

A Special Challenge: How to Establish an Extension and Information System for Nomadic Herders

By Dr. Jochen Currle¹



Mongolia is, with an extension of 1,566 million sqkm (Germany 350'000) and only 2,4 million inhabitants one of the countries with the lowest population density in the world.

I. Introduction to Mongolia

Until 1992 Mongolia was part of the Soviet-Union dominated “Council for Mutual Economic Relations” and operated a socialist type planned economy. With the political turnover, market-economy and a multiparty system was introduced. The retreat of the state from economic activities led to a number of social problems, headed by open and hidden unemployment, and poverty. Unemployment especially took roots in the rural settlements and forced a big number of families to sustain their lives by herding animals. Nowadays about 90% of the rural dwellers make their living partially or totally

by keeping animals (Griffin, 2001). A per year capita income of less than 15'000 Tugrik (~15\$) per month is considered as poverty threshold. An estimated 37% of the total population live below that threshold. In rural areas it are especially herder families with small numbers of animals who suffer.

Mongolia's economy is predominantly based on primary production, mining and agriculture. Relevant processing industries only exist in the textile sector, where the hair of the cashmere goat serves as raw material. Mining includes precious materials like gold and copper for export, as well as energy carriers like coal and crude oil. Repeated deficits in the state household (about 9% of the GNP in 2002) makes public spending difficult and the take-over of financial responsibility for ambitious projects problematic. Administratively Mongolia is divided into 21 provinces (Aimags) with government determined governors and 331 Sums (districts).

¹ Jochen Currle is a partner of the PACTeam consultancy group. He is a trained agronomist and specializes on rural extension and regional development. He accompanied the described project in Mongolia during the last five years. Contact: jochen.curre@pacteam.de

2. Frame conditions for rural extension in Mongolia

Nomadic animal keeping

Agriculture in Mongolia can predominantly be characterised as nomadic animal production. About 20% of the total population live as herders and therefore depend partly or totally on the production of their herds. These herds are composed of 20% large stock (cattle, horse, camel) and 80% small ruminants (goats, sheep). Every nomadic family owns on average about 110 heads of animals, a great majority of the herds is between 50 and 150 animals. Usually the herders live in family clans that consist of 3 to 5 small families. The change of pastures traditionally follows the seasons (spring, summer, autumn and winter pastures), the spatial distance between the places is considerable.

Recent changes in nomadic living and production

A big part of the herders is of the group of the so called „young herders“ (s. Tab 1).

Tab. 1:
Development of the number of herders between 1990 and 2002

Year	1990	1995	2000	2002
number (abs.)	147'508	390'539	421'392	389'000

source: National Statistic Office of Mongolia, Yearbook of 2000, 2001, 2003

These are nomads that became herders with an own flock only after the political and economical change in the beginning nineties. Before that they had either jobs in the administration or in one of the state-owned enterprises in the administrative centres. These „young herders“ do not have a traditional animal keeping knowledge. However, there is a slightly reverse development since 2001, partly a consequence of the snow and frost disasters during the winters of 2000 and 2001, partly maybe as well the beginning of a long-term trend. The number of 150 animals per herd is agreed between experts as a lower limit for family subsistence. That means, that households with less than this number of animals cannot sustain their livelihoods for a longer period exclusively from animal production. A further decline of herder households with herds below this limits is therefore foreseeable. In the positive case these families again find an economic existence as artisans, traders and in small industries in the rural centres leaving their share of the pasture for the growing herds of their staying colleagues.

With the privatisation and distribution of the big herds in the years of change, the local marketing structures for animal products vanished all together. Until then, trade mechanisms were inbuilt in the planned economy. Partly these marketing functions were taken over by travelling traders, partly reformed cooperative structures were developed on district level, that became active in input-supply and product marketing. With the sudden and total withdrawal of the state from veterinary service provision



Nomadic animal production is predominantly subsistence production. Only the surplus in milk, meat and hides, as well as the hair of the cashmere goat is marketed.

in 1998, and the privatisation of veterinary posts, the situation once more changed dramatically. Herders were at a sudden charged for services, that were free of cost until then and the privatised veterinarians were forced to manage the posts and clinics on a market economy basis.

Education standard in rural areas

Mongolia has a per capita GDP of 430 \$. Compared to other countries with the same economic situation, the literacy rate with 90% of the total population that reads and writes, is extraordinarily high. This applies for urban and rural areas. Also in each Sum (district) we usually find at least one of the “young herders”, who is a trained zootechnician or veterinary assistant. However the structure and methods of education and training in socialist time – and only little changed today – show some serious shortfalls. They are extremely top-down, very theoretical, little problem oriented and not supporting the learners creativity.

