A critical review of methodologies for livestock distributions as practiced by Concern Worldwide and other development agencies
&
A guide for future programming

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Contents

Acronyms
The abbreviation CW for Concern Worldwide has been used throughout this report.

CA – Christian Aid CAHW – Community Animal Health Worker CBO – Community Based Organization CBPP – Contagious Bovine Pleuropneumonia CW – Concern Worldwide DRR – Disaster Risk Reduction FIM – Food Income & Markets IFPRI – International Food Policy Research Institute IRC – International Rescue Committee LNGO – Local NGO LRA – Lord's Resistance Army M&E – Monitoring & Evaluation MOA – Ministry of Agriculture	NCD – Newcastle's Disease NGO – Non Governmental Organization NRI – Natural Resources Institute NRM – Natural Resource Management OGB – Oxfam GB PEER – Preparing for Effective Emergency Response PIA – Participatory Impact Assessment PRA – Participatory Rural Appraisal PPR – Peste de Petite Ruminates PRP – Protracted Relief Program RAIN – Reintegrating Agriculture In Nutrition SCUK – Save the Children UK VDC – Village Development Committee ViDCO – Village Development Committee VSF – Veterinaires Sans Frontieres WASH – Water Sanitation & Hygiene

Executive summary

Livestock distributions within a wider FIM program, when well implemented, have the potential to make a real impact: significant and lasting changes, in people's lives, as identified by them. These changes can include the diversification of livelihood options for the 'extreme poor' through owning and utilizing their livestock; increased food security (through income generated or livestock and livestock products consumed etc.); enhanced livelihood security against future shocks and disasters by increasing their available assets (reproductive assets in the case of livestock and as a means of saving), reduced risk and vulnerability to livelihood shocks (such as a death in the family or meeting medical bills etc.) as livestock provide a contingency reserve at times of emergency and greater equality for the extreme poor and other marginalized groups through the increased pride, self esteem and independence as their prestige and standing in society affords them greater social linkages.

A series of **eight general standards** (incorporating good values and practice) that greatly enhances these technically complex and organizationally demanding interventions' ability to be sustainable and have significant impact are taken from the *Livestock Emergency Guidelines and Standards (LEGS) manual (2009):*

1. **Participation**: is essential to ensure that interventions are relevant to local people and have their personal ownership, which is a requirement to ensure its sustainability.

2. **Initial assessments**: these provide an understanding of the role of livestock in the livelihoods of different socio economic groups within a population; an analysis of the nature and extent of the emergency or development problem and priorities; and an appraisal of appropriate interventions in relation to the operational and policy context and of existing service providers and systems**.**

3. **Response and coordination**: different livestock interventions are harmonized and are complementary to other humanitarian interventions intended to save lives and restore livelihoods, or are complementary with other development interventions being implemented by Government and other agencies.

4. **Targeting**: livestock assistance is to be provided fairly and impartially, based on the uses and needs of different livestock users by socio economic group. In the case of Concern benefiting the extreme poor.

5. **Monitoring & evaluation and livelihood impact**: M&E and livelihoods impact analysis must be carried out to check and refine implementation as necessary and to draw lessons for future programming.

6. **Technical support and agency competences**: field-staff need to possess appropriate qualifications, the right attitude, and have sufficient experience to effectively plan, implement and assess livelihoods based livestock programs.

7. **Preparedness**: it is widely known that climatic trends are causing more frequent and varied humanitarian crises, particularly affecting communities who rely heavily on livestock. Incorporate DRR and PEER. And

8. **Advocacy & policy**: where possible, policy obstacles to effective implementation of programs need to be identified and addressed.

Assessments provide the basis on how a future distribution can be designed: by determining firstly whether a livestock distribution is appropriate; they can identify indigenous mechanisms of restocking that already exist, the type of species already adapted to the local conditions and those species that local farmers already have a history and tradition of rearing; local community 'livestock specialist' key informants can always be found and provide a valuable amount of indigenous knowledge; understanding how animals are utilized in poor people's livelihood strategies can determine the ultimate aim and impact of the intervention; and local residents (including future beneficiaries) can identify appropriate monitoring indicators – simply ask them.

The contextual and needs assessments are crucial in answering those key questions highlighted in the decision support tools (see Figure 4.2 A & B the decision support tool for planning livestock distribution interventions): Are there other options to livestock distribution that may be more cost effective? Are there suitable beneficiaries who are able, or with the potential, to benefit from a livestock distribution? Is there a local supply of good quality animals? Are gender roles regarding livestock ownership, care and management well understood? Is sufficient feed, water and appropriate shelter available? Are the environmental impacts adverse or negative? Can the well being of livestock be guaranteed? Can livestock disease (epizootic) risks be minimized? And will conflict and insecurity be increased as a consequence of distributing animals?

The basis for an appropriate package that meets the needs of the target beneficiary is, as ever, highly context specific. **Local breeds**, in general, have been found to be most appropriate for poor people under traditional low input low output production systems. Our findings suggest that improved breeds often struggle to adapt to new surroundings leading to high mortalities. Additionally poorer farmers are often unable to provide sufficient feed or afford the cost of healthcare when improved breeds or large stock get sick. Resource poor farmers are more suited to **short cycle species** especially small ruminants (sheep or goats), poultry, and even small stock. These species breed more quickly than large stock (horses, camels, cattle etc.) and require far less inputs: medicines, feed and especially labor to maintain. The poor are often short of household labor to engage in more complex production systems. They are more suited to traditional systems (free range and requiring minimal purchased inputs) that require minimal labor in terms of supervision and management on a daily basis (recall the experiences of Haiti and Tanzania – where the poor struggled to maintain large stock due to their own lack of assets).

Sometimes livestock distribution may not be the best option rather choose to focus on improving animal husbandry or animal health to increase flock sizes and promote intra village distribution mechanisms to those without poultry once the interventions have proven to be effective. **Suitable beneficiaries** need to be identified, in conjunction with the local community in ways that are transparent and readily communicated, 1) in terms of poverty or vulnerability (based on local criteria established through wealth ranking); and 2) that they require sufficient knowledge and skills already in animal husbandry or that can be provided by training and capacity building to maximize the chance of keeping the animal alive and not wasting the resource.

The economic benefits from livestock, most often, accrue at the household level where resources are most efficiently allocated making the **household therefore the most appropriate 'social unit of management'**. Local knowledge, again from the assessments, can be used to identify the seasonal disease calendar and the times in the year when feed is most available. Consideration of pasture and water is especially important for the restocking of large numbers of animals, so as to minimize negative environmental impact (LEGS P.199). With

smaller livestock distributions consideration of the climatic conditions and related diseases patterns (especially Newcastle Disease in poultry and *Peste de Petite Ruminant* in small ruminants) needs to be taken into account as to when the livestock distributions take place. Beware of the example in Sierra Leone of livestock distributions becoming the means for spreading and bringing disease to a target community.

Start small as a 'pilot' exercise and learn from the first round of distributions before building 'efficiency' and scaling up with later rounds. Sustainability needs to be built into the design from the outset. Key features from the reviewed country programs include: invest in building **staff capacity** – again through the initial assessment, PRA methods, working closely with local communities; re-establishing or strengthening existing institutions (in many cases this involves reviving civic structures that have collapsed) as the restocking 'committee' as a **short term** measure to supervise the distribution to the selected beneficiaries; ensuring that the right beneficiaries have been selected, those with the potential to manage the asset, with suitable **motivation and animal husbandry skills**; and over the **longer term** to assist in supporting a **wider enabling environment**, which may include improving access to markets, animal health services etc.

Livestock distributions, if well done, are inherently sustainable in perpetuity so long as the animals stay alive and are also able to reproduce. In a more development context 'passing on livestock benefits to other poor farmers who do not have animals' without on-going support of donor funds can be effective through the establishment of **credit based** or '**pass on**' mechanisms. Notable examples of where CW has aligned their distribution design to existing indigenous mechanisms of acquiring livestock come from Rwanda, which revived traditional cultural practices in conformity with Government policy that used livestock distributions to re-build the fabric of society; and DR Congo, which built on a traditional rotation system to 'pass' on the benefit of the first kid to a 'vulnerable' neighbor.

One of CW's strengths is in being inclusive, participatory, and in working in a collaborative manner. This is key to developing strong vertical and horizontal linkages with important and influential stakeholders (technical ministry officials, local authorities etc.), private sector traders and including community representatives from different socio economic groups. This is important in building up the requisite range of relationships and partnerships with the beneficiaries, destination communities, the restocking committee members, local veterinary services and livestock traders.

On procurement: buy local breeds and buy them, where possible, locally. Reducing the distance the animals are transported limits 'stress' in animals thereby increasing the chances of survival, reduces costs and can prevent the spread of diseases. Important in all livestock transactions and movements however is the need for screening, selecting and vaccinating animals. This should be done with veterinary experts and in the place of purchase. Any animals existing in the destination community should also be vaccinated. Sometimes local markets are functioning sufficiently well and ideally beneficiaries are given their preference as to the species and type of local breed that most suits their circumstances. In Liberia and Sierra Leone however the quality of stock available on local markets was poor. Therefore local breeders and neighboring communities needed to be identified as suitable sources.

Livestock fairs are only viable options if there are surplus animals in the area. In some instances there just is insufficient good quality stock – in which case log frame targets need to be revised downwards. The key elements of livestock distribution are a 'process'. And it is often a long time before a significant number of families can benefit from the repayment, in-kind or by cash, and replication to other beneficiaries can proceed. Scaling up therefore can only happen in a step-by-step fashion. Given the cost and complexity in mobilizing the procurement and distribution of many animals exploring effective ways to utilize **cash transfers** should always be considered. Before any cash transfer there must be a detailed market assessment (see Figure 4.3 A & B the decision support tool for deciding whether to distribute cash or in-kind items). Cash transfers are not always an 'easy' panacea to in-kind distributions: in instances of market demand failure where inflation is not a risk then cash transfers could be considered when targeting women (more judicious in utilizing cash for the purpose of household food security than targeting men); where there is a scarce supply of a particular commodity then

vouchers can ensure that everyone has a fair share; and particular commodities, like livestock have successfully been distributed using a commodity voucher.

The traditional NGO approach in a more rehabilitation and development context has been the 'pass on' approach with payment in-kind or through repayment in cash as part of a credit based system. This does require further complexity in terms of organizing communities through **training** (both technical and organisational) and re-establishing or strengthening **local institutions** to supervise beneficiary selection and oversee the distribution chains or loan repayments. The emphasis needs to be on: clear and transparent beneficiary selection criteria; organising the village 'committee'; training on animal husbandry; training the committee on asset management; ensuring that partner and CW staff capacity is developed in PRA type skills and methods for community development; and identifying a technically competent partner with which to work with (e.g. in Rwanda/ DR Congo/ Liberia/ Ethiopia)

CW has succeeded in supporting through partners cash based credit distributions without the need for collateral, where in Cambodia: loans were issued to group members on receipt of a 'sound' business plan; additionally the local partner provided strong technical support on poultry production; technical training was re-enforced through village demonstration sites and exchange visits; and most importantly of all there were market opportunities, which were well understood. Take on board the classic *reflection – action – learning* cycle: start small, build capacity, then take stock, and re-strategize if necessary before scaling up.

The type of training for staff, beneficiaries, and community animal health workers (CAHWs) needs to be both technically proficient and delivered in a participatory manner: practical, 'learning by doing', and in the local vernacular as many of the participants are not expected to be fully literate or even numerate. CW's supervision of these events needs to ensure that PLA type methodologies are employed with regular follow up in the field, especially in the performance of CAHWs, is monitored. The animal husbandry training focuses on health, feeding, shelter and breeding in a traditional management system. The earlier decision support tools identify these elements as key issues to consider prior to making the decision whether to invest in a livestock distribution intervention. There is a risk and danger in focusing on improved breeding before effective disease control, feeding, housing and general improved management and husbandry has been addressed.

The main diseases afflicting the species being distributed need to be identified and the calendar of their occurrence recorded. If animals are kept alive and cared for well under traditional management systems then noticeable increases in poultry flocks can be expected within 6 – 12 months; and increases in small ruminants herds within 18 – 24 months (including the obligation to 'pass on' an offspring in-kind or in cash through a sale).

CW has invested significantly in training CAHW[1] (though this training has not always been adequate: poor trainers/ inappropriate methodologies/ content lacking depth) to provide a local source of advice, disease reporting, and surveillance for the local authority and technical ministry; and in providing basic animal health care. Follow up in the field suggests the CAHWs have often (though by no means always) been well selected by their communities and that they possess a significant degree of expertise in animal husbandry for the wider community (a sure sign is to observe and assess the CAHWs own livestock enterprises and the benefits they obtain from their own animals!). This investment is not always maximized when CAHWs have no access to key essential veterinary input supplies and their performance is not monitored. However the CAHWs have often made significant, albeit partial, improvements to animal health service and extension provision by linking them with the technical ministries and farmer field schools.

Currently CW supports largely public sector animal health service provision and experts through the funding of essential vaccines, medication, transport, fuel and incentive payments. This appears to be appropriate in the short term, as a post emergency response, but is unsustainable in the long term. Over the past 20 years evaluations and development literature suggests that provision of animal health services to remote and poor livestock keepers (who are willing to pay for services when the service is understood and the rationale for payment is understood) is best provided by the private sector (veterinarians and pharmacies) linked to a network of CAHWs operating in their communities.

[1] Community Animal Health Worker (CAHW) training when conducted well takes a number of weeks not days and requires follow up support in the field plus refresher training – see the technical training materials referenced in the report;

The challenge for CW is then how best to proceed, either to advocate for policy reform and service provision or to support community based animal health service delivery (which are also technically and organisationally complex systems). Sustainability may not be a realistic objective for now, in some of the challenging contexts in which CW operates, but networks of CAHWs may be established with an emphasis on cost recovery. Advocacy will be important to encourage authorities to develop their policies towards a sustainable system.

In general the review suggests that there is a lack of evidence to suggest significant impact from the livestock distribution (but plenty of opinion to suggest there is potential for impact). There has been a loss of institutional knowledge from livestock distributions implemented in the past and the current interventions are far too early in their implementation to determine significant results! There is a need for ex post evaluation and impact assessments, some 2 – 3 years after the end of an intervention to really determine impact and lasting change.

The key outcome indicator is that the animals stay alive, and that they are able to reproduce to increase the herd and flock size. Then there is potential for increased consumption of proteins, meat, eggs, milk etc or the opportunity of sales to purchase food and agricultural inputs and/ or in meeting other household livelihood needs (especially school fees, medical bills etc.). Short cycle species (such as the small ruminants and poultry) are sufficiently small assets, for CW's target population, to be liquid and convertible for the needs of the poor and by traditional norms often under the control of women and thereby strengthening their ability to secure their livelihood and the well being of their family and dependents. In many instances this is seen in terms of building resilience against shocks and reducing their vulnerability to these household shocks.

Outcomes are especially significant in targeting women as (in many contexts) they see goats as their number one income source and provide considerable care and attention to the management of their animals. Whereas for men, their main focus is, often, on other income generating activities such as the provision of daily labor, giving less attention to the care of their animals. The choice of selection criteria is very much context specific and together with acquiring good quality stock significantly affects outcome and ultimately impact of an intervention.

In establishing appropriate M&E systems there appears to be a need for more reflection/ learning and feedback sessions with staff and with beneficiaries and community members on clarification of the objectives and local perceptions of change. There is potential for more participatory type outcome and impact assessment methods (using PRA tools), as there is a wealth of information to be gained through beneficiary feedback. Good case studies, for instance, suggest that the livestock distributions do play a significant role in assisting the poor to attain some degree of livelihood security e.g. from Sierra Leone: livestock sales helped to diversify the options of the poor and enabled cash to be available at times in the year when the main trade-able crops are not in season.

The '**ends'** for **replacing lost stock** and **building the assets of the poor** (by far the most common purposes of livestock distributions in this review – 75%) will ultimately depend upon 'how people in that context' use their animals – usually for sources of emergency cash, food source and meeting their socio cultural needs etc. For the purpose of **animal traction**, as an input to the cropping system, then the area of land ploughed (outcome), whilst change in yields through timely planting and even associated income from surplus sales, may well be related impacts. Change in income, itself, would be the main indicator of impact for income generating and **increasing market opportunities**. Where the review has identified least impact has been through inappropriate livestock distributions for the purpose of **genetic improvements**.

A theory of change appropriate for CW's organizational strategy to make 'improvements in the lives of the extremely poor' identifies an impact pathway with: **outputs** related to initial assessments/ appropriate distributions for the target beneficiaries/ effective procurement, transport and distribution/ with support measures; producing **outcomes** with animals staying alive/ increasing flock and herd sizes/ and providing means to generate income, provide additional food (especially protein sources), and meet socio cultural needs; and **impacts** of significant and lasting change in diversifying livelihood options and livelihood security against shocks and disasters of the 'extreme poor' target group.

1. Introduction

Concern Worldwide (CW) has frequently distributed animals, with country programs often developing their own approaches as part of their contribution to restoring the livelihoods of their target beneficiaries. But there has been no critical analysis of these approaches to determine their effectiveness and appropriateness. This assignment therefore aims to do this by critically reviewing the methods of distribution used so that project managers will have access to a guide for planning future interventions (see annex 1.1 for the detailed terms of reference).

Livestock & Poverty focused NGOs

The researcher on the assignment has spent 8 years working on livestock related development projects with the family of Vétérinaires Sans Frontières (VSF) agencies (Switzerland, France, Germany & Belgium) and other livestock related agencies (ILRI/ AU-IBAR (CAPE)/ Reading University) before spending the past 7 years working with CW. The livestock specialist NGOs often possess strong technical expertise, materials and methodologies specific to animal health, production, breeding etc with field assessments and analysis on the details of livestock rearing, management and production systems (traditional → semi → intensive) and along the production – processing – consumption marketing chain. Often our work seemed ineffective for poorer sections of society as significant numbers of farmers just didn't have animals and our mandate was unable to address those other key nutrition/ health/ water supply and educational needs. The poverty focused NGOs have a wider array of sector interventions to address this multi faceted dimension of poverty. There is often a tension and trade off between striking the right balance between the two (General 'v' Specialist). Options that may be appropriate for a livestock NGO to invest time and resources in establishing a sustainable community based animal healthcare system or supporting resource rich farmers to become semi intensive producers may be less appropriate when your target group is the 'extreme poor'. But livestock distributions with other supportive measures (technical training + strengthening institutional support + healthcare) are very much at the interface of assisting the poor to develop the potential of livestock and provide the means for poor people to attain some degree of livelihood security.

References & data collection

The inception report set out a thirty day series of tasks over a 3 month period (September – November) involving a review of available literature commencing with the Livestock Emergency Guideline & Standards (LEGS), documentation from the field and other appropriate literature (see reference at the back of the report). A key element to the assignment was to access feedback from the field through email briefing and Skype or VOIP conversations. The ideal 'return' was detailed project reports/ evaluations etc. with specific email briefs and follow up conversations. This was not possible for Haiti, but contact was made with all other project sites reviewed. The delay in establishing these contacts meant that the assignment was more a sixty, part-day series of tasks.

A survey checklist of key questions was sent to the key informants based on the TOR specifications (see Annex 1.2). In total 19 CW country programs were engaged in the study (see the reference section for the countries/ key informants and type of information obtained). Four other programs: Kenya, Malawi, North Sudan and Somalia were not contacted, despite their potentially valuable experiences, due to on-going emergency responses/ conflict/ and staffing issues. Furthermore three other country programs from other development agencies were included due to the availability of project/ evaluation reports: VSF Liberia, SCUK Ethiopia and CA and OGB Eritrea, and with email contributions from key informants from IRC, Tufts University and the Donkey Sanctuary.

The study on livestock distributions also aimed to address the lack of data and poor institutional memory, widely recognized within CW, (and actively being addressed at different levels of the organization). This report, therefore, will provide some element of documentation to capture practices, approaches and key learning across the organization. However it is apparent that there are significant data gaps with a lack of documentation of project reports/ evaluations/ review etc in the field and Dublin; a severe lack of institutional memory amongst current staff (with notable and valuable exceptions); a general lack of process monitoring data; a lack of impact/ outcome monitoring data with a reliance on a few case studies and beneficiary testimonies; and there is a lack of ex post evaluations (that would be evaluations some years after an intervention) which would be the real gauge of impact, sustainability and ability to replicate without on-going agency support or funding. Despite these shortcomings, and the inevitable professional biases of the researcher some substantive data and information has been collected during the exercise.

Report structure
The rest of this report, in compliance with the TOR, addresses: in section 2 the key learning from the Livestock in Emergency Guidelines & Standards (LEGS), which establishes some core standards (eight in total) and four specific standards for livestock restocking and distribution practices against which CW might be compared and appraised in the future. A follow up paper from VETWORK reviews the latest 'best' practice on the use of cash transfers in livestock emergency programming, with learning therefore, for CW.

Section 3 forms the main body of the report, which is a critical review of animal distributions based on data from 19 CW programs and 3 other agency programs. This section looks at experiences from the country programs reviewed in relation to context, procurement, distribution, cost effectiveness, outcome and impact, and sustainability and replication of livestock distributions.

In section 4 a series of decision support tools are presented to assist project managers in the implementation of livestock distributions. Section 5 presents a basket of SMART indicators for measuring outcome and impact. This links livestock distributions within a 'theory of change' and impact pathway in contributing to improving the lives of the extreme poor. Finally in section 6 the main lessons learnt from the review are compiled from throughout the study to provide a best practice guide for livestock distributions based on the LEGS standards and key findings from this study.

2. A quick review of key learning from the Livestock Emergency Guideline and Standards (LEGS) manual

There is much that CW can learn and internalize from LEGS as part of our design, preparation, implementation and monitoring of livestock distribution interventions. This section reviews the 2009 version of LEGS, a 252 page document providing standards and guidelines for best practice and assistance in decision making on livelihood based livestock responses in emergencies; assessments; and minimum standards for de-stocking, veterinary services, supplies of feed resources, provision of water and shelter, and for the provision of livestock. The authors emphasize that it is not a practical manual for implementation, and that its focus is especially on pastoral/ agro pastoral areas in emergency and recovery contexts. Nevertheless, there are clear illustrations of 'best' practice that are relevant to rehabilitation and development contexts as well, and a range of agro-ecological regions across which CW implements livestock distributions.

With the increasing focus and learning on the use of cash transfers we also briefly review an FAO working paper by written by Vetwork on '*The use of cash transfers in livestock emergencies and their incorporation into LEGS*.' Since the publication of LEGS, cash transfer interventions have become much more widespread. The opinion of one of the authors, of LEGS, is to seriously consider cash transfers options given the constraints to conventional livestock restocking, even if done well; they often have high transaction costs. The qualifier for cash transfers being that the market conditions need to be right if they are to succeed.

Minimum standards common to all livestock interventions
LEGS, describes eight core standards linked to both the Sphere standards and the Humanitarian Accountability Partnership (HAP) standards and benchmarks. CW's focus is on extreme poverty (as defined by the 'How Concern Understands Extreme Poverty paper). The extreme poor are also highly vulnerable during disasters (including women, children, the elderly, disabled, and PLWHA). Assessments are essential to understanding and investigating the use of animals by these groups.

Standard 1 Participation: disaster affected population actively participate in the assessments, design, implementation, and M&E of the livestock program/ components.

Wealthier representatives often prefer larger animals: cattle or camels but poorer female-headed households would often prefer assistance with sheep, goats, poultry or donkeys; **Promote active participation ('interactive') targeting and distribution of benefits based on real need;** Involving beneficiaries in M&E promotes local accountability; utilize local knowledge (ITK or indigenous technical knowledge) in building on sustainable coping strategies; respect social and cultural norms: for intervention to be appropriate/ relevant/ owned and even sustainable; and use indigenous or customary institutions which often play a key role in especially natural resource management (NRM) in the provision of feed and water.

Standard 2 Initial assessment: assessment provides an understanding of the role of livestock in the livelihoods of different socio economic groups within a population; an analysis of the nature and extent of the emergency (problem); and an appraisal of appropriate interventions in relation to the operational and policy context and of existing service providers and systems**.**

These assessments need to include the **role of livestock in livelihoods**; the nature and extent of the emergency; and a situational analysis; an understand of the local security (when restocking this could become a liability) and protection needs of the vulnerable; the **availability and operation of local services and markets** (ensure we also use the private sector); and ensure we are compliant with key national policy and regulations e.g. on the role of CAHWs and any cross border restrictions etc.

Standard 3 Response and coordination: different livestock interventions are harmonized and are complementary to other humanitarian interventions intended to save lives and livelihoods, and do not interfere with immediate activities to save human lives;

The priority in an emergency context is **Always to Save Lives**; tailor interventions to specific sub groups and avoid duplication; harmonize approaches and sequencing to the stage of the emergency: in rapid onset emergencies distribute livestock only in late recovery stages; in slow onset emergencies (e.g. drought) distribute livestock in the recovery stage and earlier stages de-stock animals and intervene with health/ feed/ water/ and shelter provision, as required; and coordinate with other actors and link to on-going development work.

Standard 4 Targeting: livestock assistance is provided fairly and impartially, based on the uses and needs of different livestock users by socio economic group;

Criteria to be developed with community representatives (with knowledge gained from initial assessments) linking with indigenous social support systems if applicable and if functioning; and ensure transparency and impartiality through targeting mechanisms being agreed with the wider community at public meetings (promote clarity and openness with local oversight and responsibility).

Standard 5 Monitoring & evaluation, and livelihood impact: M&E and livelihoods impact analysis are carried out to check and refine implementation as necessary and draw lessons for future programming;

Over the past decade very little was known about the impact on people's livelihoods of the many livestock interventions carried out; M&E may initially hinder the design of a response to rapid onset emergencies; but many livestock interventions are associated with slow onset emergencies (e.g. drought) or complex emergencies where there is more time to develop appropriate M&E systems; use the initial vulnerability assessment as a baseline or use retrospective analysis using participatory inquiry tools (use PRA/ PIA tools with livestock users, who are well placed to observe the impact of interventions); provision of livestock in a distribution requires a baseline and a system to monitor and assess livestock growth and herd/ flock development; this monitoring data is important for upward (donor) and downward (community) accountability (note the links to the HAP benchmarks); and for indicators: use local people's own indicators of benefits derived from livestock.

Past evaluations have tended only to measure the implementation of activities and not the impact on livestock assets or changes in people's livelihoods: e.g. consumption of livestock derived food; uses of income derived from sale of livestock or livestock products; benefits derived from access to pack animals; and social benefits such as gifts or loans. There has, sadly, been much repetition of mistakes and a lack of learning from the meta evaluations; therefore greater commitment is needed towards M&E for shared learning and use in supporting advocacy initiatives to address policy issues.

Standard 6 Technical support & agency competencies: livestock aid workers possess appropriate qualifications, attitudes and experience to effectively plan, implement and assess livelihoods based programs in emergency contexts;

There needs to be a balance between technical knowledge of livestock, and an ability to use participatory approaches, as well as an awareness of principles of human rights and protection and of livelihood based programming (which may require short term training and capacity building).

Standard 7 Preparedness: Emergency responses are based on the principles of disaster risk reduction including preparedness, contingency planning and early response;

This is ever more necessary in CW with the 2011 – 2015 organizational strategy in mind focusing on poor and vulnerable areas with DRR and PEER integral to future programming; a need for risk and vulnerability assessments; preparing for repeated crises (the most effective responses are where agencies have long term development experience); procedures in place that enable pre-positioned stocks or procurement of other novel items e.g. large quantities of animal feed/ contracts with private sector (transport companies/ feed suppliers/ veterinary workers etc.); drought cycle management programming to be seen as an expected and 'normal' event requiring an early and timely response, in some contexts; with agencies working long term to encourage community preparedness planning; and the need for a clear exit strategy and phase out plan linking with long term development to avoid the 'free handouts' dependency and to encourage cost recovery for animal health services in an attempt to make them sustainable.

Standard 8 Advocacy & policy: where possible, policy obstacles to the effective implementation of emergency response and support to the livelihood of disaster affected communities are identified and addressed;
Be sure to assess the policy context in the initial assessments - determine if there are any obstacles or impediments to implementation (export bans/ restrictions on animal movement etc.); RBA and advocacy may be more feasible in the post emergency recovery/ rehabilitation phase and as an integral part of long term development; root causes of long term political and institutional factors may cause vulnerability to disasters and advocacy is required to prevent a re-occurrence; advocacy can also in this way create the link between an emergency and future long term development; and M&E is important in the form of evidence to build the case for this.

Livestock distributions: restocking and the provision of livestock
In this sub section we briefly present a series of key points taken from the LEGS manual chapter nine on the provision of livestock. The entry point for livestock distributions is '*Are livestock important to the poor*?' and then, '*Are people with potential for livestock rearing able to acquire livestock*?'

The LEGS manual objective is to rebuild the key livestock assets of disaster affected communities (post disaster and recovery phase of emergencies). For the purpose of this research assignment we are interested in post disaster recovery and further along the continuum into rehabilitation and long term development. Two scenarios are described, which are both applicable to the work of CW:

1. Herd reconstitution (replacing livestock assets in large quantities – especially in pastoral and agro-pastoral areas).

The number and type of species and breed needs to be determined for a 'minimum herd size'; the intervention needs to support indigenous redistribution systems; and link to longer term pastoral development initiatives such as disaster preparedness; the provision of health care and basic education; access to livestock and product markets; conflict resolution; and wider natural resource and range management. These interventions tend to have a high cost per household to be able to reach the minimum herd size with considerable resources required for the logistics and management in purchasing and distributing appropriate species and breeds in large numbers.

2. Other livestock distribution approaches (livestock assets required in smaller numbers).

This equates to many of the type of distributions reviewed in this study: to replace lost stock; new initiatives to generate income; building assets of the poor; for genetic improvement and for animal traction. Multiple benefits may accrue from these interventions that include: source of food or income; reduction in labor burden e.g. use of mules or donkeys; drought contingency; draught power and in complementing other livelihood activities. Introducing 'new' livestock or species requires significant investment of time and resources in support and training; and the intervention costs may also be high as compared to other livelihood activities.

Appraising the appropriateness of livestock distributions requires a thorough i**dentification of the main costs and risks.** The provision of livestock as a post-disaster or recovery response (and also in a rehabilitation and development context) is technically and operationally complex and expensive (especially for herd reconstitution). Consider the following for appropriate preparation, design and planning:

- The importance of understanding gained from the initial assessments
- Social, environmental and economic impacts that need to be assessed;
- Recurrence of disasters and other hazards, such as livestock diseases (epizootic) and livestock to people diseases (zoonosis);
- Capacity of the beneficiaries to care and manage the livestock
- Need for feed, water and shelter (i.e. the means to support livestock)
- Need for technical and skilled inputs from livestock and social advisors;
- High cost per household, which includes veterinary care and training; and
- The choice of cash transfer or in-kind distribution options when livestock markets are functioning.

Agencies with long-term development experience in a particular area are often best placed to support livestock distributions, which can then be integrated into longer term livelihood support and programming. Time is required for households to expand herds so as to survive independently and therefore the livestock interventions need to be integrated with non-livestock assistance.

Targeting should not necessarily focus on the most vulnerable of destitute households but on those who already possess some animals and/ or express a wish to return to a livestock based way of life, and have the relevant livestock rearing skills and experience to succeed. **Wealth and gender relations** needs to be well understood: men and wealthier households tend to prioritize cattle and camels; whilst women and poorer households prioritize smaller types of livestock: small ruminants and poultry. **Security** is a major concern as animals are valuable assets desired by armed militia or raiders. Distributing animals can in some instances increase the risk of theft or conflict. **Environmental** assessments need to be conducted to determine livestock's possible contribution to future land degradation or improvement (cases cited from Zimbabwe of increasing stocking rates in Appropriate Technology, March 2011??). And finally b**uild on indigenous restocking systems,** which often already exist for livestock to be provided as gifts and loans to the 'vulnerable' in society.

Four additional minimum standards specific for livestock restocking and distributions are defined in LEGS with some key indicators for us in our own planning and implementation:

1. Assessment: an analysis is carried out to assess the current and potential role of livestock in livelihoods and the potential social, economic and environmental impact of the provision of livestock (see the table below for a useful checklist of what to include in an assessment prior to planning a livestock distribution);

Indicators:

- Role that livestock play in livelihoods is analyzed
- Indigenous redistribution mechanisms assessed
- Assess cost effectiveness of livestock provision against other options
- Assess probable impact of large purchases on local markets
- Determine local 'norm' for minimum viable herd size
- Assess environmental impact of livestock provision
- Assess potential risks to welfare of livestock: feed/ water/ shelter etc.
- Assess the risk of epizootic disease outbreak
- Assess the security implications for livestock and beneficiary population

Assessment checklist for Livestock & livelihood options and implications
What role did livestock play in livelihoods pre-emergency? • Main livelihood asset • Provision of supplementary food • Income generation • Transport of draught power Which species and breeds were kept & for what purposes? Which species and breeds have been lost and need replacement? If livestock did not already form part of livelihood strategies: • Is there potential for introduction of livestock to meet supplementary food or income generation needs? • Which species and breeds would be most appropriate for distribution?

Have alternatives, more cost effective options than livestock provision been considered?
What indigenous mechanisms exist for redistributing livestock?
What numbers of livestock would constitute the minimum viable herd per household in the local context?

What are the implications of distributing these minimum numbers of livestock in the area?

- Is there sufficient pasture or feed?
- Is there sufficient water?
- Is there adequate shelter or can this be constructed?
- Will livestock be secure or will the activity increase the risk to livestock owners and/or the animals themselves?

