some direct and tangible improvement to the livelihoods of all members of the sub-tribe. They said they could achieve this by using *sandug* funds to buy and store fodder for the entire community when prices are low and sell the fodder when needed at cost. Fodder is an essential item for all tentholds and its purchase and storage are important and costly activities. Once they had seen the tangible and short-term benefit of cooperating with the council on drought management the members of the sub-tribe would be much more open and serious about cooperating on longer term activities with less tangible or direct benefits such as: achieving a wider consensus than currently possible on the timing and duration of migration, achieving consensus within the community about how to confront drought, how to manage the rangelands and helping to revive traditional systems of managing drought.

Lastly, the accountability that the Koochi say is lacking in the administration of credit schemes, cooperative activities and the administration of grazing permits could be curbed if these schemes were administered through the community as they have been in the past. Self-administration of these important resources would lead to a built-in system of self-policing since any abuse of resources would result in severe consequences for the abusers' membership and standing in the

community. Furthermore, community members have much better knowledge than government officials outside of the community of the resources available to each community member and of their needs.

Recommendations

Pastoral organisations should be supported by a favourable policy and legislative climate which allows them to organise, represent and take action on behalf of their community. This climate would include:

- Political and legal support
 - o Introduce policy and legislative instruments to support collective action by self-organised communities of pastoralists or any other local communities. Some specific policy recommendations are presented in the following sections;
 - o Introduce a single law for the official registration of local community-based civil society organisations (such as pastoral organisations), with clear processes for registration and the absolute minimum of restrictions on the structure, objectives and membership⁵ of the organisation placed by the government or the law;
 - o Official recognition of community investment funds (*sandugs*) as legitimate community-based organisations with legal rights;
 - o Laws related to loans, insurance and grants should be changed to allow agreements on these with pastoral organisations and not just individuals; and
 - o Laws and regulations related to government contracts with outside entities should be changed to simplify and facilitate government contracts with pastoral organisations and other civil society organisations.
- Technical and financial support
 - o Empowerment of local communities should begin with traditional organisations that are most intact; in the case of pastoral communities in Iran this means those organisations which operate at the level of close family members (such as the Koohi clans);
 - o A more long-term goal should be to encourage the formation of alliances of like-minded local communities at provincial and national level through technical and financial support for coalition activities;
 - o Projects to offer technical or financial support should be designed in stages with the participation of the community, giving priority to activities that bring direct and tangible improvement for livelihoods; following success in this stage cooperation could begin on longer term activities or those with less tangible or direct benefits;

⁵ Besides restrictions on membership of individuals with a background of certain types of political activity, or lack of demonstration of Islamic revolutionary principles, another restriction currently in place is that membership of NGOs and cooperatives is restricted to individuals, whereas the Koohi, for example, want an organisation based on clan-based membership.

- In the case of the Koochi technical and/or financial assistance could prioritise fodder provision, building pools to collect rainwater, and tankers to provide water. The longer term objectives could be achieving a consensus on the timing and duration of migration, a drought cycle management strategy and action plan and management of rangelands.
 - Financial and technical support should be given to pastoral organisations such as *sandugs* rather than to individuals in order to reward collective action; and,
 - Long-term loans, grants or compensation for the *sandug* through the Agricultural Bank which currently only offers these services to individual pastoralists.
- Research
- International case studies on the role of local community action in managing disasters (such as the present project) should be made available to and discussed and debated within key decision-making organisations, most importantly the Interior Ministry, the Disaster Task Force, the Management and Planning Organisation and the Ministry of Agriculture and Rural Development.
 - A network of learning sites could be established at the national level to gain a better understanding of the role of local communities in the disaster management cycle in Iran. The lessons from these experiences should be debated with the relevant governmental and non-governmental organisations and should contribute to new policy and law.
 - Participatory research is needed on the role of traditional knowledge in drought management and contingency planning, and especially the links between traditional knowledge and pastoral institutions. Particular attention should be paid to the role and mechanisms of social solidarity in the development and use of traditional knowledge. This research should lead to recommendations on how traditional knowledge can be adapted to meet modern needs.
- Capacity
- Facilitating the council's communication and collaboration with national, regional and international organisations; and,
 - Facilitating their communication with similar community-based organisations throughout the world and increasing their participation in international decision-making fora.