3. The Agricultural Extension Centre

During the time of the socialism no independent services existed for agriculture. In-house specialists (veterinarians, animal production specialists, agronomists) were responsible for technical production decisions. Despite radical changes in production forms and ownership after the transition agricultural advice was not established neither on private nor on public level until 1997. The necessity of advice for the raise of the agricultural productivity was spelt out and brought into political discussion first in the Agricultural Sector Program of the Asian Development Bank. Today exists the National Agricultural Extension Centre (NAEC), its 11 members are ministry employees qualified in the main agricultural production directions. Since 1999, several Agricultural Extension Centres at provincial level have been established. With the support of a number of internationally funded agricultural development projects, the establishment and furnishing of AEC in a majority of the provinces within the next couple of years is projected. The legal form of an Agricultural Extension Centre is comparable with a Ltd.; the majority owner of these societies is the NAEC. The 5-6 assigned AEC members are working until now on honorarium basis. Advice is offered on demand and against payment. Services which are offered cover specific input

supply, the chargeable rental of agriculture equipment and machinery and cultivation of demonstration plots and are directed towards the market oriented cropping farms. For the time being, these structures cannot cope with the specific challenges of herd management and animal health questions in a nomadic livelihood.

4. Herder advice for the improvement of herd health

Structure of the herder advice system

In four provinces an initiative (by some herder cooperatives and the Mongolian Veterinary Association together with the Mongolian-German Veterinary Project) for a herder advice system was started in order to fill that gap. However, given the very poor professional training of especially the “young herders”, individual management solutions could not be in the centre of extension efforts. It was clear, that there was little hope, that herders would do a first step towards advisory or information services, that were not close to them and not offered to them actively. Confronted with often nation-wide similar animal health problems, the focus had to be on the transfer of basic veterinary and animal-keeping knowledge and skills.

Considering the necessity of economising public means and given the fact that in almost every district live some well experienced and knowledgeable herders, advice performance should rather be done in a system that comes close to the “farmer-to-farmer” approach and not by another formal institution with dependent employees. With this approach a further continuation should be ensured after the end of the project and it should be made to the Mongolian partner organisations as simple as possible to take the model also for further provinces.

In detail the structure looks as follows:

1. A so-called herder advisor (HA) is selected by a local co-operative or herders association in every Sum (district) of the four Pilot-Aimags (provinces). The herder advisor:
 - must live in the Sum where he actively works.
 - must be an active herder him/herself
 - should have some basic knowledge on animal health issues



Group extension sessions are performed in each Sum by the herder advisors (HA) during two month a year. The HA trains the herders in relevant animal health questions and provides practical information.

- must not work for or as a veterinarian in order to prevent unfair competition in the presently evolving veterinary sector.
2. The herder advisor gets active two times per year for two months, organises and realises advice sessions on specific topics in the settlements of the Sum. For this activity he gets a honorarium and travelling expenses.
 3. The technical and methodological support and further education of these herder advisors is provided by two experienced veterinarians per Aimag who accompany them during their advice activity. These supervisors are either state employees in the Aimag or privately practising veterinarians. For their activity these supervisors get expenditure and travelling expenses compensation.
 4. Further qualification and experience exchange of the supervisors, systematic information feedback of the herders and development of the extension materials is realised by the Mongolian Veterinary Association, which operates on national level, is closely related to science and organises the majority of the Mongolian veterinarians.

Tasks and function of the herder extension system

Information and advice for the herders is provided via three tracks:

1. Once per week there is a half hour radio programme, which is transmitted nation-wide and focuses on one specific issue. With this broadcasting component a big number of herders is reached, that could not be addressed with a bearable costs in a personal contact, given the huge extensions of the country.
2. As literacy is common among the rural population all extension issues are elaborated in specific leaflets that give concrete hints for the herders.
3. Group extension sessions, performed in each Sum by the herder advisors (HA). The costs of this direct interaction are comparably low, because the number of sessions is limited (25-30 sessions per extension cycle) and the HA only work on a honorarium basis. Total coverage of all herders in a Sum at every extension cycle is not an objective due to their nomadic movements. Most important side effects of this direct extension interaction are:
 - The distribution of the leaflets (always the one, that accompanies the discussed issue).

- The necessary feedback of herders needs on information and advice, that are the basis for further elaboration of new materials, radio programmes and leaflets.

The advice sessions are group advice sessions on municipality's (Bag) level or on the level of extended families (Chot-Ail). In these sessions the HA trains the herders in relevant animal health questions and provides practical information on the topic. The knowledge should help the herders to cope with their difficulties in animal keeping and must therefore

- take up the existing problems of the herders
- be technically right and
- be presented in a concrete and practical way.

