

FINANCIAL SERVICES FOR RISK MANAGEMENT IN PASTORAL SYSTEMS

Jeremy Swift

1 Background

Financial services can bring substantial benefits to herders, and could play an important role in pastoral risk management as well as in pastoral development more generally. Savings and micro-credit can smooth consumption seasonally and between years. Credit can help herders replace livestock after drought. Micro-insurance can protect herders from such losses in the first place. Credit can allow productive herding enterprises to expand, diversify household income and reduce vulnerability to future shocks. An underrated benefit of micro-finance is the substantial social capital created by the experience of working with others in an arena where trust is essential.

However herders have so far benefited little from micro-finance programmes. There are difficulties in targeting micro-finance to herders: the herding economy and herding society is little understood by micro-finance providers, herders are mobile, and do not have conventional collateral and there is little experience of micro-finance for herders in other countries to guide planners.

There is no reason to think that micro-finance cannot operate in a nomadic herding economy, only that products must be designed to overcome the constraints. Given the potential importance of micro-finance for risk management, it is important to develop a herder micro-finance strategy.

The success of a micro-finance strategy depends on the ability of the parent institution to find the right balance between achieving financial sustainability, without which any gains will be short-lived, and targeting benefits to clients at affordable rates. If micro-finance institutions (MFIs) providing financial products to herders cannot earn revenues that exceed costs, without long-term subsidies (either from government or donors), they will not provide a sustainable solution to the problems faced by herders. Equally, if micro-finance does not reach a significant number of herders, including poor households, its development potential will be limited. Community-based micro-finance can be a transition from pilot projects to the mainstream.

2 Savings

Herders' income streams depend on highly seasonal events like milk or live animal sales, and their demand for cash is also highly seasonal. Cash savings would allow herders to smooth these uneven income and consumption streams. At present there are no savings products designed with herders' needs and constraints in mind. It would be wise to develop savings mechanisms for herders before further expanding micro-credit schemes, and in future ensure that savings mobilisation and micro-credit go hand in hand.

Evidence in other countries suggests that poor households will hold savings accounts with financial institutions if the right facilities are available.¹ Fieldwork suggests this is also true of herders.

The following general factors influence a household's decision to hold a cash savings account:

- *security* of savings and confidence and trust in the fund holder
- the *liquidity* of savings: can the depositor have quick access?
- *transaction costs*: the cost of making a deposit and withdrawing money
- the *real interest rate*: demand for savings is likely to increase as interest rates rise
- *demand* for savings products, and purpose for which cash is saved

These factors are particularly important when herder savings are considered. Herders have little experience of banks and start from a position of low trust. Access is often difficult, since herders may be remote from a conventional bank, especially during seasonal migrations; alternatively harsh weather may make movement impossible at just the moment when access to savings is most urgently needed. For the same reason, the cost in a herder's time of making a deposit or a withdrawal may be very high. Real interest rates for herder savings must compete against the next best alternative, which is to save in live animals. An animal herd, especially smallstock, may grow at 15-30 percent a year, although it may be subject to higher risk.

If attractive savings packages can be provided to herders, there are several advantages for micro-finance institutions. Mobilising savings gives MFIs a broader and more secure base, and permits them to expand their outreach. Experience suggests that the poorest households may prefer to accumulate savings before taking credit, as a lower risk strategy. Given the high value of livestock, substantial amounts of capital could be mobilised by a savings strategy successfully targeted to herders. For MFIs, deposits from herders may be a less volatile source of funds than governments or donors. Mobilising small-scale savings could also contribute to the sustainability of MFIs by providing cheaper funds than those from the inter-bank market. The high transaction costs of dealing with small deposits from herders may limit this advantage however.

Attracting deposits from herders would also make MFIs more client-driven and responsive to the particular features of herder livelihoods, and would encourage them to develop a more appropriate range of products.

More MFI involvement in herder savings mobilisation will not be easy however. In the first place, MFIs would have to develop new ways of working with clients, possibly involving mobile offices in some cases, and new products linked to herders' seasonal cash flows. The macro-economic climate in most countries with substantial herder populations is still not conducive to innovative banking operations, although this is improving. Regulatory frameworks do not generally allow micro-credit organisations to take deposits. The management capability of MFIs would in most cases need to be improved.