2. Definition of the package: Appropriate livestock types are distributed in adequate numbers and through appropriate mechanisms to provide viable and sustainable benefits to the target communities;

Indicators:

- Livestock provision takes account of indigenous systems of stock distribution
- Selection of beneficiaries is based on local participation and practice
- Type and quantity of livestock are appropriate to support livelihoods and are productive, healthy and adapted to local conditions
- Animals distributed at appropriate times

3. Credit, procurement, transport and delivery systems: credit, procurement, transport and delivery systems are efficient, cost effective and support quality provision of livestock;

Indicators:

- Local purchase procurement where possible
- Procurement according to agreed criteria and in accordance with legal procedures
- Veterinary inspection takes place at time of livestock purchase
- Transport planned in advance to minimize risk of losses in transit and based on conditions that ensure well being of stock

Emergency response:

- Livestock provided as a gift**;**
- Credit or 'pass on' system only when this increases beneficiary commitment and does not jeopardize productivity of livestock or capacity of household to meet their basic needs (most likely appropriate in a development setting);

4. Additional support: Additional support (veterinary care, training, food) is provided to beneficiaries to help ensure a positive and sustainable impact on livelihoods.

Indicators:

- Preventive care provided for the livestock prior to distribution
- System of on-going provision of veterinary care established for all members of the community
- Training and capacity building support provided to beneficiaries based on their skills and knowledge of animal husbandry
- Training includes preparedness for future shocks & disasters

Emergency response:

- Food security, shelter and Non Food Item needs are identified according to Sphere standards
- Food security support is withdrawn only when herd size and/ or emergence of other economic activities enable independence from such support

Livestock distributions and cash transfers

Cash transfer options include: unconditional/ conditional/ social safety net transfers/ vouchers/ and cash for work etc. They have the potential to 1) transfer more of the decision making to recipients; and 2) to support local private sector market driven activities. **But there must be a thorough market assessment**. Where markets are

functioning: *"It is possible to target and distribute cash safely, and people spend money sensibly on basic essentials and on rebuilding livelihoods. Cash transfers can provide a stimulus to local economies, and in some contexts can be more cost effective than commodity based alternatives"* (Harvey, 2007: cash based responses in emergencies HPG/ ODI). There is a growing interest in the use of cash transfers within the humanitarian and development sector. At the G8 meeting in 2004, WFP announced that '*we will unleash the power of markets through Cash For Work and cash for relief programs (*responding to famine*)'*.

Experiences of the use of cash transfers and evaluations of their efficacy, as documented in the FAO working paper identified a series of advantages and challenges:

- Cash transfer **advantages** include: flexibility (enables beneficiaries to choose goods & services that best correspond to their needs)/ efficiency (avoids the large costs of in-kind assistance)/ economic impact (injects cash into local markets with multiplier effects)/ dignity and choice (cash enables beneficiaries to make decisions about their own welfare in ways that in-kind assistance does not); and that markets can recover quickly after a crisis.

- Cash transfer **challenges** include: security (cash may present more risks for staff & beneficiaries)/ corruption (cash may be prone to capture by elites however the opposite may also be true!)/ anti-social uses (may be more readily wasted or used in a manner that does not serve the household welfare)/ gender implications (cash can dis-empower women through conflict within the household but can also give women greater control)/ inflation (by diminishing the value of a fixed transfer and can result in local price rises impacting negatively on non recipients)/ requires organizational capacity (may require staff to have a new set of skills & procedures)/ and generation gap (some instances of issues over who controls the cash when used to support HIV and AIDS affected communities).

When and where can cash transfers be used? During **rapid onset emergencies** markets are disrupted, but is more feasible during later recovery phases when markets stabilize. During **slow onset emergencies** cash or vouchers can be used in preparedness phases when linked to social protection. And in **chronic or long running emergencies** they can be used in places of relative security. There is a time dimension to the appropriateness of cash transfers and that in-kind distributions may still be required in the short term.

Preliminary assessments for cash transfers need to include a 'market analysis': Can it provide people's basic needs and support livelihood recovery? What are the feasibility implications re: security, corruption and cost-effectiveness to be considered along with gender issues? Does the target group lack income to purchase goods and services (known as *demand failure*)? For livestock projects this demand includes: veterinary drugs, replacement stock, water, fodder, grazing rights, shelter and labor.

Analysis of the technical intervention (options) for cash transfers suggests that the use of conditional grants and commodity vouchers are especially useful for livestock distributions. **Monitoring and evaluation** of the interventions focuses on what people are spending their cash on; the accessibility of markets and where they buy; and needs to answer the questions: what is happening to prices? Are they receiving the right amounts (for their needs) and are they able to spend it safely? And what are the wider impacts on livelihoods and indirect impacts on local economies.

After a brief review of the LEGS manual and the FAO working paper on the potential for use of cash transfers we move to section three where we review the 'actual' experiences of the 22 country programs, which provided data for this research assignment.

3. Critical review and documentation of livestock distribution methods and lessons learnt

Section three makes up the core of the research assignment with the documentation of the main findings from a review of the 22 country programs and illustrated with a series of case studies from the field. It contains six sub sections: context and relevance, approaches, procurement, distribution, impact and sustainability. The country program sources are referenced at the back of the report and comprise of reports, evaluations, email communication and Skype conversations with key informants.

3.1 Relevance and context

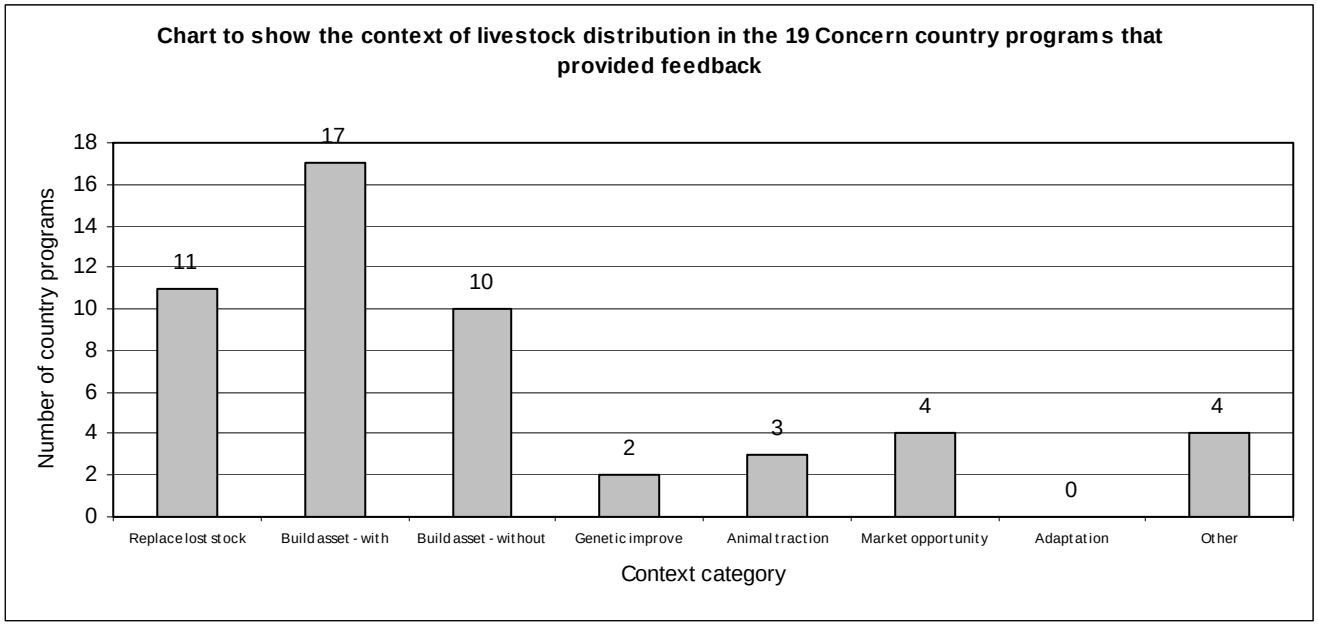
The livestock distributions take place across a range of contexts: agro-ecologies, geography, development phase; and where livestock have differing importance in relation to the livelihoods of the poor. Despite the challenges these interventions are a very relevant instrument in our portfolio of actions in reducing poverty and improving the livelihoods of the poor, when:

- **Relevance** is the extent to which the objectives are consistent with the beneficiaries' needs and those of the country, the global community & donors.

The context in which CW distributes animals covers a significant proportion 23/28 = 82% of the total number of countries in which CW currently operates (28): 19 programs surveyed here plus 4 known programs that were excluded due to on-going workloads. This covers poor countries within the bottom 40 of the UN HDI and that are highly vulnerable to shocks: HIV and AIDS and other communicable diseases, cyclical droughts, periodic flooding, hurricanes, earthquakes, landslides, armed conflict or even a combination e.g. Afghanistan and Pakistan.

The distributions cover the range of the **'emergency – recovery – rehabilitation – development'** continuum. Those recovering from recent emergencies include: Chad, Niger, Zimbabwe, DR Congo, Haiti, Afghanistan and Pakistan. There is a significant group within the post war rehabilitation – development phase including: South Sudan, Angola, Burundi, Rwanda, Liberia and Sierra Leone. A smaller group that is more securely located in the 'development' phase albeit with their own significant challenges to poor people: acquiring stock/ feed/ shelter/ security and epizootic diseases, includes: Ethiopia (with recurrent drought, floods and severe land degradation), Uganda (though raiding and LRA incursions could easily locate the Karamoja region in the conflict ridden recovery phase), Zambia and Bangladesh.

The distributions also take place in a range of agro-ecological zones with unique farming and grazing systems (hence the importance of thorough livelihood/ livestock/ situational analyses before any distributions commence) covering the **humid tropics**: here animals are of far less importance compared to crops and trees with low productive but adapted breeds e.g. the dwarfs goats of Liberia and Sierra Leone; the **savannah grasslands**: with greater interaction between the cropping and livestock systems with high importance attached to manure in maintaining soil fertility and on draft power for transport and ploughing e.g. ox farming systems of Zambia and Zimbabwe; the **mountain ecologies**: with animals maximizing the potential of grass and bush covering the slopes e.g. Pakistan and Afghanistan (where deforestation and land degradation compromise future livestock based livelihoods); and the **arid and semi arid regions** where livestock especially 'cattle culture' predominates in pastoral and agro-pastoral systems (e.g. Niger, Chad, Ethiopia, Somalia, Kenya and North & South Sudan), but equally where significant proportions of households do not own livestock.



The chart above categorizes the main purposes of the distributions across the country programs; there being multiple reasons for any one program to distribute animals (see annex 3.1 for a full list of scores by country). The main reason is to **build the assets of the poor** and extreme poor primarily those with prior livestock experience (17). Country programs also included those 'poor' with potential (their experience being augmented through the provision of additional training and capacity building), residing in an environment where livestock rearing is commonly practiced but **without prior experience** (10) and considered a new enterprise. There will always be those poor who's potential or ability to raise animals is limited and therefore other options than animal distribution need to be considered such as social safety net cash transfers or other livelihood activities identified in the situational analysis e.g. nutrition gardens, petty trade etc. Eleven (11) programs are aiming **to replace livestock** lost due to wars (Angola, Liberia, Sierra Leone, South Sudan, Burundi, Rwanda); other disasters (Haiti and Pakistan's recent flooding, hurricane and earthquakes); and diseases (disease decimated 50% of the cattle population in Zambia's Western Province 10 years ago and prevalent goat epidemics reported in Haiti).

Other purposes include **market opportunities** (4): Burundi targets with goats the poor with limited assets; and with Jersey milking cows the poor with assets (requiring sufficient land to grow fodder) in a zero grazing system that provides milk to Bujumbura residents; Afghanistan includes market access in their 'Mountains to Markets' strategy; Cambodia is utilizing strong urban market demand to promote semi intensive poultry rearing; and in Haiti rural women are benefiting from livestock as a means to generate income (the BRAC & IDS evaluation team identified that income was the main 'driver out of poverty').

Ram fattening at the time of Tobaski is a very successful income earning activity throughout the Muslim world due to the high premium prices generated by the necessity of practicing believers to slaughter a ram on this day. This has proven to be a successful income earning exercise in Niger and in Bangladesh. In Bangladesh CW has linked with a private meat packaging corporation who provide extension advice and a potential market for beneficiaries of the distributions to sell their livestock once they have gained sufficient weight.

The **other**[2] category (4) includes Niger and Uganda, two pastoral based programs Niger and Uganda did not distribute animals. Both were important to include in the study: Uganda who have a relevant strategy for the Karamoja region which is to focus on the delivery of animal health services and through promoting alternative livelihoods and reduce communities reliance on livestock due to the high incidence of cattle raiding 'conflict' as growing herds and populations exacerbate pressure on key grazing lands. Introducing more livestock will only compound the environmental degradation and potentially put at risk those households, receiving new stock, from raiders. Niger was important to include due to its innovative research into the use of cash transfers as social safety nets for the extreme poor. The preliminary findings of the research by Tufts University indicates that the cash transfers did not prevent depletion of livestock assets due to drought and so far none of the poor households have bought livestock – though this may be due to the period being too soon after the drought and livestock markets are currently unstable.

In Rwanda the context of land shortage and rising population is necessitating a shift to agricultural intensification so animals for their manure becomes a prime reason for livestock ownership. Additionally animals are seen by the government as a means to re-connect the social fabric of society after the genocide through the encouragement of indigenous restocking mechanisms (discussed more fully in the next sub section); and Zambia which is embarking in 2012 on the RAIN (Re-integrating agriculture into nutrition) project, which includes the distribution of rabbits and poultry, with the emphasis on nutritional status of target groups and a robust M&E system being established by IFPRI.

Animal traction (2) with one strategy[3] to extend the area of arable land and the need for timely planting (a key factor in determining crop yields) is important in Chad with the use of oxen in the wetter soils of the South and with donkeys in the drier, lighter soils of the East. South Sudan also imports donkeys from the North to support the extension of arable land.

[2] Given the context of climatic change we are surprised at the lack of adaptation to this in our programming; one of CW's partners in Kenya (Massai) are introducing camels as the existing Holstein-Freisian cross cattle are unsuited to the 'warming' climate – requiring more water, and suffering from 'heat stress' than locally adapted animals;

[3] Other more 'regenerative' options may include intensification practices or the use of zero tillage (conservation agriculture practices);

Genetic improvement (4) has been attempted in Burundi through a failed bull improvement scheme (in the past) and the current practice of introducing crossbreed Jersey cows (50 – 70% pure breed). With the urban demand for milk zero grazing practices and infrastructure have been established over the past 15 years in both Burundi and Rwanda with available quality stock a short one hour distance from Kigali (Bujumbura, however, is approximately 4 hours from the project site) making it a viable venture. The introduction of improved Landrace boars (2004 – 2006) and improved cockerels (2009 – 2010) in Liberia has not been successful. Improved breeds often struggle more than local breeds to adapt to new surroundings leading to high mortalities and poorer farmers are often unable to provide sufficient feed as the animals compete with humans for cassava and grains. It is a practice that comes with risks.

But in Ethiopia (Amhara) there is a successful experience of crossbred rams being introduced to local sheep flocks. These cannot be purchased locally and need to be brought from other regions where they are available. The evidence suggests that the offspring are fast growing, fatten quicker, and fetch a better price at the local market. In this case the direct link can be made between improving livestock productivity and household income. Amhara (Ethiopia) is the only case of CW programs successfully utilizing Artificial Insemination (AI), though the author is aware of its successful use in both Burundi and Rwanda on small-scale farms. In Amhara the local government has successfully established a reliable AI system for farmers and CW have facilitated the service delivery of this method of genetic improvement by supporting the training of six farmers on AI techniques. They now use government equipment to provide this service - earning a small charge for their time (semen and nitrogen costs are met by the government). The trainees' success rate is reported to be 85%.

Genetic improvement is also included in other distributions (Ethiopia, Liberia, Sierra Leone etc.) where females are distributed with new males (ratios of 1 male: 7 females; 1:5 and even 1:20) in a community for both small ruminants and poultry. The new animals themselves increase the gene pool with new genetic vigor and which is also the traditional mechanism to respond to inbreeding. The danger in countries like Liberia and Sierra Leone where animals have been decimated entirely in some communities is that the population size is so very small (they are the only two countries to have identified inbreeding as a problem).

The chart below shows the species being distributed in the 19 surveyed CW country programs plus Kenya and North Sudan (data supplied by Paul Wagstaff). The livestock distributed needs to be based on the **uses and needs of different livestock users by socio economic groups**. This information is contextual specific and gathered from the standard livestock assessment: wealth ranking, labor profiles, seasonal calendars, income and food sources (part of the household food economy tools) etc. **Resource rich** or 'better off' farmers we tend to associate with large stock: cattle, horses and camels in larger numbers; plus large numbers of the other animal species, sometimes reared in more intensive production units. These are more valuable assets, less liquid and often require high levels of inputs: medicine/ feed/ labor for security and grazing etc especially when associated with improved breeds in more intensive management systems (High input: High output).

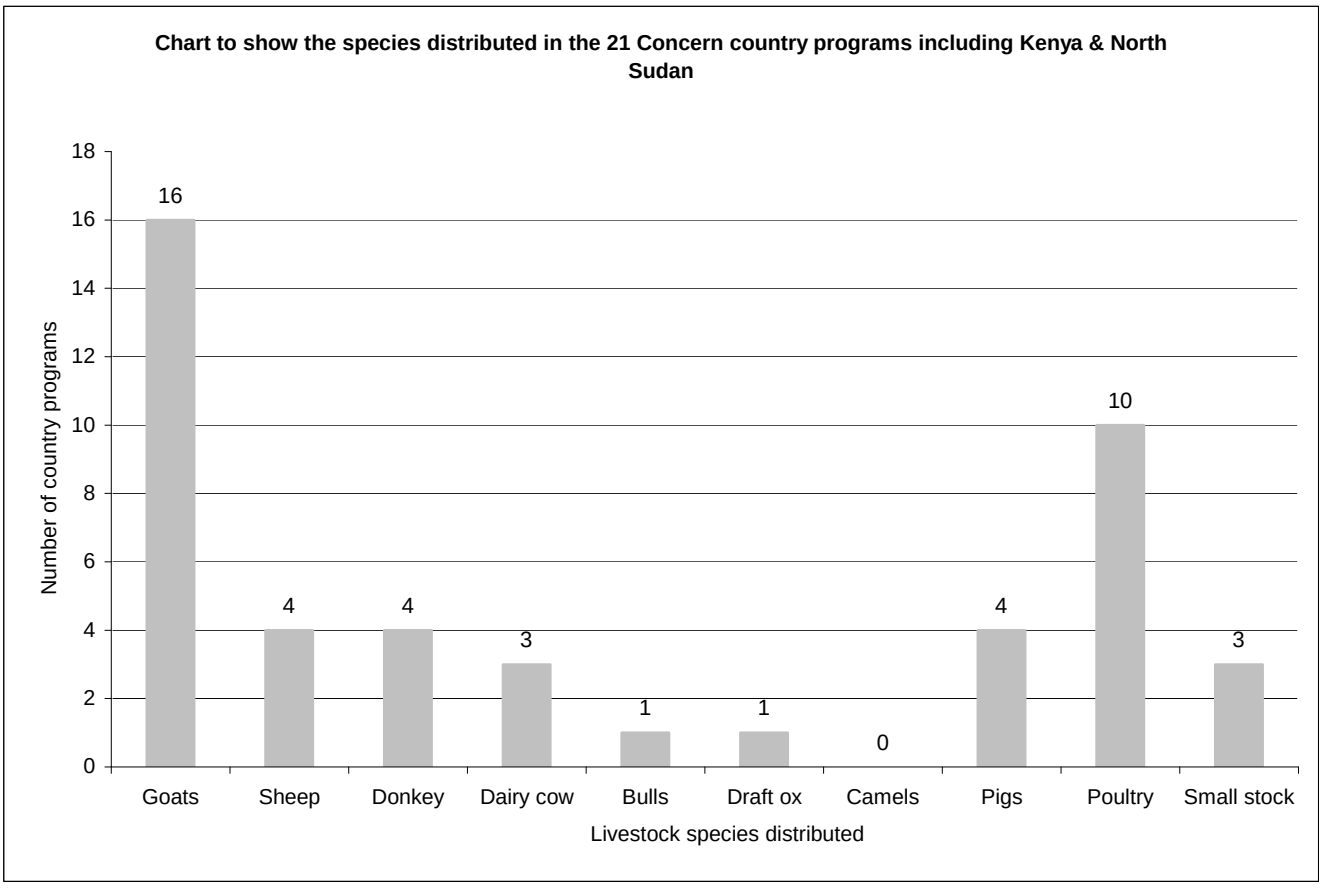
Resource poor or 'poor' farmers we tend to associate with short cycle species such as small ruminants: sheep & goats and especially poultry and depending upon the context possibly even a donkey. These are less valuable assets but more liquid (can be more easily converted into smaller units of cash e.g. eggs, chicken or goat). The assets can be more rapidly reproduced as compared to large stock and are often associated with more traditional management systems e.g. free range (Low input: Low output) but far less risky in terms of replacing lost assets.

Livestock are known as being **multi functional**: with an input function to the livestock system via herd or flock growth and to the crop system via draft power and manure; with an output function mainly meat, milk, eggs, hides and skins for both subsistence and cash; with an asset function as a secure investment, sold off at times of household need, whilst accruing interest in terms of calves, kids and chicks etc; and with a very important socio cultural function: dependent upon the culture for use as bride price (labola in Shona) in marriage, at funerals, appeasing ancestors, gifts to friends and visitors etc (Steinfield, 1988).

Most of the animals distributed by CW, in the recent past, are small ruminants: goats (in 16 country programs) and sheep (4); also donkeys (4); and poultry (10) which are species often preferred by poorer female headed households (see annex 3.2 for a full list of scores by country). **Goats** are the most popular – a significant asset for the poor, conferring a high degree of pride and dignity and a tradable asset in time of need; often hardy (especially locally adapted breeds) and requiring minimal time in terms of supervision and management (women especially often don't have much spare time to meet their other productive, reproductive and social functions in

the household). **Sheep** and donkeys are much more cultural and environment specific. **Donkeys**[4] are especially under rated and yet have considerable value for the poor in arid and semi arid lands for draft power, transport and as pack animals (carrying water, firewood and even renting out). **Poultry**, especially local breeds, are widely owned – often the very poor might even have a few chickens. They provide meat and eggs and are a very liquid asset as well as being important in many cultural ceremonies. Poor farmers really struggle with improved breeds e.g. Liberia with the cost of providing additional food and far higher levels of management required than they are used to or have the time for. There are four examples of **pigs** being distributed: they have not tended to be preferred in CW operational areas, but in specific contexts they are also a highly prized and valued species; local breeds are especially hardy and they live off waste, scrap and forage free range.

Cows are important in Burundi and Rwanda (also Kenya but no data collected) and utilized in a zero grazing system for poor farmers with assets. In Rwanda it is Government policy for each household to own a cow. Generally cattle tend to be associated with wealthier groups who would not be CW's target group. In the past Tanzania distributed dairy cows but with the shift in target group towards the extreme poor they discovered that the poor lacked the assets including labor to maintain a cow. They now focus on targeting poor women and vulnerable groups with goats and chickens. A **bull** improvement program had operated in Burundi in the past; cows were distributed in Afghanistan but this is no longer taking place; and **draft oxen** have been distributed in Chad to wealthier socio economic groups who repay 50% after the harvest with the funds re-cycled to cover the cost of a cash transfer to the extreme poor. **Rabbit** distributions in DR Congo have taken place to support three women's community groups and to IDPs in Liberia (2000 – 2002) – no economic outcome or impact data is available but often there are multiple social benefits that accrue to bringing women together: 'a togetherness', solidarity, establishing their own group saving and lending schemes etc. Economic benefits from livestock accrue at the household level which is the most appropriate 'social unit of management' – to be noted by the RAIN project in Zambia that plans to introduce rabbits in 2012.



[4] Largely associated with women but not exclusively so – being context specific from country to country;

Are livestock interventions the most appropriate?
Livestock interventions in the country programs have largely been regarded as highly relevant and appropriate through key informant feedback or donor and evaluation reporting. Essential to the appropriateness of the interventions in a thorough livelihood assessment, understanding of the livestock sub sector and a situational analysis to determine which alternative interventions would be most suitable to accomplishing the objective with the chosen target group.

The great advantage of a poverty focused agency like CW is to have the range of sector programs (FIM formerly livelihoods, primary health including WASH, basic education and HIV and AIDS) as program instruments in attaining objectives. Most of the livestock distributions take place within a wider FIM/ livelihood security program, over a 3 – 5 year period, with a range of interventions:

- Afghanistan - with watershed and rangeland management;
- DR Congo - with seeds & tools distributions, access to markets (roads) and capacity building LNGOs
- Ethiopia – NRM, irrigation & mixed agriculture extension, WASH, and market access (roads & culverts)
- Liberia – part of a micro project program (2002 – 2006) that included food processing, inland valley swamps, fisheries & bridges for access; and broad FIM program (2009 – 2011) with crops, tree crops, processing, road & culverts, and capacity building
- Rwanda – agricultural methods (soil fertility), gardens, farmer cooperatives, saving schemes and erosion control
- Sierra Leone – agricultural production, market access (including roads & culverts) and DRR
- Tanzania – crop production, processing & value chain, land tenure issues; and
- Zimbabwe – conservation farming, nutrition gardens, general seed and input distributions and WASH.

Beyond the pastoral areas livestock is often significantly secondary after the various crops but are important as a DRR measure at times of crop failure, at times of shock to the household in meeting essential needs, and at times of year when cash crops (oil palm, groundnuts etc.) are not being harvested.

Angola's 'Goat incentive food security' mid term evaluation critiqued the 'lack of an in depth' analysis and questioned whether goats were the real priority as compared to draft power. Goats are largely used as a cash reserve and a 'saving system to respond to emergencies' not specifically as a means to food security. Focusing on draft power was considered to be a more suitable livestock intervention. In Zambia the livestock distribution commenced without a thorough livestock sector assessment – it is currently on hold due to the problems of sourcing (1,600 km away), procuring and transporting goats. Without local livestock in sufficient quantities it is questionable whether the distribution is appropriate and another option needs to be considered (see the decision support trees presented later in section 4).

Other distributions take place in recovery phases from emergencies. The distributions are more short-term interventions (determined by donors) but need to be linked to long term support such as Pakistan which has had 6 – 7 continuous years of multiple disasters and response but the team on the ground have not had the time to program supportive follow up measures.

Targeting: beneficiary capacity/ minimum land holding or other key assets a precondition?
Suitable beneficiaries need to be identified, in conjunction with the local community in ways that are transparent and readily communicated, 1) in terms of poverty or vulnerability (based on local criteria established through wealth ranking) and 2) that they require sufficient knowledge and skills already in animal husbandry or that can be provided by training and capacity building to maximize the chance of keeping the animal alive and not wasting the resource.

Targeting has attempted to reach the extreme poor often through wealth ranking exercises and using community criteria with which to identify the poor in their own communities. Often those identified by the community selection include women. The 2011 EOP evaluation in **Liberia** identified the highest % involvement of women in poultry (62%) and small ruminant rearing (61%) as compared to swamp rice (46%); agro processing (39%) and tree crop rehabilitation (30%). In **Pakistan** women were the main target group with vulnerability based on being a single headed household/ being pregnant/ or with large numbers of dependents. Even in an emergency context, community meetings, over a 3 – 4 day period, take place to establish 'committees' (in some instances even a formal CBO) to oversee the distribution and determine the target beneficiaries.

In **Haiti** an array of detailed criteria were established (the aim being to support extreme poor beneficiaries to graduate onto a micro credit program) focusing on women who were: food insecure/ poor health/ poor housing and sanitation/ in often, abusive relationships/ minimal social networks/ and lacking savings. In **Bangladesh** groups of 20+ 'vulnerable' women were created and they then identified the bottom 30% in terms of wealth who were targeted – the others becoming later recipients on the 'pass on' chain.

In **Zambia** the focus was on social protection for the 'labor' poor households and those affected by HIV and AIDS; and a similar chronically poor labor endowed group were identified in **Zimbabwe** on the basis that livestock is often less demanding of labor than the production of crops. This included widows/ HIV & AIDS affected and the elderly with 72% being women. A similar target group is addressed in **Tanzania** adjusting their distribution accordingly away from dairy cows (that cannot be easily managed by socio economic vulnerable groups that lack financial and labor assets to maintain them) towards goats and chickens.

In **Sierra Leone** certain individuals were not able to care for the animals but other family members were identified to take responsibility and to attend the training. Beneficiaries had lost their animals in the war and had been unable to replace them. A goat shelter was a pre-condition for distributing the animals and they needed to collect local materials and provide the labor.

In **Chad** the 'extreme poor' received welfare support and were not seen as sufficiently able to utilize productive assets. In the East donkeys and ploughs were distributed to those with land, labor and who were actively farming; and in the South ox and ploughs were distributed to middle and wealthy groups with land. The aim was to hire more of the poor to weed; the beneficiaries produced food surpluses and repaid 50% of the cost of the plough at the harvest and this was used to fund a cash transfer scheme for the 'extreme' poor.

In **Burundi** those with sufficient land and assets to build a shelter and provide sufficient fodder received a cow; and those without sufficient land or assets within the 'poor vulnerable' category received a goat with the aim that the goat keepers will 'one day' graduate onto becoming cow owners (a single cow fed in a zero grazing system but requiring sufficient land to grow fodder throughout the year). And in **Angola** the 'poor vulnerable' were considered unclear as this included 90% of the population so a further criteria was linked to an interest in goats and these beneficiaries formed the goat user groups.

In post drought affected Somali region of **Ethiopia** (SCUK) beneficiaries were drought affected, female headed households, dependent upon firewood and water collection with the capacity to return to a pastoral way of life. In CW's operational areas of SNPPR and Amhara in Ethiopia beneficiaries were identified with communities' established wealth ranking criteria.

Any donor procurement requirements?
All donor contracts come with terms and conditions in relation to the levels and approach to procurement and tendering or alternatively we comply the logistics and procurement regulations devised and refined over time by Dublin logistics. In most cases this has not created a problem for animal distributions. Angola relate the case that the local EU office were forthcoming in approving waivers where an understanding of the problem on the ground could be communicated in person and understood (with the establishment of a relationship or rapport). Often small local cash payments are best in sourcing quality stock but this can create 'auditing' issues without the necessary documentation. In South Sudan the team were not permitted, by OFDA, to make purchases from the local market but instead had to procure through a selected supplier.

Burundi experienced that the EU mission in Bujumbura would not accept local purchases at a 'livestock fair' but insisted on an open tender with a supplier. This restriction may not always secure the quality of stock, as will be discussed further in the next section, and yet having the quality and specification of stock is crucial to the success rate of a distribution. Burundi also report the effect of government policy in restricting procurement. The Government is opposed to the past restocking efforts of NGOs, which it sees as 're-distribution' within a locality. Procuring locally is often a 'sound' approach with which to procure animals but the policy actively encourages regional purchases with the aim of building up the national herd in terms of quality and size. In terms of an animal distribution program this increases costs and often can result in increased mortalities, through travel stress, and the difficulty of animals to adapt to a new environment. In Pakistan, post recovery donor contracts are often of short duration. This in itself constrains the ability to secure quality stock and provide the necessary capacity building and institutional support.

The only donor procurement regulations reviewed came from Zimbabwe, funded by the PRP (Protracted Relief Program) which specifies the target beneficiaries, the value of the package of items distributed (including the management of livestock fairs), beneficiary pre-payment and re-payment conditions and distribution methods, which specifies the use of commodity vouchers, for animals, through the establishment of livestock fairs and the regulatory oversight by their appointed program management agency. The Zimbabwe team appear to have complied fully including the phasing out of the distribution subsidies over a period of 4 years in an attempt to shake off the curse of 'dependency' syndrome that often results from emergency relief programs.

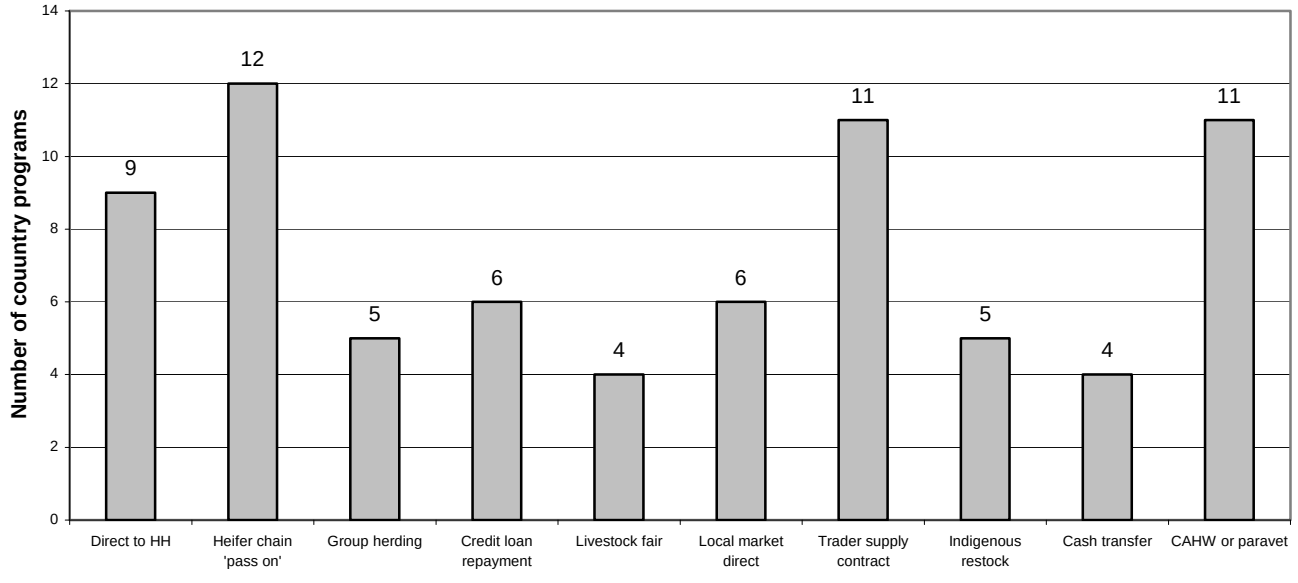
Assessment checklist for Beneficiaries prior to livestock distributions (taken from LEGS)

- What social, physical and natural capital assets do potential beneficiaries have to enable them to manage livestock successfully in the future?
- Can training in livestock management be provided if necessary?
- What role do women & men play in livestock management and care and what are the labor implications of livestock provision?
- What are the particular needs of vulnerable groups in relation to livestock management and access to livestock products?
- Are there sufficient resources to provide livestock related support to beneficiaries (for example veterinary care, feed, shelter) as required?
- Are there sufficient resources to provide non-livestock support to beneficiaries as required (for example food or other livelihood support while herds rebuild)?