For this task every HA is provided with material, that is prepared under a subject matter and a methodological perspective. Each set of material (thematic modules with necessary didactic materials) elaborates on one specific animal health issue. Every module consists of:

- a methodological plan of how to proceed in the respective advisory session (script),
- a two to three page technical background paper of the topic and
- flexible and waterproof pictures and posters, to be used according to the script.

Every HA receives a support visit of his Aimag-supervisor, who accompanies him for one advice session in each extension period and gives him a technical and methodological feedback. In addition, the HAs are assembled three times per year by their respective supervisors for a one day seminar. These seminars serve to train the advisors in the use of the materials, to make possible an exchange of experiences and to evaluate the used material critically. In addition, topics and problems newly appearing on herders' level are collected. The supervisors are as well the ones who further develop the extension material on a subject matter and methodological level. They learn both, with the herders and with the herder advisors which are the specific problems in animal keeping and therefore can judge, which topics should be further elaborated as extension modules, thematic leaflets and radio programmes.

Once per year there is a one-week workshop for the supervisors on national level. This workshop is organised and realised by the Mongolian Veterinary Association and has the following functions:

- Technical and methodological training of the supervisors.
- Further development of extension materials. For this purpose working groups are organised, which have the task to design and develop further advice modules to specific extension topics.
- Exchange of experiences.



Every herd advisor receives a support visit of his Aimag-supervisor, who accompanies him for one advice session in each extension period and gives him a technical and methodological feedback.

Organisational set-up and funding

The Mongolian institutions cannot draw on much experience in the own agricultural knowledge system. A big portion of the costs is still carried by funds of Mongolian-German Veterinary Project. Management tasks are shared between project staff and staff of the partner institutions. In order to guarantee the sustainable functioning support of the herder families, Mongolian partner organisations can only take over full responsibility step by step.

However, confronted with very scarce public means, it is wise to look for low-cost and low administrative effort solutions, that have a good chance for sustainable implementation. With the selection of volunteers who work on a honorarium basis, this principle already guided the design of the extension system. Following these principles in the process of complete take-over of financial and management responsibilities means, to sensibly share these responsibilities between different government and non-government entities.

The described extension system for herders basically works on three levels: Sum-, Aimag-, and national level. On Sum level we have the direct interaction between herder advisors and herders, the passing over and joint elaboration of information and important skills. The

supervisors task (Aimag level) is to support the HA and guarantee methodological and content quality of the advisory work. On national level further development and elaboration of extension material, according to the herders necessities is the core task.

The distribution of responsibilities follows this pattern. Herders cooperatives and associations on Sum-level are the partners for selecting capable and trustworthy HA. These cooperatives are in direct connection with the herders and are able to directly accompany the work of the advisors. The direct effect of advisory work consists in a closer relation between herder and cooperative, the indirect one in improved product quality and quantity to be marketed through these cooperatives. Therefore they should stepwise take over full financial and organisational responsibility on Sum level. This means that they are the ones to select, contract and pay the HA.

Quality control and further elaboration of extension topics on the other hand is presently performed and financed in a cooperation between NAEC, MVMA (Mongolian Veterinary Association) and the project. With NAEC as a state affiliated extension institution, an organisational roof is provided to integrate advisory services for crop and for animal production. MVMA on the other

Tab. 2:
Herder extension – an overview

Level	Needs	Actors	Tasks
National	<ul style="list-style-type: none"> - Compensation of travel expenses for supervisors - Facilitator for the meeting - Selected subject matter specialists - Funds for the elaboration, reproduction and distribution of new extension material 	<ul style="list-style-type: none"> - Co-ordinating and organising structure on national level 	<ul style="list-style-type: none"> - Facilitate exchange of supervisors experiences - Training of supervisors in selected subjects and methods - Facilitate elaboration of selected extension materials - Reproduction and distribution of elaborated materials - Monitoring of extension work
Province (Aimag)	<ul style="list-style-type: none"> - Compensation of travel expenses for supervisors - Honorarium for supervisors, to realise three herder advisors trainings per year 	<ul style="list-style-type: none"> - 2-3 supervisors per Aimag 	<ul style="list-style-type: none"> - One supervision visit with each herder advisor per extension cycle - Organisation and realisation of three herder advisor meetings per year - Elaboration of new extension materials - Contact for herder advisors
District (Sum)	<ul style="list-style-type: none"> - Extension material - Honorarium - Compensation of travel expenses 	<ul style="list-style-type: none"> - One herder advisor per Sum 	<ul style="list-style-type: none"> - 25-30 extension sessions with herder groups two times a year

hand, provides subject knowledge and training capacities. Present work distribution looks as follows: NAEC organises, together with project staff, the accompaniment and training of the Aimag based supervisors. These two organisations as well run the M+E system and they provide the HA with the necessary extension material (thematic sets of scripts, posters and background information, leaflets). MVMA, on the other hand is contracted to design and facilitate the yearly workshop of the supervisors, funded by the project. With the stepwise withdrawal of project structures and project funds the state will, through NAEC take over full responsibility for the quality control and further development and distribution of extension material. The supervisors will, with the above described tasks, be formally integrated into the Aimag AECs.