¹ The following section is based partly on CGAP, 1998, *Savings Mobilisation Strategies: Lessons from Four Experiences*. Focus Note 13, August 1998.

International experience suggests several factors that would encourage successful mobilisation of small-scale savings.² Economic reform and financial sector liberalisation are critical. These are already underway in many countries. The reputation of the savings institution is also important, since savers' confidence will depend on this.

Organisational structure, and especially the geographic distribution of branches or outlets, is important, since it determines ease of access. For herders, branches at district level may be adequate in some cases. In other cases there may be a case for mobile branches, with an armoured vehicle visiting recognised meeting places (for example rural markets or water points) on a regular schedule.

The savings products on offer would be a key factor in herder acceptance, and need to be designed in close participation with potential herder savers. Group savings accounts are a possibility although experience with these is generally negative, and it would not be advisable to start with them. Savings as a condition for credit are generally much less successful than voluntary savings. Some savings accounts have very low minimum balance requirements. This, plus rapid access and high liquidity, are attractive to savers. Lotteries – where savers with an agreed minimum deposit participate automatically in a draw for prizes such as a motorcycle – are popular, and the lottery draw can become an important local social event. The critical factor will always be the opportunity cost of savings, or what alternative uses of the money are open to the household.

It is likely that herder organisations, now being formed in several countries, could play an important role in the development of herder savings accounts, as with other herder micro-finance. NGOs could absorb some of the transaction costs of herder micro-finance, reducing the costs of savings and loans.

3 Micro-credit

Micro-credit has grown rapidly in rural areas of many developing countries. However high loan rates (interest rates) are due to a combination of low levels of deposit, shortage of funds, high lending transaction costs, and a perception by banks that lending to small clients is risky.

Most commercial micro-credit schemes target small and established traders and farmers. They are not targeted at herders or the poor for production activities. Loan conditions – short loan duration, high interest rates, and a need for collateral – are not attractive to herders. Some institutions are experimenting with innovative products for clients other than farmers, traders and urban entrepreneurs. However very few such products reach herders.

There seems to be an unsatisfied demand for credit by herders. But because there has so far been little provision of credit, we do not yet know why herders wish to borrow: to obtain working capital, to smooth consumption, or to make investments. There is a need for research with herders to establish these basics.

² CGAP 1998.

The only area where micro-credit has been made available on any scale to herders is restocking after catastrophic losses. Restocking projects have been implemented by many NGOs and some major donors, although rarely if ever so far by banks and established MFIs.

The main conclusions from this restocking experience are that:

- restocking through micro-credit is feasible and cost-effective in narrowly defined terms
- different models exist, but so far few general lessons have been drawn
- repayment of restocking loans has so far been at unusually high levels for a micro-credit scheme
- subsidies are common, making such schemes generally unsustainable in the longer-term³

This experience suggests there is a large potential for restocking in pastoral economies like Mongolia, both on its own merits and as an entry point for other types of micro-credit. The variety of schemes provides a natural laboratory to explore issues such as viable interest rates, and sustainable institutional mechanisms.

The unwillingness of banks and most MFIs to lend to herders must be overcome if herder micro-finance is to grow. The main reasons formal financial institutions give for their unwillingness to give credit to herders are:

High transaction costs and high risk. Financial institutions are seen by their managers to incur high transaction costs and high risks if they lend to herders. Herder mobility is also perceived as making sustained contact difficult and expensive, and making default on loan repayments easier. One way to reduce costs and risk would be to involve herders' organisations such as credit and savings co-operatives, which have detailed local knowledge, in the lending operation. Such co-operatives, based perhaps on herders' NGOs, could reduce credit risk and transaction costs, and improve financial performance, through improved trust, peer selection, peer monitoring and peer pressure. Such an arrangement would also make it easier for MFIs to remain in contact with herders.

Lack of collateral. Banks and MFIs cite the lack of collateral as one reason not to lend to herders. Experiments have been made to solve this problem. There are two main approaches.

First, loans may be made without collateral. This is the case with most restocking schemes. There is no explicit group sanction, but a general sense that the group to which the restocked herder belongs will press the restocked herder to repay on time since other households waiting to be restocked depend on this. The very high repayment rates for restocking so far in countries like Mongolia suggest this is a viable alternative to collateral.⁴ Such a system could be made more systematic if herder associations or NGOs undertook a formal role in credit, providing a group undertaking, and peer pressure to repay.

