Introduction
In 1988, farmers from villages in lowland, primarily resettlement areas (San Julian/Brecha Casarave and Berlin zones) of Santa Cruz, Bolivia requested training in livestock health care. In the early 1970s many people who had lived in the highlands of Bolivia migrated to the Amazon basin area of Santa Cruz to practice slash and burn (swidden) agriculture, leading to the development of sometimes massive settlements. The in-migration continues to this day. Because of the rapidly declining fertility of the land due to swidden agricultural practices, some farmers decided to switch from a rice and corn based cash crop economy, in which they could not compete with large producers in the region, to a livestock based economy.

The programme that developed with local farmer’s organisations (Asociacion de Ganaderos de San Julian, Asociacion Pecuaria de Berlin, Cooperativa Agropecuaria de Berlin, Asociacion de Pequenos Ganaderos de Santa Rosa de Sara, Union de Pequenos Ganaderos de Bolivia en Yapacani), a local non-governmental organisation (Fundacion Integral de Desarrollo), and two international non-governmental organisations (World Concern/Christian Veterinary Mission and Heifer Project International) was later successfully replicated (with local modifications) in other resettlement areas, and in long established lowland and highland communities of Bolivia and Peru. In the initial programme in San Julian, eight farmer trainers trained 1,500 villagers and 24 community-based animal health workers (CAHWs). The programme began in the San Julian/Brecha Casarave region in 1989 with funding spanning nine years. In 1990 work began in the Berlin Colony and continued until 1997. In Santa Rosa it ran from 1991-95. In Yapacani and Las Gamas work began in 1997 and is ongoing.

The initial programme in Brecha Casarave and Berlin was called Proyecto Pecuario de la Comunidad (PROPECO) – Community Originated Livestock Training. The programme was general community training in livestock production and healthcare in a sustainable farm system for any community member who wanted it. Local men and women farmers as trainers also administered the training programme through their local associations. In each instance, priorities were to train every farmer who requested it, and build local people’s and organisations’ capacity to develop and administer their own programmes. For the system of animal production to change on a large scale (from causing erosion and poor production due to bad health to being part of a sustainable system with excellent production), a critical mass of informed people applying what they had learnt was required. Training village animal health workers came later as a result of village requests for people who could act as extensionists and trainers in the...
Susan E Stewart

10

October 2002

communities, with a better understanding of the use of medicines and vaccines. There are three basic premises that guided these programmes and a number of approaches common to them. These programmes continue to have excellent results after the project funding has discontinued because of the motivation and creativity of the local people involved.

**Basic Premise One**

*Every farmer should have access to as much information about livestock care in her/his primary language as she or he wants.*

Why? The more women and men farmers know, the more they use and demand the development of local animal health care services, the healthier the animals, the less incidence of disease transmittance to people (zoonotic diseases), and the greater the livestock production. Wherever possible training should always be in the local first language of the people. Written materials in the local language were less important in Bolivia because most people who could read and write did not read in their first language.

**Approaches**

**Farmers as local trainers and facilitators**

Train women and men farmers (at least bilingual, average 4th grade formal education) to be the trainers and facilitators in the programme. The programme should also have a very small number of technical people trained at university level. Their job is to replicate their posts by training, supporting, and acting as mentors to local Farmer Trainers who facilitate all of the village level training.

Farmer Trainers are people who:

- own land in the community;
- have a history of service and a strong desire to serve;
- have a high emotional intelligence (people skills);
- have some experience with livestock production;
- are recommended by trusted informants as gregarious people who connect people to one another;
- are part-time, paid staff of the project or local organisation; and,
- work in teams throughout the region.

A Farmer Trainer and a community animal health worker (CAHW) are very different. A CAHW in this programme is someone who provides preventive and some curative care with livestock as well as facilitating training in her/his own village, and acting as change agents in their village organisations. All CAHWs are trained with listening and facilitation skills. Together, Farmer Trainers and technicians train the CAHWs. CAHWs are viewed as an integral part of the village development process and are chosen by the villages in a decision-making process, and not labelled as vaccinators or medicine shop operators (although the CAHWs certainly do vaccinations and some have medicine shops).

**Designing participative village-level training**

Together with the local trainers, project technical staff design basic, village-level, participative modules which are fun, easy to use, and require no reading or writing, no second language skills, and no special expertise in order for people to participate. Designing the tools so that a vivid problem or situation is brought to life for participants is the greatest challenge and the most important aspect of the training design. Other important training design issues include:

**Focus on what farmers want**

In the general community-based training, focus on key issues the farmers are interested in. Most things are fairly simple to act on, e.g. what would make the biggest difference in production, or the most money for people, or protect their children from getting sick. To set this focus requires a very good assessment – lots of time sitting and listening to women and men farmers and visiting their livestock and fields with them.