4. Constraints and perspectives for institutional and financial sustainability of the herder extension system

In the following chapter the existing and foreseeable difficulties for a long-term establishment will be discussed as well as the possible ways to overcome these difficulties.

Development of nomadic life in Mongolia

As stated above, nomadic population increased tremendously between 1989 and 2000. Political and economic crisis led people back to a way of living, they assumed to be secure. Development of this aspect depends very much on the pace of recovery of secondary production in the rural centres, and any economic crisis will immediately drive people back into the traditional way of life. Nomadic animal keeping will be for a long time a way of producing and living for a considerable part of the Mongolian population. Assuming a very positive economic development of the rural centres, the most capable herders will probably stay and expand their herds. Herder extension may need to react methodologically and provide herder specific advice rather than elaborating on one pre-formulated issue every meeting. But for the next years there will be a need for basic information and instruction for animal production, herd health management and product marketing.

Financial resources of the cooperatives and the state

To sustain the field work of an HA in the presented model will cause annual costs of about 300\$. Average annual turnovers of well managed input and marketing cooperatives can reach 18.000\$. This is not yet an information about the profit but it gives an orientation of dimensions.

Anyhow, with the foreseeable end of the project to support the costs of herder advisors fieldwork, a number of participating cooperatives announced to turn down their effort of contracting an HA. As alternative partners on field level in most of these cases private veterinarians stepped in and expressed their willingness to take over financial responsibility for the herder advisor. This definitely is the second best solution, because with this setup the advisor is not responding exclusively to the herders problems any more. Economic interests of the paying veterinarian may become dominant in his work. Yet, with the perspective of a slow recovery of the internal and external markets (China, Russia), there is a realistic hope, that animal products will be increasingly demanded and paid. If this proves right, more herder cooperatives will find themselves in a position to buy in into the system again.

Even though agreed upon in the project documents and during the years of cooperation the will of the state to finance its part of the system has as well been put in question recently. Given the present intensity and extension of the programme, annual costs for, training, quality control, reproduction and distribution of the materials does not exceed 11'000.- \$. This makes 2'750.- \$ on average per province. Scaling-up the system to all 18 rural provinces would cost an approximate sum of 50'000.- \$ per year, an amount of money, almost any state budget should be able to digest. Reasons for a positive political will to contribute to herder extension are many-fold. The most important ones are the prevention of dangerous epidemics and the qualitative and quantitative improvement of the most central products of Mongolian economy. Not the least argument should as well be the support of a population group that contributes an essential part to the nations income, whose members count nevertheless to the most vulnerable and economically poor ones.



On the job training for advisors.

An option to even reduce these budget costs is the integration of processing firms into the system. Their needs for high quality raw material could make them eager to buy in, as soon as the system proves the necessary efficiency and is flexible enough to handle other subjects than animal health. Contributions from this side could be in the form of annual payments in exchange for a seat in the extension steering committee or with direct support in the elaboration and advisor training of relevant extension topics.

Capacities and perspectives of the delivering personnel

A last important issue to think about, concerns the delivering personnel. As far as the herder advisors are concerned, the advisory task and the honorarium paid is a good side income, that stabilises their livelihood as herders and adds on their professional skills as herders. Thus for them to be HA in the given system can be a real long-term perspective. Difficulties may start, if the kind of advice demanded is getting more sophisticated and into the direction of individually problem solutions. This has something to do with the experienced way of top-down education. Even though HAs underwent a training in participatory extension methodology most of them find it still very hard to perform an extension session based on a dialogue between extensionist and his partner(s). The script, that for one specific topic provides them with concrete hints on how to proceed is very im-

portant in that respect. As soon, as this guideline has to be left, the HAs tend to fall back into their internalised rigid top-down pattern of monologuing and rushing through the topic.

To some extent this as well applies to supervisors and makes some further training necessary. As far as they are concerned, there may be another difficulty in the long run. Most of them are employees of state institutions or private firms. Their supervisory task has to be fulfilled during weekends and holidays. The yearly needed amount of about 20 days is at the limit for already some of them. To concentrate the tasks on just a few professional supervisors may prove difficult and much more expensive, for the wages and the incredible distances, that have to be covered then. To stay with the presently practised model, demands therefore careful observation of the supervisors situation and a strict limitation of the burden they have to carry.