³ Jeremy Swift and B.Erdenebaatar, 2001, 'Poverty reduction in Mongolia: restocking poor pastoralists.' *Development and Change* in press.

⁴ Swift and Erdenebaatar op. cit.

It is also possible to find alternative forms of collateral. In Mongolia, the Centre for Policy Research has launched a micro-credit scheme to encourage small and medium enterprises, with herders' livestock as collateral.⁵ These are loans to NGOs. The number of animals staked as collateral must not be more than half the total herd size of the group concerned. All members of the community group managing the loan also have to sign the agreement.

In some countries, the ownership of valuable non-livestock collateral by herders, such as jewellery, saddle ornaments and other craft items should not be underestimated. Mongolian banks have issued loans to herders against such collateral, though there has not been wide uptake.

4 Insurance

Herders face several types of risk to their livestock. Risks are divided into two types. *Individual risks* are those affecting households separately, and include accidents, theft, predation, and some diseases. *Covariant risks* are those which affect all households in a particular area at the same time, and include drought, raiding and epizootic diseases. Covariant risks are generally much more damaging than individual ones.

Individual risks are not difficult to insure against, since they affect only a small proportion of households at any one time, and quite a small pool of insured people can be adequate to cover the risk. Covariant risks are much more difficult. Most households in a given area are likely to have large losses at the same time, so the pool across which insurance is spread must be very large, perhaps the national economy as a whole or, through international reinsurance, parts of the international economy.

Risks may also be divided into those that are insurable, and those that are uninsurable. Insurable risks are those where the likelihood of the event, and the damage it will cause, are well enough known for the insurer to calculate a realistic premium, and the premium can be afforded by the herders concerned. Uninsurable risks are those where the likelihood is too great, or where not enough is known about the likelihood and potential impact to make a realistic premium that those concerned can afford. The difference is not necessarily between individual and covariant risk, since some covariant risks are insured in advanced market economies, for example through the catastrophe bonds described below. The issue is whether catastrophic events such as drought are, or are becoming, too frequent in a particular herding environment, and too damaging when they occur, to make even financial instruments like catastrophe bonds unviable.

Mongolia's compulsory livestock insurance during the command economy period is widely reputed to have been economically successful, able even to cross-subsidise crop insurance. This may have been because in a centrally-planned economy it was possible to spread insurance risks across the national economy as a whole: resources could be moved by the state between sectors in ways which are impossible in a private or mixed economy. Since economic liberalisation in Mongolia, privatised

⁵ CPR, 2001, *Evaluation of Recent Experiences of Building Herder Associations*. FAO Pastoral Risk Management Project FAO/TCP/MON/0066.

voluntary livestock insurance has not been successful. Few livestock are now insured and even in restocking schemes, where insurance is often obligatory in the first year, after that in general fewer than ten percent of restocked animals are insured. Herders questioned about livestock insurance as currently available are generally negative. Nevertheless, the main insurance companies seem keen to undertake livestock insurance again, on condition it is made obligatory, both to enlarge the pool and to avoid the risk that herders insure only part of their animals but then report all losses as being from the insured minority of animals.

There is no other experience of insurance of nomadic livestock in other countries to guide policy makers. However crop insurance provides some experience. Lessons include:

- the danger of ‘moral hazard’ (when risk insurance encourages farmers to act in a riskier manner) and ‘adverse selection’ (when farmers facing higher risk take out more insurance than those facing lower risk)
- high administrative and transaction costs, sometimes concealed in general administrative or agricultural extension budgets
- indemnities have been high in relation to premiums as a result of insufficient diversification by the insurer
- governments have often intervened after natural calamities anyway, rendering insurance unnecessary
- crop insurance has had little positive impact on agricultural lending, production or farm income
- nearly all crop insurance has been heavily subsidised, with subsidies often going to richer farmers⁶

In designing an insurance scheme for pastoral livestock, these lessons should be borne in mind.

A general strategy to develop herder micro-insurance should promote where possible private sector initiatives, and avoid subsidies on the grounds that they may displace private insurance arrangements and are unsustainable. However, it is generally accepted that the state has a responsibility to protect people against uninsurable risks⁷. This might take two forms. First, some government subsidy to insurance is legitimate in designing and piloting insurance schemes to cover risks of unknown severity, especially when the subsidies are targeted to poor households during the start-up period. In such cases, subsidies should be explicit and time-bound. Subsidies should preferably be on clearly identified components of the scheme, such as programme development or training, with a well-defined exit strategy. Government should ensure that private insurers design their own programmes, based on sound actuarial principles and on accumulated experience, without expectation of government support in a catastrophe.