3.2 Approaches to livestock distribution

The chart below summarizes the range of procurement and distribution approaches that take place across the 22 country programs reviewed in this study (19 CW programs and three other agencies: CA and OGB in Eritrea, SCUK in Ethiopia and VSF France in Liberia). A table documenting the criteria by country and agency is presented in Annex 3.3. The range of procurement and distribution approaches reviewed reflects the range of contexts in which livestock distributions take place.

Chart to show the variation in approaches to livestock procurement & distribution across the 22 country programs (19 CW & 3 other agencies) reviewed



The livestock distribution intervention is on the one hand a simple **procurement → distribution model** from donor → to implementing agency/ partners → to trader/ supplier → to beneficiary; and on the other hand, as described in section 2, it can be a **technically and operationally complex intervention** that can also be expensive (especially post drought recovery herd reconstitution targeted at pastoral communities). **IF** the **animal stays alive** then it has the potential to be a reproductive asset used by poor people to meet their livelihood security and food security needs through cash income and direct food consumption. **IF** the necessary **supportive measures** are well established: organized community base (people participating) through capacity building and training; institutional support at the village and at higher levels (including livestock expertise and animal health functions), then there is the potential for impact, sustainability and replication.

Why the method/ Who was involved in the design of the method?
The methods of livestock distribution chosen are determined by a number of factors but mainly by the experiences of influential stakeholders: staff, partners, Government, peers and local communities etc. In Afghanistan the former system was found to have limitations and the new team brought ideas from other agencies (CRS & SCUK in Ethiopia). In Burundi and Rwanda the method was influenced greatly by Government policy; in emergency contexts such as Pakistan with the premise 'to save lives' and re-build livelihoods a direct distribution is the more feasible within the short funding duration; in Ethiopia, and by association Angola too, a credit based system was based on the experiences (know how and therefore strengths) of the staff and their local partners; in Cambodia the Self Help Group based system was initiated by experienced staff and the chicken rearing complemented by the expertise of their local partner; in DR Congo and Rwanda there are methods that have been used to complement more indigenous restocking mechanisms; and in many other cases we cross check with our peer agencies and find out what has been successful and worked well already in that context.
CW makes a considerable effort to be as inclusive and participatory as possible. Each of the country programs appears to have made strong vertical and horizontal linkages with key stakeholders (especially the MOA and Veterinary Department/ local authorities etc.) including community representatives from different socio economic groups. Participation is key to relevance, ownership and sustainability. There are different types of participation (see annex 3.4 for a full set of definitions) ranging from manipulative to passive to functional through to interactive (co-learning) and self-mobilization. Our aim in establishing effective and efficient development interventions is to aim towards interactive participation, defined by IIED as:

"*People participate in joint analysis, development of action plans and formation or strengthening of local institutions. Participation is seen as a right not just the means to achieve project goals. The process involves interdisciplinary methodologies that seek multiple perspectives and make use of systemic and structured learning processes. As groups take control over local decision and determine how available resources are used, so they have a stake in maintaining structures or practices*"

Technically complex and organizationally demanding interventions as livestock distributions require a range of relationships and partnerships. The process of establishing an effective and sustainable distribution scheme that targets the correct people, has full support of key stakeholders (village leaders, traders, input suppliers, local government and technical line Ministries), ensures that good quality stock are kept alive and that can then be the means to deliver outcomes and impacts in a sustainable manner needs to ensure that the right type of participation is being practiced. In the examples presented below: on the one hand many stakeholders were actively involved but on the other hand there are instances of insufficient time, lack of capacity at management or field level etc. Which meant that poor people were not always aware as to what was the purpose and process involved in the distribution plan. The aim then is to 'fail forward' and learn from the mistakes and make the necessary course corrections.

3.3 Procurement options
The review identified a number of different ways in which animals are procured which included local direct market purchases (6), trader supply contracts (11), examples of individuals restocking through indigenous mechanisms (6), the utilization of livestock fairs (4) and through the use of cash transfers (4 or 6?). What is strong and clear from the review is the importance attached to acquiring good quality stock in the effectiveness of livestock distributions.

Indigenous mechanisms
During initial assessments of the existing livestock sub sector: species, management practices, ownership and main constraints etc it is essential to determine whether sufficient good quality stock is available in sufficient

quantity to effectively implement a livestock distribution intervention. Find key informants that have local knowledge and expertise in livestock rearing. It is highly unusual for them not to be able to identify local existing mechanisms of restocking already taking place. In Liberia and Sierra Leone individual breeders were identified, places and people were known from which to buy animals and nobody bought from the local markets as these animals were generally known to be sick and ready to be culled.

In DR Congo the 'pass on' distribution scheme in Kasongo built on a traditional rotation system by passing on the first kid to a vulnerable neighbor and became more successful when the beneficiaries themselves were involved in identifying the next beneficiary. Supporting this traditional practice ensured community ownership (an earlier problem arose when offspring were passed onto people outside the community!) and this enhanced sustainability. In Rwanda Government policy took on board traditional practices and CW have tapped into this to greatly increase the success of their on-going distributions.

Livestock & traditional culture in Rwanda
Reviving traditional cultural practices around livestock distribution is an interesting approach and worth investigating in other countries. In the past the rich in Rwanda traditionally gave their animals to the poor to look after. The poor got the benefit of the milk, dung, usually the first offspring and to a certain extent, status (classified by the Belgians as "Tutsi"). For the rich this was a risk management strategy. By scattering their herd around the hills of Rwanda, the rich reduced the risk of their animals being wiped-out by disease or cattle rustling (similar practices occur in South Sudan within the Nuer and Dinka pastoral societies).

Indigenous procurement takes the form of gifts or sales from neighbors or relatives from other communities. Do be aware of these mechanisms and ensure that 'no harm' is done to these systems when implementing new actions. Beneficiary and community stakeholder participation will likely mitigate any adverse effects.

Local market direct
In Cambodia Self Help Groups receive a grant from a local partner and issue loans to the five family members of chicken producer groups (case study presented below under credit system). These starter families then procure poultry (3 hens + 1 cock) on their local market. In SNPPR, Ethiopia procurement was made directly at local markets initially by CW themselves and later after adopting a credit based scheme loans were issued and the beneficiaries purchased the animals themselves at their local market.

In Liberia, VSF bought locally. The livestock assessments identified very poor quality animals available at the local markets where farmers confirmed that they only sold their sick animals to be culled[5]. The country, like Sierra Leone, had lost most of their livestock in the war. However a study of indigenous restocking practices identified the presence of local breeders and interior locations in Nimba County where 'relatively' good stock could be procured from known breeders or area with a 'good' reputation for livestock rearing.

In Afghanistan the emphasis is on local markets through local suppliers to provide the best quality stock that is also adapted to the 'local' environment. If the quantity is unavailable then neighboring markets are investigated. Reducing the distance the animals are transported limits 'stress' in animals thereby increasing the chances of survival, reduces costs and can prevent the spread of diseases. Important in all livestock transactions and movements however is the need for screening, selecting and vaccinating animals (we deal with the animal health service provision more fully in a later sub section).

Trader supply contract
Generally the learning on procurement is to keep it local. Animals don't tend to travel well and do have adaptation problems even over relatively short distances. Bangladesh records mortality rates of as little as 4% through local purchases, as compared to mortality rates of 50 – 70% when goats have been transported from other regions (as shared by a consortium of implementing partners funded by DFID). For similar reasons Tanzania also preferred local purchases of local breeds. However exotic milking goats could only be acquired in the Southern Province. Exotic breeds, often bring with them, higher risks and higher management costs which extreme poor beneficiaries cannot readily manage. South Sudan even report a problem of supplying local animals as they have instances in which those animals then make their own way back to their previous home!

[5] This is also found to be the case in the Nuba Mountains of North Sudan;

Sierra Leone underwent a 'learning process' in their search to identify good quality stock and good quality traders through whom to procure the sheep and goats in sufficient quantity. Animals are purchased from traders who buy locally. Those knowledgeable and trustworthy traders with a good track record have also received training in animal health and screening for diseases. Additionally the contracts penalize financially the procurement of poor quality stock. Traders are key stakeholders with whom to collaborate for effective animal distributions (see case study below).

Sierra Leone's challenge to find and keep their sheep & goats alive

Their first strategy failed in 2005. They procured animals outside the district – brought them to the villages where they quarantined and vaccinated the animals; before being herded as part of a group ownership. The animals experienced high mortalities, suspected of being already disease ridden (most likely PPR), other animals died and the animals were poorly managed.

- Individual or household ownership with better training improved the management of the animals
- Fula traders were identified over time with a knowledge of animal rearing and sourced animals within Tonkolili district from known local breeders; a relationship has developed between CW, the communities and the Livestock Department; the traders have also received training on animal selection/ identification of disease signs etc.
- With the local Livestock Department the animals were screened, vaccinated and quarantined at the place of purchase and the animals already existing in the destination community were all vaccinated before the arrival of the new animals;
- Para vets were trained in each of the host communities (there is now a network of 48); these knowledgeable individuals identified by their own communities received advanced training on animal husbandry and health; they now play an important role in disease surveillance, treatment, extension advice, liaison with the Livestock Department & CW, and in liaising with the traders in the selection and screening of suitable animals

Over time the 'effectiveness' of rounds of restocking (in terms of animal mortalities and morbidities) has significantly improved through **building a partnership with key stakeholders**:

1. Beneficiaries
2. The community in the form of the livestock committee overseeing the distribution & 'pass on' chain and the selection of beneficiaries
3. The village para vet
4. The Livestock Department staff; and
5. The traders

Source: Sierra Leone key informants & documentation (see country references)

Traders supporting the South Sudan program are unable to acquire poultry and donkey stock in Bahr El Ghazel and so they are sourced in North Sudan. The most extreme case of long distance inter regional procurement comes from Zambia where goats have to be sourced 1,600 km across country from east to west, which has resulted in mortalities of 20 – 30%. The logistics and procurement challenges are such that the distribution component is currently on hold awaiting a strategy re-think.

Zambia: livestock distributions in Western Province

Western Province is traditionally a cattle-rearing region, which 10 years ago was decimated by a cattle disease (CBPP). This resulted in, an estimated 50%, loss in the cattle population and associated economic decline. The situation is additionally exacerbated by the HIV and AIDS epidemics. Concern therefore targets HIV and AIDS affected and the extreme poor persons to improve their income and food consumption. Included within a wider FIM program are livestock distributions.

Local chicken breeds are sourced by traders within the operational districts, ideally and when insufficient birds are available, then in the wider Province. Poultry are distributed directly to households without any obligation to 'pass on' and is favored by beneficiaries residing in urban and peri urban area as minimal space is required.

Goats are not traditionally reared in this Province but have the potential to meet the needs of the target beneficiaries. There is very little available stock within the Province so traders are forced to procure animals from Eastern Province a journey of 1,600 km. This comes at a cost of $75 per animal and relatively high levels of mortality between 20 – 30% depending on the batch and district. The batches of animals delivered in 2009, as part of a 'pass on' approach, are being monitored but since then the logistics dilemma is unresolved and no further procurements have been made.

A key **decision tree question** asks: Is there a supply of local livestock for purchase in sufficient quantities? Clearly the answer is no.

- What are the other alternative options to support the target group with the available funds? – A detailed situational analysis with the Provincial Community Development Department is required.
- Do Concern and the Provincial Veterinary Department (MOA) have sufficient expertise, funds and time in which to establish a goat multiplication center? – A detailed financial appraisal needs to be conducted.

The team is due to meet in November to review and re-strategize on the goat distribution component.

Source: Zambia key informants & documentation (see country references)

During post disaster recovery in Pakistan the team there have contracted local traders (by open tender) to supply animals, mainly goats and chickens. Surprisingly, after such upheaval, the livestock markets have generally functioned well. During such times fodder, water and shelter has been a problem and so people have sold many of their animals to meet the dire needs. Poultry has been found to be in short supply and it is not always possible to procure the quality of small ruminants especially the most prized 14 – 18 month old females.

Livestock Fairs

Ethiopia provides two examples one from CW in Amhara where a fair is organized at a regular periodic weekly market. Another example comes from SCUK in Somalia region. In both cases cash payments were made by the respective agencies in the case of SCUK this was for 15,000 small ruminants and 500 donkeys (a procurement of this size was criticized in the evaluation for not conducting a market analysis on the effect that this would have on the local economy – most likely significantly distorting market prices at a time when they were already high in the aftermath of a severe drought).

Livestock fairs

Beneficiaries are given vouchers or cash to purchase animals at traditional livestock fairs/ markets, or Concern sets-up livestock fairs. This enables beneficiaries to choose their own animals and encourages the development of the local livestock trade. Animals need to be inspected by a trained vet before being allowed into the market. Fairs are only viable if there are surplus animals in the area (not an option if local herds have been depleted by war, raiding, disease e.g. in Liberia and Sierra Leone).

Other examples are found in DR Congo where goat fairs were organized in Kasongo using commodity vouchers worth $90, which were exchanged for 2 – 3 goats from registered vendors (dependent upon the quality of the animal and the negotiation skills of the beneficiary. Disputes with traders were reported over redeeming the vouchers, as their expectation was that US$ cash would be available at the site. So, called veterinary nurses (from the MOA) were in attendance to screen the animals before they entered the market and to vaccinate the purchased animals before they left.

Similar fairs were organized in Zimbabwe, again using commodity vouchers to purchase up to 2 goats and 2 chickens. The beneficiaries do get to chose their preferences and negotiate for the best quality 'deal' they can. In markets where there are demand side failures (where sections of the population lack the purchasing power to buy) commodity vouchers provide an injection of capital. The registered vendors are then able to exchange the vouchers for cash at the end of the day. Two useful lessons from the Zimbabwe experience include:

1. Livestock traders are mobilized in advance for the fair, and once beneficiaries are registered themselves they also assist in mobilizing the trader/ vendors;
2. The sellers redeem their vouchers at the fair on the same day; and
3. A help desk is established at the fair to deal with any complaints from either the trader/ vendors or the beneficiaries.

Cash transfers

Despite the growing interest in the use of cash transfers over the past 10 years they appear to have had only limited influence over the approach to livestock distribution in the country programs reviewed in this assignment. The main exceptions being the organization of the livestock fairs and the use of commodity vouchers in DR Congo and Zimbabwe described in the sub section above. In Zimbabwe it is anticipated that the consortium of donors within the PRP program will continue to explore more effective ways of 1) distributing essential inputs through use of commodity vouchers (used at livestock fairs but also with other suppliers, wholesalers and retailer for other food/ seed and non food items); use of closed or partially closed vouchers in locations where a market network exists; but stick to more conventional direct in-kind distribution modes in remoter locations where there are few or no commercial outlets and suppliers; and 2) aim to withdraw 'free' support gradually in an attempt to prevent the 'aid dependency syndrome' associated with protracted emergency situations through the gradual reduction in the value of the vouchers. The expectation being that after 3 – 4 years farmers will be encouraged to apply 'normal' practices of planning and saving to address their input requirements.

Other examples include the 50% repayment that 'better off' farmers are making, in Gore, Chad, for their ox and plough distributions. The sums collected are to be utilized for a social safety net cash transfer scheme for the 'extreme poor'. In Masisi, DR Congo, multi sector cash voucher markets were established for vulnerable IDPs (this was a $90 voucher for seeds & tools, non food items and shelter materials). An earlier contextual analysis had identified the importance of small stock in the livelihoods of the poor (rabbits and poultry but not small ruminants: goats & sheep). A post IDP expenditure analysis revealed that only 0.3% of the total expenditure had been spent on livestock. A number of key issues then followed: 1) to build confidence with livestock traders who had brought animals, many of which had not been purchased; 2) to question whether they had the right target group after all for small stock; and 3) to question if livestock distribution was inappropriate at this stage in a recovery process (experience from Pakistan would suggest it was).

In Haiti targeted rural beneficiaries also received a regular periodic stipend (see Haiti case study below for the direct livestock distribution) as an unconditional cash transfer. 70% of beneficiaries used this stipend with the income from the sale of goats to purchase large stock: horses, donkeys and cows. The motivation for these purchases appears to have been for status, prestige and for a large future saving. However by the end of the project only 40% still owned their large stock. Some beneficiaries were forced to sell as they required small amounts of cash often (which is why goats and poultry are more suitable assets for the poor) and significant numbers died due to the lack of animal health care; and the unwillingness to seek a veterinary practitioner and to then pay for healthcare. The net effect was that the poor households had lost their savings and as the evaluators described, exhibited less agency in taking control of their lives.

In Niger CW has commissioned research by Tufts University into the social safety net cash transfer program established in response to the drought and food crisis in 2010; preliminary indications at this stage suggest that cash transfers did not prevent the depletion of household livestock assets; non of the poor bought animals with the cash (this is more appropriate in the late recovery period when livestock market prices are expected to stabilize); additionally the cash transfers did appear to create inflationary pressure on non beneficiaries making them worse off and we can expect similar adverse effects with larger cash transfers involving livestock purchases (e.g. the purchase of 15,000 small ruminants by SCUK in Ethiopia). With cash transfers the learning is to ensure market assessments are carried out. They work well when markets are functioning – in post crisis periods the livestock markets are often short on quality and quantity (especially droughts when de-stocking may have taken place and many animals perished).

In post emergency Pakistan recently, in addition to livestock distributions, unconditional cash transfers have been made to the 'extreme poor' target group: this has been suitable as the markets have generally continued to function (demand side failure on the part of poor consumers) but there is no indication to suggest that they have used the funds to purchase animals.

Assessment checklist for Procurement prior to livestock distributions (taken from LEGS)

- What are the implications of the purchase of significant numbers of livestock on the local markets?
- Are livestock available for purchase in sufficient numbers within transporting distance of beneficiary communities?
- Is transport available and can stock be transported safely without risk to their health or welfare?
- What are the risks of epizootic disease from importing stock from another area?

3.4 Distribution options

There is a blurring along the continuum between procurement/ acquiring and distribution systems (indigenous systems have been closely connected with the 'pass on' approach which is what has made it especially successful in Rwanda, Burundi and Congo). In this next sub section we review the experiences of country programs using direct in-kind distributions without an obligation of repayment or 'pass on' an offspring from nine programs (9); the most popular NGO approach sometimes known as the Heifer International or 'pass on a gift' (12), group herding (3) and approaches associated with the provision of credit and loan repayment (6).

Direct distribution without obligation

These are often mass distribution type exercises involving large numbers of animals e.g. IRC distributed 8,000 small ruminants in Pakistan as a response to the floods of 2010.

Mass distribution

Centralized procurement of large numbers of animals that are distributed to the beneficiaries by the NGO. It introduces new genes into the local gene pool but may cause high stress during transport with resultant high mortality rates and there is a risk of introducing new diseases into previously disease-free areas (e.g. spread of sleeping sickness into areas of Northern Uganda[6] restocked by NGOs). Animals (except poultry) must be kept in quarantine (for up to 14 days) before distribution and final payment to the supplier is an additional expense[7].

CW in Pakistan for the past 6 – 7 years has conducted direct in-kind distributions to target beneficiaries after a period of almost continuous multiple disasters: earthquake, flooding and conflict related. These have been post recovery distributions also focusing on key inputs: fodder and feed, and veterinary supplies as the animal health services, usually operational, have not been functioning. Short term funding requires a quick response without the luxury of time to establish a 'pass on' scheme.

Key learning from Pakistan included:

1. Where ever possible buy locally and buy local breeds
2. Distribute in the 'cool' early morning hours to reduce stress
3. For long distance travel identify a recuperation site with water/ shelter/ feed close to the distribution sites
4. Include Newcastle vaccinations in the supply contracts; and
5. Remember that post recovery the priority is for human shelter and immediate survival needs; and that
6. Late recovery is more suitable for animal distributions.

[6] This is a risk of nridging the ecological 'gap' between different trypanosomiosis species with potential to lead to multiple infections;

[7] There are known 'quick, simple & cheap' tests for detecting trypanosomiosis but do require trained staff to administer;

Pakistan: post disaster recovery distributions

The team, liaise closely with the local veterinary department – essential for screening animals at the markets and to observe during a 5 – 7 day quarantine period. CW often supports them with essential veterinary inputs, as they can be in short supply immediately after a crisis.

Goats: local preference has been for local breeds and the non-milking goats, which have strong breeding traits to re-build up the herd and later for meat and sale. There is a time constraint on thorough systematic monitoring and follow up but a recent survey of outcomes suggests that 62% of beneficiaries' animals are surviving and reproducing; only 8% died of diseases and 30% had sold their assets – which was suggested may have been down to poor selection of beneficiaries.

Chickens: distributions have recently been conducted based on FAO/ Government findings followed up by CW local assessments. Beneficiaries preference has been again for local breeds – adaptable/ good brooders/ and with a good hatching rate (but these have generally not been available as they did not survive the floods); instead Egyptian egg layers ranked second could be obtained (however these are not new to many farmers); and thirdly a crossbred egg layer was purchased. The results were poor: due to stress from 12 – 15 hours of transportation; distribution took place during the hottest time of the day and 50% mortality from Newcastle Disease.

Source: Pakistan key informants (see country references)

In Chad the complex, protracted conflict (in the East) often only permitted, since 2008, 'hit and run' distributions with minimal contact time with, often, nomadic beneficiaries. The team, have still not returned to the 2009 goat distribution. The village social fabric appeared far too weak for any 'pass on' scheme and the population was 'living for the now' with a focus on survival. There was also a danger that the distributions may have become 'liabilities' attracting the attention of raiders (the author was also involved in canceling distributions in Lofa County, Liberia, owing to the potential and later actual danger, less from rebels, and more from the attention of Government troops in 2001). There is no data as there was no follow up possible but it is supposed that the distribution was a failure. Additionally the distribution in Chad took place just before Tobaski – the time when the price of fattened rams is phenomenally high (it is likely that many of the animals were sold at a good profit). A second distribution in 2010, in the East, involved donkeys and ploughs. There were few health problems as the animals are renowned as being 'hardy'. Again the context did not permit sufficient time for training on ploughing and husbandry. A more comprehensive and thorough pre-assessment might have identified earlier the problems of ploughing friable light soils (conservation no tillage farming may be a better option) and negative effects are a possible consequence with more weeding for the already overburdened women and not the additional hired labor of the poor, that was assumed (again a detailed gender analysis may have foreseen this).

Key learning from Chad: donkeys are an excellent option (transporting firewood and water otherwise carried by women and young girls; with potential for draft power to cultivate land; and are productive assets for future sale or rent (fully corroborated by the Christian Aid/ OGB project in Eritrea); and the importance of a comprehensive livelihood and livestock sub sector assessment (if time and the context permits in this case!).

Haiti provides an interesting case study in the difficulties of meeting the range of needs of the extreme poor – a mix of cash stipend and productive assets (goats and poultry or a small business grant of $150) were distributed to 150 women:

Haiti: making the step up out of poverty to graduate onto a micro finance program

Livestock are a significant means for poor rural women in Haiti to generate income. CW and their local NGO partner, Fonkoze, attempted to address the multi dimensional nature of poverty in a truly challenging context. The strategy attempted to promote **sustainable livelihoods** with the provision of a cash stipend and productive assets (goats, poultry or a small business grant); **reduce vulnerability** by promoting saving and better health seeking behavior; **building capacity, skills, confidence & agency** through enterprise training and case manager support; **improve social conditions** through house improvements, use of water filters and provision of school uniforms; and **strengthen social networks** by linking beneficiaries with social elites through the village committees.

Livestock was important as a means to generate cash: poultry for short-term income and goats for medium-term income. This was used to pay off loans and invest in vegetable gardening. Socially marginalized beneficiaries with income grew in self-confidence but still required considerable support from their case manager. The support contributed to meeting a wide range of household needs. But at $1,200 per household, this provides a real challenge to scale up. The evaluation considered the animal distribution as meeting short-term gains; but the broader strategy lacked a sustainable impact to lift the beneficiaries out of poverty. Few of the beneficiaries (at the time of the evaluation) appeared likely to make the step up to graduate onto the micro finance program.

Source: Haiti documentation (see country references)

The only example of **herd reconstitution** following a severe drought comes from **Ethiopia** and implemented by SCUK. Its strengths, described in an ex post evaluation (M. Wekesa, 2006), were its participatory, consultative and process oriented approach to planning and preparation in restocking 500 households through a package that included: 30 small ruminants, one donkey, plastic sheeting, blankets and two months of food aid plus the training of 10 CAHWs (the animal health support aspect is discussed at more length in a later sub section). Strong linkages were made with the Government, UNICEF, local NGOs, the Livestock Bureau and the Disaster Prevention Commission. Eighteen months later the average herd size had increased to 44 – 48. It was estimated that a sustainable herd could be expected only after 3 – 5 years. The original package distributed was thought to be inadequate (the evaluation recommended 50 – 70 animals per household); recommended a larger food ration and for a longer period (all constrained by donor funding); CAHWs could have been better trained; and beneficiaries could have been better screened and selected as few of the IDPs actually returned (which was the purpose of the project).

Key learning from Ethiopia (post drought recovery) included:

1. The need for better analysis required in selecting beneficiaries in relation to their skills and motivation
2. The need for a market analysis of the effects of purchasing 15,000 animals;
3. The need for monitoring the performance of CAHWs and restocked households to assess impact
4. The value then of an ex post evaluation as compared to an end of project evaluation in assessing impact; and
5. The need for linking post emergency livestock distributions to longer term development programming – including effective animal health services (which means community based) and the need for DRR and emergency preparedness

Pass-on, *chaine de solidarité*, Heifer International approach

The most commonly utilized approach is what is commonly known as the Heifer or 'pass on' method currently practiced in 12 of the country programs (55%). This is the traditional NGO approach initiated by Heifer International in the 1940s. The 1st group of beneficiaries receive pregnant animals and are expected to 'pass-on the gift' of offspring to the next round of beneficiaries. It works well when there is active involvement of the beneficiaries and the wider community. Key elements include **training** on animal husbandry. Livestock are the **entry point** for individual and community empowering methodologies. Community level **institutions** are established which include key stakeholders, community leaders, immediate beneficiaries and future beneficiaries on the distribution chain. Groups are established which provide solidarity and support for marginalized groups in society, the extreme poor, women etc. Economic assets like livestock can be the beginning of more empowering social development – 'inclusion, pride and dignity' and examples of establishing other livelihood activities such as group saving & credit schemes.

The Afghanistan case study shows the shift in strategy currently taking place to encourage greater community participation and community development with a shift away from 'free inputs' of the past to a more sustainable approach (this is one of the main advantages of the 'pass on' system which will be discussed further below in the sustainability section). But it does demand a considerable degree of capacity building among staff in terms of PRA and community development type skills and methodologies, that are not always well practiced across CW.

Afghanistan: a change in strategy from direct to 'pass on'

In the past staff were used to buying the animals themselves and distributing directly to community members – there appears to have been a loss of institutional memory with staff turnover and a lack of sustainability and wider impact of distributions beyond the immediate family. A new strategy is being prepared based on the experiences transferred from SCF and CRS in Ethiopia. This includes emphasis on: clear and transparent beneficiary selection criteria; establishing a village 'committee' or even CBO to ensure 'pass on' of the offspring from the 3 females + 1 male small ruminant to the planned target households; training is planned 1) on animal husbandry and 2) on strengthening and organizing the 'committee' in asset management (the offspring) and other community wide initiatives around the fodder banks; establishing a memorandum of understanding (MOU) with the beneficiaries and the households; and the significant investment of time in staff and partner capacity building. The aim is to complement this new approach with the establishment of credit and saving schemes, as also practiced in Ethiopia.

Source: Afghanistan key informants & documentation (see country references)

In the past CW has attempted group ownership schemes but experiences from Liberia, Sierra Leone, DR Congo, Burundi and most recently South Sudan have proved this to be highly unsuccessful. The preferred **social unit of management** and ownership for livestock is most often by individuals or at the household level. Not withstanding this, the target beneficiaries are often organized into 'user groups' to facilitate training, sharing and

learning e.g. Angola, Rwanda etc. In post war countries this further helps to re-build social structures and solidarity amongst neighbors. The animals provide a focal point around which other unintended benefits may accrue. Strong group dynamics make this system function but it can be time consuming (as long as 12 – 15 months prior to animals being distributed) and requires considerable contact time and support with field staff and beneficiaries to ensure that the processes of organization and future distribution chains (signed MOU are important here, along with community leader 'buy' in) are understood along with group members roles and responsibilities. But time invested in the initial stage can ensure sustainability and replication in the future. It is important that the beneficiaries feel a sense of ownership. The group 'solidarity' (i.e. those on the distribution chain: those having received and those due to receive in the future) aims to ensure that with 'pass on' there are future obligations to other beneficiaries.

In **Bangladesh** this was further re-enforced as some beneficiaries added a financial contribution of up to $9 to the $17 available as project budget per animal. In **DR Congo** the 'pass on' system builds on a traditional rotation system, ensures the 'buy in' of the wider community to prevent the immediate sale of the asset to enable the 'pass on' to occur to other beneficiaries on the chain. Again, this re-enforces the importance of a strong village institution to oversee and enforce the obligations of the beneficiaries.

Rwanda provides a fascinating case study in the use of different distribution approaches and compelling justification for the 'pass on' system with it's close links to traditional 'indigenous' mechanisms of distribution and its importance in re-establishing the social fabric of society with strong Government endorsement, as it is official policy. The case study below also emphasizes the importance of coordination and collaboration with key institutional stakeholders at Village/ District/ Province/ National level in effective programming:

Key learning from Rwanda then is:

1. The importance of participation of the beneficiaries (deciding on species): relevance, ownership and sustainability
2. The inclusion of key stakeholders: providing an enabling environment and oversight by the local authorities and technical expertise from the MOA and Veterinary Department
3. Local purchases are made in functioning markets with available good quality stock (there is no need for livestock fairs) – goats purchased from distant localities experience higher levels of mortality and morbidity!
4. Small stock reproduced quickly and offspring was 'passed on'; and
5. The chain for calf offspring beneficiaries was based on who is most in need whilst also on their ability to best care for the animal (beneficiaries prepare in advance by growing grass and 'saving' to construct the shelter).

Rwanda – 'pass on' as official Government policy

In the post genocide context animal distribution has become part of the strategy for nation building and re-establishing the social fabric and togetherness of a suspicious and divided nation.

1. The **traditional practice** of livestock owners distributing their offspring (the beneficiary gains the milk and an offspring for caring for the animal before returning to the owner) to spread their risks and build social capital (maintains their position in society whilst assisting poor relatives and neighbors) has been re-instigated by local authorities and actively implemented at village level;

2. Government policy is '**one cow per family**' with targeting criteria similar to that of CW – the poor without livestock; with more than 0.7 Ha of land to grow grass (fodder); have constructed a cow shed; and a record of good hygiene practice, sending their children to school and being a member of a 'gatacha'

3. Concern with local NGO partners builds on traditional practice and government policy with differing approaches based on funding availability and the local cultural context and all involving close **support of the local authority** to ensure offspring is 'passed on' and selections are made according to the criteria:
-In Gakenke: pigs are distributed directly to all beneficiaries
-In Huye: goats are distributed directly to all beneficiaries; whilst cows are distributed to those meeting government criteria (above) and able to 'pass on' their obligatory off spring;
-In Nyaaruguru: goats are distributed directly to all beneficiaries; cows are distributed to established cooperatives and offspring 'passed on' but beneficiaries pay 50% the market value of the animal.

A graduation scheme (similar to that found in Burundi too) links smaller stock owners who build their assets to meet the requirements to qualify to become beneficiaries of the cow distribution scheme. Local authority stakeholders play a key role in its organization, supervision and oversight as part of their own obligations to enforce national policy.

4. The CW **nutrition program** also distributes goats: I) to address malnutrition (with milking goats), and II) as a buffer against livelihood shocks and a way out of the vicious poverty cycle. In 2010: 776 goats were distributed providing 636 offspring; and so far 338 have been 'passed on' to other beneficiaries in the nutrition program.

Source: Rwanda key informants & documentation (see country references)

In Liberia we appear to have the best documentation and longest institutional memory on livestock distributions stretching back to 2002 up to the present day. The 'pass on' system with local breeds of sheep (2005 only) and goats (2005 and 2010) appears to be successful despite the challenge in sourcing local stock (this is a risk for big programs attempting to distribute large numbers of animals especially in Liberia and neighboring Sierra Leone). Standard elements include: oversight 'committee' to administer the chain and select suitable beneficiaries, good quality training and support from the MOA's Veterinary Department (screening at source and PPR vaccinations). Their distributions were found to be especially successful in the location with a technically competent local NGO partner. The advantage of 'pass on' when the key elements are established thoroughly (which can take time and requires well trained and high caliber field staff) then it has the potential to be sustainable and replicable long after the NGO departs. The 2006 donor report recommends to extend 'pass on' to all animal distributions in building household assets.