Non-governmental organisations

NGOs could play an important role in empowering pastoral communities and in mediating between local communities and the government on disaster related issues. However, currently very few NGOs are involved in natural resource management issues, including natural disasters. Those NGOs or charities that do get involved usually focus on relief work by cooperating in the projects of the Iranian Red Crescent Society. Furthermore, despite the upsurge in civil society activity over the past 10 or more years, there are still very few NGOs doing policy-level

research, monitoring and advocacy and also very few that work in the field with local communities.

NGOs have a very key role in improving natural disaster management in the country by regularly monitoring the work of the government in this field. Little is known about the work of the Disaster Taskforce, for example. Regular monitoring would be helpful in bringing the work of this and other relevant organisations to light and ensuring that emphasis is focused on the most important issues, and that funds are spent efficiently and responsibly.

Recommendations

- Law
 - o Regulations are needed to clarify and make easier the process of registering an NGO (see the section of recommendations for local communities, above).
- Capacity
 - o Gear international funding for, and collaboration with, Iranian NGOs towards strengthening Iranian NGOs in areas where they have been traditionally inactive or weak: policy level work, regional and international networking, lobbying and field work with local communities;
 - o Provide regional and international expertise and collaboration for capacity building of Iranian NGOs on long-term monitoring and analysis of policies and activities of government;
 - o Encourage and build the capacity of Iranian NGOs to monitor the natural disaster planning and follow-up activities of the government, particularly the Comprehensive National Plan for Relief and Rescue.
- Collaboration with government
 - o Introduce laws and regulations that would facilitate the cooperation of government and NGOs. Currently, one of the main problems is that no government organisation has a simple mechanism of providing funding or sub-contracting to NGOs and they must improvise with existing regulations which usually results in a very complicated and bureaucratic process.
- Collaboration with local communities
 - o NGOs could help local communities understand the structure of the DTF and other relevant organisations, the laws, access to information and so on. They could also help advocate for local communities at the national and provincial levels by airing their concerns, sharing their experiences, and also facilitating the participation of local communities.

Governmental organisations and policy

The 5-year economic, social and cultural development plans represent the main policy document of the government. Although each plan is supposed to be based on a long and meticulous preparation process, in reality it tends to be based on a simple revision of the previous plan. This probably reflects the fact that monitoring and evaluation of the plans is quite weak.

Innovations are needed in government to ensure that new policies remain in place even after changes in staff. Government policies are essentially formulated and implemented with the support of influential figures. When key people change positions policies are often abandoned or replaced.

Recommendations

- In general, the development plans would be greatly strengthened with a robust system for monitoring and evaluation. Transparency and access to information throughout the entire government (as well as para-governmental organisations) would facilitate the work of both governmental and non-governmental actors in monitoring progress on the development plans. This monitoring could lead to new policy recommendations which could be worked out with the participation of all relevant stakeholders.
- Introduce mechanisms in all relevant government departments for adjusting policy and practice based on the outcome of monitoring and evaluation activities.
- Continuity of policies could be improved with the creation of lobbying, advocacy and monitoring groups at the highest possible levels, including government and parliamentarians with the involvement of NGOs and the media to maintain pressure on the government to deliver on its policies.

The Disaster Task Force and The Comprehensive National Plan for Relief and Rescue

The Comprehensive National Plan for Relief and Rescue represents the first national plan for prevention, preparedness, relief and reconstruction in relation to natural disasters. The plan depends largely on inter-ministerial and inter-departmental cooperation and coordination, and yet these are the most widely criticised weaknesses of the government even according to many of its own staff and parliamentarians. The plan, which was supposed to be drafted and approved within one year, actually took 3 to 4 years to get off the ground and according to some observers, this delay in development of the plan does not bode well for its implementation.

Despite finally having a comprehensive national plan, the DTF, and particularly the Ministry of Interior which heads and hosts the DTF, are still criticised for responding to each situation on a case-by-case basis. The media outcry to the government's lack of planning and preparedness for the Bam earthquake shows that the old criticisms are still being held against the government.

According to the *Iran* daily newspaper the plan had no positive impact on the preparedness or relief for the Bam earthquake. Dr. Mohammad Taher Kanani, head of the Secretariat of the National Committee of Human Rights said that one of the problems with the plan is that the responsibilities that have been given to the members of the DTF is not compatible with their capacities. For example, according to the plan the IRCS is responsible for coordination of all rescue and relief operations, but he said, they do not currently have the capacity to carry out all their responsibilities.

Several journalists and researchers have recently called for the transfer of coordination of disaster relief and preparedness from the Ministry of Interior (through the DTF) directly to the President. They argue that with a government as hierarchically structured as Iran's, the chances of successful implementation of any plan are increased the higher the level of the responsible person.