⁶ P.Hazell, C.Pomareda and A.Valdes, eds, 1985, *Crop Insurance in Agricultural Development: Issues and Experience*. Baltimore: Johns Hopkins University Press for IFPRI. J.Skees, P.Hazell, M.Miranda, 2001, *New Approaches to Public/Private Crop Yield Insurance*. World Bank, in press.

⁷ World Bank, 2000, *Attacking Poverty: World Development Report 2000/2001*. Oxford University Press, p. 149

Second, it may be that the frequency and impact of drought risk on herders in some areas are too large for any realistic form of insurance to cover, even with a start-up subsidy. This can only be discovered through experiment. In such cases, responses other than insurance (and clearly identified as such) are required, such as disaster safety nets and rehabilitation programmes. It is important not to load too much on to insurance programmes through subsidies, since this may make any form of insurance programme for pastoralists unviable, and remove the possibility of more limited, but viable, cover.

Important issues in the design of a livestock insurance scheme include what type of insurance should be offered, whether it should be obligatory, whether premiums should be the same across the whole country or be adapted to different regional levels of risk, and what the institutional structure should be.

The first issue is what should be insured against. In Mongolia during the command economy period, individual livestock were insured against death from certain categories of event. For example, animal deaths from extreme winter cold or disease were covered by insurance; deaths from predator attack were considered to be due to herder negligence, and were not covered by insurance.

The advantage of individual livestock insurance of this sort is that it addresses the main problem: death of livestock. It thus directly targets all those who have suffered a loss. The disadvantage is that there are high transaction costs. A loss adjustment committee has to check the accuracy and circumstances of each herder's loss and make a judgement about how far the herder is responsible. There is a danger of moral hazard (insured herders may indulge in riskier behaviour) and adverse selection (if insurance is voluntary, herders in high risk environments may insure more than those in low risk environments).

The alternative to individual livestock insurance is some form of index-based insurance. Index-based insurance works as follows: insurance contracts are written against specific events such as rainfall below a particular threshold or livestock mortality above a specified level, in a particular area.⁸ Insurance is sold in standard units (say US\$ 10 or US\$ 100), with a standard contract in the form of a certificate for each unit sold. The premium would be the same in each area, perhaps in each district, and all buyers of certificates would receive the same indemnity per certificate if the insured event occurs.

Jerry Skees and Ayurzana Enkh-Amgalan have proposed an experimental index-based insurance scheme for the World Bank Mongolia sustainable rural livelihood project, whose clients are all nomadic herders.⁹ This would be based either on weather insurance, most probably on rainfall or snow levels, or, the preferred alternative, on district livestock mortality levels.

Livestock mortality insurance would be a form of index insurance. The average death rate for all animals except those born in the current year would be the basic loss indicator. Animals born during the year would be excluded because of their high loss

⁸ This description of index-based insurance is taken from Skees, Hazell, Miranda op. cit.

⁹ J.R.Skees, A.Enkh-Amgalan, 2001, *Examining the Feasibility of Livestock Insurance in Mongolia*. Report for the World Bank.

rate and difficulties in getting accurate data. Herders (or anyone else) could buy standard insurance certificates against higher than average levels of mortality in the district concerned. District mortality rates above a chosen level (for example, the mortality rate occurring on average once every five years or less) would trigger payment of an indemnity to all who had bought standard insurance certificates, regardless of their own personal loss. This scheme is feasible in Mongolia where accurate and detailed livestock mortality data are available, but might be difficult in countries without such good data.

Weather-based insurance would operate in the same way, except that a specified weather event, such as rainfall below a certain threshold, would be the trigger for payment of an indemnity. The only requirement for this would be accurate district rainfall data.

The advantage of using mortality rates or weather as the index to trigger indemnity payment is that the data are readily available and simple to use, and that good behaviour is rewarded. All herders in the affected area who have bought insurance certificates receive an indemnity. But herders who have lower mortality rates than their neighbours receive an insurance indemnity based on the average of the district, and are thus rewarded for their skill or hard work. There is little opportunity for adverse selection or moral hazard. Administrative costs are low, since there is a single standard contract to write, and rainfall data are already available with a long historical data set. Index insurance would be simple for the private sector to run and could be a stepping stone to targeted individual insurance contracts to cover more precise risks to individuals.