**Teach prevention and management in the context of disease**

Focus on prevention but from a disease perspective, not from that of the value of prevention alone. The people want to learn about treatment of disease because that is what most concerns them. However, prevention will often make a bigger difference. We teach about the disease first (the sickness caused by malnutrition or parasites and the diseases preventable by vaccination) then the treatment (where possible) but really stress prevention. Every community member who wants to, learns how to vaccinate, de-worm, and keep the medicines and vaccines cold. They may do their own vaccinating or not, but they do require accuracy on the part of the CAHWs because they are well informed.

**Give enough time for people-to-people learning**

Plan a big enough block of time for training sessions so that people get to know and trust one another. We give three- to five-day workshops depending on the topics and participants. This allows enough time to discuss and plan for tricky issues, and the workshop becomes a forum to discuss and solve any issues or conflicts arising within the community, and allows space for creative solutions to begin.

**Conducting the training**

A minimum of ten people must attend a community-level
training, with no more than 20 participants in any one session, so that everyone can have a chance to practice on animals. Villagers supply food for the trainers, a place to stay, and animals for the practice sessions. The training is not linked to any other benefits or services.

Since women are the primary livestock caretakers in all the areas we work in (men do farming), we design the basic training for preliterate women – although many men later participate. All basic community-level training is in the first language of the villagers. Because the training is for the people who actually care for the animals, we have found there to be dramatic improvements in livestock health and production. For example, when work began in the Brecha Casarave of San Julian there was a serious and disseminated problem with iodine deficiency in the livestock, causing birth and weaning rates to be very low, and the poor development of most calves. During training, women learnt simple ways to prevent this problem using locally available resources. Within two years of the initiation of the community-level training, the problem had disappeared in the zone of the Brecha, and calving and weaning rates shot up.

**Basic Premise 2**
*If farm families have an understanding of some farm economics, and good income and nutrition from their livestock, they will want to invest in the health and care of their livestock so that they keep producing a good income.*

This is appropriate for the Bolivian context because income was the highest motivator. In another context the motivation might be bride price or prestige. It is important to discover the motivating factors and emphasise them as often as possible in the training.

**Approaches**
*Farm planning for the future*

Work with farm families to plan their farm, to heal and regenerate the land, or to prevent degradation while improving livestock production. This includes seeing livestock as an integral part of the farm (rather than an isolated product), for manure and nutrient redistribution, agroforestry, zero grazing, public health concerns, and so on. Farm planning includes helping families to think through what they want from their farm and for the future of their children.

We have an exercise in the five-day community workshop where people draw or create on the ground a group farm plan for an average land parcel at the beginning of the workshop. Because swidden agriculture is prominent and livestock are not seen as an integral part of the farm system, the group will usually have a very traditional initial plan. They do it as a group because cooperative work is very common in Bolivia. People can visualise a whole farm in a small area and as they talk together they begin to get ideas from one another. During the workshop, farms are visited, and the whole group discusses the conditions and planning. At the end of the workshop, as a synthesis tool, participants make a farm plan together again, with a new piece of land and the new concepts they have learnt. They are encouraged to see the concepts in action on the drawing or model, and many go home to plan their own farm with their family.

*Basic livestock economics*
Help farmers to understand the basic economics of a farm and the specific economics of livestock, for example, discussing the cost of vaccines versus the earnings from healthy animals.

*Develop alternatives to intermediaries*
Work with farmers’ organisations to overcome middlemen charges, and to market livestock and livestock products. In workshops, unity and collective work aspects of local culture are emphasised, and participants have opportunities to discuss marketing and design creative solutions.

**Basic Premise 3**
*CAHWs are most valuable in the long term as an integral part of a local organisation rather than only as an individual entrepreneur (it’s good if they are also an individual entrepreneur).*

Why? Because with difficult tasks such as vaccinating all livestock, testing, marketing, and communal pasture management, the organisation helps and encourages the CAHW. And in the development of the organisation, the CAHW becomes a change agent and facilitator.

**Approaches**
*Build organisational capacity in livestock issues*

Help the local organisation build their capacity to deal with livestock related issues. The organisation is where conflicts
are resolved over things like fencing, paying for vaccines, and property destruction. Work with them on developing problem solving and conflict resolution skills. The organisation can organise the marketing of livestock and livestock products. Help them to plan together and be successful at their projects and assist them in developing negotiation skills.

**Enhance team, visioning, and planning skills**

Teach the CAHWs and interested Farmer Trainers some organisational capacity building skills, such as how to facilitate visioning and planning processes, set values, implement, monitor, and evaluate projects, and how to write project grants, design a budget, and so on. Support the CAHWs as they use these skills with their local organisations. Not every CAHW will have the desire or capacity to facilitate these processes. Work with those who do and encourage them in the challenges they meet.