These criticisms may suggest that the plan needs more time to iron out some problems, but they also call for a closer look at the plan to see understand whether any of its elements contribute to the poor performance and if so, in what way.

- A closer look at the plan shows that it is not really a plan, but more of a terms of reference and organisational structure for the DTF. It presents a framework for a plan, but it does not have any of the important elements of a plan, such as detailed aims and objectives, a timeline of activities, or a strong system of monitoring and evaluation. The plan does not specify sufficiently how the various parts of the DTF communicate, collaborate and make decisions.
- The plan and the DTF would probably have been radically different if they had put communities and constituent groups at the centre of their planning. For instance, instead of creating specialist group based on the type of disaster, it may have been more useful to create specialist groups for pastoralists, farmers, fisher folk, urban dwellers, etc.
- It is good to see that the DTF and the comprehensive plan attempt to prioritise preparedness through the national and provincial preparedness working groups since lack of preparation has been a very common criticism of disaster management in Iran.
- The plan creates a very hierarchical structure of accountability within the DTF where district and provincial level offices of the DTF and all levels of all of the specialist working groups are ultimately responsible and accountable to the national DTF. But it is not at all clear who the national DTF is accountable to and who monitors its work.
- The DTF is layered with various committees and working groups, each made up of anywhere from about 6 to about 30 organisations, and each acting at the national, provincial and departmental levels and there is a great deal of overlap in the membership of the groups. This creates a very complex structure where each group is related to a number of other groups in vertical or horizontal relation. Furthermore, each member is not simply an individual, but a ministry or other organisation with its own internal structure, rules, objectives and processes which add yet another layer to this complex puzzle.
- The current structure of the DTF (as introduced under the comprehensive plan) is extremely hierarchical. For instance, the TOR, members and internal guidelines of the drought and rangeland rehabilitation working group must be drafted by the Ministry of Agriculture and Rural Development (it is not clear who has this responsibility within the ministry) and approved by the DTF and the national working group on preparedness. This structure puts a lot of power ultimately in the hands of the Ministry of Interior (as the head of the DTF).
- According to article 44 of the 3rd development plan, the comprehensive plan was drafted primarily by IRCS, but the plan, which provides a structure and responsibilities for the DTF, is dominated more by the Ministry of Interior than any other organisation and this begs the question why one organisation is writing plans for another? On the other hand, if IRCS is the most competent disaster management organisation in the country then it should be charged with heading the DTF.
- The plan obviously envisions the role of civil society mostly in the context of helping voluntarily in disaster relief and giving donations, but not in terms of decision-making,

planning, management or monitoring. Furthermore, it does not differentiate between different types of civil society: local communities are not mentioned explicitly at all, but they are different from, and must be treated differently than, NGOs or businesses.

Recommendations

Either the 4th development plan or parliament should call for the following clarifications and changes regarding the plan:

- Provide detailed aims and objectives, a timeline of activities, and a system of monitoring and evaluation;
- Provide details on the mechanisms for communication, collaboration and decision-making of the various component parts of the DTF;
- A restructuring of the plan to put communities and constituent groups at the centre of the planning;
- Clarify who the DTF is accountable to and how its work is monitored;
- Discuss and adopt a less complex and more streamlined structure for the DTF;
- Clarification on of the DTF communication and decision-making mechanisms;
- A change in the text of the plan to allow for greater autonomy for non-governmental activities at the district level (currently the plan calls for the DTF to supervise all non-governmental activities at the local level);
- The plan seems to be quite ambitious and perhaps too demanding of the limited capacities of the members of the DTF, therefore it would be helpful to introduce a mechanism or process for determining priorities within the plan's objectives and activities.
- An independent evaluation of the capacities needed to implement the plan, and those currently available within the DTF, would also be helpful in identifying potential problem areas and opportunities for capacity building.
- The plan should include a call for a strategy and action plan for increasing the involvement of local communities in the disaster management cycle. The action plan should begin with achievable even if modest targets at the local level and build up to participation in policy making, etc. Key areas for local community participation would be developing indicators, monitoring, administration of funds for loans and insurance schemes. At the same time, the NGOs, journalists, academics and researchers who are active at provincial and national levels could begin to engage with the government on those levels.
- In the short and medium term, a strategy for real cooperation should begin at the level of local communities: the level of the sub-tribe in pastoral language and the level of the department and district in government language. This calls for a closer look at the national plan at the department and district levels and the identification of entry points into the existing system, and also the identification of changes that would be needed to the plan and how those changes could be made. The table, below, summarises some of the concerns about working with DTF at the local level:

Aim	Relevant DTF mechanism	Action needed
<p>Participation of pastoral communities in designing and implementing a local drought action plan including prevention, preparedness, relief and reconstruction; (including technical and financial assistance)</p>	<p>Cooperation with district and provincial level DTF on the 4 stages of the management cycle;</p> <p>Cooperation with national and provincial preparedness working groups for preparedness related activities;</p> <p>One of the main objectives of the plan is to channel public voluntary aid and also the input of non-governmental organisations;</p> <p>The responsibility of extending insurance to all agriculture and livestock herding will be the responsibility of the Ministry of Agriculture and Rural Development according to the law of insurance fund for agricultural products of 1362 (1983).</p>	<p>The plan needs to clarify what is meant by the “non-governmental” sector: does this include pastoral organisations;</p> <p>The level of autonomy of the DTF offices at provincial and district levels needs to be clarified, currently it says that they must work “under the supervision” of the national DTF: to what extent can they take action independently of the national DTF?</p> <p>The plan needs to clarify what are the mechanisms, if any, for non-governmental sector participation in the work of the DTF at provincial and district levels.</p> <p>Clarification on which element of the DTF has the responsibility for planning: DTF or the preparedness working groups?</p> <p>All DTF and working group meetings should be open to local communities;</p> <p>Given the importance of FARO and ONPA for pastoralists, the role of these two organisations in the DTF should be clarified.</p>
<p>Cooperation to monitor and evaluate the impact of local disaster management plans</p>	<p>District or provincial offices of DTF</p>	<p>Clarification on whether there are any mechanisms for local community participation in monitoring and evaluation of the work of DTF.</p>
<p>Research and developing indicators</p>	<p>The 3 clusters of specialist working groups of the national preparedness working group: the operations specialist working groups, the prevention and risk management specialist working groups, and the education specialist working groups;</p> <p>The operations specialist working groups will also be established at the provincial level under the overall supervision of the</p>	<p>The plan needs to clarify what are the mechanisms, if any, for local community participation in the work of the specialist working groups;</p> <p>Each of the clusters is made up a number of specialist working groups so local communities who want to collaborate on research related issues would have to collaborate with 23 working groups! Can the system be made to be a more streamlined?</p>

	<p>national working group;</p> <p>Risk management working groups will be established in each province if needed.</p> <p>The need and the members of the groups will be decided by the provincial preparedness working group;</p> <p>The head of the DTF at the departmental level can call for the establishment of any specialist working groups at that level as needed.</p>	<p>It would be good to have mechanisms for the establishment of specialist working groups at the provincial and district levels based on the need expressed by local communities, and not just by the working groups themselves.</p>
Education and awareness raising	<p>The cluster of the education specialist working groups of the national preparedness working group;</p> <p>Certain ministries and organisations have the added responsibility of cooperating with the DTF to improve awareness of disasters and to prepare for them through education;</p> <p>DTF.</p>	<p>There seems to be a lot of overlap in the responsibilities of the various constituent parts of the DTF on the issue of education and awareness raising therefore clarification is needed for a clear division of labour and mechanisms for cooperation between the various constituents.</p>
Distributing relief and aid	<p>All help and assistance from non-governmental sectors (both national and international) shall be received and distributed by IRCS. All help and assistance from governmental sectors (both national and international) shall be received and distributed by DTF. The receipt and distribution of assistance by any other organisations is banned.</p>	<p>At the most local level aid should be distributed by local community-based organisations, not the IRCS or DTF.</p>

Lastly, a website for the National Comprehensive Plan for Relief and Rescue would be a key tool for improving civil society involvement in the plan and would assist monitoring and evaluation. The website should provide information about laws, policies, activities, and budget.

The 4th development plan and natural resource management

Prevention and preparation related activities for drought tie in closely with policies for natural resource management and in the case of pastoralists this mainly includes rangeland management. The draft 4th development plan offers little in the way of new policies related to range management. The overall aim of sedentarisation is pursued through 2 objectives: sedentarisation

of at least 50% of the country's nomadic pastoralist population and the continuation of the livestock and range equilibrium plan.