Index insurance could fit well with a wider micro-finance strategy institutionalised through herder associations or NGOs. Such groups might wish to buy index insurance on behalf of the group as a whole, or to facilitate individuals within the group who wished to buy. Index insurance, by providing protection against major risks, could be a good companion to micro-credit.

The disadvantage of weather or mortality-based indices is that they are not directly linked to the peril faced by herders. Herders can suffer no serious loss but still receive an indemnity if the average weather or mortality in their district trigger a payment. This is not necessarily negative, since it could encourage good herders, who are confident they can manage risks better than the average, to participate. More seriously, a good herder who suffers a real loss (for example because of a borehole breakdown) may not receive an indemnity, because the average rainfall in his district is better than the trigger level of the index. Even though index insurance contracts would clearly specify the risks covered, the separation of skill and actual loss from the indemnities paid out could bring an index-based system into disrepute, particularly in countries where skilled and hard working herders are admired and treated as role models. (The answer to this might be to write separate insurance contracts for specific risks such as borehole failure, although private insurers might be unwilling to do this where boreholes are controlled by the state or by community associations.) Rainfall- and mortality-based insurance are also vulnerable to collusion between herders and district meteorological or livestock officers, although perhaps less so than insurance based on individual loss-adjustment. But if district technical officers are prepared to

falsify rainfall or mortality records there could be large fraudulent gains for insurance certificate holders.

The main threat to the success of weather or mortality-based insurance is the frequency and impact of periodic droughts and other hazards. High levels of covariant risk may threaten the viability of insurers who face the possibility of very large pay-outs in some years. This risk would be especially dangerous in the early years of a scheme, while the insurance companies were building up reserves. Insurers can hedge against this risk by international re-insurance or by investing in catastrophe bonds.

International re-insurance spreads risk across much wider geographic and economic sectors. Two types of re-insurance are common.¹⁰ In quota-sharing arrangements, primary insurer and re-insurer share premiums and risk. In stop-loss arrangements, the primary insurer insures all losses beyond a certain level with the re-insurer.

Catastrophe bonds or calamity funds have been used in some countries to cope with catastrophic risks – such as hurricanes or earthquakes - that cannot be absorbed by conventional private insurance. Investors buy CAT bonds from the government, covering risks with low likelihood but high potential damage during a specified period. Government invests the money in risk-free securities. If the event occurs, the investor loses his principal. If the event doesn't occur, the investor recovers his principal, plus interest substantially above the market rate to reflect the risk. The cost to government is the difference between the interest it receives from the risk-free securities, and the interest it pays the bondholder, which is equivalent to an insurance premium.¹¹

Further work is needed, but it seems likely that the frequency of drought and other hazards in pastoral areas rules out successful CAT bonds. Catastrophic drought occurs in pastoral areas of Africa with a national frequency of at least once in ten years, with severe local drought occurring more often. Catastrophic winters, often associated with severe drought in the preceding summer, have occurred in Mongolia at a frequency of at least once in ten years since the 1940s, with severe local winters occurring more often.¹²

An insurance programme for herders of the sort outlined in previous paragraphs would be best managed by private sector insurers. However there are several aspects which might inhibit private insurers from setting up such a scheme. First, there are substantial start-up costs.¹³ These include: researching the frequency and impact of catastrophic events, educating herders about the value of insurance, establishing a regulatory framework, and underwriting the insurance until a sufficient volume of business has been established for national financial institutions and international reinsurance to come in. There is a place for government and donors to underwrite some of these costs.

¹⁰ J.R.Skees, B.J.Barnett, 2000, 'Conceptual and practical considerations for sharing catastrophic/systemic risks.' *Review of Agricultural Economics*.

¹¹ World Bank, 2000, op. cit.

¹² G.Templer, P.Payne and J.J.Swift, 'The changing significance of risk in the Mongolian pastoral economy.' *Nomadic Peoples* 33: 105-122. Skees and Enkh-Amgalan, op. cit

¹³ Skees, Hazell, Miranda, op. cit.