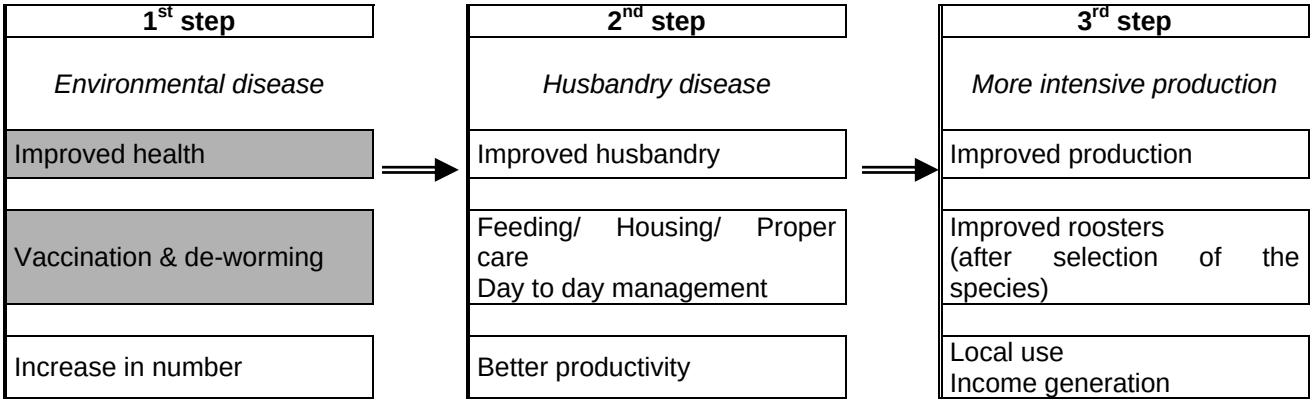
Liberia's distributions have been far less successful when introducing new species e.g. pigs (in locations where there has been no tradition of rearing them) or cross breed cockerels (which keeps being repeated!!). Targeting animals such as ducks and guinea fowl, that are scarce to procure, only frustrates beneficiaries. Introducing more intensive production systems only makes sense once the fundamental elements of husbandry are well practiced (in Liberia livestock rearing is generally low priority and not of a high quality). The graduation model Figure 3.1 below (taken from VSF Liberia, Dr Bassirou Bonfoh) describes the main steps required before intensifying production or introducing crossbreeds.

Key learning from Liberia includes:

1. Began on the basis of community ownership but shifted to individual or household management
2. The importance of practical applied technical knowledge through quality training;
3. Time is needed in post conflict recovery to re-establish civic structures 'bringing people together'
4. The value of animals in social & cultural life for gifts, dowry, feasts on special occasions;
5. Beware of new species e.g. pigs or 'improved species' requiring extra labor and feed;
6. Stick to the local hardy breeds and focus on improving hygiene, feed (free range) and health
7. Free range requires less labor (labor is a scarce resource especially for women);
8. Identify and learn from indigenous restocking mechanisms;
9. Build on traditional Indigenous Technical Knowledge and practices; and

10. In depth participatory assessments with key informants and community groups is a priority at the start

Figure 3.1: the VSF graduation model from traditional to more intensive production systems



The approach to 'pass on' in Zimbabwe follows a conventional format also: utilizing exiting structures (ViDCOs) to include community elders and leaders in the beneficiary selection and to organize and oversee the 'pass on' chain (more is planned in the future to strengthen these village based institutions as their performance is described as variable with regard to supervision and 'pass on' oversight in a recent evaluation). Training is provided by experts from the Department of Veterinary Services on: animal production, management, nutrition and animal health. So far 205 village vaccinators have been trained to assist in the vaccination of chicken (against Newcastle's Disease) and to de-worm the goats. Beneficiaries obtain from the livestock fairs approximately 2 goats and 2 chickens. This is the start of livestock distributions for re-building the assets of the poor by CW in Zimbabwe. It forms part of the donor PRP framework (which is based on the Bangladesh Rural Advancement model) that attempts to graduate the 'extreme poor' beyond survival → towards protection through asset transfers/ training/ credit & saving support → towards promotion through micro credit and onto more sustainable livelihoods. There are clearly lessons to share with Haiti in the challenges of reaching down to the 'extreme poor' as opposed to the transitory poor, who are more likely to possess assets and agency.

Key learning to take forward for future programming include:

1. The need for long term support for livestock development in relation to supporting sustainable animal health services in the light of high goat and chicken mortalities; addressing wider NRM issues around uncontrolled grazing and land degradation; and weak market linkages;
2. The need to inform beneficiaries in advance about the 'passing on' principle and identifying the 2nd round beneficiaries on the chain from the outset;
3. Addressing the challenge of the revolving veterinary drug fund (with a dip tank committee) in terms of governance, stock control, pricing and replenishment (see section below on animal health services and the danger of revolving funds becoming 'dissolving' funds!);
4. Linking elderly and labor poor beneficiaries with Ward development committees which are difficult for them to attend; and
5. The 'pass on' structure as it stands is not sustainable (those receiving 2 goats are expected to only pass on one), which will run down requiring a re-design of the system and far greater capacity building of the 'oversight' committees to supervise the process.

There is some justifiable **critique** of 'pass on': the main problem is that it takes a long time for the last person in the chain to see any benefit, by which time the 1st beneficiaries have built up a considerable herd (however if the implementation is truly participatory the most suitable beneficiaries have been prioritized at the beginning of the chain). NGO projects are often of a short duration that may not be long enough to see the scheme through to its conclusion and significant time, capacity building and support is required to put in place the key structures.

In Bangladesh it is suggested to 'pass on' only after the herd size has built up otherwise the target beneficiary delays in realizing cash and food benefits and in Ethiopia they have chosen to adopt a credit based system as structures to enforce 'pass on' have been weak whilst the structure to enforce credit repayment are well established and institutionalized. In Liberia the 'process' for livestock production was found to be slow (sourcing animals, distribution, reproduction etc.). It took time before extra food and income became available but the

potential is there as the distributed animals start breeding. In the most recent distribution the scale is limited to 200 animals (a donor budget constraint). However challenges to scaling this up are partially due to the shortage of good quality stock. With the 'pass on' system it is a long time before a significant number of families benefit but it can be a sustainable system long after the NGO departs IF the village oversight 'committee' is firmly established. Extending the existing livestock distribution (reference the 2011 Lofa evaluation) is viewed as bringing considerable diversification in terms of protein/ cash purchases (a 15 month old goat is currently valued at around $40) in the future.

In Burundi dairy cows are distributed using the 'pass on' (locally termed the 'solidarite chain') to other beneficiaries in the solidarity group of five members. In an attempt to address the length of time before a female calf is passed on and reared to maturity with the aim of providing milk the CW team are piloting the passing on of the female cow whilst leaving the offspring with the original beneficiary.

Group herding

Group herding
Often used to improve genetic quality. Groups receive a high quality bull, buck, cock, etc. to provide breeding services for the group members. One member provides space on their farm for the animal and the other members help with feeding. Group members get free breeding services while non-members pay a fee. The offspring may also be kept as a single herd (Burundi, DRC) but this can lead to inbreeding. This system can work but too often the person who volunteered to host the breeding animals on his/ her farm ends up having to do all the work – collecting fodder, water, etc. or the animals end up getting neglected. The system can work better if the group employs a herdsman.

There are only five brief occurrences of group herding. Two involve the 'learning' that resulted in Sierra Leone and South Sudan to shift their distribution strategies from group herding to the more conventional and well accepted practice of individual or household level management (what Dom Hunt in his Sierre Leone evaluation, 2006, terms the most appropriate 'social unit of management'). This is illustrated with a case study from South Sudan:

South Sudan: shift their strategy from groups to individuals
CW operates in an agro pastoral region where animals are at the center of their way of life but many animals were lost in the 30 year civil war.

Groups: the earlier **goat distribution** took place in groups linked to vegetable production. Goats were used to provide greater cohesion in keeping the group members together. Five goats were provided per group and once the herd had increased to 10 then five were 'passed on' to one of the members. In the meantime one member was responsible (collected the milk and manure) but often neglected their responsibility when animals got sick and medication costs were to be found. Mortalities occurred to the detriment of the wider group.

Individual ownership and responsibility: from 2011 they are now distributing five animals per women headed household; which follows the approach of other peer agencies in the region. Further more the women's poultry Income Generation Activity had commenced as a group enterprise but the beneficiaries preferred individual ownership as it was easier for them to manage their own birds: in terms of feed and risk of disease (epizootic diseases within large flocks spreads whilst dividing up the birds amongst the women reduces this risk). It is also easier to pass on gifts or restock friends when the decision making and control of the assets are under one women's responsibility.

Additionally the program distributes **donkeys** and plough shares to individual poor farmers with access to land. Training, naturally, is in groups.

Source: South Sudan key informants (see country references)

There are two examples, both from Liberia, of the introduction of crossbred cockerels. This fits for the traditional free-range management system with the introduction of roving males (after all it is the traditional mechanism with which to minimize inbreeding within a flock or herd). However the introduction of crossbred cockerels has been largely unsuccessful. Improved breeds have serious adaptation challenges without the appropriate level of feed, healthcare and management. This is most often inappropriate for resource poor farmers who can neither afford the additional costs (grain, vaccines and medication), nor obtain the required inputs nor have the additional time for a more intense form of management. This becomes more viable with market demand that provides the capital means to invest and graduate upwards to a more intensive system (see the Cambodia poultry case study below).

Finally Tanzania provides an interesting example, which combines the conventional learning on the social unit of management for livestock enterprises with the economies of scale of organizing and supporting farmers in groups.

Tanzania – partial group herding

CW, like many other agencies in the past, had focused on cows but with the targeting of the extreme poor the beneficiary choice of animal are now short cycle species: goats and chickens; which have lower costs (in terms of inputs, time and labor as compared to keeping a cow), lower risks therefore and are more easily converted assets for meeting their household emergencies and other needs.

Goats are distributed directly to the individual household. They are slower to reproduce and multiply in a group as compared with chickens. Training however occurs in groups linked to the farmer field schools (FFS) and the offspring are 'passed on'.

Chickens, however, are managed in a group contrary to the experiences of other agencies*. Here a group of 20 – 25 establish a coop and a starter stock of 10 hens + 1 cock distributed; training and support is provided and with time the flock size increases for the group members to establish their own individual flocks. A semi intensive production system is encouraged which does provide feeding constraints. Usually intensive production systems are best established with more resource rich farmers or when poor farmers have 'graduated' and sufficiently increased their assets to make the step up when they are ready. However the group starter and flock multiplication program appears to be functioning well for their members.

Source: Tanzania key informants (see country references)

**The author worked with women's poultry groups in The Gambia (VSF Suisse) in the 1990s; after three years there were minimal economic benefits to the group (benefits divided by the total number of group members); however there were multiple social benefits: establishment of group saving & lending schemes (SUSU), social cohesion, friendship & togetherness and sense of pride in 'their' group*;

Credit and loan repayment

Formal credit institutions are well established throughout the world but often require borrowers to have collateral, which often then excludes poor farmers who are seen as too high a risk. Due to this, credit predominantly benefits the more resource rich farmer who then has the means to become 'progressive' and invest in more commercial and more intensive oriented operations and production systems. NGOs have for many years operated saving and loan schemes that are prepared to loan funds to poor individuals (often within peer support groups e.g. BRAC in Bangladesh) without the need for collateral. Our first example of this type of credit funded livestock system is from Cambodia (not technically a livestock distribution but more of a conditional cash transfer in the form of a loan to be repaid).

Cambodia: peasant farmers making the shift to commercial chicken producers

CW funds a local NGO to establish Self Help Groups (SHG). The SHGs receive a grant and then loans to members. One successful option is to establish chicken producer groups made up of five families, often without any real chicken rearing expertise. One member is selected and supported with a village demonstration site. Technical support and training is offered to the wider community. Loans are issued to group members on receipt of a 'sound' business plan.

The community identifies the poorest members of their village: keeping a few chickens that scavenge, free range, lacking market information, lacking links to MOA or other NGOs and without any real collective organization. One village established a CBO with 82 members, who each had an interest in chicken rearing. Technical support was provided with the fencing, housing, three times per year vaccinations, hygiene and on how to observe animals for signs of ailment. Small grants were provided to the farmers for 3 hens + 1 cock plus fencing and housing materials.

Support: came in the form of technical training, use of demonstration sites, exchange visits, links with the village based CAHWs and with the MOA which included links to Farmer Field Schools (FFS). Two model farms were established in each village where the when and how of vaccination is explained and general poultry husbandry. Emphasis is placed on value chain criteria – understanding market information, the importance of quality and pricing.

Outcome: Resource rich adopters of the new methods have increased flocks sizes to more than 150 birds; whilst more resource poor adopters increased their flocks to between 5 – 12 birds. Sales are made for meat and chicks are sold to other villagers beginning the enterprise; special prices are gained for sales of breeding hens and cockerels. Sales are made to other villagers and, of significance, to traders who now come directly to the villages themselves

Source: Cambodia key informants & documentation (see country references)

In the Cambodian example credit has succeeded as a means to capitalize poor farmers because of market opportunities especially through growing urban consumer demand. Key lessons include:

1. The establishment of an inclusive CBO that included the poor and very poor within its group;
2. Focus around a single economic activity (chicken rearing) that the partner NGO had experience in;
3. The partner also had strengths and experience in managing community credit facilities (they played to their strengths);
4. A more intensive production system requiring increased feed, veterinary medicines, housing & fencing materials plus practical knowledge was possible due to the market opportunities and
5. A very good understanding of their context: market opportunities and appropriate modifications to the traditional poultry rearing system.

Gore in **Chad** provides another interesting case. The richer beneficiaries receive a pair of oxen for ploughing at a 50% subsidy. The cost of the animals is repaid to Concern in two installments after the harvest. The repayments are, then planned, to fund a cash transfer scheme for the extreme poor. South Sudan provides another example distributing 400 donkeys with a plough to 'better off' beneficiaries with land but requiring repayment to the VDC. Funds generated can be used either to buy new ploughs or as a contribution to a new community project.

The two Ethiopian examples provide an interesting explanation as to why the context in **Ethiopia** is more suited to a credit and loan repayment system than 'pass on' which from the experience of CW in Ethiopia has not worked well but from the experiences of SCUK and CRS in Ethiopia it has (see Afghanistan's new planned strategy on the basis of success from these other agencies).

In Amhara, Ethiopia, beneficiaries received a cash loan at a livestock fair, which was immediately used to buy sheep, goats and even rams. Beneficiaries then become part of a saving & credit group. This system functions around an existing, and well established village level institution – the village cooperative. The Government structures in Ethiopia are strong with top down tendencies that is reported to be highly effective in enforcing loan agreements. The cooperative promotion office is responsible for supporting local cooperatives in terms of audit, inspection and training services.

Ethiopia (SNPPR) shift from 'pass on' to credit based distribution

1st year: CW established a 'pass on' model with a local 'committee' to help select the beneficiaries by wealth ranking who were organized into groups of 10 who included 1st round and 2nd round beneficiaries. Animals were procured by CW at the local market and distributed according to the plan. The main constraint was 1) the animal losses after distribution reported as theft or disease but could not be verified, and 2) the lack of follow up time required for the community to internalize the project objectives and the beneficiaries' and oversight committee's responsibilities which resulted in confusion and conflict.

This was CW's first year of implementing this kind of intervention: time is required to establish the oversight structure and to establish the agreement with the beneficiaries and the wider community in the form of the 'committee'. In Ethiopia, it was reported that, there is no Government structure to enforce these agreements (whether there was a formal MOU is unclear). During this time CW was transitioning towards partnership.

2nd year: The new LNGO partner that took over this project had strengths and expertise in savings and credit schemes with strong links to the Government department that enforces loan agreements. Beneficiaries now became part of a savings & credit group issued with a 500 birr loan. The loan was documented with an agreement to repay 50% each year over two years. The institution established is responsible for collecting the loan and identifying the next beneficiary. The 2nd round beneficiary receives the loan and procures their own animals at the local market.

Source: Ethiopia key informants (see country references)

In SNNPR, Ethiopia livestock were distributed initially through the chain de solidarity but the partner NGO has changed this into a credit system – instead of passing on young animals the beneficiaries repay cash into the local SACCO (credit and saving scheme). This is an interesting and innovative approach, but it still has the problem of the long wait for the last person in the chain to receive any benefits. Credit-based approaches need technical support from Concern or partners to ensure good practice in both credit management as well as good animal husbandry practice. The key learning from SNNPR (Ethiopia):

1. That time for clarification and expertise are required to establish the oversight structures and that documented agreements (MOU) are required; and

2. The process of distribution needs to be context specific – in this case based on the strengths and expertise of the implementing agency, which in the case of CW was not 'pass on' and in the case of the LNGO partner was in operating a highly efficient savings and credit scheme.

The credit based goat distribution (the goat incentive food security project) in Angola is interesting as the Government took a stand with its policy insisting that no free hand outs were to be provided by NGOs. Goat user groups of 15 persons were established with the first 10 members receiving 2 females each (and repaying in-kind with one offspring) and the balance five receive their animals once repayment has been made by each of the 1st round members. The system is similar to 'pass on' but does not continue once all of the 15 group members have received their offspring. Unfortunately the program was fraught with implementation constraints: lack of country leadership, staff shortages and far too ambitious an area to cover to realize any significant impact after the end of the three year project and now the closure of the country program.

The main learning from the project is that it needed to be **piloted on a small scale** so that stakeholders, staff and local communities could identify the flaws and misunderstandings before making the necessary course corrections; then build capacity and re-strategize **before scaling up**. Livestock distributions are both technically complex (requiring technical expertise: husbandry, animal health etc.) and organizationally complex (requiring a sound participatory methodology; clear and transparent processes; ability to re-establish community structures and collaborate with a wide range of stakeholders).

Angola: the challenges of a credit based goat incentive project

The project area is remote with physical access constraints; traditional goat herds had been decimated in the war; there were limited State and NGO partners; on-going country program leadership issues; a donor driven focus on goats (the mid term evaluator questioned whether goats were the real priority); and the project had a food security focus when traditionally goats are reared as a cash reserve as a saving to respond to household crises.

- **Procurement**: with no locally available goats, traders sourced stock from far distances with resultant high mortalities (around 50%) and low birth rates
- **Animal health services**: vet scouts were trained but too few in number to cover the project area and little in the way of incentives
- **Training** was reported to be weak on health, feeding and housing
- The **repayment mechanism** was not widely accepted or understood
- Communities had **weak group structures** & institutions that required re-building after the war
- **Staff** were too few in number to provide the required contact time with stakeholders and beneficiaries and had a lack of capacity in using the M&E tools;

Source: Angola key informants & documentation (see country references)

A livestock specialist NGO

Finally we present the case of VSF in Liberia (2000 – 2003) where the 'pass on', group herding and direct distributions were used together with animal health campaigns where poor farmers paid for veterinary services. The context was **protracted complex emergency** where strategies were developed based on detailed livelihood assessments including: labor profiles/ study of the farming system/ study of the re-emerging social system/ the livestock sub sector: including seasonal disease constraints/ traditional production systems and indigenous restocking practices. The CW livestock distributions are almost all integrated within a wider FIM program. The VSF distributions were development oriented and **integrated within a wider livestock development project** focusing on local livestock production: farmer training, CAHW training, strengthening CBOs, animal health campaigns and village demonstration sites; replacing small ruminants lost in the war, introducing new species (rabbits and cross breed cockerels) and re-activating semi intensive production systems (poultry and pigs); and finally making animal health services available including a sustainable drug supply system.

'Pass on' of small ruminants targeting poor farmer households selected by the community who would be able to rear animals, this involved: local procurement which took time to find animals of a suitable quality meeting the specification, animal husbandry training and support to the livestock 'committee' to manage the mini pharmacy and oversee the distribution chain. Key is the importance of the participatory approach requiring time for understanding/ clarity/ transparency/ responsibilities amongst the community/ beneficiaries and staff.

Direct distribution of rabbits targeting the elderly and disabled; the animals were difficult to source and new species struggled without exceptional care and husbandry to thrive and reproduce.

Group herding of cockerels, rams and billy/ buck goats: cross breed cockerels struggled to adapt and lacked sufficient food as compared to the traditional local breed; new local breeds of sheep and goats did far better and provided new vigor to the free ranging local herd as part of the restocking. The new rams were provided for the trained CAHW as an additional incentive.

Newcastle vaccination campaign for chickens: by far the most successful activity for replacing lost stock and increasing flock size was the twice-yearly campaign[8] for all willing livestock keepers. Training on poultry production, for all willing community members, preceded the campaigns; farmers agreed to pay in advance (5 Liberian Dollars in the first campaign, which turned to be too high; following campaigns were charged at $2,50 LD); CAHWs were trained; and field staff had intensive training in PRA and technical aspects of livestock husbandry. Contrary to the belief of Government officials and donors, poor farmers are willing to pay (and this can make it sustainable); when it is a new practice there are many who 'wait and see' but are convinced when six months later they see for themselves the flock size of their neighbor who vaccinated as compared to those who did not; and a reliable cool chain and supply of vaccines is available.

Technical issues included: suitable vaccines being available for traditional village conditions without the need for sophisticated cool chains – CEVAC preferred in 2001 for Liberia (kept cool in a traditional clay drinking water storage pot for up to one month.

HB1 & Lasota (used by UMC)	CEVAC (used by VSF)
Advantage: 0,2 L$/ per bird (1 vaccination only)/ Drinking water/ Mass vaccination in intensive production system **Disadvantage/ constraints:** Live virus (high risk of outbreak)/ Assess before the quality of water to dilute the vaccine/ Packaging: 1000 doses/ Storage: to be frozen (-10°)/ Post vaccination reaction (outbreak noticed in Nimba after vaccination)/ Impossible to control water intake of each bird at village level (clean water and drinker)/ Make birds used to the drinkers before vaccination/ The immunity covers the bird only for 6-8 weeks (repetition or booster with Lasota needed)	**Advantage:** Individual administration/ Dose controlled/ Packaging 100 doses (village condition)/ Storage: +2° to +4° or in cool place (one month)/ Association with VPV covers the bird for 6 to 12 months/ Combination VPV increases the Antibodies/ No outbreak noticed **Disadvantage/ constraints:** 2,5 L$/ per bird (vaccination + de-worming)/ Injection and animal contention

Key lessons: poor farmers will pay if they see the benefits and if the inputs are affordable; in traditional subsistence production systems stick to local adapted breeds; contact time in the field by project staff with good PRA skills is essential when introducing new concepts. Start small before scaling up!

3.5 Technical livestock supportive measures

Technical livestock supportive measures includes here: animal health services, technical expertise, training and capacity building of: staff, beneficiaries and CAHWs (community based animal heath workers) etc.

The program experiences reviewed suggests that CW and other agencies are good at liaising and collaborating with key stakeholders. Livestock and veterinary expertise are essential in these distribution interventions. In most cases these expertise are not found in-house (the exception being Dr Leina Mpoke in Kenya and Peter Rugu in Burundi). Elsewhere many of our FIM program coordinators and managers are crop production specialists so CW is especially reliant on experts from the various Ministry of Agriculture, Veterinary Departments especially at the local area/ district level. They have provided animal inspection services, screening, quarantine inspections etc at the points of purchase; in the case of Burundi assisted in the importation certification of the Jersey cattle and in the case of Zambia assisted in the provision of livestock movement licenses into Western Province which is under strict disease surveillance; they have provided advice and personnel for the vaccination and treatment of animals especially *Peste de Petit Ruminant* (PPR) for goats and *Newcastle Disease* (NCD) for poultry, which are the main environmental disease constraints for the species most commonly distributed by CW; and have provided the content and delivery of much of the technical training for beneficiaries and CAHWs.

[8] This is also confirmed by the observations and learning of Paul Wagstaff from Nepal and Uganda;

DR Congo has reported on the animal husbandry training (common to all the programs) for their beneficiaries and their NGO animators (field support staff). The aim is to provide knowledgeable community based resource persons who can provide extension advice and even provide basic healthcare in the community. Training materials need to be appropriate – practical sessions, extensive use of visual aids, in the local language as many of the beneficiaries and even CAHWs may be only partially literate. Most of all the training needs to be inspiring and truly participatory. There are many good PLA type methodologies being employed. The most informed one reviewed comes from VSF Liberia (see case study above).

Participatory training of farmers and community empowerment through GRAAP in Liberia

GRAAP – ('*Groupe de Recherche et d'Appui a l'Auto promotion Paysanne')* is a Francophone based participatory methodology that involves researching and learning together with communities to understand their 'reality' and circumstances; finding out where they are at and working out with the support of facilitators (*or animateurs*) through asking questions to 'waken up the community' and to determine the direction in which they would like to go in relation to the development of their community (very similar to a fully immersed PRA exercise).

This approach was used during the initial assessment period and applied to a series of livestock interventions around goats and poultry. Similar values and principles to that of PRA apply – listening, learning and asking probing questions. An artist was taken on the later assessment missions to develop images that could be reflected back to the community about their situation: based on the reflection – learning – action approach.

After the assessments and analysis the training became the next important step prior to any intervention (very much a development rather than emergency relief approach) which targeted firstly the wider community and subsequently the target beneficiaries and CAHWs. Farmer training involved 2 – 3 days in the field at the project village site (CAHW training took place over six days with follow up refresher courses at a central training center).

The training materials and resources were then compiled by technical experts, the artist and pedagogy expert. The small ruminant (goat & sheep) and poultry training took place on different occasions but followed a common theme:

- The general situation in the village
- The system of poultry production in the village and ways for improvement
- The importance of supplementary feeding for poultry in this context
  - ⇒ Practical demonstration of supplementary feed for poultry and mineral lick for small ruminants from local available materials
  - ⇒ Fattening program for small ruminants (excellent income generating activity for Tobaski)
- The importance of housing/ hygiene/ management & composting
  - ⇒ Practical demonstration of making an improved poultry house using local materials
- Common diseases: their treatments and prevention
- Future action planning

Source: VSF Liberia key informants & documentation (see country references)

What are the livestock mortality rates and other off take factors?

Generally there is limited documentation available and limited institutional memory within country programs as staff move on with time and consequently a shortage of good process monitoring data and subsequently impact monitoring data.

Appropriate sourcing and procurement of good quality stock greatly reduces mortalities: buying local breeds within the locality seems to produce the best result. The early days in Liberia and Sierra Leone experienced goat mortality rates of up to 90% in Sierra Leone (suspected PPR) until they re-thought their procurement and bought locally. In Bangladesh other agencies funded by the same donor (DFID?) experienced mortality rates for goats of between 50 – 75%. CW experienced a remarkable 4%, said to be down to the choice of procuring locally which requires less travel (travel for long distances in overcrowded trucks creates 'stress' in animals lowering their immunity), and choosing local breeds that are more adapted (albeit less productive but the initial target is just to keep the animals alive). Angola experienced goat mortality rates of around 50% through the procurement of poor quality stock, which further resulted in low survival rates for young kids.

The main causes of deaths amongst distributed livestock were the seasonal environmental diseases PPR in sheep and goats; and NCD in chickens. Goat epidemics (likely to be PPR) negatively impacted on the Haiti distributions and Pakistan experienced up to 50% losses from NCD in chickens, on a recent distribution.

The most comprehensive data comes from SCUK in Ethiopia that recorded total losses from their distributions of goats of 13.4% (10% sampling frame) comprising of 6.4% disease mortalities; and other off take made up of loss

from predators (1.7%), loss from drought (3.3%) and sale/ slaughter or gifts (2%). Pakistan reported recent goat distribution mortalities of 8%. It is generally thought that losses less than 10% are acceptable levels. In the absence of effective veterinary care Liberia promoted where possible healthcare based on indigenous technical knowledge (ITK) and know how but contrary to popular opinion this is not effective against either PPR or NCD (in Liberia and Sierra Leone it is believed that NCD is responsible for seasonal flock losses of up to 80% - which is the 'normal' situation in traditionally reared flocks). In a number of mid term and end of project evaluations reviewed there were strong recommendations to support effective animal health service delivery in DR Congo, Angola, Haiti and Zimbabwe.

Experience suggests that two rounds of poultry distributions are always necessary. By the second round beneficiaries have often learnt 'the hard way' on how to protect their birds from predators, the cold etc. Hens also learn to become better brooders second time around!

Indication of reproductive/ herd growth rates (species related)

Generally the specific data was not available for reproduction and herd growth rates. Targeting the poor and extreme poor with short cycle species such as poultry and small ruminants makes good sense as noticeable increases in poultry flocks can be experienced within 6 to 12 months and even small ruminant herds within 18 – 24 months. The only detailed review of herd growth rates comes from the SCUK ex-post evaluation. This was a herd reconstitution of 500 drought affected families in a pastoral region of Ethiopia, with a livestock distribution of 30 small ruminants and one donkey per household. Within the 10% sample, 18 months after the distribution the average size of herd was between 44 – 48 animals. At this rate the evaluator estimated that a sustainable herd size would not be reached for 3 – 5 years (depending on the individual case) and recommended an initial distribution of 50 – 70 animals (as ever the agency was limited to the available funding at the time of actual distribution or the choice to reduce the number of beneficiaries!).

Community based animal health service delivery

Livestock distributions can only realize their potential to benefit the targeted beneficiary if the animals can be kept alive. Of top priority in most of the country programs is the provision of animal heath care. In each of the programs project staff have liased, coordinated and collaborated with experts from the local MOA or Veterinary Departments. These linkages are essential but it does ask the question of the sustainability of public state provision of services which require funding through NGOs from donors to cover fuel and veterinary inputs and that have gaps and access issues with regard to the delivery of services especially to poor people in remote locations. In an emergency response situation e.g. Pakistan, this appears entirely appropriate over a short period but in a rehabilitation or development context it is questionable what continued provision takes place beyond the project life.

One possible option is to establish community based local experts who are a source of good advice, disease reporting to local authorities and providers of basic health care. So in eleven programs reviewed, time and resources have been spent on making animal health services available at the community level through the training of CAHWs, vet nurses, vet scouts, para vets, vaccinators etc. These are the terms used in different programs. CAHWs aim to provide an accessible, available, affordable and sustainable animal health service to poor farmers in often remote locations. Some key features of establishing a community based animal health care system are presented below:

Community based animal healthcare – a project on its own!

Key features:

- Building on the detailed livestock assessments with livestock keepers and understanding their indigenous livestock knowledge;
- Building sustainability from the outset: importance of participation and drug & vaccine supply;
- Participative and practical training including appropriate selection criteria of CAHWs to ensure they are committed to providing a local service;
- Monitoring and evaluating performance by linking CAHW networks linked to and supervised by veterinary professionals (most successfully with private vets!);
- Using CAHWs in community based disease surveillance; and
- Advocacy issues around having CAHWs recognized as legitimate service providers

Source: Community Based Animal Healthcare: a practical guide to improving primary veterinary services by Blakeway, Catley & Leyland (2002)

In addition to training CAHWs Bangladesh, DR Congo and VSF Liberia conducted successful vaccination campaigns targeting poultry and small ruminants. The mid term evaluation in Angola questioned the quality of training and identified that too few CAHWs were trained to cover the operational area sufficiently. Similar criticism was raised of SCUK in Ethiopia adding that CAHW performance had not been assessed following their training.

The more successful examples linked the CAHWs with veterinary pharmacies and a reliable supply of vaccines and medicines In the example from VSF in Liberia, it was clear that poor farmers, once they understood the benefits of vaccines were prepared to pay for services, once they had observed them to be successful. VSF operated a discriminatory pricing policy charging commercial farmers cost/ insurance/ freight plus a reasonable profit margin whilst identified items for poultry and small ruminants sold through the CAHWs were priced at cost, insurance and freight only (i.e. to cover cost). In Angola it seems that the beneficiaries were not sufficiently involved in the 'process' and were unwilling to pay cost recovery to the CAHWs. The team in DR Congo, are attempting to provide a sustainable service through piloting a veterinary pharmacy in Maniema, which is known to have a demand for medicines and vaccines from livestock keepers there. Initial stock has been provided with vaccines and cool chain (refrigerator). A local management committee has been established with a local NGO acting as treasurer. In Zimbabwe, they are piloting a dip tank committee revolving fund for the supply of veterinary drugs and plan to link in the future with private agro dealers (suppliers of various seed and agricultural/ livestock inputs in local service centers). Many country programs also provide their CAHWs with veterinary kits but without a clear notion of how these will be replenished 'after' funding ceases (see case study below on the sustainability of animal healthcare).

Trends in financially sustainable animal health services

- Free or subsidized government services are not sustainable; they collapse after the withdrawal of donor support; are however political vote winners; may lack technical input and often lack a clear 'exit' strategy.
- Poor NGO practice has established many revolving fund type structures; these funds tend to diminish over time with poor management/ excessive bureaucracy & use of revenue for non-veterinary purposes;
- Poor drug supply results in CAHWs lacking credibility with livestock keepers;

There has therefore been a shift in the past 20 years is towards private sector provision which includes linking networks of CAHWs with private vets and veterinary pharmacies.