**Establish commonly held organisational values**

Help local organisations and CAHWs focus on commonly held values such as unity, honesty, and mutual encouragement, which are the spiritual core of the community. When the members of the organisation have identified these values, people often revisit them to encourage one another. Values guide the decision-making of the local organisation. If the organisation has decided they value having good land for their children's children, then they may decide not to market chemical fertilisers, or to market instead tree seedlings for windbreaks, green manure, and erosion control. Working with the local organisation on their values encourages the CAHWs in their work.

**Encourage linkages**

Help the local organisations to develop sound linkages to livestock related government, non-government, and business interests. The organisation practices and builds their negotiation skills as they set up working relationships with vet medicine suppliers, regional livestock associations, government regulatory agencies, veterinary laboratory services, and veterinarians in the area.

**What are the results of this work with CAHWs?**

**Long term service providers**

In the San Julian Zone in Bolivia, after PROPECO finished, women and men Farmer Trainers and CAHWs formed their own local training and livestock health organisation. Since Bolivia's Popular Participation Law was passed in 1997, government development funds have been decentralised to regional administrative areas. Thus, the mayor of the San Julian area has funds to develop livestock and agriculture production. The organisation of Farmer Trainers and CAHWs have written project proposals, negotiated with their local government, and are now handling most of the livestock care issues for their region encompassing about 6,000 families. They run training programmes, and help with the organisation and implementation of vaccination, de-worming, and testing campaigns in the zone. They are well liked and respected, and are called on individually to provide animal health care services. There are no veterinarians to serve their area and yet the livestock health and production has greatly improved.

In the Brecha Casarave region, the incidence of Brucellosis in cattle was unusually high when PROPECO began. Training for all farmers included understanding the disease and its prevention, and the local associations, CAHWs, and trainers' organisations have worked on a testing and eradication programme. By 2001, disease incidence levels had dropped well below comparative levels in other lowland areas in Bolivia. According to monitoring by the Bolivian National Epidemiological Organisation, the same has happened with Foot and Mouth disease. In project evaluations it is common for the women to remark, ‘We wanted to have training about our sheep because we wanted to treat their sicknesses. But when we started to practice all we had learnt in the workshop, our sheep did not get sick’. Because of improved animal nutrition, vaccination, and de-worming, common problems such as diarrhoea have dramatically decreased.

**Effective change agents**

The Farmer Trainers have all become important change agents in their communities as a result of the training they received in leadership, facilitation, and community organisation and capacity building. Never before were women voted into office in community organisations. Now the women trainers regularly hold elected posts and accomplish significant change in their villages.

**Confidence to negotiate**

Communities who have learnt how to manage their livestock have the confidence to negotiate with government and NGOs. A large government project wanted to give farmers loans to bulldoze shallow ponds to provide dry season water for the livestock. Since they had discussed water in the basic level training workshops, community members knew these ponds would be very contaminated and would become empty in the dry season. So they negotiated with the government for the same loan funds to build wells for each farm. They received the loans and helped one another to dig and
protect the wells and to use locally appropriate pumps and coverings. Now their livestock have clean water all year round.

Marketing initiatives
With improved livestock production comes the need for improved marketing. Because trainers worked with all the interested people in the villages and the CAHWs worked with the local organisations, they have had some success in marketing together. For example, a village called Las Gamas markets milk and yoghurt in the village, in outlying communities, and in the city.

Responsiveness to change
Some of the villages have found cohesiveness around their livestock production. When one village had to abandon their farms because a large river changed course in the Berlin zone, they decided to move together to another location. This was very unusual because the families were not related to one another and normally would have gone separate ways. Their livestock walked out with them and provided the financial backing for their new start. Within a short time, they had built houses for everyone, a new school for the children, had healthcare through a clinic, and a clean water supply. Much of this success was due to the cohesiveness of their village organisation, which had formed around livestock production, but was flexible enough to transform to this new situation. A former Farmer Trainer of animal health care training and the CAHWs became the leaders of this new organisation. With the confidence they had gained through training facilitation, and their skills in negotiation and organisation management, they were able to transform devastation into opportunity.

Conclusion
Livestock are integrated into the fabric and rhythm of the lives of rural villagers in Bolivia. Livestock programmes should recognise this and seek to build capacity into all of the areas which livestock and livestock production affect. Building on the locally held values or spiritual core of the organisation with Farmer Trainers and CAHWs as change agents, while strengthening the physical core via livestock health and production improvement, could be a key to a holistic approach which broadly empowers communities as disease is controlled and they improve livestock production and their livelihoods.

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For more information on designing a programme and participatory techniques see Learning Together, The Agricultural Workers Participatory Sourcebook by Susan Stewart with Karen Stoufer, Jennifer Shoemaker, and BJ Linquist. Available through Heifer Project International, PO Box 808, Little Rock, AR 72203 USA, Tel: +1 800 422 0474 Website:www.heifer.org

For guidance on local capacity building see The Cornerstones Model Values-Based Planning and Management by Jerry Aaker and Jennifer Shumaker. Also available through Heifer Project International.