There may also be a role for government and donors in providing cover against major catastrophic risks.¹⁴ Government, with donor support initially, could provide its own index insurance triggered by a threshold value of rainfall that happened only very rarely, but with catastrophic consequences. Insurance firms could buy government options to protect themselves against such risks, which would permit them to develop successful index insurance for events with greater frequency. There is likely to remain a role for government and donors in providing, at least in the first years of a new insurance regime, a stop-loss insurance contract to private insurers. This would cover all losses over a specified level of event which occurs rarely but could bankrupt domestic insurers were it to occur, especially in the early years of a new insurance system while insurers are building up assets.

International re-insurance needs to be more systematically explored, and also the market for catastrophe bonds in pastoral circumstances. Catastrophe bonds are unlikely to be attractive to international re-insurers unless the event underwritten happens only very rarely. As with the option described in the previous paragraph, it should be possible to define a level of drought that meets this criterion, but whether this would be sufficient to protect national insurers from overwhelming loss remains to be discovered. It is worth noting that international re-insurance is likely to be easier where re-insurers are confident in the integrity of the local insurance system; such confidence is more likely where losses can be verified by readily-available and objective data, as in an index-based system.

There is a potentially important role in insurance, as in other branches of micro-finance, for herders' associations or non-governmental organisations. NGOs could be a channel to herders for information about insurance, and pioneer pilot schemes by taking out index insurance on behalf of their members, providing a cautious introduction to insurance for households which may be sceptical at first. NGOs have detailed information about the needs and situation of herders, and could ensure that insurers are better informed. There may be economies of scale in offering insurance through NGOs, which would reduce the cost.

An important issue in rural insurance is whether it should be obligatory or not. Obligatory livestock insurance makes fraud (by insuring only part of the herd, but reporting that any dead animals are the insured ones) more difficult, and enlarges the insurance pool. The arguments against obligatory insurance are several. It distorts the insurance market. It would be hard in practice for government to force all herders to insure their private animals, and many herders are strongly against insurance. It would also be impossible for government to force private sector insurers to insure animals. The problem of fraudulent reporting would be avoided in the index insurance described above. And a successful insurance scheme would enlarge the pool voluntarily, which is much more satisfactory than requiring reluctant herders to insure. On balance, rural insurance should remain voluntary.

The development of new forms of herder insurance will initially face herder reluctance. Most interviews in Mongolia report that herders are opposed to the idea of insuring their animals, and the low percentage of animals currently insured supports this view. However this may not be the full picture. An interview with experienced herders in the Gobi reported that 81 percent were either interested in animal insurance

¹⁴ Skees and Barnett, op. cit.

or would probably insure. However only 5 percent had actually insured their animals.¹⁵ This suggests that herders have little confidence in existing insurance systems, but that insurance offered in a more effective format might be successful.

5 Other micro-finance products for herders

5.1 Community investment funds

Community investment funds are co-financed by government and the community. Such funds address a wide range of objectives, including especially infrastructure development. Community investment funds are used in some countries for risk mitigation by supporting income generation or public works projects, stimulating school enrolment and health centre use, and strengthening community social capital. Community investment funds can also support a move towards increased fiscal devolution, with progressively larger central government matching grants depending on the community's own contribution. Community investment funds have proved flexible, quick to respond, and cost-effective.¹⁶

Community investment funds could be used to underwrite such activities as the construction or repair of wells, boarding schools, roads, and watershed management works. Community investment funds could be managed by local government, or by herders' organisations.

5.2 Leasing/hire purchase

Some items of equipment needed by herders are large and expensive. Examples are borehole gensets or solar pumps. It would be worth experimenting with financial products that enable herders to acquire such capital assets through leasing or hire purchase. Such an arrangement would be available only to herders with a known credit history. Alternately herder NGOs could lease such equipment on behalf of their members.

A pilot leasing activity has been carried out with herders by the Centre for Policy Research in Mongolia. The herding community needed a mobile dipping bath for small stock. A bath was designed, drawn by a jeep, and was constructed by the project at half the cost of a fixed bath. The herding community will pay off half the total cost, recovered through user fees.¹⁷ Although the project provides a 50 percent subsidy in this case, the enthusiasm of the herding community suggests leasing such equipment could be a viable proposition elsewhere under more realistic conditions.