Under the current system, the government has developed separate institutions and policies to address range management, pastoral livelihoods and drought (Forest and Rangeland Organisation, Organisation for Nomadic Pastoral Affairs and the Disaster Task Force) and their policies are uncoordinated and sometimes in direct conflict with each other.

According to pastoralists, drought simply acts as a catalyst to accelerate the government's existing policies of sedentarisation and eventual elimination of mobile pastoralism. Therefore their first demand is that the government should treat them as equals— especially in relation to farmers and other sedentary populations, giving them the same benefits and access to resources.

In relation to drought the government tends to look for technical solutions without an in-depth assessment of the root causes of the increasingly severe impact of drought. Whereas some of the root causes lie in past and existing government policies themselves, policies that have restricted pastoralists' access to natural resources through grazing permits and created a centralised and inflexible decision-making system.

Once pastoralists have organised themselves in order to defend their collective rights and interests they should be ready to negotiate new rights and responsibilities with the government. Lack of transparency and accountability and extreme centralisation of power and resources in the hands of the government and other related powerful actors have led to pastoral communities finding themselves caught between dependency on the government and lack of trust.

Recommendations

The following recommendations should either be recognised in the final 4th development plan or within the internal regulations of the relevant organisations.

Making the links

- What is needed is for the right of pastoralists to migrate and to continue their system of production should be recognised as a right in the 5-year development plans; the development plans should view pastoralists as an important food producer rather than as destroyers of the environment; each pastoral family or tenthhold should be viewed as a unit of production in the policy and legislation of the country;
- Recognise and make explicit the links between drought management, natural resource management and livelihoods policies in the country by establishing a joint commission between FARO, ONPA, the Disaster Task Force and the Management and Planning Organisation, as well as civil society groups, to examine how policies could be better coordinated among various branches of the government to have better coordinated policies on natural resource management, pastoral livelihoods and disaster management;
- Further explore the best division of responsibilities between the government and pastoral organisations for natural resource management; closer collaboration between the government and pastoral organisations would require an increase in the capacity of government to work with pastoral organisations for drought contingency planning;
- FARO, ONPA and DTF to introduce regulations and mechanisms that facilitate cooperation with community based organisations; objectives would included recognition,

access to information, and entering into agreements and contracts with community organisations;

Land and grazing rights

- The system of land tenure has to be re-thought to give sufficient control of sufficient amounts of land to pastoralists to ensure their livelihoods and sustainable management of resources, for instance by negotiating long-term and flexible leases between FARO and pastoral organisations;
- Give more flexible grazing permits that would allow pastoralists to react to early warning information;
- Ensure that grazing rights are respected;

Monitoring and evaluation

- FARO, ONPA and DTF to adopt regulations to allow civil society groups to monitor and evaluate their work;
- These organisations to adopt regulations and mechanisms to improve their accountability, particularly where distribution of funds or goods is concerned;
- Improve transparency in pastoral cooperatives, both in terms of their finances and also decision-making and governance;

Ecosystem research as a basis for sound policy

- The latest theories of range management in arid eco-systems and lessons about the role of traditional management systems should be introduced to Iranian decision-makers and their policy impact explored;
- Introduce and assess the applicability of recent work on dynamic ecosystem theory or non-equilibrium systems to Iran and use that as a basis for policy-making.

Economy

- Intervene in the pastoral economy in case of crisis (terms of trade collapse) while ensuring transparency and accountability and provide employment and livelihoods for those pastoralists who are driven out of pastoralism due to drought and other natural disasters;
- Provide guaranteed prices for pastoral products and prevent terms of trade collapse in drought years by providing guaranteed prices for livestock through community-based funding mechanisms;
- Supply fodder at reasonable prices and with affordable interest rates through community-based mechanisms;
- Ensure fair loan schemes with reasonable and equitable pay-back schedules and interest rates and consider waving loans of pastoralists in heavy debt.

Extension

- Strengthen government extension activities in ONPA and FARO and ensure a greater level of participation by civil society—including local communities—in planning and decision-making.

The 4th development plan and civil society

It is useful to look at the opportunities that exist for the participation of local communities in national affairs in general and not just in the context of disasters and natural resource management. This wider context will influence how local community participate in natural disaster planning.

There has been a growing realisation that the government on its own does not have the resources to fulfil the needs of every single citizen. This has strengthened the movement for greater public participation in government programmes, but generally participation is endorsed only as long as it simply entails the involvement of the public in programmes devised and implemented by the government. This amounts to the mobilisation of free labour for government projects. The organisation of communities to define their own priorities and devise and implement their own plans is still not prominent on the agenda.