Source: Community Based Animal Healthcare: a practical guide to improving primary veterinary services by Blakeway, Catley & Leyland (2002)

The importance of community based animal healthcare increases as the relative importance of livestock increases in the livelihood strategies of the population. So, its importance is even greater in predominantly livestock based livelihood systems such as the pastoral and agro pastoral communities of the arid and semi arid regions. SCF in Somali region of Ethiopia emphasized the lack of and great need for effective disease control and surveillance, which can be an important role for CAHWs. In Uganda CW does not distribute animals due to the insecurity in Karamoja. Instead they have invested in training CAHWs as part of a vocational skills training program for pastoral youth. In this context animal health can play a pivotal role in securing the livestock based livelihoods.

The Haiti evaluation also recommended the need for local animal health care (against the goat epidemics) and the challenge for getting the extreme poor to understand the need for pre-emptive health seeking behaviour (more difficult still when the project struggled to impact on their own personal health seeking behaviour). Pakistan identified the need to strengthen animal health services, which would become over stretched and under resourced during emergency and recovery periods. South Sudan has linked their trained CAHWs with the County Veterinary Department, as has Sierra Leone in utilizing their CAHWs in disease identification, surveillance, and reporting with the local line Ministry extension agents. The NRI report (2011) from Rwanda identifies the issue of access to veterinary health and AI services. Investment in sustainable animal health is a long-term commitment possibly best left to specialist livestock NGOs or in the case of South Sudan where they have collaboration with VSF Suisse in the storage of vaccines. Public sector state systems that we predominantly collaborate with presently remain short staffed, short of medicines, short of vaccines and with severe restrictions on transport to access especially rural communities. The discussion in country programs is on how best to proceed: whether to advocate for policy reforms and resource allocations or in establishing sustainable animal health delivery systems (which, like livestock distributions are 'technically and organizationally complex'!).

Below is presented a series of guidance notes for promoting sustainable animal health services in the complex, risk prone, and ever challenging poor and vulnerable contexts in which CW operates. The first focuses on the emergency relief context e.g. Pakistan

Emergency & relief context – drought/ conflict/ livestock diseases epidemic
Response is often free or subsidized drugs which undermines any existing system;

Manage drought as a regular cycle of event: de-worm small ruminants & camels as this reduces nutritional stress; vaccinate against anthrax (risks increases as animals crowd around scarce water sources); and invest in keeping their best breeding stock healthy (assist in de-stocking the others before they die).

Relief efforts then through private sector: CAHWs can be paid to distribute subsidized medicines & vaccines; market their excess stock; invest in improved health of the remaining stock; and purchase fodder/ invest in water provision as needs dictate (utilize LEGS for other options).

In post conflict recovery, with a lack of civil society the strategy is to move towards full cost recovery gradually after the end of the emergency;

Source: Community Based Animal Healthcare: a practical guide to improving primary veterinary services by Blakeway, Catley & Leyland (2002)

A) Where there is a clear policy and strong commitment to veterinary privatisation
Most likely in towns or 'high farming potential' areas; CAHWs assist in extending the market for veterinary services to more remoter and poorer locations; contract out vaccination programs to CAHWS; develop business plans with CAHWs; requires a long term future commitment (could be best to leave it to the livestock specialist NGOs?);

B) Where there is weak commitment to veterinary privatisation
The policy environment does not support private sector development; one approach is to 'pilot' projects based on full cost recovery e.g. VSF in Liberia; where the project provides the bulk of the start up costs for the network but runs the CAHW system using principles of small business management. This exposes government veterinarians to the benefits of community-based approaches and the management of cost recovery services. Has potential to inform government policy (be sure to include policy related outputs in the project objectives) and be handed over to the private sector when an opportunity arises.

C) Where there is no government
Here conflict and food insecurity may prevail; the priority for people is survival and to protect their animals; here we need to assess the pre-existing service delivery (often limited and inadequately resourced);
In long term chronically conflict-affected areas any sustainable service is dependent upon:

- Sufficient number of veterinary professionals
- Active livestock markets to be re-established (to convert animals to cash to pay for drugs)
- Strong local authority to ensure security
- Coordination of a common approach by all agencies

Sustainability may not be a realistic objective for now but networks of CAHWs may be established with an emphasis on **cost recovery**. Agencies may need to cover procurement/ administration & transport costs as per the animal distribution. Preparing people for when the 'conflict' period ends. Advocacy is important to encourage authorities to develop their policies towards a sustainable system.

Source: Community Based Animal Healthcare: a practical guide to improving primary veterinary services by Blakeway, Catley & Leyland (2002)

The three scenarios, presented above, are post emergency and relief operations. The first (A) is a progressive development case scenario, where a clear policy and strong commitment to veterinary privatisation exists, which is less likely to include CW program operational areas (possibly Cambodia, Tanzania perhaps). Scenario (B) resonates with the author's experiences in Liberia and Sierra Leone and may well be applicable for many other country programs in this review, where there is weak commitment to veterinary privatization. Scenario (C) seems to fit for parts of DR Congo[9], Karamoja region of Uganda, Chad, Somalia, Haiti and with South Sudan, hopefully, moving away from this scenario, of where there is no government.

[9] Field observations and experiences suggest that Government veterinary services do, in fact, often work 'relatively' well;

It may be that moving ever more deeply into animal health service provision is more appropriate for a 'specialist livestock' NGO. However the advantage that CW does have as a 'poverty focused' NGO is in addressing many of the other common contextual problems that limit the sustainability of animal health services and may include:

- Insecurity discouraging business development (but where CW maintains a partial field presence through relief efforts e.g. Chad & Somalia);
- Lack of infrastructure (a strength of CW building roads & bridges etc.);
- Lack of livestock & product markets (livestock distributions and re-establish markets again a strength);
- Environmental degradation – pasture quality & tenure disputes etc. (major strengths in Afghanistan, Tanzania & Zimbabwe);
- Weak capacity for communities to organize (e.g. Angola, Sierra Leone, Liberia and most likely many other CW programs)
- Marginalized communities that have multiple other priorities in education/ health/ water/ community development – 'first things first' there may be other more pressing priorities than animal health which CW is addressing; and
- Lack of credit (in Ethiopia/ Haiti/ Angola CW is attempting to establish schemes and link them to the livestock distributions)

A review of this list of common problems identifies many of CW's strengths that are being implemented within a number of FIM programs reviewed in this research.

How was feed & fodder handled?

In many extensive traditional (low input low output) livestock rearing systems fodder was not a problem. In Angola, Liberia and Sierra Leone there is sufficient grazing, bush and forage. Issues around fencing however did arise. Initially fencing[10] in animals was stipulated in Liberia but this created additional labor, mainly for women, in the collection of grass feed, fence construction and fence maintenance. One of the advantages of the traditional system is that it does not depend on high inputs of labor. Communities and project staff later agreed to revert to traditional free range grazing. Issues here then are around herding (far less labor required but issues of child absence from school arise) and fencing off of vegetable and field crops. This provides another strong case for ensuring a credible oversight 'committee' is in place to manage conflicts and unforeseen matters. In the case of livestock rearing 'v' crop producers: 1) traditionally many community members in Liberia & Sierra Leone were both livestock owners and crop producers (up to 60% in some villages); and 2) traditional by laws existed that farmers had a responsibility to fence their fields; these by laws were then revived by the 'committee' members – which need to include the 'well respected' elders with the institutional knowledge to draw on the past.

In Afghanistan: in the past provision for 3 – 4 months of fodder was provided at high expense by the project but now the country program is reverting to the traditional 'free range' system of natural forage with supplementary feeding. The context and interest of the wider community is being considered in additional measures to address serious land degradation through NRM measures, which have multiple objectives, including the sustainable provision of future grazing.

In parts of Rwanda, Burundi and Tanzania livestock distributions support more intensive production systems involving stall fed zero grazing. This is targeted for those 'poor' farmers with assets e.g. milking goats (Tanzania) and Jersey Cows (Burundi) to those with sufficient land and labor to 'collect and carry'. Distributions of these types of breeds were not made to the 'extreme' poor with insufficient land or other assets as it was clear that they were unable to provide sufficient feed and management care (this might also include the added cost of health care and veterinary drugs). In places such as these, population pressure is fostering innovation and change towards more intensive production as access to common grazing (as well as access to extensive farm land) and communal fodder is an issue. In a later section on decision support trees a series of questions are posed prior to the distribution of livestock: Is there sufficient natural resources (feed and water) for livestock? Or: Are livestock keepers confident that their access to communal feed resources is secure?

Discussed earlier is the issue of introduction of cross breeds. Liberia has struggled over the past 10 years providing improved cockerels and pigs to farmers that just do not have sufficient resources to care for these

[10] The tradition in Liberia and Sierra Leone (and possibly other countries too) to protect crops is for livestock keepers to stake and 'tie up' their animals on patches of pasture – the only input required being ropes with minimal labor time each day collecting the animal or moving them onto richer pasture!

animals and feed them (Landrace boars compete with humans in the consumption of cassava and improved cockerel compete with humans in the consumption of scarce grain). Introduction of these species may be appropriate for more resource rich farmers with sufficient capital to meet the additional costs and associated risks of a higher input higher output system. In most cases 'extreme' poor farmers have insufficient capital and expertise (see earlier case studies from Haiti and Liberia).

One highly appropriate initiative for 'poor' livestock keepers is to link the livestock distribution component to other interventions around extension advice and participatory technology development (development jargon for farmers experimenting themselves to resolve their priority constraints). Sierra Leone and other programs are utilizing their investment in CAHWs or para-vets to be a source of practical advice within their community. In Sierra Leone and Tanzania CW is making stronger links with their investment in Farmer Field School (FFS). These have correctly focused on crop production (where crops are the main food and income source) but greater opportunities could be gained from greater focus on livestock issues around: health, feeding, shelter, breeding etc.

VSF in Liberia for instance utilized more of a Farming System Research approach to supplementary feeding of small ruminant and poultry utilizing locally available resources. Supplementary feeding – does require additional labor and resources but does also greatly increase the productivity of livestock fattening/ growth/ egg production/ for pregnant & lactating animals etc. Technical experts observed the local context, discussed with farmers and then tested local 'recipes' and demonstrated preparation as part of the farmer training. In FFS discussions can draw on the indigenous technical knowledge of expert livestock keepers and breeders, of which there are always a few that can be identified in local areas. Below is the table of supplementary feed mixes with quantities measured in locally known measuring implements e.g. tomato tins, match boxes:

Small ruminant supplementary feed	**Mineral lick formulation for small ruminants**	**Supplementary feed for free range chickens**
-Rice or millet bran (by product from pounding) -Groundnut or sesame cake (by product from the processing) -Old bones, burnt on a fire and pounded into power -Salt	-Salt x 5 tins -Bone meal powder (from old burnt animal bones) x 3 tins -Cement x 2 tins -Water to make into a paste	Millet bran or rice bran Groundnut cake or sesame cake Bone meal/ salt Fish or blood meal (collect from the slaughtering of animals) Nitrogen fixing tree leaves (e.g. Leucaena or Sebania) +Termites (especially for chicks) + Water
Excellent for 6 – 8 weeks fattening of rams prior to the Tobaski festival	Reduces reproduction failure and enhances milk production for kids and lambs	Promotes weight gain/ egg production/ resistance to disease; No different from human 'nutrition' programs

Source: *VSF Gambia 'Poultry production & women farmer's associations' B. Bonfoh & A. Short (1998); VSF Gambia 'Small ruminant production & rural income generation' B. Bonfoh & A. Short (1998) later adapted for use in Liberia;*

Breeding and avoiding inbreeding

Inbreeding does not appear to be a major problem in the country programs. The exception has been reported in Liberia and Sierra Leone where the lack of stock (small gene pool) due to the war, disruption over the past 15 years and lack of livestock know how has left pockets of small, sometimes inbred, flocks and herds of small ruminants. Traditional practice is to bring in new males to the free-range system to introduce new genetic vigor. The livestock distributions in Angola, Sierra Leone, and Liberia have specifically done this alongside the coveted pregnant (if possible) young female stock. In many instances the issue of breeding and avoidance of inbreeding amongst herds is raised during training sessions with farmers (as reported from Tanzania). This is more easily managed with stall fed animals where mates must be planned and organized in advance.

In Burundi, Rwanda and Ethiopia there is experience of utilizing government artificial insemination (AI) services. It would require considerable technical expertise to be establishing such systems. This may be inappropriate for the specific 'extreme poor' target group who would most likely be starting on a traditional free range system but it is clearly a public good and in every livestock keepers best interest to have good quality stock to acquire from

markets and/ or neighbours etc. when progressively investing in increasing their livestock assets. The instances of introducing new improved breeds of cockerels and pigs in Liberia have not been successful.

In conclusion do not focus on breeding until improvements have been made in diseases control, feeding, housing and general management and husbandry. Farmers' expectations are rarely met with improved breeds in traditional systems (increased income, meat, eggs etc.). These expectations are rarely attained without higher inputs and the associated increased risk that cannot easily be borne by poorer livestock keepers. This may be appropriate for more resource rich farmers or individuals with high levels of livestock rearing skills and experience but not generally a resource poor farmer. E.g. zero grazing system in Burundi & Rwanda, with improved breed Jersey milking cows for those with land and sufficient assets; whilst those without are supported with indigenous sheep & goat breeds requiring less production factors: land, management, capital and labour. Maintain the focus on animal distributions (of good quality local breeds) with supportive training components; building a network of CAHWs (providing healthcare delivery/ advice/ extension etc.) before genetic breed improvement interventions. Training on improved management needs to address the dangers of inbreeding and there are successful examples of introducing new local breed males ('within breed selection') into traditional free-range systems.

Below is presented a short briefing on breeding and inbreeding collected from additional sources to the research informants:

A note on breeding and inbreeding

Liberia report that local sheep and goat stock are of inferior quality due to inbreeding. This is likely due to the small populations and often single sire flocks but also to the other main small ruminant constraints: low levels of management, disease & parasite challenge, inadequate feed and poor marketing.

Breed substitution and cross breeding programs involving temperate breeds have been found to be rarely successful (the notable exceptions being the Friesian crosses now widespread across East Africa). But within breed selection programs utilizing indigenous breeds are considered more sustainable. For an NGO first find out about results from local research programs e.g. ILRI or the Government. A wide variety of indigenous small ruminant breeds have evolved to adapt to the prevailing harsh environment and traditional husbandry systems. The main trait for low input low output farming is animal survival in the face of multiple stresses: heat, disease, poor nutrition etc. Poor farmers opt for this kind of system due to their labor and capital shortages (especially purchased inputs they cannot afford). This will be clear from the initial assessments.

Sheep & goats: the best animals could be selected for breeding; avoid inbreeding by proper off take (slaughter, sale, gift etc.) and ideally castrating of non-selected males to greatly enhance weight gain for sale (castrating animals + providing the equipment is then a key skill to be taught to CAHWs and the equipment included in their kit; and will not need to be replenished).

Poultry: ensure a vaccination strategy for seasonal Newcastle disease is in place; and that the traditional free-range management system is enhanced through supplementary feeding and improved housing.

Appropriate cross breed cockerels can be used where appropriate feeding, health care and housing are provided (this means a much higher level of input in a more intensive system). These cockerels require more and better quality feed and they are sensitive to diseases and stress, especially in their first months of introduction.

Source: Kosgey I S, Breeding objectives & breeding strategies for small ruminants (2004) Ph.D thesis; VSF Gambia 'Poultry production & women farmer's associations' B. Bonfoh & A. Short (1998); VSF Gambia 'Small ruminant production & rural income generation' B. Bonfoh & A. Short (1998);

3.6 Cost efficiency and economy

Cost efficiency and economy is discussed in this next section where:

- **Economy** relates to the implementation of activities and the provision of inputs at the quality necessary for the achievement of good efficiency & effectiveness at the lowest possible cost; within control of project management;

The context and type of livestock distributions (apparent from earlier case studies) varies in nature, type of species and scope/ scale so comparisons between countries is difficult where the cost and quality of animals also varies greatly: in Tanzania milking goats were procured, each for US$88 and the local breed of goat for US$36; and in Zambia local goats were purchased at US$75 and local chickens for as much as US$10. What is clear is that significant time for staff costs and transport is required due to the need to organize communities: through initial assessments, training, ensuring that the oversight 'committee' and beneficiaries are clear about their roles and responsibilities. In addition to the logistics around the procurement and distribution of animals are the other supportive measures: training of CAHWs, funding for local authority and technical experts' eligible costs etc.

In Angola, in addition to the cost of goats and veterinary kits were high overhead costs related to the poor terrain and infrastructure, the large areas to cover, the high cost of operation and maintenance to keep the vehicles 'on the road'. It estimated that these costs were far higher as compared to a traditional 'seed and tools' distribution. The evaluation recommended to reduce the number of villages and the geographical coverage; and instead to scale up by increasing the number of goat user groups in existing project villages.

In Haiti US$1,200 per household was spent on the stipend, the livestock distribution and/ or small business grant (of $150) plus the cost of training and other case worker support functions. This innovative project aimed to meet a wide spectrum of 'extreme poor' household needs but the evaluators judged that it would result in a major challenge to scale up.

There is no comprehensive financial data collected for the country programs reviewed. Five programs provided detailed data as part of a cost efficiency model looking at: the main project details, expenditure on livestock distribution related project goods and services, support costs, an estimation as to the beneficiary and wider community contribution so as to sum the total estimated economic costs of the distribution. With the number of beneficiary households and the estimated number of persons per household some interesting costs per beneficiary were generated for the restocking of poultry, sheep & goats and donkeys in South Sudan, Pakistan, Liberia (VSF), Ethiopia (SCUK) and Zimbabwe. The 'efficiency' model with instructions for the respective program managers/ advisers etc is presented below. The detailed submission, from the five contributing country programs, is presented in annex 3.5 (A) to (G).

Table 3.1 Structure of the 'Efficiency model' for collecting cost efficiency data on livestock distributions

Project	Program manager instructions for the collection of data
Main project details	*Include only those actions that are directly related to the animal distribution component of your project or FIM program*
Project goods & services	*Direct animal distribution costs including trader supply contracts if applicable etc.*
Cost per animal	*Simple average cost if possible*
Support costs	*In DPRK, the WASH team used the general country program support costs % figures which were 4% transport; 4% administration and 17% expatriate costs; you will need to include a % for local staff costs in relation to the restocking costs within the FIM cost center - your country accountant should be able to assist you with this;*
Community contribution	*This is very difficult to determine - a best estimate is all that is required; when we consider this element it could be small but significant. In construction projects we estimate roughly 30% of the value of the PGS costs; it will be far less than this but includes their time & possibly construction of animal house etc*

Total economic cost of restocking	*This just sums up all the other identified costs*
Beneficiaries	*This is our magic number depending upon the number of beneficiaries linked to the round of restocking costs you have been using*
Cost per beneficiary	*In Sierra Leone they have done a number of restocking phases with different donors within a broad FIM program; suggest focus on one period that you have reasonably accurate data for*

The main project details, summarizes the details of the livestock distribution ranging from 30 small ruminants and a wider package of food aid etc. to one single goat per household. The project goods and services, includes the costs of the animals (including transport, vaccinations and quarantine etc.). Support costs include staff, administration and general field transportation etc. This is often a significant charge but certainly required to cover the technical, organizational and logistical elements of the distributions.

Contribution of the beneficiaries & the wider community
It was difficult to value the 'actual' beneficiary and wider community contribution. In Bangladesh on top of the US$17 allocated in the budget for the purchase of goats beneficiaries opted to contribute up to US$9 additionally to purchase a better quality animal of their choice. In the credit funded schemes in Ethiopia beneficiaries repaid the 500 Ethiopian birr over two years. In all the programs there was a significant contribution in terms of people's time and sometimes labor: for building animal shelters and collecting the locally available building materials, mainly. An economic analysis would 'normally' use time multiplied by the daily labor rate or some kind of opportunity cost measure. In the 'efficiency model calculations, contributors were asked, as best as possible, to 'estimate' a percentage of the total cost (usually around 10%). Engineers are usually better at calculating this in terms of contributing towards community construction projects: labor plus collection of local materials amounting to between 20 – 35% of the value of the total construction.

Costs involved and cost per beneficiary
There is legitimate criticism of using this kind of generated data from a wide range of distribution programs in quite different contexts. The data is presented in summary form below (please see the series of seven annexes if detailed information is sought on each specific program):

SCUK in Ethiopia (2003) put together a 'restocking' package that included 30 sheep/ goats and one donkey for 500 households but the costs for the plastic sheeting, blankets and food aid was not available. Costs per household amounted to Euro 195 and **Euro 33 per beneficiary**.

VSF in Liberia (2001) had a first round of restocking that targeted 175 households with one female and 1 to 2 roving males (to the village CAHW). Cost per household amounted to Euro 74 and **Euro 12 per beneficiary**.

CW in Pakistan (2010) distributed 3,300 goats, one each per targeted household as part of a post flood emergency response. Cost per household amounted to Euro 105 and **Euro 15 per beneficiary**.

CW in South Sudan (2010) submitted three sets of data for restocking of donkeys with ploughs, goats and chickens:

1. 400 households received a donkey plus a plough; cost per household amounted to Euro 342 and **Euro 51 per beneficiary**;
2. 150 households received five female goats per household; cost per household amounted to Euro 522 and **Euro 87 per beneficiary**; and
3. 398 households received five chicken per household; cost per household amounted to Euro 175 and **Euro 29 per beneficiary**.

CW in Zimbabwe (2010) distributed two goats and up to 2 chickens to 1,569 households; cost per household amounted to Euro 200 and **Euro 33 per beneficiary**.

The SCUK costs are remarkably low considering the large number of animals distributed per household – possibly purchased after large numbers of animals had been de-stocked, as compared to Liberia where

shortages of livestock mean that costs are expensive whilst the natural quality of the local stock is generally low. What is clear from Liberia and Sierra Leone is that with increasing numbers of rounds of restocking over a period of time there is an efficiency gain to the program as staff gain experience, knowledge and know how with a marked improvement in the efficiency and effectiveness of the distributions.

The data set from South Sudan is analyzed further in terms of asking the question – is it worth it to distribute the animals? The table below presents an assumed **impact pathway** from the cost efficiency of the inputs (the animals) through to their potential outcomes and their potential impacts over time.

In the first column on the left hand side is found the data from the 'efficiency models'. Moving from left to right into the second column are the identified outcomes that need to be monitored and recorded. In the right had third column are the potential impacts if the animals can be kept alive and the herds/ flocks grow. Use of participatory rural appraisal (PRA) and participatory impact assessment (PIA) tools for collecting this data are strongly recommended.

Table 3.2 Ex ante preliminary economic analysis of the animal distributions in South Sudan*

Impact chain: Input	Output to Outcome	Outcome to Impact
Input/ Output results from efficiency model	Potential measurable outcomes	Potential measurable impacts
Donkeys: 400 distributed + plough shares $70 per beneficiary $472 per Household	Strong fit & healthy male donkey: • Pack animal • Area of land ploughed • Timely planting	Valuing impact more difficult to measure • Time or income saved to transport water/ firewood/ commodity to market • Yields from harvest from timely planting • Labor saved • Rental income
Small ruminants: 750 distributed (5 per household) $120 per beneficiary $721 per Household	Healthy free range herd with roving males • Number off spring • Increase in herd size • Mortality • Live births Use simple participatory herd history method	Use PRA/ PIA methods for 'before' & 'after' • Milk consumed/ sold • Income from sale of animals: school fees/ healthcare/ agricultural inputs etc. • Gifts distributed • Exchange for cattle
Poultry: 1990 distributed (5 per household) $40 per beneficiary $242 per Household	Healthy free range poultry • Flock size increases • Number chicks hatched Have we addressed the seasonal chicken sickness (NCD - Newcastle Disease) & losses from predators?	Use PRA/ PIA methods for 'before' & 'after' • Consumption of meat & eggs • Gifts • Sale for meeting small expenditures • Sale of 10+ to purchase a sheep or goat

**Data from field based Key Informants working on the 12 month USAID/ OFDA funded restocking project*

The donkey distribution - could well be a sound investment: pastoral livestock keepers are becoming much more agro pastoral in many places over South Sudan (a growing proportion of their food and income is coming from crop production). The value of timely planting and extending the area under cultivation is expected to increase as populations continue to rise and a fully pastoral lifestyle begins to change. There are limited other options to support farming given the status and prestige still placed on cattle – such that they can't be used for draft power.

The small ruminants – are also likely to be a sound investment in a post conflict situation supporting 'poor' households to regain a footing in this 'agro pastoral' society with all the social benefits of acceptance, dignity and enhanced pride (difficult to measure and value in any economic analysis). If we can minimize the risk against PPR, and other diseases and losses (theft and raiding) etc. then the animals have the potential to provide a range of social and economic benefits.

The poultry distributions do appear to be expensive for a low value asset. It may be better therefore to invest in organizing NCD vaccination campaigns and link this to indigenous restocking within the community to increase flock sizes and to spread the benefits of poultry production.

Comparisons with other types of intervention

Ultimately to determine the 'worthwhile-ness' of livestock distributions we need to be able to know the opportunity cost of these distributions by comparing with other interventions. One field commented on the far greater organizational and administrative costs of livestock distributions as compared to 'seeds and tools'. In only one country program is there an attempt to quantify this comparison. This comes from SCUK in Ethiopia in the ex post evaluation (M. Wekesa, 2005). The full details of this cost effectiveness comparison is presented in annex 3.6. The evaluation firstly identified, through anecdotal evidence only, the multiplier of the injection of GBP 53,000 into the local economy. Traders reported that they invested these funds in purchasing camels, trade and opportunistic farming. Secondly the restocking exercise was compared against other rehabilitation options. Cash relief came out on top in terms of cost per household (2,640 birr) against restocking (5,200 birr), irrigation (8,122 birr) and food aid (9,840).

Cash distribution: *Based on the figures and analysis presented in annex 3.6, it appears that distributing cash as a drought rehabilitation intervention would be the ideal. It is cost effective and it may be less demanding administratively, with no direct negative impacts on the environment. It is also highly flexible. However, in insecure zones such as Fik, it would be a dangerous resource transfer. In addition, injecting a lot of money into the market may cause local inflation resulting in an escalation of prices of food and other commodities, thereby hurting poor people. But a much more important consideration would be the functioning of the markets and especially the availability of food and other essential commodities and services. While cash would guarantee access to food, commodities and services, it will be useless if food is not available in the markets. With regard to Fik Zone, the main issue in food security is availability and not access. Therefore, cash relief would not have been a good intervention in helping pastoral herders to recover from the drought.*

Restocking*: Restocking builds on the skills of pastoralists. But it is more expensive than cash distribution. Restocking with small stock will enable the flocks to multiply quickly and grow in value. In this way sustainability can be possible. Livestock is also a flexible resource transfer because it can be sold and the money invested in other assets. However, restocking can only be successful under specific conditions. If done well, restocking would be a good intervention for rehabilitating vulnerable pastoralist households.*

Irrigation*: Irrigation is the second most expensive intervention. It is not flexible because land is fixed and may not be easily transformed into other assets unless produce from the farm is sold. Irrigation would guarantee adequate food production and bolster household food security but its maintenance costs are very high and pastoralists would have to learn new skills in farming. It also may have direct negative impacts on the environment, unless very thorough environmental impact assessments are undertaken and environmental soundness determined. Therefore, irrigation is a possible intervention but requires considerable care and investment. Very few pastoralist communities have succeeded in translating themselves into irrigation farmers in the Greater Horn of Africa Region. In addition, it may only largely succeed with agro-pastoral communities.*

Food Aid*: Food aid is expensive and undermines local markets and farmers. It is not sustainable because it depends on external assistance. However, in areas where food availability is a problem, food aid can be a very useful resource transfer. Again, depending on how the intervention is implemented, e.g. as food for work, school feeding programs or distributed through local markets, etc., it can spur growth in the local economy and have more socio-economic benefits than it is normally used. But food can also be a very powerful political weapon (M. Wekessa, 2005).*

The conclusion from the evaluation suggests that none of these interventions is necessarily better than the other. The best intervention is the one that combines all possible rehabilitation strategies with implementation based on a **very sound analysis of the livelihood system:** beneficiaries, markets, the environment, local politics and institutional capacities to implement them. Program managers, with the participation of the communities in question, must work through this to develop an appropriate intervention for a specific target group. For both livestock specialist NGOs and CW the **key learning** is to 1) conduct a thorough analysis; and 2) use livestock distributions as one possible strategy amongst others in a wider FIM program or a broader livestock development project**.**

3.7 Outcome & Impact of livestock distributions

The review identifies many challenges. But livestock distributions when well implemented do very much have the potential to be efficient, effective and deliver impact; when:

- **Efficiency:** is the manner in which the tasks that have been completed lead to the intended results; under control of the beneficiaries;
- **Effectiveness:** is the extent to which the uptake by beneficiaries has led to the achievement of real & significant benefits within the project result area; beneficiaries exercise a high degree of control also influenced by external factors: market prices & government policies and
- **Impact**: is significant lasting change positive or negative, intended or not intended, caused by the intervention; influenced by factors beyond the direct control of project staff or beneficiaries; best determined with ex post evaluation some years later.

In general there appears to be a lack of evidence to suggest significant impact of the livestock distributions part due to: the loss of institutional memory of past interventions; many of the existing interventions are working through implementation with insufficient time to compile impact related data; when end of project evaluations have been completed there is only anecdotal evidence to suggest potential for impact; and the lack of ex post evaluations (one example was reviewed 18 months after the distribution by SCUK in Ethiopia) and impact assessments conducted. There is also a lack of systematic collection of general process monitoring data in addition to impact monitoring data, something that the current drive within CW for improved evidence and the training on the use of the PME guide will surely assist in correcting.

Most of the CW distributions reviewed here are part of a wider FIM program (see details in the earlier context section 3.1). Example in Rwanda with a range of FIM program outputs and expected results with a purpose of food security and a goal of livelihood security; and DR Congo: a broad livelihood program with a purpose to build livelihood capacity through processing, diversification (including the livestock distribution), market access and more cohesive communities whilst aiming at a goal of livelihood security. In a number of cases they aim at attaining purposes related to improved food security and higher level goals of improved livelihood security (access and control over resources). The distributions on their own certainly have the potential to contribute towards improved food security: outcomes of increased herd or flock sizes have the potential for increased consumption of proteins, meat, eggs, milk etc or the opportunity of sales to purchase food and agricultural inputs and/ or in meeting other household livelihood needs (especially school fees, medical bills etc.). Short cycle species (such as the small ruminants and poultry) are sufficiently small assets to be liquid and convertible for the needs of the poor and by traditional norms often under the control of women and thereby strengthening their ability to secure their livelihood. In many instances this is seen in terms of building resilience against shocks and reducing their vulnerability to these household shocks. In combination with an array of other CW type FIM interventions livestock distributions are able to contribute towards higher level, purposes and goals towards poverty reduction and in the attainment of MDG 1.

Did the method benefit the intended beneficiaries, and if not who benefited?

Livestock distributions can be subject to elite capture and the diversion of resources but there is no suggestion of this in the country programs reviewed. In most cases it is believed that the intervention did benefit the intended beneficiaries. In Angola the M&E system had good process monitoring data: on the number of trainees, the number of animals distributed, the livestock mortalities (high) and their birth rates (low). The mid term evaluation (2009) refers to the implementation issues and it being too early to determine any significant outcome (the project was aiming to build up herd size which requires time then for the beneficiary to repay in-kind before attaining personal benefits) or impact to record.

Also in Bangladesh and for other distribution interventions the focus was on outcome (and expected result of the distribution) in terms of live births, mortality (death within 2 months then the project replaced the animals), and increases in herd size. The team suggested that the donor, however, was mainly interested in input and output level data. In Cambodia the initial indication for beneficiaries was to measure outcome in terms of flock size increasing to between 20 – 80 birds. Then beneficiaries could anticipate the cash sales and income spent on rice, medicines, and other household items. The program was also able to show a strong link with the higher level impacts on: reducing hunger shortages (as successful poultry enterprises were able to cover household food deficits from their own farms with market purchases) and reducing out-migration to Thailand (by stimulating local village enterprise farmers chose to substitute their migrant paid labor for work on their own farms in the knowledge that they would obtain a better return). Details from a local partner case study indicate that in a

community with 86 members who took credit and invested in poultry production: 22 increased their social group (through an understanding of local wealth groups); 59 stayed at the same level (whilst still increasing their income and reducing their food deficit); whilst only 5 failed and were indebted to the Self Help Group which issued the loan to its members.

In Haiti the distributions resulted in positive outcomes for many of the 'extreme poor' households targeted. Animals are an asset for saving to convert to cash to re-invest when required; they are a means with which to support their family and created heightened aspirations in the beneficiaries: improved self esteem, improved confidence and improved beneficiaries' social standing in the community. Despite the successful outcomes observed (in spite of the 'goat epidemics' documented) only a few made the graduation onto the micro credit program (which was the purpose of the project). From Haiti the lesson is the hugely demanding challenge of working with the 'extreme' poor in meeting their social, psychological (agency) and economic needs within a conventional FIM program when many more supportive measures appear to have been required.

The distribution method did benefit the target beneficiaries in Liberia (2011 EOP evaluation) despite the slow 'process' for livestock reproduction. At the end of the program "there was still not a lot of extra food but there was clearly potential as the distributed animals start breeding". The recommendation, for greater impact, was to widen the scale of future distributions (200 animals in the first distribution), which does result in a long time lag before a significant number of families benefit. This is one legitimate criticism of the 'pass on' system. The alternative is to source additional funding (but when scaling up beyond capacity there is the danger of losing 'quality' in terms of supervision, monitoring and supportive measures) or to curtail other investments, knowing that resources are finite. The evaluator believed that an extension of the livestock initiative would eventually bring considerable diversification through greater meat protein in the diet and/ or cash for household purchases with a 15 month old goat for instance being valued in the market at around US$40.