6 Institutional framework for herder micro-finance

The institutional framework is critical to the success of MFIs. Many initiatives in micro-finance start well as a project approach, but are unable to make the institutional

¹⁵ Cited by Skees and Enkh-Amgalan, *op. cit.*

¹⁶ World Bank, 2000, *op. cit.*

¹⁷ CPR *op. cit.*

scaling-up to sustainable operation without intensive project management. Experience suggests that micro-finance initiatives should in the longer-term be securely anchored in an established financial institution, whether a bank or MFI. There is no reason why a local initiative or project should not run a pilot programme which experiments with appropriate products and procedures, but the scaling up to an institution able to handle a national programme in a sustainable manner needs to be planned in detail from the start. This could take the form of a business plan covering the start-up, growth and scaling up of the initiative.

The high transaction costs of dealing with herders suggests that the involvement of herders' groupings such as herders' associations in micro-finance initiatives may be helpful. Herders' associations can provide detailed local knowledge of individual household situations, about local potentials and constraints on productive activities, and about the viability of particular courses of action. The involvement of herders' associations could substantially reduce the transaction costs for MFIs wishing to start a micro-finance operation among herders.

The way herders' associations relate to MFIs needs to be tested through a series of pilot projects in which different micro-finance products are experimented with herders in different ecological settings. One promising approach might be to create an intermediate layer of credit and savings co-operatives (CSCs) between the micro-finance institution and a group of herder associations.

7 Outline of an experimental herder micro-finance strategy

Micro-finance has a potentially important role to play in a pastoral risk management strategy. Existing micro-finance has successfully targeted small traders and some urban small enterprises, but has not reached herders. There is a need for an experimental herder micro-finance strategy, containing innovative new micro-finance products, designed with and for herders.

Key components of such a strategy are:

- (i) The design of attractive *savings* products for herders, before or in combination with any further micro-credit. This would involve participatory research with herders to identify savings products of interest to them, a suitable structure for herders to make deposits either through district branches of the managing institution, or mobile deposits and withdrawal facilities at smaller centres or other convenient place.
- (ii) A broadening of *micro-credit* products from restocking to loans for enterprises involved in production and transformation of pastoral products, perhaps linked to savings, designed in close consultation with herders.
- (iii) Development of *collateral alternatives* such as livestock, or group guarantee.
- (iv) An evaluation of all *restocking* undertaken so far, with particular attention to the financial models used and longer-term financial sustainability, with a view to deriving lessons of best practice.

- (v) Experiments with *index insurance* as an alternative to livestock insurance. Both weather and mortality insurance, used independently and in combination, should be piloted and evaluated.
- (vi) Experiments with government or donor *stop-loss or catastrophe insurance* to limit the exposure of private insurers to catastrophic risk as an interim measure while procedures are being developed and insurance funds built up.
- (vii) Experiments with *leasing or hire purchase* of bulky capital assets.
- (viii) Investigation of the need for *money management and financial planning services*, including life cycle financial products such as life and health insurance, pensions and accident insurance, by herders.
- (ix) Development of an appropriate *institutional structure* for herder micro-finance. In the first place this could be herder credit and savings co-operatives, based on several herder associations or NGOs. The CSCs would undertake savings and credit activities of their own, and also act as a primary conduit for larger MFIs offering insurance and leasing facilities. Herder associations or NGOs could be a channel to herders for information about insurance, and pioneer pilot schemes by taking out index insurance on behalf of their members, providing a cautious introduction to insurance for households which may be sceptical at first. NGOs have detailed information about the needs and situation of herders, and could ensure that insurers are better informed. There may be economies of scale in offering insurance through NGOs, which would reduce the cost.
- (x) *Key features* of all products would be: (a) designed with close *herder collaboration* to reflect herder needs and constraints; (b) implemented by *private sector insurance companies* without general subsidies; but (c) possibility in the case of insurance of *stop-loss arrangements* by government or donors, at least during an initial period, to limit private liability.
- (xi) Provide necessary *training* for new activities.
- (xii) Design methods to *pilot test or simulate* different innovative financial products for herders, since it will be unrealistic to expect private insurers to take on the whole risk of such untried ideas: (i) A *simulation or limited pilot testing* phase would be followed by (ii) *extended pilots at national level* through donor projects, with *start-up costs subsidised* and a business plan detailing the mechanisms and timetable for (iii) scaling up to *national implementation* by private insurance companies.