The draft 4th development plan addresses issues of civil society and governance in an unprecedented way (though many of the details still need to be worked out), including:

- New mechanisms to be introduced to facilitate the cooperation of governmental organisations and the non-governmental sector; based on a draft executive bylaw which is to be prepared by the Management and Planning Organisation and which must gain the approval of the cabinet;
- Reform of the management and planning organisation to make it more streamlined and efficient, improve national budget allocation, facilitate cooperation with the non-governmental sector; the reform is to be based on a draft executive bylaw from the Management and Planning Organisation which must be approved by the cabinet;
- The councils of planning and development of the provinces are responsible for creating opportunities for civil society organisations (including the Islamic Councils) in decision-making, monitoring and co-operation of development projects at the provincial level; the Management and Planning Organisation and the Ministry of Interior are responsible for finding the mechanisms for operationalising this;
- Management of national affairs should move from an institutionally-driven system to a system driven by plans and goals and by adopting less hierarchical procedures;
- In order to support social capital and expand civil society, the government, within the first year of the 4th development plan, has to: assess the level of social capital; give annual reports and analysis on the state of social capital; adopt projects and programmes to increase social capital; conduct annual opinion polls on the level of public satisfaction with the government and publish the results in the government's annual reports; outline and implement a comprehensive national plan for capacity-building, gender equity and women's rights; outline a comprehensive national plan for participation and monitoring by the public, NGOs and the Islamic Councils regarding sustainable development; and, adopt policies to encourage quantitative and qualitative improvement of civil society organisations
- Calls explicitly for the participation of civil society in some areas, such as caring for orphans, but disaster management is not one of these. NGOs have been quite active and

vocal in the area of children's rights recently so maybe they have won the recognition from the government, but not yet in the field of disaster management.

Recommendations

- The plan should call for explicit mechanisms for the participation of civil society in the drafting and monitoring of the 5 year development plans;
- The drafting of executive bylaws on the following issues by the Management and Planning Organisation should be done through consultation with civil society groups: new mechanisms for the cooperation of governmental organisations and the non-governmental sector; reform of the Management and Planning Organisation; and mechanisms for civil society involvement in the councils of planning and development of the provinces;
- The plans for operationalising the shift from institutionally-driven management systems to a system driven by plans and goals should be made explicit (who is responsible for what? What is the timeline? etc.);
- The plans to support social capital and expand civil society should be detailed (who is responsible for what? What is the timeline? etc.);
- An independent assessment should be conducted of the government's capacity to fulfil these obligations in order to identify capacity-building needs;
- The plan seems extremely ambitious and should therefore include a system for prioritising its activities to ensure that the most important ones are achieved;
- The plan should include an explicit definition of the "non-governmental sector" and "civil society"; and,
- An independent assessment should be conducted to see whether these plans are in contradiction with any other government laws or policies.

Other plans and programmes related to drought

A project proposal has been submitted to FAO (for TCP funds) to prepare a national strategy and action plan on drought management and mitigation for the agricultural sector. Since this proposal was developed before the adoption of the Comprehensive National Plan for Relief and Rescue it is important to revisit the proposal before its implementation to ensure that it works with and not against the new plan. The proposal should also ensure that *all* stakeholders, including NGOs and community-based organisations, are included in any capacity building and planning activities foreseen in the project.

Annex 1: List of people interviewed

Members of the Koochi sub-tribe who participated in the workshop on drought:

Hamzeh Davar, Sayyad Soltani, Reza Abdolahi, Khodamorad Mehrabi, Bahman Kolahdoozloo, Khalil Seydaiee, Bahram Latifpour, Amrollah Khodabakhshloo, Ali Asghar Esfandiari, Shemshad Zolfaghari, Zolfaghar Naderpoor, Hooshang Naderpoor, Cheragh Ali Aghaiee, Meraj Bayrami, Bahram Lajevardi Asl, Ali Hassan Esfandiari, Ahmad Soltani. In addition a large number of other people participated in the workshop whose names have not been written here. The workshop was held in a tent in the summer pastures of the Koochi so many people dropped into the workshop uninvited.