A detailed study by NRI on CW's support to smallholders in Rwanda assessed outcomes in detail. The main outcome for people in this country of limited land/ space and high population density was manure for much needed fertilizer; additionally milk was prized for PLWHA and other 'vulnerable' groups such as children; as well as the 'usual' income; and the intrinsic value of a reproductive asset such as livestock. The bottom line in livestock distributions is that if the animals stays alive then the usual outcomes and probable impacts can be expected (Ethiopia). Additionally cattle were seen as a strong symbol of post genocide economic and personal renewal contributing towards the bigger picture nation building and reconciliation.

In Sierra Leone the distributed small ruminants were able to provide cash at times of the year when the main trade-able crops: groundnuts, oil palm and rice are not plentiful. And in Zambia benefits in terms of increased flocks of chickens and eggs consumed/ sold were attained with their peri urban extreme poor and HIV and AIDS affected groups. In Ethiopia the beneficiary feedback was of the importance of goats in building resilience against shocks, making them less vulnerable in the future by enabling them to draw on this 'emergency' saving.

Not all approaches benefited the intended beneficiaries. In Chad the poor and women did not appear to benefit as the strategy was somewhat a top down design, compounded by an insecure context with beneficiary priorities much more focused on attaining short-term consumption goals. The distribution of oxen and ploughs to 'better off' beneficiaries with assets did not result in lower food prices on the local market for the poor. Nor did it provide more work opportunities to the poor from additional weeding. It is possible that it even increased the workload for women instead. It is unclear if sufficient funds were raised from the repayment of the ploughs to support a cash transfer scheme for the 'extreme poor'.

In Ethiopia, SCUK did strengthen the recovery from drought of 500 households but the purpose of re-integrating IDPs back to their home area was not achieved by the distribution. Few IDPs did return home and the design was premised on a wrong assumption. In Liberia (2011) the most inefficient activity was the introduction of small numbers of poultry into villages where most died or have yet to start egg production and it was rated as 'least valuable' by villagers providing few if any benefits to the intended beneficiaries.

Not to be forgotten are the traders supplying a significant proportion of the livestock distributed by CW (see section 3.3). They too are 'winners' benefiting by the distribution. In addition are the individual CAHWs trained and the wider institutional support and capacity building within the MOA or relevant line Ministry. The CAHWs have within the CW model of support provided a partial improvement to the extension (via the farmer field schools and the general advice they impart to the community livestock keepers) and animal health service

delivery system (including disease surveillance). Future interventions may choose to further strengthen the service delivery and sustainability of both livestock extension and animal health services in the ways discussed in section 3.5.

Did men & women have different expectations and benefits?
The initial assessment are important in determining the 'usual' prescribed role of livestock for both men and women in terms of ownership, management and control. In Angola the prime purpose of the distribution for communities was for asset building (increasing flock size). This was especially the case for women with 35% of beneficiaries being female heads of households. Women see goats as their number one income source and provide considerable care and attention to the management of their animals. Whereas for men, their main focus is on other income generating activities such as the provision of daily labor, giving less attention to the care of their animals. In Bangladesh and many other societies the focus for women is on short cycle species: small ruminants and poultry. Prescribed roles in society are for owning and caring of these species and which meet their needs as more liquid assets than more valuable larger species of cattle and horses (and camels in other ecological zones) which are the preserve of men. Pakistan therefore successfully targeted only women with their poultry and small ruminant distributions.

How were outcome & impact measured?
Measuring outcome and especially impact currently remains a challenge in CW's livestock distributions. Chad and Angola experienced staffing issues: shortages, poor capacity, insecurity and lack of access resulting in the case of Chad in the lack of any opportunity to sufficiently follow up and collect data. 2011 is the first year in the Chad program with an M&E plan with the first compiled baseline of beneficiaries as compared with non-beneficiaries (from other country program M&E plans do be aware of the dangers of large quantitative surveys attempting to collect too much information which is then never analyzed!).

South Sudan used monthly tally sheets to record the number of goats/ kids/ mortalities/ vaccinations and eggs produced as a measure of outcome. DR Congo used the number of animals distributed, number of CAHWs trained, Kits distributed as process indicators and number of offspring passed on, minimum of 10 CAHW visits per month, for instance as outcome indicators. And in Pakistan M&E was kept neat and simple: for goats the number of offspring and ability to generate income; and for poultry number of birds in the flock (net increase) and subsequent off take for consumption (eggs), sale and gifts as the main outcome measures. But in Zimbabwe simple data was unavailable for the EOP evaluation for key data such as goat survival, births, deaths, offspring passed on etc.

VSF Liberia was strong on process monitoring but as with many of the country programs there was insufficient time for outcome/ impact monitoring by the reporting deadline. Annex 3.7 shows the monitoring summary sheet for the village of Gbeneta in Bong County, Liberia. Key features of the process monitoring data presented in the annex is the summary data from the baseline survey: the situation of livestock before the war and now. This is then followed by actions preceding the livestock distributions: the village based training data: number of persons attending (gender disaggregated); the training/ appraisal and refresher training of the CAHW (termed livestock auxiliary in Liberia); the training and establishment of the local CBO or 'committee'; the number of animals vaccinated and de-wormed in the campaigns; and the establishment of the village demonstration sites.

In relation to the livestock distributions of small ruminants, rabbits and cockerels:

- Prior to distributing the small ruminants beneficiary profiles needed to be checked against the project/ community agreed selection criteria; a distribution chain agreed for 2nd and subsequent round beneficiaries and an MOU signed by the Chief and the members of the livestock 'committee';
- Prior to the distribution of rabbits the hutches needed to be constructed; and
- Prior to the introduction of the improved cockerel improved management was required at the demonstration site and a 'suitable' improved breed was still to be found which greatly delayed implementation.

There appears to be a need for more reflection/ learning and feedback sessions with staff and with beneficiaries and community members on clarification of the objectives and local perceptions of change rather than the danger of being 'immersed' in the day-to-day implementation. There is potential for more participatory type outcome and impact assessment methods (using PRA tools). Despite the lack of systematic monitoring data there is a wealth of information to be gained through beneficiary feedback. In Angola important outcomes

inferred in the documentation on social change: such as self-esteem, and pride etc and significant economic change: such as the sale of goats to buy fertilizer.

In Sierra Leone there is also a general lack of monitoring data. However the author visited one village and using a number of PRA type tools: proportional piling and focus group discussion generated outcome data to compile a case study, which is presented below. Outcome data included the changing ownership of livestock in the village and the benefits from small ruminants; and hence the importance of increasing livestock numbers and distributing them over time amongst the poorest members of the community. This method of generating data is known as participatory impact assessment (PIA).

Case study from Malenkay village, Kunike Barina Chiefdom, Sierra Leone

A pilot participatory impact assessment was conducted (tools included focus group discussion and proportional piling) in the village, two years after the initial livestock distribution, with a mixed gender group of key informants (July, 2011). The project established in the village a para vet, a livestock 'committee', strong linkages with the Veterinary Department and other FIM, Health and Education interventions notably – improved road access, a health club, links to a farmer field school, development of new swamp rice plots, primary school teacher training and a seeds and tool distribution.

Before the war it was stated that there were 'plenty of animals' (about 100 according to the para vet) and approximately 60% of the households owned animals. **During** the war animals were stolen, sold or eaten such by 2000 there were no animals being reared (zero animals being our baseline); and **After** the war, by 2011, there were 60 small ruminants in the village owned by approximately 38% of the households now **with animals**: of this group 75% acquired their animals through the CW distributions (24 goats in two separate rounds) and subsequent reproduction and 'passing on' of off spring; and 25% were acquired through relatives. Of the 62% of the households currently **without animals** half are already on the 'pass on' distribution chain; and half are late returnees. The returnees also include 'vulnerable' families, identified by the **livestock 'committee'** and will be included on the distribution chain. This is seen as important to the community for the sake of village unity and cohesion.

Female off spring is distributed to the next target beneficiary in the **'pass on'** system. Males are for breeding; sold to generate cash or to purchase new males from 'outside' as a strategy against inbreeding; and can be used in settling conflicts or slaughtered for meat.

Benefits being gained from the sheep and goats are primarily cash income for school fees, healthcare, special festivals, the hiring of labor to work on the owners farm, and gifts to and from relatives. Prices for these animals ranges from 100,000 to 300,000 SLL (Euro 17 to 51) based on age/ health/ sex (high value for fertile females)/ and time of year (especially high during festivals). Even better prices can now be obtained from traders visiting the village. These are gold miners working in the area and market traders from regional market towns: Bo & Makeni. Added value and returns are generated from the improved road and culverts linking to the main road: this now provides access for these buyers, which was not previously possible. Sales at the local market fetch far lower prices. Sometimes owners do sell there out of necessity if a quick cash conversion is required.

Livestock as an **income source** rank behind: groundnuts, oil palm, rice and vegetables. Therefore livestock sales help to diversify the options of the poor and enable cash availability at times of the year when the main trade-able crops are not in season. Other equally important cash sources for the poor come from indigenous group saving schemes (known in Temne as 'Osusu').

Key features: the livestock distribution is providing benefits to the new livestock owners and a 'pass on' chain is further extending livestock ownership under the supervision of the 'livestock committee'. The para-vet continues to provide support: treatments when possible, organizing and 'motivating' the community and instigating town clean ups of plastic bags – which are a significant cause of animal death after being ingested.

Source: Sierra Leone Country Director field notes July 2011(see country references)

Case studies as detailed above suggest that the livestock distributions do play a significant role in assisting the poor to attain some degree of livelihood security. Impacts are being realized and it is an activity with the potential to remain sustainable and replicable after the end of the funding period.

A second example of the use of PIA methods based on ranking food and income sources of beneficiary households comparing 'before' the distribution and 'after' is taken from the SCUK Ethiopia evaluation. For many short-term projects, such as this, which was implemented within 12 months, there was no impact monitoring. The ex post valuation, 18 months after the end of the project, used participatory impact assessment tools with a 10% random sample of the 500 beneficiaries (i.e. survey with 50 beneficiary households). The following outcome and impact data was generated:

- The livestock contribution to food replaced food aid as food source: *self-reliance, dignity & respect* achieved. Before 2%; and After 40%;
- There was a drop in the contribution of selling firewood and water (a coping strategy for the loss of livestock in the drought): Before 25%; and After 5%; Labor could then be re-allocated to herding and ever more to farming.
- Income from labor fell: Before 35%; an After 20%; as more labor was allocated to livestock and farming activities.
- The level of support from relatives increased (in *Somali* culture support is only provided to those who are seen as '*viable'*) an indicator that the household is re-establishing themselves.
- Household livelihoods are seen as becoming more diversified over time: sale of males for investment in petty trading and 'opportunistic' farming.
- Child malnutrition was perceived as improving: 3 meals per day now with milk from their own goats!
- There was a reduced burden on women and children from fetching water (through the use of the distributed donkey – one per household).
- Female Headed Households (HHH) were found to have performed equally as well as male HHHs.
- Restocked households are now assisting other IDPs with milk and offspring (an indication that indigenous support and restocking mechanisms are also being re-established).
- However there was found to be increased child herding at the expense of school attendance!
- Plus other more qualitative social and psychological benefits: such as a greater sense of empowerment/ independence/ taking control over their own lives again/ stability/ social standing etc.

This evaluation is widely quoted in the LEGS manual and the project is seen as a potential model for replication and advocacy for future practice.

How long to achieve a significant impact?
The loss of institutional knowledge from the past does not help our cause in answering this question about the time to achieve significant impact. End of project evaluations after 2 – 3 years of implementation indicate potential for outcome and impact. There is a real paucity of ex post evaluations of livestock distributions that need to be conducted 2 – 3 years after the end of the project to really determine impact. In Burundi the distributions are at far too early a stage to determine any outcomes. The first 18 months is focused on organizational and logistical implementation issues. Certainly a programmatic approach will assist in this matter with the evaluations of programs over a five-year period becoming the norm in CW. DPR Korea has over the past few years commissioned ex post evaluations of winter wheat and WASH interventions providing a fascinating view of projects implemented as long ago as seven years before. Zambia is completing a three-year project but with no real impact yet realized as they have been caught up in implementation challenges (discussed earlier). Similarly in Zimbabwe where an evaluation recently noted that beneficiaries have not yet 'passed on' their offspring. The aim being to build up herd sizes then sell to generate income and to consume so as to improve nutrition but there is only limited measurable impact to report so far but considerable potential.

Tanzania's experience suggested that a well implemented poultry distribution generates outcomes within one year for flock size to increase then to deliver benefits in the form of eggs, sales, and gifts etc; and their experiences with goats is much slower requiring 2 years. This includes the repayment or 'pass on' of a female offspring to other group members before realizing benefits in the form of sales, consumption or milk etc.

Other programs had cross purpose objectives for instance Angola implemented a food security focused project when all the field findings suggested that goat ownership was concerned with short and medium term saving in the event of a household emergency: healthcare, school fees, purchase of farming inputs. Outcomes were realized but the project was thought by the mid term evaluator to be unlikely to meet the overall objective. The suggestion was that greater emphasis needed to be placed on a sound analysis of the reasons for keeping livestock.

Livestock distributions have the potential to meet a range of objectives, as livestock themselves have multi functional purposes: income generation through the sale of male offspring (Bangladesh); the importance of social functions for gifts, for visitors, for ceremonies etc. (Liberia); as a means for improved nutrition: milk, eggs, meat etc. (Helen Keller in Bangladesh and the RAIN project in Zambia); and in promoting diversification of income and food sources, also through a range of short and long cycle species: poultry/ small ruminants/ large

ruminants; as different kinds of investment and saving periods: short/ medium/ long term meeting a range of needs e.g. Haiti where the poor invested in large stock but needed small stock and greater liquidity.

An earlier CW project in Liberia (2002 – 2006) was overly ambitious with far too many objectives for each micro project to accomplish, which ranged from: 'sustainable breeding'; 'modern management systems'; 'empower women'; 'livestock for consumption and marketing'; and income generation. By the end of the project it was too early and too difficult (disruption due to conflict/ implementation issues with a multitude of micro projects) to assess achievement. The conclusion then was to return to the simpler aim of building and multiplying assets with time required to increase herd/ flock numbers. Setting objectives and how to measure them depends upon a clear understanding from the 'initial assessments' as to why people keep animals. In Liberia it was to replace lost stock in the war therefore firstly to increase herd/ flock size (outcome indicators: mortality and live births) and later for sale at times of need with the learning to keep the intervention as simple as possible.

Clearly livestock distributions do have great potential to achieve significant outcomes and impacts in the lives of poor people. However, they are technically demanding and organizationally complex interventions. A 'learning process' is required and as the mid term review, in Angola, recommended: better to start small, get matters right before scaling up (the project was too ambitious and too under resourced from the outset). A 'learning' period is required to build up staff, partner and key stakeholders' experience, competence, capacity and efficiency. In Sierra Leone after 5 – 6 years of restocking the team are reaching a level of efficiency with the necessary supportive measures in place to deliver outcomes and impacts over a 2 – 3 year period (distributing small ruminants). In the 'early days' there were umpteen implementation challenges that required learning and correcting. Today they are in a stronger position to begin to think about widening their brief towards intensive poultry production, the importation of milking goats from Guinea and conducting more participatory technology development into livestock disease treatments and supplementary feeding through their established farmer field schools.

3.8 Sustainability & replication

The review identifies many challenges. But livestock distributions when well implemented do very much have the potential to be sustainable (implicit in a reproductive asset if the animals can be kept alive) and replicable (when compliance mechanisms for loan repayments loans or 'pass on the gift' in-kind are established), when:

- **Sustainability**: is the continuation of benefits after the project assistance has finished; and
- **Replication**: is the spread of practices and benefits to others without repeating project inputs

Key to sustainability is interactive participation of beneficiaries, and coordination with the important and influential partners and stakeholders (discussed at length under section 3.2 approaches and under section 3.4 support measures, in relation to establishing community based animal health care). On the whole when well implemented livestock distributions via credit based or 'pass on' methods have the potential to be sustainable and replicable when linked with supportive local structures, capable and competent partners and in coordination with other stakeholders – notably local authorities, traders, agro/ veterinary input supply dealers and the various Veterinary Departments that our teams work closely with. Discussions need to be held with communities from the outset to clarify roles and responsibilities, the purpose of distributions, and the community is involved in the selection of beneficiaries with responsible institutional oversight from the local 'committee'.

Was insurance included and implications for mortality?

In no cases were there any actual instances of the use of livestock insurance schemes against the losses incurred. The Angola team had aspirations to reduce these risks through establishing an improved animal health service together with group saving schemes to complement the goat distributions. In Sierra Leone supply contracts included a 25% retention clause payable after 21 days. In the case of animals dying within this time, that are attributed to the quality of stock provided (instances of infected animals being brought into communities – affecting both the distributed animals and those already residing in the host community) the trader is requested to replace them or forfeit the 25% fee. Building a relationship with traders (and providing technical capacity building) has assisted over time to ironing out past disputes. The only instance where insurance has been discussed has been in Zimbabwe within the guidelines of the PRP donor framework. Over 3 – 4 years the value of distributions e.g. vouchers reduces and a pre-payment of 10% of the value of the inputs has been recommended with the donors suggesting that the funds raised in the livestock distribution component be used for an insurance fund to replace dead animals. The team will provide vouchers worth up to 90% of the value

items in future distributions. The team are currently discussing on how this 10% of funds could be utilized. The insurance scheme does seem to be a useful 'contingency' option.

The team in Angola identified the main risks to the sustainability of the distributions as being their lack of technical expertise around the low reproduction rates and the high death rate of kids from: pneumonia, diarrhea, abortions and the ingestion of plastic bags. Other risks were around the input supply chain of veterinary drugs and vaccines for use by both the Government veterinarians and their own trained vet scouts in delivering sustainable animal health services. This also linked in with their incentives and the replenishment of the vet kits (discussed further in section 3.5 earlier). The distributions are only sustainable if the animals stay alive and are sufficiently well managed to reproduce. Naturally then their future plans involved the need to build up an effective community based animal health service with their vet scout network and to promote community group saving schemes through their goat user groups as a form of social insurance and mechanism for accessing capital to link livestock → with markets → animal health practitioners and the means to access drugs and vaccines for curative and preventive measures.

The Haiti experience highlights the challenge of supporting the 'extreme poor'. The project provided short-term gains (in the form of a stipend + animals + a small business loan) but was not able to develop a 'saving culture' against recurrent shocks in the lives of the beneficiaries. This is disappointing as animals and group savings schemes appear to be 'best practice' for most poor people to save. The project investigated the use of insurance products against natural hazards, crop failure and livestock diseases but struggled to find an option for the 'extreme poor' target group. In their context the most appropriate option was self-employment.

The precarious nature of the lives of the extreme poor in Haiti teaches us clearly that assets alone are insufficient. Despite the technical support a number of beneficiaries found themselves caught between poor management and losses from diseases to their 'valued reproductive asset' and then losing the potential to sell and diversify in the midst of multiple shocks from: epidemics/ food price rises/ natural disasters/ death in the family and with differing degrees of personal agency and social capital. Sustaining the benefits of livestock distributions in Haiti appeared challenging.

Strengthening supportive structures & institutions/ partnerships & coordination

In Afghanistan from 2011 the new approach aims to build sustainability into the new strategy from the outset with the emphasis on 1) building staff capacity and 2) contact time with communities and building village institutions through conventional 'community' development methods. There is a need to respect the 'process' oriented aspects of organization, logistics, beneficiary selection: clarity of their roles and responsibilities as compared to their previous approach to livestock distributions.

Many of CW's country programs, like Burundi, emphasize the importance of participatory values and ways of working with communities and in ensuring those strong horizontal and vertical linkages with other stakeholders. In Cambodia this is through relationship and ultimately partnership with a local NGO partner capable in delivering and managing credit facilities for the poor; and in providing training and technical 'know how' and facilitating their linkage with line Ministry, MOA, extension and their veterinary services.

Chad provides a very different and difficult context of: volatility, risk, and isolation. The aim then is to graduate and link the current seeds and tools strategy (appropriate for now due to the shortages of inputs on local markets) with longer term 10 – 15 year vision and program that can address a broader Arid and Semi Arid Lands strategy to include pastoral diversification and irrigation farming with animal health services. Animal health services is an excellent entry point into pastoral and agro pastoral communities for wider livelihood interventions: health, WASH, education etc.

DR Congo also has challenges around sustainable animal health services and ensuring that a pilot veterinary pharmacy replenishes stock and continues to deliver goods and services beyond the project life. Investing in building the capacity of local NGOs and CBOs is an important investment in building local civil society to sustain support and service delivery to the livestock distributions and other program components in a highly challenging context.

The SCUK Ethiopia evaluation sees the use of local 'restocking committees' as a short-term response in facilitating the restocking exercise. But long term success and sustainability depends upon a combination of factors: the motivation and herding skills of the beneficiaries; an appropriate restocking package (this was

critiqued); and wider enabling environment that need to include improved access to markets, animal health services, education, health facilities, rangeland and water supply improvements with increased security. The broader development needs for pastoral society are far greater than the specific aims of the restocking project. Supporting sustainable development in a pastoral context is a big challenge and requires a strategic commitment: finding suitably skilled and motivated households who do wish to return to a pastoral way of life; providing effective disease control (a much more effective CAHW network linked to a professional veterinarian was recommended as a follow on project); and balancing economics and the environment in striving for greater livestock production (building up herds) and gaining market access with a degraded rangeland that has limits to its 'carrying capacity'. The wider context certainly challenges the sustainability of the restocking and livestock distribution interventions in pastoral and agro pastoral societies.

CWs credit based distribution schemes in Ethiopia experienced far fewer loan defaulters as compared to their pilot with the 'pass on' system. Key to this was the strong institutional support that existed to on ensure loan agreement compliance. As seen in Haiti it can be a challenge for poor people to handle cash and to meet their obligations to repay credit and to 'pass on'. Naturally herd/ flock size is reduced to cover this obligation but after all it is a reproductive asset (again the importance is on suitable beneficiary selection to care for the animals and supportive animal healthcare measures to assist in keeping the assets alive).

VSF in Liberia (2000 – 2003) designed their project from the outset with sustainability in mind: prioritizing training of farmers, CAHWs, staff in technical issues and participatory community development, training CBOs, Government staff and extension staff from other agencies involved in livestock distributions; additionally they conducted animal health campaigns and established a functioning pharmacy linked to their network of CAHWs that sold vaccines and veterinary drugs at market cost prices (imported from Ivory Coast). All this was accomplished prior to the distribution of livestock.

The sustainability concept came from the work of Jules Pretty (1995) and the model for sustainable agriculture in his book '*Regenerating agriculture – policies and practice for sustainability and self reliance'*: The conceptual model identified three overlapping and concentric rings:

1. Firstly - **Appropriate technologies** – this involved the choice of vaccines, choice of local breeds and technical experts sympathetic to the local needs of farmers in the Liberian context in designing a project based on farmers priorities in relation to livestock;
2. Secondly - **Organized community base** – this involved a strong emphasis on Participatory Rural Appraisal (PRA) methods in the organization of rural communities to accept new ways of working but that began from the premise of mutual respect; and
3. Thirdly – the missing link was the 'weak' **supportive institutions** in a country without any effective Government for more than a decade of 'on and off' civil conflict; they worked with the MOA officials to understand that 'poor farmers are willing to pay' for veterinary services as a starting point to future policy reform on the delivery of animal health services by piloting a full cost recovery for purchased inputs – only the training came 'free'.

CW in Liberia (2002 – 2006) used micro projects to deliver on the ground whilst building the capacity of the local civil society as a way of sustaining project benefits. This involved training in PRA methods and its use designing and implementing projects that were relevant, had local ownership and that had the potential to be sustainable. They were also involved in the rehabilitation of civic structures, ensuring they understood their responsibilities and roles and linking them to local extension staff and the para vet as experts on animal husbandry. Livestock 'committees' were established to organize, resolve conflict and enforce agreements (MOUs) when required.

Again CW in Liberia (2011) an end of project evaluation identified their goat distributions as having "high potential impact (yet to be realized)"; potential to be sustainable (as local breed goats are reproductive assets and with the possibility of replication owing to the establishment of 'pass on' mechanisms. In relation to sustainability and replicability the livestock distribution component scored highly alongside the crop improvements and tree crop interventions. Other successful components such as the road improvements, cassava processing, Farmer Resource Center scored far less on the sustainability and replication count. Scores were generated by staff and local stakeholders, assessing the main project components on their: achieved impact; potential impact; sustainability; and replicability. The table from the draft evaluation is reproduced below:

Table 3.3: Stakeholder ranking of project components in Liberia 2011

	Achieved Impact	Potential impact	Sustainability	Replicability
Crop improvement	8	9	10	10
Livestock	5	8	10	10
Tree Crops	7	9	10	10
Fish	4	7	8	5
Agro processing	4	7	5	2
Roads and culverts	9	9	8	?
Market Building	7	9	10	2
FRC	7	9	4	2
Coops	2	7	2	?
Business knowledge	2	7	?	?
Capacity Building	6	8	5	2
Seed banks	8	9	10	5
Grain banks	7	5	5	2

Note the actual impact score of 5 for the livestock component – it taking a good 2 – 3 years before beneficiaries realized benefits. However potential impact, sustainability and replicability each score a maximum ten. Clearly stakeholders in Liberia see the potential of livestock distributions once they are up and running well.

In Rwanda recipients required land to feed their animals and shelter to ensure their animals stayed alive. These were not the 'extreme poor' but the poor with 'potential' to manage the asset. Sustainability was enhanced by the provision of training (knowledge and skills) on husbandry and with strong policy and local authority support through the cooperatives. The potential weak link identified by stakeholders and the NRI assessment team was in the provision of animal health services.

In Sierra Leone please refer back to the case study in section 3.6. The 'pass on' chain is being extended after the end of the initial two rounds of project restocking. Civic structures in the community have been revived after the war and with in-house expertise and 'know how' from the community based para vet. The South Sudan program combines participation with strong coordination and collaboration with the County veterinary Department and strengthening the role of the village development committee (VDC). The VDC is involved in identifying and selecting beneficiaries; organizing the 'pass on' chain and also has an M&E function. The mechanics of sustainability and replication is through the 'passing on' of five female goats and in the repayment of the ploughs to the VDC: 1) to buy new ploughs, or 2) to provide funds for another community project.

The CW Tanzania program also has a strong emphasis on training (the transfer of knowledge and skills); the provision of extension advice and vaccination services from the CAHW and veterinary medicines via the Ward and Village drug stocks (loans for this need to be repaid after the harvest). To enhance sustainability it appears that more emphasis is required on CAHW incentives with links to private veterinarians/ traders or agro dealers to ensure the viability of animal health service delivery to distribution beneficiaries and all other livestock keepers who become customers in a private market oriented system (see discussion earlier in section 3.5).

Livestock distributions, if well done, are inherently sustainable in perpetuity so long as the animals stay alive and are also able to reproduce. However their ability to be replicated – 'passing livestock benefits to other poor farmers who do not have animals' without on-going support of donor funds is possible when either an effective **credit based** or '**pass on**' mechanism is established; Or even better, to design the distribution around existing **'indigenous' mechanisms** where these practices are an integral part of the fabric and glue of society (re-iterating, once again, the importance of the pre distribution livelihood and livestock assessments).

In Pakistan the post-emergency context, short duration funding and limited time permits a quick direct distribution without the luxury of time in establishing repayment or 'pass on' mechanisms. The priority is on saving lives. The distribution may not be replicable without a repayment mechanism but may still be sustainable. As the LEGS manual states – '*livestock are provided only under a credit (by cash or in-kind) system when this increases beneficiary commitment and at the same time does not jeopardize the productivity of the livestock*

provided or the capacity of the household to meet their basic needs; in all other cases livestock are provided as a gift'. It is useful to recall that the LEGS are specifically for emergency contexts whereas in development context we are more oriented towards sustainability and replication mechanisms with the 'luxury' of time and a slower pace to work with communities

In Zambia the focus of their distributions is on social protection with extreme poor and HIV and AIDS affected groups. The 'pass on' scheme is not planned to extend beyond the group members, which therefore limits replication. The loss then is of greater benefits to be extended to additional beneficiaries beyond the initial target. Similarly in Zimbabwe: sustainability is compromised by mortalities in building up herd size and ensuring sustainable animal health delivery and the EOP evaluation points out that the existing 'pass on' system is not replicable: as beneficiaries receive two animals and 'pass on' only one which will inevitably run down after the first round.

Livestock distributions are inherently sustainable if animals stay alive and are able to reproduce. One of their dynamic qualities is in their ability to replicate and 'pass on' the benefit of livestock to other poor farmers, which has been common practice in most traditional societies for generations as a form of indigenous restocking or re-distribution to poorer members of the community. Quoted from the SCUK Ethiopia evaluation*:*

> Report of the 'pastoral appraisal team' on emergency response interventions in pastoral areas of Ethiopia (Sandford & Habtu, 2000): *"After a decade of funding restocking projects… it is becoming fashionable to be skeptical about restocking projects. Fortunately, most studies agree that well thought out restocking projects redistribute wealth to poorer families and provide a sustainable and meaningful livelihood for a majority of beneficiaries".*

4. Decision support tools for livestock distributions

In section 4 a series of decision support tools are presented, firstly looking at the wider role livestock in poverty focused development, then specifically at livestock distributions for the poor and finally in helping to decide if to use the cash transfer option.

Livestock in poverty focused development

We begin with a series of decision support tools taken from *Ashley, Holden & Bazeley: Livestock in poverty focused development by LID, 1999*, and presented in full in the annexes 4.1 to 4.8. The series of questions asked begins in annex 4.1 with: 'Are livestock important to the poor?' Clearly if they are not then there is no need, necessarily to consider a livestock related intervention. When considering then a livestock intervention of any kind a series of seven inter connected lines of investigation and clarification are made around: veterinary health care; communal feed resource; access to water for livestock; access to input and product markets for livestock; access to new technologies (extension advice/ improved breeds and new species etc.); acquiring livestock and assessing livestock protection against theft. To a greater or lesser degree these seven areas of investigation do all impinge on the success or otherwise of livestock distribution interventions. The seven areas are presented in brief below:

1. Can livestock keepers readily obtain **veterinary care and drugs** for their animals? Annex 4.2 (A) and (B) then pose a series of questions around planning veterinary care and drug interventions. For those country programs planning to establish complementary animal healthcare service support to on-going livestock distributions this is an important next step to work through;

2. Are livestock keepers confident that their **access to communal feed** resources is secure? Annex 4.3 then pose a series of questions around planning communal feed resource interventions;

3. Can livestock keepers **water** their animals reliably? Annex 4.4 then poses a series of questions around planning livestock watering interventions;

4. Can livestock keepers **trade** their animals and their products easily? Annex 4.5 then pose a series of questions around investigating access to trade in livestock and animal products;

5. Can livestock keepers readily learn of, or obtain, **technology (including new breeds)** that, improve their livelihoods? Annex 4.6 (A) and (B) then pose a series of questions around investigating access to new technologies for poor livestock keepers (including access to new breeds);

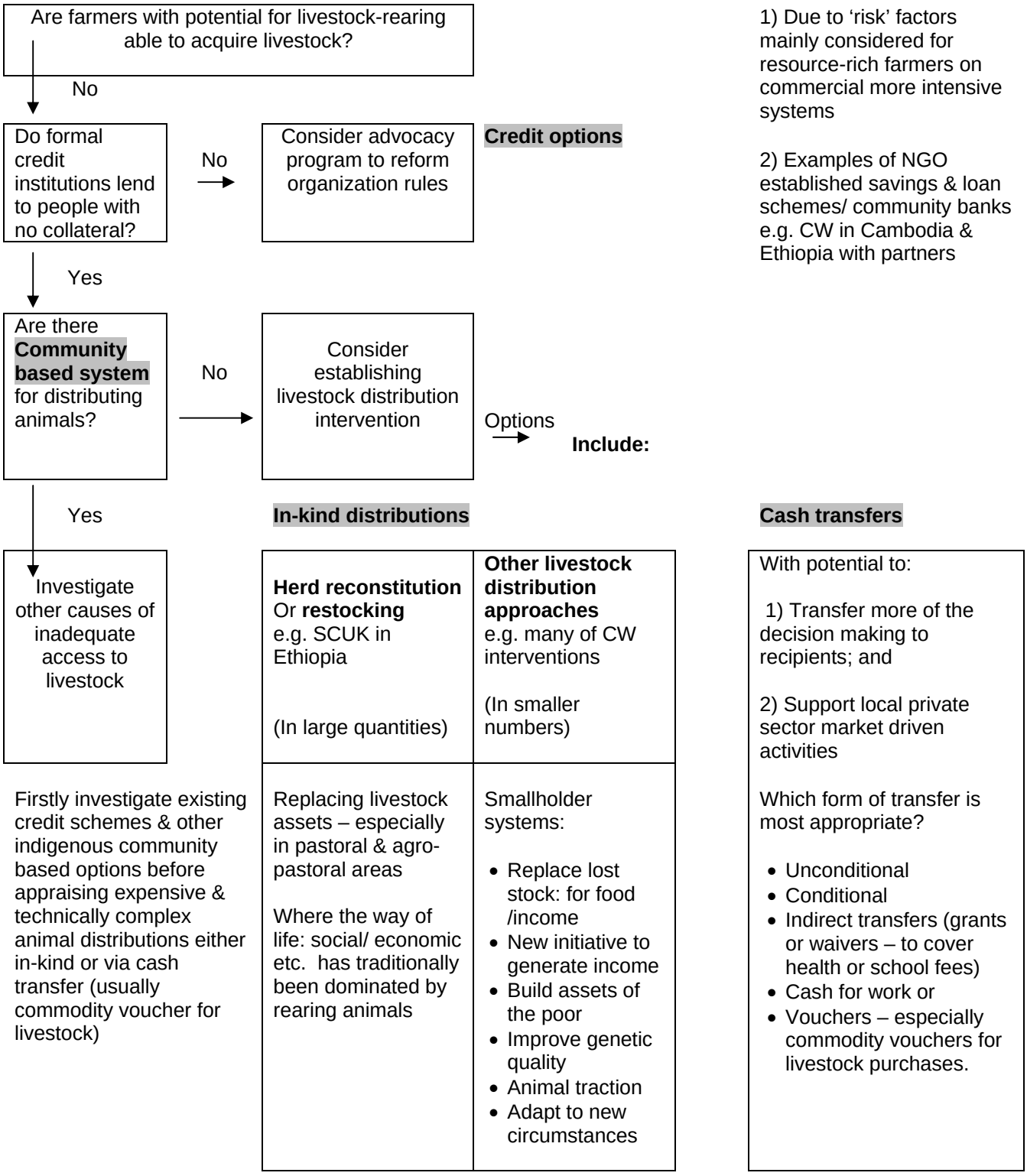
6. Are farmers with potential for livestock rearing able to **acquire livestock**? Annex 4.7 then pose a series of questions for planning a livestock distribution intervention; and

7. Can livestock keepers readily **protect their stock from theft**? Annex 4.8 then pose a series of questions for assessing livestock protection against theft.

Livestock distributions to the poor

What is then presented below in Figure 4.1 is an adapted version of annex 4.7 incorporating learning from LEGS and from this review exercise to establish a simple tool to begin initiating thoughts on conducting a livestock distribution. Firstly look at existing mechanisms through which poor farmers acquire animals either through formal credit institutions that may exist or through community systems of distributing animals to the poor, to neighbors or to friends etc. Commercial credit options often require collateral, which 'extremely' poor farmers can't always provide. The review identifies examples from Cambodia and Ethiopia where local NGOs have established credit mechanisms to enable poor farmers without collateral to access a loan. If indigenous mechanisms of restocking are unable to meet the requirements of poor farmers – then we may consider livestock distribution options.

Figure 4.1 Decision support tree for planning livestock distribution interventions – adapted from Ashley, Holden & Bazeley (1999)



Reference: based on Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID); and Multi Agency Contributions: Livestock Emergency Guidelines and Standards, Practical Action Publishing, output of the LEGS project 2009; and adaptations from this current research assignment made in 2011.

The livestock distribution options include:

- In-kind distributions; which LEGS differentiates between:

    - Herd reconstitution or restocking – only one example from SCUK in Ethiopia is included in the review; these are predominantly pastoral located interventions after a disaster; and

    - Other livestock distributions approaches – which include the generally smaller distributions of which there are numerous examples included in the review from CW and VSF

And

- Cash transfer linked distributions: this would include the examples from DR Congo and Zimbabwe involving the establishment of livestock fairs and the use of commodity vouchers; elsewhere the research in Niger and DR Congo on the use of cash transfers suggests that people rarely use them for the purchase of animals (though this depends on the context: the time after an emergency). In Haiti, however, many of the recipients of a stipend did choose to purchase large stock. Sadly the outcomes were mixed.

We take the decision support tool for livestock distributions further in figure 4.2 (A), which comes from the LEGS manual (2009). The tool works through:

- Identifying other options to livestock distribution that may be more cost effective;
- Identifying suitable beneficiaries who should be poor but also able, or with potential, to benefit from a livestock distribution;
- Identifying a local supply of good quality animals;
- Ensuring that gender roles regarding livestock ownership, care and management are well understood;
- Ensuring that sufficient feed, water and appropriate shelter is available;
- Ensuring that environmental impacts are not adverse or negative;
- Ensuring the well being of livestock;
- Ensuring that livestock disease (epizootic) risks are minimized; and
- Ensuring that conflict and insecurity is minimized in relation to the animals and people.

From figure 4.2 (B) we take the starting point as being the role livestock plays in meeting people's livelihood needs, with two courses of action:

1. Where livelihoods are wholly or largely dependent upon livestock, such as in pastoral and agro pastoral communities; with the possible decision leading to the option of herd reconstitution; and

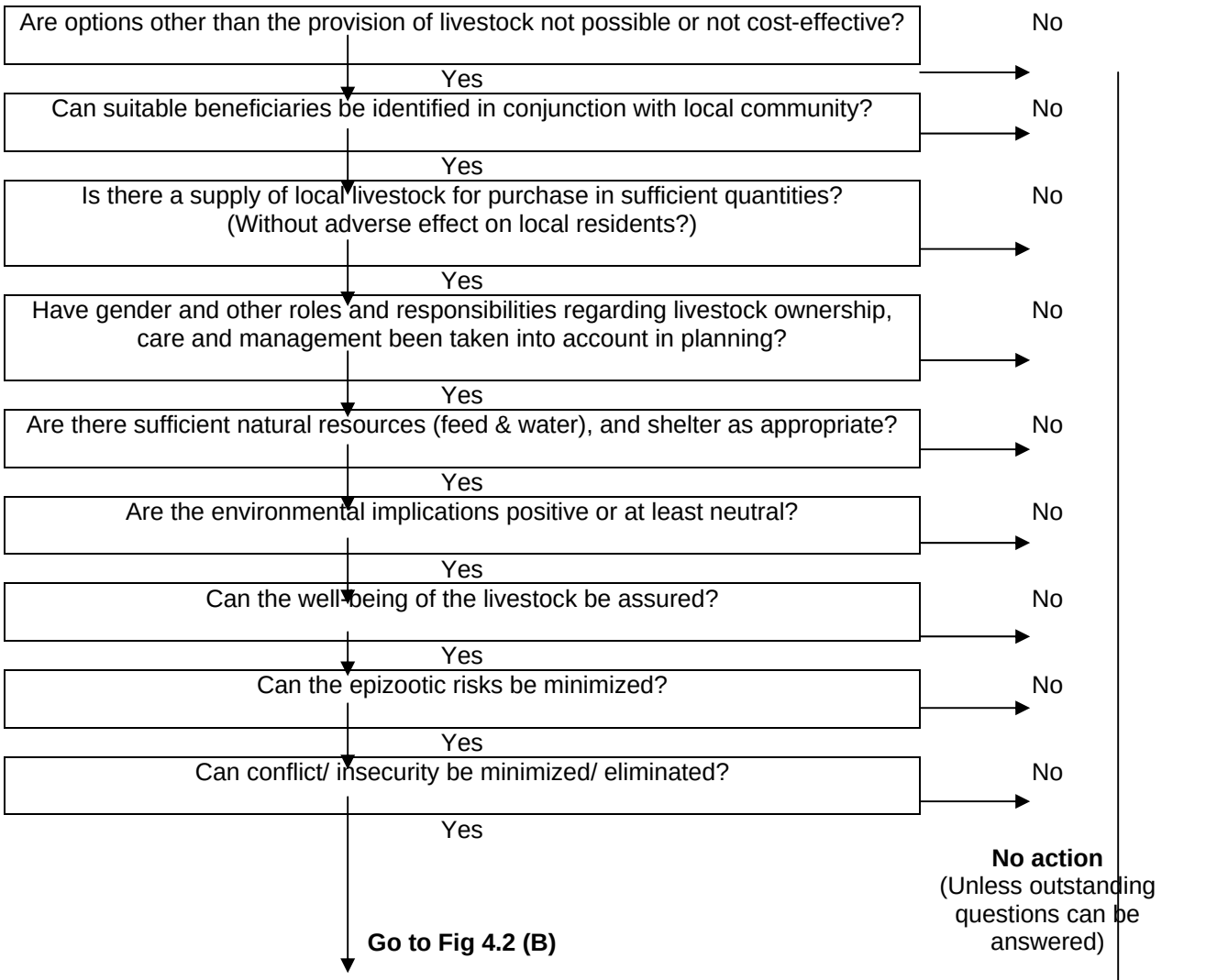
2. Where livestock play a real or potential role in livelihoods; with the possible decision leading to other livestock distributions, which in the case of this review could be for the purpose of:
    a. Replacing lost stock
    b. Building the assets of the poor
    c. Animal traction
    d. Market opportunities to generate income, and
    e. Genetic improvement

Choice of when or if to use cash transfers

In this final sub section we work through three additional decision support tools in relation to the use of cash transfers. Figure 4.3 (A) begins with the causes of commodity or income insecurity. Recall from section 2 that cash transfers are only possible when markets are functioning. In the case of demand failure – cash transfers are an option under certain circumstances. But in the case of supply failure – a commodity aid strategy is likely to be more appropriate. Figure 4.3 (B) looks at the scenario when market demand is low.

Figure 4.4 looks at which form of cash transfer is most appropriate. There is common agreement that when trade in a particular commodity (such as livestock) needs to be encouraged then, and when there are traders who are willing to cooperate e.g. the experiences from Zimbabwe, DR Congo via livestock fairs, then **commodity vouchers** can be highly effective.

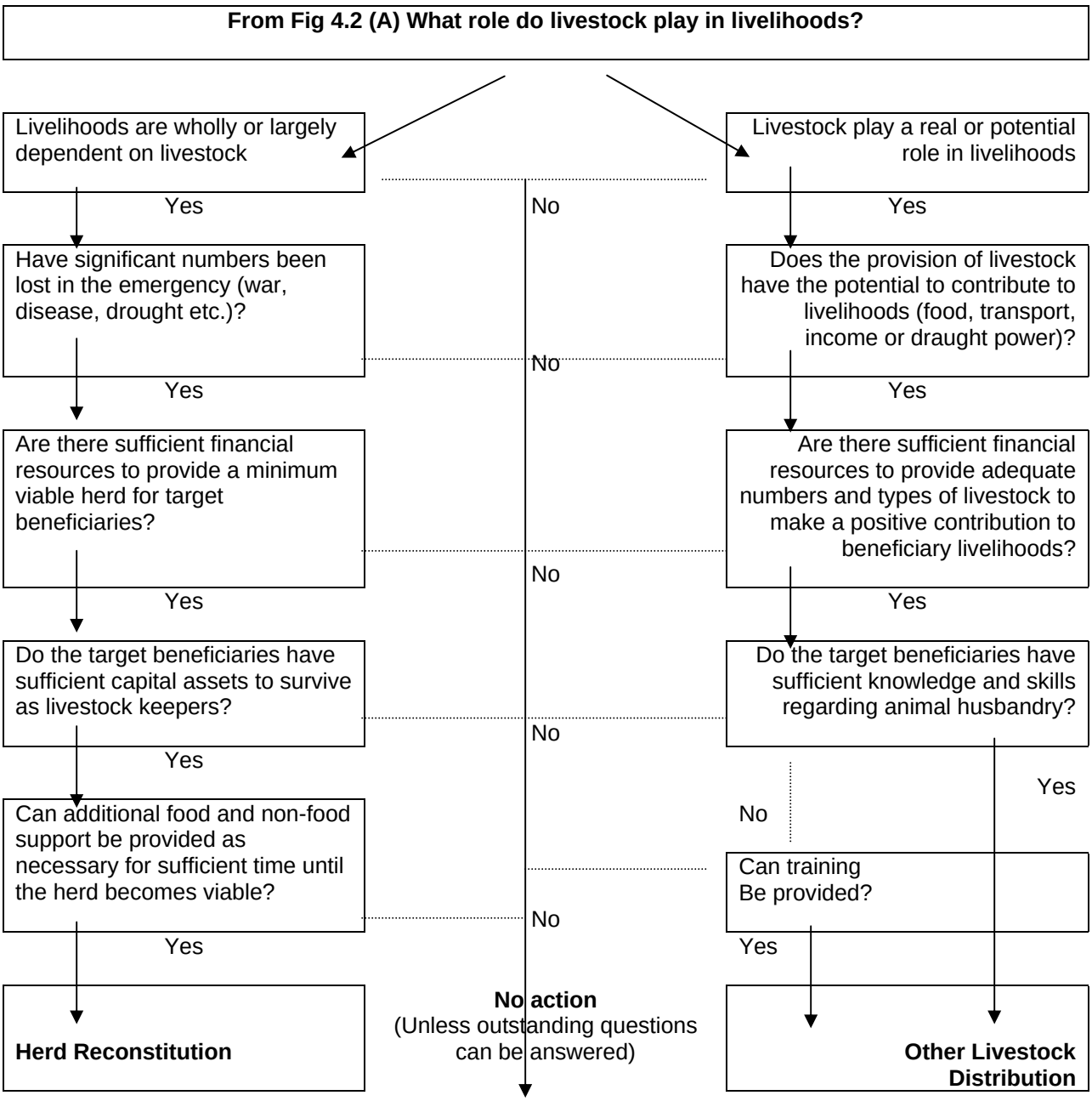
Figure 4.2 (A) Decision support tree for planning livestock distribution interventions



Note: The result 'No Action' (unless outstanding questions can be addressed) may simply mean that further training or capacity building is required in order to be able to answer 'Yes' to the key questions, rather than that no intervention should take place.

Reference: Livestock Emergency Guidelines and Standards, Practical Action Publishing, output of the LEGS project 2009

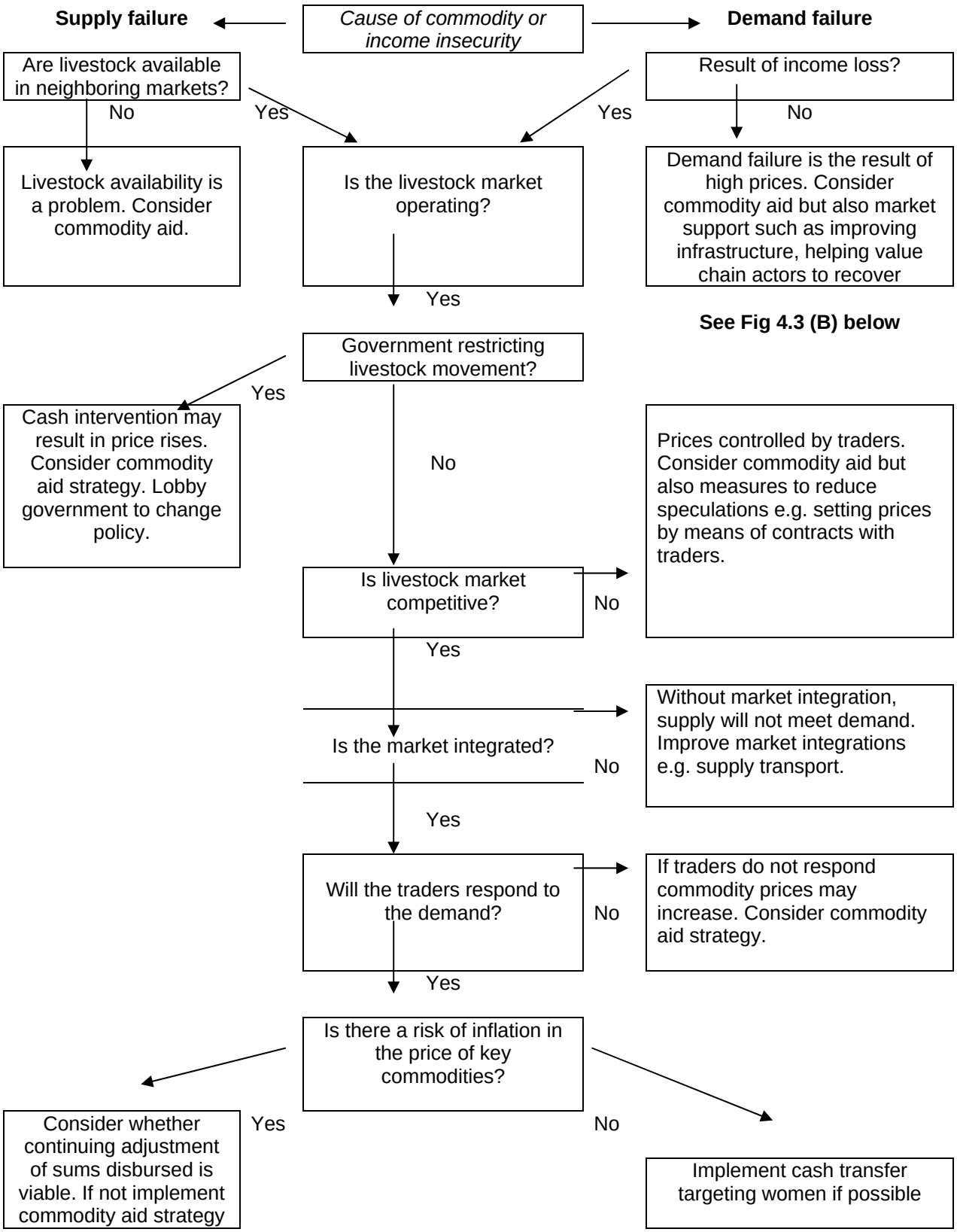
Figure 4.2 (B) Decision support tree for planning livestock distribution interventions



Note: The result 'No Action' (unless outstanding questions can be addressed) may simply mean that further training or capacity building is required in order to be able to answer 'Yes' to the key questions, rather than that no intervention should take place.

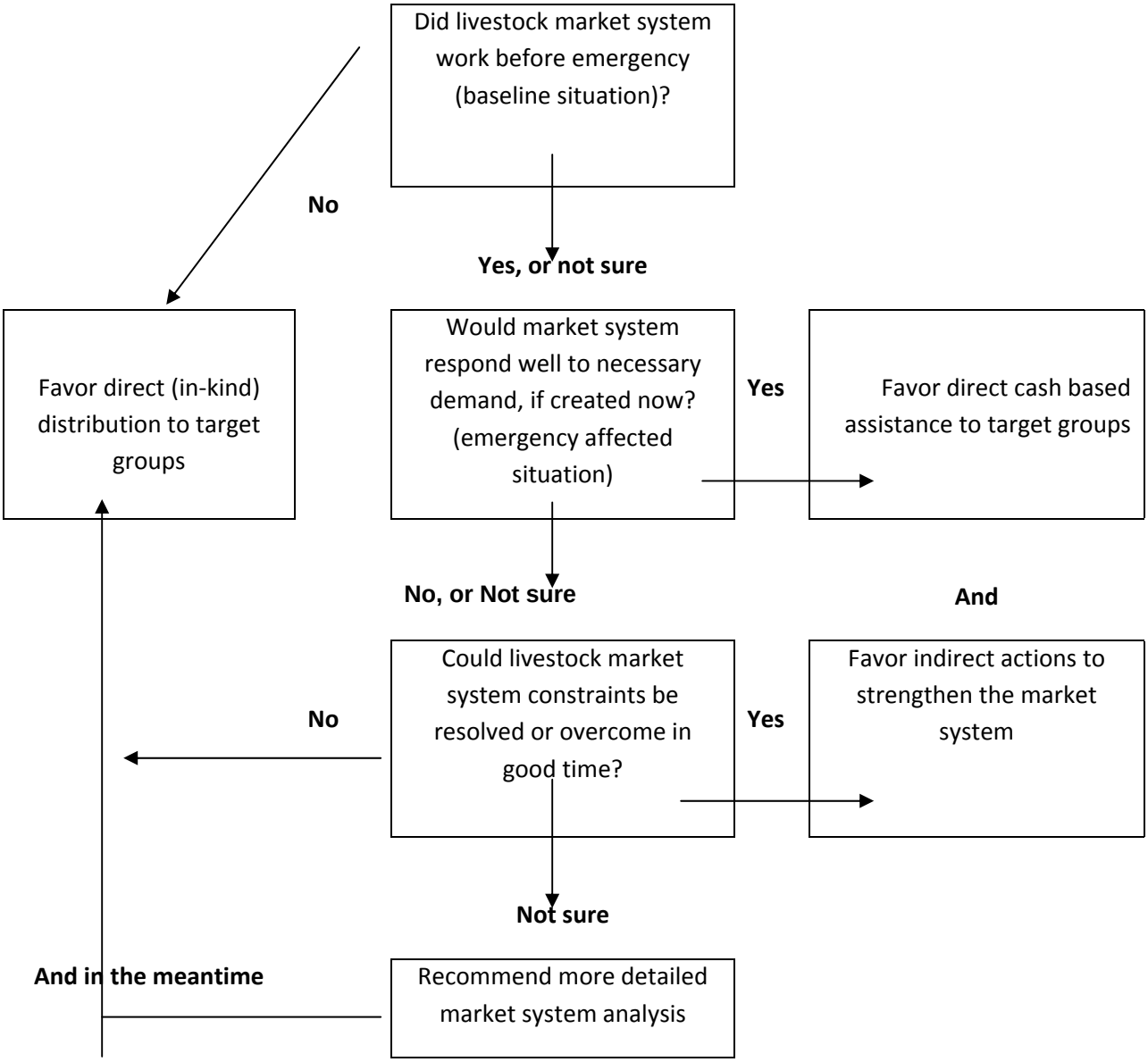
Reference: Livestock Emergency Guidelines and Standards, Practical Action Publishing, output of the LEGS project 2009

Figure 4.3 (A) Decision support tree for deciding whether to distribute cash or in-kind items



Reference: adapted from The use of cash transfers in livestock emergencies and their incorporation into livestock emergency guidelines and standards (LEGS) by Vetwork

Figure 4.3 (B) Decision support tree when demand is low



Reference: adapted from The use of cash transfers in livestock emergencies and their incorporation into livestock emergency guidelines and standards (LEGS) by Vetwork

Figure 4.4 ICRC decision support tree for cash transfer options

Which form of transfer is most appropriate?

If:

- Items people need are on the market but people are unable to purchase/ The risk of inflation is low/ Security is deemed acceptable

The consider:

Unconditional cash transfer;

This may be considered the 'default' option; the most appropriate form of transfer except in the circumstances indicated in the boxes below;

If:

- Specific needs have to be met for shelter
- Large sums have to be distributed and accounted for in order to meet those needs;

Then consider:

Conditional cash transfers

Additional information needed:

- Are relevant items & services (e.g. building materials/ transport/ labor) available?

If:

- The chronically poor are in need of repeated or continuing assistance;
- Government welfare systems already exist or are being planned

The consider:

Social assistance transfer

Additional information needed:

- Is there political support
- What opportunities will there be for recipients to transfer into government social welfare schemes?

If:

- Particular public or community works are required
- Equipment for and supervision of community works can be provided
- The population has capacity to undertake the work
- There is capacity to maintain the assets created

Then consider:

Cash for work

Additional information needed:

- Is remuneration for community works the norm?
- What is the risk of disruption to local labor markets?
- Will women be able to participate?
- What are the environmental implications
- What are the possible legal or insurance implications?

If:

- There is a scarce supply of a particular commodity or range of commodities (vouchers can ensure everyone has a fair share)
- There is a risk of inflation

And/ or

- There are security concerns regarding cash transfers
- The program aims to achieve a specific goal, such as improving nutrition or agricultural production
- Trade in particular commodity (e.g. livestock) needs to be encouraged
- More detailed monitoring data is needed

Then consider:

Vouchers

Additional information needed:

- Are there traders who are willing to cooperate?

Reference: The use of cash transfers in livestock emergencies and their incorporation into livestock emergency guidelines and standards (LEGS) by Vetwork

Cash vouchers	**Commodity vouchers**

5. SMART indicators for the M&E of livestock distributions

In view of the sometimes absent or patchy monitoring data available in the country programs reviewed here we present a series of suggestions for process and impact monitoring of livestock distributions. The section builds on the on-going capacity building work by Concern Worldwide around the use of the PM&E guide (2009). It concludes by presenting a simple impact chain to demonstrate the potential that livestock distributions have in contributing towards the improvement in the lives of extremely poor people.

Process monitoring

To begin with some simple definitions to accompany the tables of SMART indicators presented below:

- **Monitoring**: the systematic and continuous process of assessing the progress and change resulting from the project activities; measures mainly inputs; efforts; outputs;
- **Indicators** are characteristics of a process or activity, which can be measured during monitoring or impact assessment; all indicators need to be **SMART**: Specific/ Measurable/ Achievable/ Relevant; and Timely;
- **Process indicators** measure the implementation of project activities. These indicators are usually quantitative;

The table below, reproduced from LEGS, provides a checklist of items to be considered as part of the process monitoring of a livestock distribution:

Provision of livestock – process monitoring
• Recipients fit with targeting criteria • Theoretical versus actual beneficiary numbers • Quantity of animals provided • Quality of animals provided • Equity in quality of animals provided between beneficiaries • Timing of provision • Access to distribution point • Completion of distribution documents • Transportation conditions • Veterinary check and vet inputs on animals

The specific standards established for livestock distributions: 1) Assessment; 2) Defining the package; 3) Credit, procurement, transport, and delivery; and 4) Additional support, each need to be addressed in the M&E system. Each could be considered as a specific output in the mechanics of implementing a distribution.

1) Assessment: a detailed assessment of the role of livestock in the livelihoods of the poor. The assessment is a crucial aspect of any livestock intervention and appears to be one that could be done better in many programs, with greater attention to an analysis of the context of livestock rearing and ownership in the livelihood system of the poor. Key indicators taken from LEGS include:

-Role that livestock play in livelihoods is analyzed
-Indigenous redistribution mechanisms assessed
-Assess cost effectiveness of livestock provision against other options
-Assess probable impact of large purchases on local markets
-Determine local 'norm' for minimum viable herd size
-Assess environmental impact of livestock provision
-Assess potential risks to welfare of livestock: feed/ water/ shelter etc.
-Assess the risk of epizootic disease outbreak
-Assess the security implications for livestock and beneficiary population

The task of assessment is challenging and requires staff with sufficient skill and experience in social surveys and an understanding of livestock and livelihoods. The monitoring, however is more straight forward – 'has the specific assessment activity/ task been accomplished or not'?

2) Defining the package: in an emergency the package may include food aid and other non-food items; in a more development context the details of a wider program need to be clarified; including the mandate of the organization and the broader purpose of the project/ program. Key indicators taken from LEGS include:

-Livestock provision takes account of indigenous systems of stock distribution
-Selection of beneficiaries is based on local participation and practice
-Type & quantity of livestock are appropriate to support livelihoods and are productive, healthy and adapted to local conditions
-Animals distributed at appropriate times

Monitoring indicators may include: the number of beneficiaries; a detailed set of criteria – understood by implementing staff, stakeholders and beneficiaries themselves; the planned number/ type/ criteria of livestock to be distributed etc.

3) Credit, procurement, transport, and delivery: the logistics of procurement and distribution can be exceedingly complex to organize, which is why it is best to start small, with a pilot, before scaling up – this is possible in a development context but may not be in an emergency response (unless there is a pre existing program team already operating with those communities that understands the local community). Key indicators taken from LEGS include:

-Local purchase procurement where possible
-Procurement according to agreed criteria and in accordance with legal procedures
-Veterinary inspection takes place at time of livestock purchase
-Transport planned in advance to minimize risk of losses in transit and based on conditions that ensure the well being of stock

Emergency context:
-Livestock is provided as a gift;
-Credit or 'pass on' system only when this increases beneficiary commitment & does not jeopardize productivity of livestock or capacity of households to meet their basic needs;

Development context: we need to move away from the 'free' handout dependency syndrome and move towards a system that is more sustainable and replicable, after project funds cease. Therefore, it is suggested that additional indicators are to be established, beyond those of LEGS:

-With the community, and other stakeholders, determine which mechanism for re-distribution of animals is most appropriate: credit based, 'pass on' or other indigenous systems;
-Ensure that the obligation on the part of the beneficiary is clearly communicated and understood;
-Ensure that the appropriate village level institution/ 'committee' etc. is responsible for the oversight and supervision of re-distribution to other beneficiaries (without this the sustainability and replication of the distribution can break down);

Monitoring indicators may include: identification of secondary beneficiaries; profiles completed of secondary beneficiaries; the number of subsequent beneficiaries on the chain; signed memorandum of understanding with the village 'committee'; number of animals meeting the selection criteria/ being vaccinated etc.

4) Additional support: the support measures for livestock distributions are important measures to minimize the risk of the death of the animals and to maximize the possible benefits to be derived for the beneficiaries. Key indicators taken from LEGS include:

-Preventive care provided for the livestock prior to distribution
-System of on-going provision of veterinary care established for all members of community

-Training & capacity building support provided to beneficiaries based on their skills & knowledge of animal husbandry
-Training includes preparedness for future shocks & disasters

In **emergency**: food security, shelter & NFI needs are identified according to Sphere standards and food security support is withdrawn only when herd size and/ or emergence of other economic activities enable independence from such support. In a **development** context: greater attention and follow up programming often establishes more sustainable animal health service delivery systems and addresses the wider livelihood constraints of the 'extreme poor' and wider community.

Monitoring indicators may include: Number of trainees/ Number of CAHWs trained/ Number of workshops held/ Number of vaccinations distributed/ Number of improved poultry farms constructed/ Number of mini pharmacies or veterinary kits distributed etc.

See the table below of SMART M&E indicators for process monitoring of livestock distributions:

Process indicators for livestock distributions	
Activities - sequenced under each output in the log frame;	*Outputs* - Measures 'effort' and implementation of activities
Output 1: Assessment: detailed report submitted -Role that livestock play in livelihoods is analysed -Indigenous redistribution mechanisms assessed -Assess cost effectiveness of livestock provision against other options -Assess probable impact of large purchases on local markets -Determine local 'norm' for minimum viable herd size -Assess environmental impact of livestock provision -Assess potential risks to welfare of livestock: feed/ water/ shelter etc. -Assess the risk of epizootic disease outbreak -Assess the security implications for livestock and beneficiary population	
Output 2: Defining the package: detailed report & plan submitted -Livestock provision takes account of indigenous systems of stock distribution -Selection of beneficiaries is based on local participation and practice -Type & quantity of livestock are appropriate to support livelihoods and are productive, healthy and adapted to local conditions -Animals distributed at appropriate times	
Output 3: Credit , procurement, transport, and delivery: detailed report & plan submitted -Local purchase procurement where possible -Procurement according to agreed criteria and in accordance with legal procedures -Veterinary inspection takes place at time of livestock purchase -Transport planned in advance to minimize risk of losses in transit and based on conditions that ensure well being of stock **In development –** no free handouts; -With the community and other stakeholders determine which mechanism for re-distribution of animals is most appropriate: credit based, 'pass on' or other indigenous system; -Ensure that an obligation on the part of the beneficiary is clearly communicated; **In emergency:** livestock provided as a gift; -Credit or 'pass on' system only when this increases beneficiary commitment & does not jeopardize productivity of livestock or capacity of household to meet their basic needs (most likely appropriate in a development setting);	

Output 4: Additional support: detailed report & plan submitted

-Preventive care provided for the livestock prior to distribution
-System of on-going provision of veterinary care established for all members of community
-Training & capacity building support provided to beneficiaries based on their skills & knowledge of animal husbandry
-Training includes preparedness for future shocks & disasters

In a **development** context: greater attention and follow up programming often establishes more sustainable animal health service delivery systems and addresses the wider livelihood constraints of the 'extreme poor' and wider community

In emergency: food security, shelter & NFI needs are identified according to Sphere standards
-Food security support is withdrawn only when herd size and/ or emergence of other economic activities enable independence from such support

Standard process indicators around training of beneficiary, CAHWs and other supportive measures: Number trainees/ Number CAHWs trained/ Number workshops held/ Number vaccinations distributed/ Number improved poultry farms constructed/ Number mini pharmacies established or vet kits distributed/ Number animals distributed/ Number animals vaccinated etc.

Impact monitoring

Again, to begin with some simple definitions to accompany the table of SMART indicators presented below:

- **Impact assessment:** effect of the project activities on the situation (**outcome**) and the long-term changes that result from the project intervention (**impact**);

Impact assessment involves:

- Description of the changes that have occurred in a community since the start of the project;
- Relates the changes taken place to the project activities;
- Provides an understanding of the links between the changes resulting from the project activities and human welfare;

Outcome indicators: measure the effect of the project activities on the situation (more immediate tangible and observable change);

After the series of activities assessment/ beneficiary identification/ procurement/ distribution/ training etc. and related outputs the most important outcome is to ensure that **the animals stay alive and are able to reproduce**. Subsequent follow up monitoring from the reviews has identified that animals have died and that low birth rates have been experienced because of poor quality stock being procured; the wrong beneficiaries have been chosen; weak complementary training was provided; and effective and accessible animal health services were not provided. Once animals have successfully been kept alive and are able to reproduce then other downstream benefits can be derived, such as cash sales for income or consumption (eggs, milk, meat etc). To ensure replication of the distribution system and to meet repayment obligation, then the loans repaid in cash or in-kind 'passed on' must be monitored.

The table below, reproduced from LEGS, provides a checklist of items to be considered as part of the outcome monitoring of a livestock distribution:

Herd growth & productivity - outcome monitoring
• Total number of animals • Number of adult females/ males • Number of immature females/ males • Number of female/ male offspring • Fertility rate

- Mortality rate (total, neonatal)
- Morbidity rate
- Average and seasonal production and value of by-products (milk, eggs, skins, horns, meat etc.)

Monitoring can be done with groups of livestock keepers or in discussion with individuals. Collecting detailed livestock production information can be challenging, especially if key informant/ beneficiaries are neither literate nor numerate. One useful PRA type method is known as '**participatory herd history**' (Czech Conroy, 2001). Using a set of cards (with labels or pictures) and a two-year seasonal calendar, an inventory of the current herd/ flock is made. Working backward over 1 – 2 yeas the interviewer documents the changes to the herd in terms of acquisitions or removals: births, deaths, slaughter, sales, purchases, abortions and stillbirths etc. RRA (20) and PLA (45) notes also provide other examples of participatory methods of investigation with livestock keepers.