Office of Nomadic Pastoral Affairs

Mr. Baghaaiee, Expert of planning department

Forest and Rangeland Organisation

Mr. Moghadassi, Focal point for UNCCD relations

Hossein Badripour, Rangeland expert

Department of Environment

Masoud Bagherzadeh Karimi, Senior Expert of Wetlands

Food and Agriculture Organisation of the UN

Ali Y. Hakimi, Programme Officer, FAO Iran

United Nations Development Programme

Hossein Jafari Giv, Programme Officer, Natural Resource Management & Disaster Response

Natural disasters consultant

Abolghaasem Moghadas Khoraasani

Annex 2: Summary findings of the project, Facilitating Sustainability of Livelihoods of Mobile Pastoralist Communities, A learning-by-doing project

Prioritization of Problems

Through several participatory workshops the Koochi communities have identified and prioritized the problems they face. These are:

A. Livestock, Migration and Pasture

- Taking of pastures of the Koochi sub-tribe by governmental bodies and refineries in particular;
- Obstruction of tribal migratory routes by government and governmental organizations;
- Destruction of pastures and lands of nomadic pastoralists by rural people;
- Failure in prosecuting trespassers on pastoralists' lands;
- Lack of sufficient land for some nomad households in wintering or summering grounds;
- Inequitable distribution of lands (natural resources) among nomadic pastoralists;
- Failure to pay enough attention to nomadic pastoralists by the Department of Environment;
- Seizure of the lands of the nomadic pastoralists' summering grounds by rural people;
- Lack of cooperation of the Forests and Rangelands Organisation in protecting the pastures against degradation caused by rural livestock;
- High transportation costs during migration;
- Lack of insurance for livestock;
- Inadequate use of part of the land and wells of pastoralists;
- Underground waters used by pastoralists are generally salty;
- Obstruction of migration routes;
- Lack of toilet facilities for women while migrating.

B. Economy

- Lack of recognition of nomadic pastoralist households as productive units and failure to provide banking facilities to support them;
- Unemployment among youth;
- Declining market for carpets and livestock;
- Failure to provide pastoralists with aid and grants;
- Lack of sufficient facilities for the nomadic pastoralists who own land and water for farming;
- Insufficient income relative to high cost of living;

- Lack of government supervision for livestock prices;
- Decline of livestock due to recurrent drought;
- Difficult guarantor conditions for loans;
- Pastoralist cooperatives buy products below real market prices;
- Inadequate land given to those who choose to settle;
- Neglect of the nomadic handicrafts by relevant organizations;
- The nomads are not leading a happy life.

C. Services

- Inadequacy in drinking water and cisterns;
- Inadequacy of roads in wintering grounds;
- Low level of sanitation and lack of mobile physicians among nomads;
- Little attention to nomad children's welfare;
- Lack of sufficient veterinarians and medicine among nomads;
- Inadequate attention to sanitation and welfare by the government;
- Lack of security for nomads;
- Lack of water pumps in wintering grounds;
- No right of access to the gas and oil resources near which the nomads live;
- Nomadic children have difficulty pursuing their education after completing primary school.

D. Culture

- Lack of nomadic representatives in the parliament;
- Lack of council for nomadic pastoralists;
- Lack of mosques in the area;
- Lack of clergies among nomads;
- Bribery in governmental bodies;
- Inadequate attention of IRIB (Iranian state-run TV) to nomadic people and their culture;
- Lack of a quota system for acceptance in universities;
- Lack of adequate number of facilities to promote nomadic culture, customs and lifestyle;
- Lack of libraries for children in wintering/ summering grounds.

E. The Nomadic Youth

- Unemployment;
- Youth not able to afford the costs of getting married;
- Lack of sports facilities for nomadic youth;
- Failure to pay enough attention to outstanding nomad pupils;

- Lack of sufficient educational facilities for nomadic children;
- Drug addiction among the youth;
- Inadequate schools for nomad girls resulting in lower education levels;
- Failure to pay enough attention by parliament members to the problems of nomadic pastoralists and migration.

Project writing workshop and project proposals

Members of the sub-tribe were divided into 5 groups to practice project proposals to solve each of the 5 main problem groups. They came up with the following project proposals:

- Project to buy and distribute livestock feed in a timely manner to the sub-tribe
- Project to promote handicrafts through establishing workshops for dying wool and weaving carpets, kelims and gabbehs
- Project to buy trucks to facilitate migration
- Project to create employment for unemployed youth in the sub-tribe
- Project to establish a mobile library for the sub-tribe

Vision

The overall project goals to be achieved in the next 5-10 years were identified by local communities after a participatory workshop. These include:

- Sustainable livelihoods project to be officially recognised and launched;
- Attracting other tribes to the Sustainable Livelihoods Project;
- International aid to be allocated to the project with the respective representatives already in the region;
- Availability of sanitation facilities, hospitals and water supply system;
- Reduction in youth unemployment while young nomads to work as herders and farmers;
- Irrigation of farm lands by water pumps;
- Availability of mobile hospitals in wintering grounds as well as summering grounds;
- Some of the nomads will also pursue farming;
- Availability of water cisterns in the clans;
- Restoration of springs and watering points;
- Availability of local clinics and appreciation of better hygienic conditions;
- An increase in the number of nomadic households and their livestock;
- Recapture of the nomadic migratory routes;
- Peace, safety and security and the elimination of bandits and thieves;
- An increase in the scientific knowledge of the nomads;
- Gifted nomad children to be enjoying higher levels of education and progress;
- Greater availability of fuel;
- A higher quality of life;
- Development of industrial animal husbandry in some areas without affecting traditional production.
- Emergence of other profitable and suitable industries;
- Availability of electricity and water supply systems;

- Traditional structure of the tribe intact and active, while the nomads lead their authentic lifestyle;
- An easier and more comfortable livelihood for all;
- Availability of government aid to meet the needs of the nomads;
- Further solidarity among nomadic pastoralist tribes and sub-tribes;
- Increase in literacy;
- Sustainable Livelihoods Committee to be more active;
- Landless nomads to obtain access to land and no longer have to pay rent;
- Better communication among people in the region;
- The return of nomad youth to the tribe after completion of their studies;
- All members to be serving the tribe;
- The number of Sustainable Livelihoods Committees to reach 14 and to cover the whole Shish Bayli tribe.

Annex 3: Annual precipitation in Fars province

Table1: Total annual precipitation for 5 rainfall stations in the province of Fars, 1961-2000

YEAR	TOTAL ANNUAL PRECIPITATION (MM)					
	FIROUZABAD	NEYRIZ	LARE	AHMADABAD-DORODZAN	BALADEH	ALIABAD-KAMIN
1961	n/a	n/a	136	255.4	n/a	n/a
1962	n/a	n/a	n/a	n/a	n/a	n/a
1963	n/a	n/a	144.9	330.5	n/a	n/a
1964	n/a	n/a	n/a	149	n/a	n/a
1965	443	241.6	n/a	207	n/a	n/a
1966	103.2	36.5	n/a	146.6	n/a	n/a
1967	344.8	136.5	114	470.5	n/a	n/a
1968	383.6	213	183.9	319.8	n/a	n/a
1969	457.5	162	286.5	631.6	n/a	n/a
1970	n/a	89.5	98	174	n/a	n/a
1971	n/a	118.1	65.7	271	n/a	n/a
1972	n/a	269.5	297.5	523.6	n/a	n/a
1973	163	118.5	92	305	n/a	n/a
1974	546.7	260	283.6	603	n/a	484.5
1975	n/a	150	n/a	386	n/a	n/a
1976	n/a	297.8	427	643	n/a	n/a
1977	n/a	103	161.5	535.5	n/a	437.6
1978	n/a	289	158.5	813	n/a	592.6
1979	n/a	246	n/a	549	n/a	356
1980	n/a	254	n/a	575.5	n/a	380.5
1981	n/a	185	157	497.5	n/a	340.8
1982	n/a	195	n/a	n/a	n/a	456.3
1983	n/a	167	198	258	n/a	n/a
1984	339.5	180	127.7	481	n/a	n/a
1985	n/a	170.5	115	n/a	n/a	n/a
1986	n/a	n/a	238	584.5	n/a	574.7
1987	238.5	74	105	n/a	n/a	262.9
1988	524	299.5	215	578.8	n/a	n/a
1989	373.5	138.5	184	299.3	n/a	265.8
1990	353.5	73.5	76.5	n/a	n/a	326.3
1991	563	n/a	343.8	590.6	376.5	468
1992	667	n/a	398.4	611	371	425
1993	n/a	n/a	420	604.9	296	488
1994	n/a	n/a	117.3	540.6	361	296
1995	672.7	314.6	440.5	541.5	517	508.7
1996	534.2	189.6	354	527.4	n/a	n/a

1997	463.1	217.3	265.9	433.4	n/a	n/a
1998	390.9	135.6	198.1	512.3	n/a	n/a
1999	414	263.9	123.6	517.6	n/a	432
2000	391	166.6	102.1	445.7	n/a	n/a
MEAN	431.9	200.6	208.3	448.5	374.2	392.6