Other outcomes to be further encouraged are the partial improvements to state animal health service delivery and extension services by the training and practice of the CAHWs within their community and their liaison with technical line Ministry staff. The CAHWs have provided a community based animal health service, extension advice and even disease surveillance, often in localities where Government services are sparse or non existent.

Impact indicators measure changes that occur as a result of project activities. Impact indicators can be qualitative or quantitative (see table below);

In this review five main purposes of livestock distributions have been identified: replace lost stock; build assets of poor; animal traction; income generation; and genetic improvement. Attaining the outcome of keeping the animals alive and reproducing is the **means** to accomplishing their respective **ends**. Ends can be determined by using participatory impact assessment (PIA) methods; the main being the use of 'before' and 'after' comparisons. Types of impact indicators may include: herd/ flock size; households owning livestock; income source from livestock; food source from livestock; other social benefits e.g. attendance at ceremonies (through use of animals); and psycho-social: esteem/ pride/ confidence etc.

The '**ends'** for replacing lost stock and building the assets of the poor (by far the most common purposes of livestock distributions in this review – 75%) will ultimately depend upon 'how people in that context' use their animals – usually for sources of emergency cash, food source and meeting their socio cultural needs etc. For the purpose of animal traction, as an input to the cropping system, then the area of land ploughed (outcome), whilst change in yields through timely planting and even associated income from surplus sales, may well be related impacts. Change in income, itself, would be the main indicator of impact for income generating and increasing market opportunities. In the case of the example from Cambodia the successful poultry enterprises were able to reduce the hunger gap of many beneficiaries (through the improved ability of households to buy food during the 'lean' season); and even to reduce the number of household members from migrating to Thailand for work from a number of households.

Where the review has identified least impact has been through inappropriate livestock distributions for the purpose of genetic improvements. Impacts would have to then measure changes in productivity. Research suggests that when operating in 'local conditions' that 'within breed selection' is the most sustainable option (bringing in new local breed stock which is an inherent outcome of many of the distributions) bring marginal productivity gains and greatly helps in reducing inbreeding. Introducing improved breeds has been largely unsuccessful from the evidence in this review. If it is practiced at all then significant improvements in management are required (see Figure 3.1 the VSF graduation model) or that more resource rich beneficiaries are identified to operate more high input intensive production systems – and these would not be the primary 'extreme poor' beneficiaries targeted in the Concern Worldwide organizational strategic plan (2011 – 2015).

Impact indicators for livestock distributions	
Outcome (expected results) - Measures effectiveness: the use of outputs & the sustained production of benefits; Effect of the project activities on the situation; (More immediate tangible & observable change); Direct & wider effects	*Impact* - Measures change: difference from the original problem situation; The long term changes that result from the project intervention
Keep the animals alive & reproducing Number animals lost (to disease, theft, predators etc.) Number live births Number of CAHWs practicing Number of treatments conducted	**Reasons for livestock distributions**: 'Before' & 'After' comparisons: • Herd/ flock size • Households owning livestock • Income source from livestock • Food source from livestock • Other social benefits • Psycho-social: esteem/ pride/ confidence
Outcome indicators for livestock keepers: Increased stock levels amongst target beneficiaries; Increased numbers of livestock producers in the community as loan repaid or offspring 'passed on'	**Impact indicators for livestock producer welfare**: Increased diversity of livestock raised in the community; Increased benefits derived from livestock (income/ livestock products – both economic benefits & socio- cultural benefits);
Outcome indicators for the animal health service delivery system: Increased access to medicines and advice; Increased speed of response to livestock problems; Increased awareness of problems, its impact/ consequences and solutions to animal ill health; Increased veterinary response to disease outbreaks (PPR, NCD, anthrax etc);	**Impact indicators for CAHW income & welfare**: Continued 'motivation' – remains active; % Income source from being CAHW; Personal livestock business/ enterprises; Compare income & livestock products 'before' and 'after' the project

The table below, reproduced from LEGS, provides a checklist of items to be considered as part of the impact monitoring of a livestock distribution:

Livelihood analysis & impact monitoring	
• Changes in availability & access to resources • Changes in livelihood activities • Changes in revenue and capital • Changes in level of indebtedness and ability to give or loan animals • Changes in capacity of investment and market • Changes in market prices • Changes in food status (quality & quantity) • Changes in human health status	• Changes in social status within the community (for instance ability to participate in ceremonies) • Changes in animal husbandry practices • Changes in animal health status • Changes in availability of labor force • Changes in household well-being • Displacement of population, return of IDPs/ refugees • Level of reconstruction and rehabilitation • Changes in number of children in school

Developing a theory of change and impact pathway for livestock distributions

Below is presented a simple impact chain or pathway for livestock distributions that contributes towards making 'improvements in the lives of the extremely poor' (Concern Worldwide organization strategic plan 2011 – 2015) and also meeting our humanitarian objectives (alleviating suffering/ maintaining dignity/ strengthening community preparedness) as an effective post disaster recovery intervention.

Impact: significant and lasting changes in people's lives as identified by them (including unexpected changes both positive and negative)

- Diversification of livelihood options for 'extreme poor' through owning & utilizing livestock
- Increased food security/ reduced hunger gap
- Enhanced livelihood security against future shocks and disasters
- Increased assets/ reduced risk & vulnerability to shocks/ greater equality of the extreme poor

Outcomes: intermediate changes – in knowledge, behavior, capacity, access to and quality of services and resources (including unexpected changes both positive and negative)

- Increasing proportion of 'extreme poor' in community owning livestock
- Acceptable levels of mortality
- Acceptable levels of reproduction
- Means to generate income/ provide food source/ meet socio cultural needs
- Means to repay loan in cash or in-kind ('pass on')
- CAHW remains 'active' to provide extension advice & animal health care

Outputs: activities done

- Livelihood & livestock assessments conducted
- Distribution package defined and appropriate for the target beneficiaries
- Credit, procurement, transport & delivery plan agreed by all important stakeholders and beneficiaries
- Supportive measures implemented that include: animal husbandry training/ strengthening local institutions 'committees'/ training of CAHWs linked to an efficient input supply chain/ training on DRR against future shocks and disasters etc.

Inputs: financial, human and material resources

- Local livestock in sufficient quantities
- Management capacity for technically and organizationally complex interventions
- Partners and field staff with PRA and livestock technical expertise
- Collaboration with key stakeholders: local authorities/ Veterinary staff (MOA) etc
- Funding

6. Towards a guide of 'best practice' for livestock distributions

This section pulls together the key learning from the main sections of the study: section 2's review of LEGS; section 3's review of livestock distributions across 22 country programs; section 4's decision support tools; and section 5's SMART indicators for an impact pathway to improve the lives of extremely poor people. Within the framework of Concern Worldwide's organizational strategy, the section sets out clearly the steps to be taken in establishing 'best practice' in implementing livestock distributions.

Concern's new organizational strategy (2011 – 2015) re-confirms the priority targeting of extremely poor people through the elaboration of the 'How Concern Understands Extreme Poverty' concept combining why people are poor: their limited assets and low return on their assets with the maintainers keeping them in poverty: their vulnerability to risk and various forms of inequality (especially gender inequality). The focus on countries will remain within the bottom 40 of the UN HDI with greater emphasis on those countries and regions within countries with a 'poor and vulnerable' context. The most likely context for CW's future livestock interventions will be in post disaster recovery and the transition from relief towards rehabilitation and development. The following key steps aim to enhance the potential of livestock distributions into actual impact on the ground in the lives of extremely poor people to significantly improve their lives.

Livestock distributions, when well implemented, have the potential to make a real impact, significant and lasting changes, in people's lives, as identified by them. These changes can include the diversification of livelihood options for the 'extreme poor' through owning and utilizing their livestock; increased food security (through income generated or livestock and livestock products consumed etc.); enhanced livelihood security against future shocks and disasters by increasing their available assets (reproductive assets in the case of livestock and as a means of saving), reduced risk and vulnerability to livelihood shocks (such as a death in the family or meeting medical bills etc.) as livestock provide a contingency reserve at times of emergency and greater equality for the extreme poor and other marginalized groups through the increased pride, self esteem and independence as their prestige and standing in society affords them greater social linkages. The impact pathway of livestock distributions demonstrates them to be a highly effective component or intervention: of a wider FIM program (in the case of CW); Or, of a wider livestock development program (in the case of a livestock specialist NGO or agency).

General standards for 'best practice'

Common to all development interventions are a series of eight standards (incorporating good values and practice) that greatly enhances the interventions' ability to be sustainable and have significant impact. These standards are defined in the LEGS manual and re-enforce and complement existing humanitarian and development sector professional standards: *Humanitarian Charter and Minimum Standards in Disaster Response* – the Sphere Project (2004 and updated 2011); and *Humanitarian Accountability Partnership* – the HAP standards (2007 and updated 2010). The bottom line is that they make very good practical sense in both an emergency and a development context:

Participation: is essential to ensure that interventions are relevant to local people and have their personal ownership, which is a requirement to ensure its sustainability. We encourage 'interactive' forms of participation, where "*People participate in joint analysis, development of action plans and formation or strengthening of local institutions. Participation is seen as a right not just the means to achieve project goals. The process involves interdisciplinary methodologies that seek multiple perspectives and make use of systemic and structured learning processes. As groups take control over local decision and determine how available resources are used, so they have a stake in maintaining structures or practices*" (IIED).

Technically complex and organizationally demanding interventions as livestock distributions require a range of relationships and partnerships. The process of establishing an effective and sustainable distribution scheme that targets the correct people, has full support of key stakeholders (village leaders, traders, input suppliers, local government and technical line Ministries), ensures that good quality stock are kept alive and that can then be the

means to deliver outcomes and impacts in a sustainable manner, needs to ensure that the right type of participation is being practiced.

Initial assessments: assessments provide an understanding of the role of livestock in the livelihoods of different socio economic groups within a population; an analysis of the nature and extent of the emergency or development problem and priorities; and an appraisal of appropriate interventions in relation to the operational and policy context and of existing service providers and systems**.** We cannot over emphasize the importance of assessments which provide the underlying assumptions and basis for the interventions – its appropriateness and ensure that our actions link with and re-enforce existing indigenous mechanisms with the full agreement and approval of the target beneficiaries and all other important and influential stakeholders.

Response and coordination: different livestock interventions are harmonized and are complementary to other humanitarian interventions intended to save lives and restore livelihoods, or are complementary with other development interventions being implemented by Government and other agencies. In the emergency context it is important that the livestock interventions do not interfere with immediate activities to save human lives. And in the development context, that we are aligned with government policy and that there are harmonized approaches to incentive payments for CAHWs, support to supportive animal healthcare etc with other development partners.

Targeting: livestock assistance is to be provided fairly and impartially, based on the uses and needs of different livestock users by socio economic group. Criteria needs to be developed with community representatives (with knowledge gained from the initial assessments) linking in with indigenous social support systems if applicable and if functioning; and ensuring that transparency and impartiality through targeting mechanisms has been agreed with the wider community at public meetings (promoting clarity and openness with local oversight and responsibility).

Suitable beneficiaries in the case of CW, the extreme poor, need to be identified, in conjunction with the local community in ways that are transparent and readily communicated: in terms of poverty or vulnerability (based on local criteria established through wealth ranking); and that they require sufficient knowledge and skills already in animal husbandry, or that can be provided by training and capacity building, to maximize the chance of keeping the animal alive and not wasting the resource.

Monitoring & evaluation and livelihood impact: M&E and livelihoods impact analysis must be carried out to check and refine implementation as necessary and to draw lessons for future programming. Past evaluations have tended only to measure the implementation of activities and not the impact on livestock assets or changes in people's livelihoods: e.g. consumption of livestock derived food; uses of income derived from sale of livestock or livestock products; benefits derived from access to pack animals; and social benefits such as gifts or loans. There has, sadly, been much repetition of mistakes and a lack of learning, as identified from the meta-evaluations; therefore greater commitment is needed towards M&E for shared learning and use in supporting advocacy initiatives to address policy issues.

Technical support and agency competences: field-staff need to possess appropriate qualifications, the right attitude, and have sufficient experience to effectively plan, implement and assess livelihoods based programs. There needs to be a balance between technical knowledge of livestock, and an ability to use participatory approaches, as well as an awareness of principles of human rights and protection and of livelihood based programming (which may require short term training and capacity building).

Preparedness: it is widely known that climatic trends are causing more frequent and varied humanitarian crises, particularly affecting communities who rely heavily on livestock. CW's organisation strategy now ensures that programming is based on the principles of disaster risk reduction (DRR), which includes preparedness,

contingency planning and where necessary an early and effective response (as detailed in each country programs' PEER[11] plans). And finally

Advocacy & policy: root cause analysis is ever more identifying poor governance and inappropriate policies at the heart of poverty and inequality in the countries where CW operates. Where possible, policy obstacles to effective implementation of programs need to be identified and addressed. Advocacy is required around the strengthening of decentralized institutions and structures, and for improved service delivery to communities for better education, health care, provision of water and sanitation, and animal health services etc. This is especially the case in the arid and semi arid lands of pastoral and agro pastoral communities but also in many other contexts in which CW works.

Specific standards for livestock distributions

The LEGS manual, furthermore, identifies **four specific livestock distribution standards**, together with indicators and guidance notes for 'best practice' and assistance in decision making. We now work through these four sub sections whilst taking the best practice and learning from the country programs reviewed in this study.

Standard 1: Initial assessment; an analysis is carried out to assess the current and potential role of livestock in livelihoods and the potential social, economic and environmental impact of the provision of livestock.

As for much of CW's interventions greater emphasis and time is required on analysis and planning (which is a perennial challenge as it competes with the other demands on staff and in meeting donor and organizational deadlines etc.). The emphasis on assessment, learning, understanding and analysis is re-enforced through the on-going roll out of the PM&E guide (including the contextual analysis) and the investment by CW in associated capacity building. This contextual analysis requires the multi disciplinary survey teams to have both technical skills in livestock related matters and community development skills in the use of participatory methods – these are important for both preparation and planning, and also subsequent implementation, monitoring and subsequent evaluation exercises. The assessments provide the basis on how a future distribution can be designed: by determining firstly whether a livestock distribution is appropriate; they can identify indigenous mechanisms of restocking that already exist, the type of species already adapted to the local conditions and those species that local farmers already have a history and tradition of rearing; local community 'livestock specialist' key informants can always be found and provide a valuable amount of indigenous knowledge; understanding how animals are utilized in poor people's livelihood strategies can determine the ultimate aim and impact of the intervention; and local residents (including future beneficiaries) can identify appropriate monitoring indicators – simply ask them.

The pre implementation contextual and needs assessments are crucial in answering those key questions highlighted in the decision support tools. These decision support tools for livestock distributions provide a set of clear questions to determine whether to proceed in implementing, for instance by asking whether: there are other options to livestock distribution that may be more cost effective; there are suitable beneficiaries who are able, or with the potential, to benefit from a livestock distribution; there is a local supply of good quality animals; gender roles regarding livestock ownership, care and management are well understood; sufficient feed, water and appropriate shelter is available; the environmental impacts are not adverse or negative; the well being of livestock can be guaranteed; livestock disease (epizootic) risks can be minimized; and conflict and insecurity will not be increased as a consequence of distributing animals (see Figure 4.2 A).

The initial assessments need to ensure that the implementing agency understands the role livestock play in meeting people's livelihood needs (see Figure 4.2 B). Two possible courses of action are described in the LEGS manual: 1) where livelihoods are wholly or largely dependent upon livestock, such as in pastoral and agro pastoral communities; with the possible decision leading to the option of herd reconstitution (mainly post drought

[11] Preparing for Effective Emergency Response (PEER) – is now a mandatory component for all of CW's country programs;

response requiring the distribution or restocking of large numbers of animals); and 2) where livestock play a real or potential role in livelihoods; with the possible decision leading to other kinds of livestock distributions, for the purpose of: replacing lost stock, building the assets of the poor, animal traction, market opportunities to generate income, and for genetic improvement (examples in this study from a wide range of contexts but generally involving small numbers of animal(s) per beneficiary).

LEGS provides a series of largely qualitative indicators for standard 1, that include:

- Role that livestock play in livelihoods is analyzed
- Indigenous redistribution mechanisms assessed
- Assess cost effectiveness of livestock provision against other options (see discussion in section 3.6)
- Assess probable impact of large purchases on local markets
- Determine local 'norm' for minimum viable herd size
- Assess environmental impact of livestock provision
- Assess potential risks to welfare of livestock: feed/ water/ shelter etc.
- Assess the risk of epizootic disease outbreak
- Assess the security implications for livestock and beneficiary population

Standard 2: Definition of the package; Appropriate livestock types are distributed in adequate numbers and through appropriate mechanisms to provide viable and sustainable benefits to the target individuals or communities.

The basis for an appropriate package that meets the needs of the target beneficiary is, as ever, highly context specific. As section 3.1 describes, the range of contexts in which CW operates varies greatly across agro ecology, geography and development phases where livestock have differing degrees of importance in relation to the livelihoods of the extremely poor – further re-enforcing the importance and value of sound and thorough initial assessments.

Local breeds, in general, have been found to be most appropriate for poor people under traditional low input low output production systems. Our findings suggest that improved breeds often struggle to adapt to new surroundings leading to high mortalities. Additionally poorer farmers are often unable to provide sufficient feed or afford the cost of healthcare when improved breeds or large stock get sick. Higher risk is better suited to more resource rich households, where more intensive production (High input High output) are appropriate with their means, assets and ability to address higher risk. Refer to Figure 3.1 the VSF graduation model and the steps required before intensifying production or introducing crossbreeds: firstly address the environmental diseases; and secondly address the husbandry diseases and improved management. The literature suggests that 'within breed selection' is likely to be the most effective (less risky) under traditional management. Examples of successful group herding are documented of bringing in new males of the same breed into the traditional free-range management system.

Resource poor farmers are more suited to **short cycle species** especially small ruminants (sheep or goats), poultry, and even small stock. These species breed more quickly than large stock (horses, camels, cattle etc.) and require far less inputs: medicines, feed and especially labour to maintain. The poor are often short of household labour to engage in more complex production systems. They are more suited to traditional systems (free range and requiring minimal purchased inputs) that require minimal labour in terms of supervision and management on a daily basis (recall the experiences of Haiti and Tanzania – where the poor struggled to maintain large stock due to their own lack of assets). This becomes ever more important for poor women who need to juggle their productive, reproductive and social functions (use of labour profiles/ '24 hour clock' tends to highlight this). Small ruminants and poultry are also far less valuable than large stock and more easy to convert into cash (more liquid) in being able to meet the needs of the poor: small amounts of cash required frequently to meet household needs. Pigs are preferred in some communities and some cultures (e.g. foraging on urban waste) and donkeys are especially beneficial in non tsetse fly infested, dry and arid locations, as a means of transport, pack animals and even draft power on dry, lighter soils.

The experiences from Liberia (VSF), Bangladesh, and Cambodia are useful in relation to poultry. Instead of restocking poultry the emphasis was placed on reducing the main risks: vaccination against Newcastle disease by village based vaccination campaigns (in parts of West Africa it is believed to account for up to 80% of flock losses in any year when vaccines have not been used); against predators by improved shelters; and increasing the survival rates by separating the hens from the chicks. Sometimes livestock distribution may not be the best option rather choose to focus on improving animal husbandry or animal health to increase flock sizes and promote intra village distribution mechanisms to those without poultry once the interventions have proven to be effective.

Suitable beneficiaries need to be identified, in conjunction with the local community in ways that are transparent and readily communicated, 1) in terms of poverty or vulnerability (based on local criteria established through wealth ranking); and 2) that they require sufficient knowledge and skills already in animal husbandry or that can be provided by training and capacity building to maximize the chance of keeping the animal alive and not wasting the resource. Appropriate livestock distributions are potentially highly beneficial for targeting extreme poor women headed households, 'labour' poor households and those affected by HIV and AIDS.

The economic benefits from livestock, most often, accrue at the household level where resources are most efficiently allocated making the **household therefore the most appropriate 'social unit of management'**. Almost all CW's distributions have now moved away from the group or community 'owned' unit of management. Not withstanding this, it is proven to be effective to also organise the beneficiaries into 'user groups' to facilitate sharing, training and learning. In some instances the animals form a focal entry point around which other unintended benefits may accrue. This may be important in re-establishing community institutions or providing solidarity amongst marginalized groups.

Local knowledge, again from the assessments, can be used to identify the seasonal disease calendar and the times in the year when feed is most available. Consideration of pasture and water is especially important for the restocking of large numbers of animals, so as to minimize negative environmental impact (LEGS P.199). With smaller livestock distributions consideration of the climatic conditions and related diseases patterns (especially NCD in poultry and PPR in small ruminants) needs to be taken into account as to when the livestock distributions take place. Beware of the example in Sierra Leone of livestock distributions becoming the means for spreading and bringing disease to a target community.

Livestock distributions do need, where applicable, to take account, learn from and align their design with indigenous systems of stock distribution or restocking that can be identified during the initial assessment period. Interactive participation is a necessary process in learning about how communities traditionally provide for their poorer and more vulnerable members. Start small as a 'pilot' exercise and learn from the first round of distributions before building 'efficiency' and scaling up with later rounds. Sustainability needs to be built into the design from the outset. Key features from the reviewed country programs include:

- Invest in building **staff capacity** – again through the initial assessment, PRA methods, working closely with local communities;
- Re-establishing or strengthening existing institutions (in many cases this involves reviving civic structures that have collapsed) as the restocking 'committee' as a **short term** measure to supervise the distribution to the selected beneficiaries;
- Ensuring that the right beneficiaries have been selected, those with the potential to manage the asset, with suitable **motivation and animal husbandry skills**;
- Over the **longer term** to assist in supporting a **wider enabling environment**, which may include improving access to markets, animal health services etc.

The sustainable agriculture model (J. Pretty, 1995) sees the main foundations for sustainability as:

1. **Appropriate technologies**: especially the choice of local breeds as the key reproductive asset; other aspects may include technical expertise in the choice of vaccines, training etc;

2. **An organized community base**: with an effective institution to supervise the 'pass on' mechanism for future replication; and

3. **Supportive institutions**: ideally this could be strong policy and local authority support, as is the case in Rwanda, but in practice may require significant advocacy and institutional support.

Livestock distributions, if well done, are inherently sustainable in perpetuity so long as the animals stay alive and are also able to reproduce. Where possible design the distribution around existing **'indigenous' mechanisms** where these practices are an integral part of the fabric and glue of society (re-iterating, once again, the importance of the pre distribution livelihood and livestock assessments). In a more development context 'passing on livestock benefits to other poor farmers who do not have animals' without on-going support of donor funds can be effective through the establishment of **credit based** or '**pass on**' mechanisms.

Notable examples of where CW has aligned their distribution design to existing indigenous mechanisms of acquiring livestock come from Rwanda, which revived traditional cultural practices in conformity with Government policy that used livestock distributions to re-build the fabric of society; and DR Congo, which built on a traditional rotation system to 'pass' on the benefit of the first kid to a 'vulnerable' neighbor.

LEGS provides a series of largely qualitative indicators for standard 2, that include:

- Selection of beneficiaries is based on local participation and practice
- Type and quantity of livestock are appropriate to support livelihoods and are productive, healthy and adapted to local conditions
- Animals distributed at appropriate times
- Livestock provision takes account of indigenous systems of stock distribution

Standard 3: Credit, procurement, transport and delivery systems; credit, procurement, transport and delivery systems are efficient, cost effective and support quality provision of livestock

It should not be forgotten that livestock distributions are technically and operationally complex interventions and can be expensive:

- Requiring technical expertise in animal husbandry and animal health; and
- Requiring sound participatory methodologies, clear and transparent processes; the ability to re-establish or strengthen community structures and collaborate with a wide range of stakeholders;

If animals stay alive then they have the potential to be reproductive assets of significant value to poor people in meeting their livelihood needs. A series of supportive measures are required and these are summarized under standard 4 below. For now we focus under standard 3 on best practice in delivering good quality animals and re-distributing them to other poor individuals and households.

One of CW's strengths is in being inclusive, participatory, and in working in a collaborative manner. This is key to developing strong vertical and horizontal linkages with important and influential stakeholders (technical ministry officials, local authorities etc.), private sector traders and including community representatives from different socio economic groups. This is important in building up the requisite range of relationships and partnerships with the beneficiaries, destination communities, the restocking committee members, local veterinary services and livestock traders.

On procurement: buy local breeds and buy them, where possible, locally. Reducing the distance the animals are transported limits 'stress' in animals thereby increasing the chances of survival, reduces costs and can prevent the spread of diseases. Important in all livestock transactions and movements however is the need for screening, selecting and vaccinating animals. This should be done with veterinary experts and in the place of purchase. Any animals existing in the destination community should also be vaccinated.

Sometimes local markets are functioning sufficiently well and ideally beneficiaries are given their preference as to the species and type of local breed that most suits their circumstances. In Liberia and Sierra Leone however the quality of stock available on local markets was poor. Therefore local breeders and neighboring communities needed to be identified as suitable sources.

In most instances CW has utilized the services of livestock traders. Over time their relationship can be fostered with both the community and veterinary experts such that they all have a vested interest in obtaining the best quality of stock. Traders need to be mobilized well in advance, with the support of beneficiaries in the organization of livestock fairs. Fairs are only viable options if there are surplus animals in the area.

CW has had limited experience in the use of cash transfers for livestock distributions (notable exceptions being the use of commodity vouchers at livestock fairs in Zimbabwe and DR Congo). The donors supporting the protracted relief program in Zimbabwe are continuing to explore more effective ways of distributing essential inputs, including livestock, and in a planned way to withdraw 'free' support gradually (3 – 4 years) in an attempt to avoid the 'aid dependency syndrome'.

In some instances there just is insufficient good quality stock – in which case log frame targets need to be revised downwards. The key elements of livestock distribution are a 'process'. And it is often a long time before a significant number of families can benefit from the repayment, in-kind or by cash, and replication to other beneficiaries can proceed. Scaling up therefore can only happen in a step-by-step fashion (e.g. Liberia and Sierra Leone, possibly even Zambia where stock is difficult to acquire).

Given the cost and complexity in mobilizing the procurement and distribution of many animals exploring effective ways to utilize cash transfers should always be considered. Before any cash transfer there must be a detailed market assessment. Learning from the decision trees developed by other agencies and researchers, presented in section 4, suggests that cash transfers are not always an 'easy' panacea to in-kind distributions. :

- In instances of market demand failure where inflation is not a risk then cash transfers could be considered when targeting women (more judicious in utilizing cash for the purpose of household food security than targeting men);
- Where there is a scarce supply of a particular commodity then vouchers can ensure that everyone has a fair share; and
- Particular commodities, like livestock have successfully been distributed using a commodity voucher;

The following checklist (from LEGS) is worth repeating here:

Assessment checklist for Procurement prior to livestock distributions (taken from LEGS)
• What are the implications of the purchase of significant numbers of livestock on the local markets? • Are livestock available for purchase in sufficient numbers within transporting distance of beneficiary communities? • Is transport available and can stock be transported safely without risk to their health or welfare? • What are the risks of epizootic disease from importing stock from another area?

CW has a strong humanitarian identity responding to disaster with the aim of saving lives and re-building livelihoods. Livestock distributions are used in post disaster recovery phases, notably Pakistan and Chad. In these circumstances livestock is provided as a gift without any obligation to repay in cash or in-kind; and in the

case of Chad, the social fabric of the local communities had broken down to ensure any compliance to enforce a repayment. Where ever possible local breeds are purchased locally. But there are instances where local animals are just not available. In this instance where long distance travel is involved:

- Recuperation sites with water, shelter and feed need to be identified; and
- Distribution was found to be most effective in the 'cool' of the early morning to further reduce 'stress' in the animals;

The traditional NGO approach in a more rehabilitation and development context has been the 'pass on' approach with payment in-kind or through repayment in cash as part of a credit based system. This does require further complexity in terms of organizing communities through **training** (both technical and organisational) and re-establishing or strengthening **local institutions** to supervise beneficiary selection and oversee the distribution chains or loan repayments. The emphasis needs to be on:

- Clear and transparent beneficiary selection criteria;
- Organising the village 'committee'
- Training on animal husbandry
- Training the committee on asset management
- Ensuring that partner and CW staff capacity is developed in PRA type skills and methods for community development; and
- Identifying a technically competent partner with which to work with (e.g. in Rwanda/ DR Congo/ Liberia/ Ethiopia)

It is important that beneficiaries feel a sense of ownership – hence the importance of 'interactive participation' (discussed earlier). Forms of 'buy in' to increase the chances of success of the intervention include:

- In Bangladesh beneficiaries contributed some of their own funds to purchase the animal that was right for them; and
- In DR Congo and Rwanda linking the distribution to a traditional or indigenous mechanism has proven to be highly effective in ensuring that beneficiaries do not immediately sell their asset!

CW has succeeded in supporting through partners cash based credit distributions without the need for collateral, where in Cambodia:

- Loans were issued to group members on receipt of a 'sound' business plan;
- Additionally the local partner provided strong technical support on poultry production;
- Technical training was re-enforced through village demonstration sites and exchange visits; and
- Most importantly of all there were market opportunities, which were well understood.

A credit-based system was also preferred by CW in Ethiopia as the partners were more familiar, and experienced in establishing village savings and credit groups whilst the established village institutions (cooperative) were more used to enforcing 'loan' agreements with the back up of the Cooperative Promotion Office. The distribution system was therefore context specific based on the strengths and expertise of the local partner working with communities.

Many issues have arisen in the livestock distributions in the 22 country programs reviewed. The key learning from Angola is to scale down the initial distribution phase and to treat it as a small-scale pilot. Take on board the classic reflection – action – learning cycle before building capacity, taking stock, and re-strategize before scaling up.

LEGS provides a series of largely qualitative indicators for standard 3, that include:

- Local purchase procurement where possible
- Procurement according to agreed criteria and in accordance with legal procedures
- Veterinary inspection takes place at time of livestock purchase
- Transport planned in advance to minimize risk of losses in transit and based on conditions that ensure well being of stock

Development context:

- With the community, and other stakeholders, determine which mechanism for re-distribution of animals is most appropriate: credit based, 'pass on' or other indigenous systems;

- Ensure that the obligation on the part of the beneficiary is clearly communicated and understood;
- Ensure that the appropriate village level institution/ 'committee' etc. is responsible for the oversight and supervision of re-distribution to other beneficiaries (without this the sustainability and replication of the distribution can break down);

Emergency response:

- Livestock provided as a gift;
- Credit or 'pass on' system only when this increases beneficiary commitment and does not jeopardize productivity of livestock or capacity of household to meet their basic needs (most likely appropriate in a development setting);

Standard 4: Additional support; Additional support (veterinary care, training, feed etc.) is provided to beneficiaries to help ensure a positive and sustainable impact on livelihoods.

The kind of support required in livestock distributions is largely of a technical nature: animal inspection services, screening, quarantine inspections at the point of purchase and input into technical training on animal health and animal husbandry. CW liases with key stakeholders to access these experts from the various technical ministries: Ministry of Agriculture/ Veterinary Departments etc.

The type of training for staff, beneficiaries, and community animal health workers (CAHWs) needs to be both technically proficient and delivered in a participatory manner: practical, 'learning by doing', and in the local vernacular as many of the participants are not expected to be fully literate or even numerate. CW's supervision of these events needs to ensure that PLA type methodologies are employed with regular follow up in the field, especially in the performance of CAHWs, is monitored.

The animal husbandry training focuses on health, feeding, shelter and breeding in a traditional management system. The earlier decision support tools identify these elements as key issues to consider prior to making the decision whether to invest in a livestock distribution intervention. The danger of focusing on improved breeding before effective disease control, feeding, housing and general improved management and husbandry has been flagged already.

The main diseases afflicting the species being distributed need to be identified and the calendar of their occurrence recorded. Much of this information can be obtained in the initial surveys. Diseases like PPR in small ruminants and NCD in poultry need to be vaccinated against. Sourcing good quality stock, taking preventative measures: screening/ vaccinating/ quarantining etc and having an accessible and affordable animal health service delivery system are key components of keeping the livestock alive to generate the benefits and impacts for the target beneficiary households. Generally it is thought that mortalities of less than 10% are acceptable. If animals are kept alive and cared for well under traditional management systems then noticeable increases in poultry flocks can be expected within 6 – 12 months; and increases in small ruminants herds within 18 – 24 months (including the obligation to 'pass on' an offspring in-kind or in cash through a sale).

CW has invested significantly in training CAHWs to provide a local source of advice, disease reporting, and surveillance for the local authority and technical ministry; and in providing basic animal health care. Follow up in the field suggests the CAHWs have often (though by no means always) been well selected by their communities and that they possess a significant degree of expertise in animal husbandry for the wider community (a sure sign is to observe and assess the CAHWs own livestock enterprises and the benefits they obtain from their own animals!). This investment is not always maximized when CAHWs have no access to key essential veterinary input supplies and their performance is not monitored. However the CAHWs have often made significant, albeit partial, improvements to animal health service and extension provision by linking them with the technical ministries and farmer field schools.

Currently CW supports largely public sector animal health service provision and experts through the funding of essential vaccines, medication, transport, fuel and incentive payments. This appears to be appropriate in the short term, as a post emergency response, but is unsustainable in the long term. Over the past 20 years evaluations and development literature suggests that provision of animal health services to remote and poor livestock keepers (who are willing to pay for services when the service is understood and the rationale for

payment is understood) is best provided by the private sector (veterinarians and pharmacies) linked to a network of CAHWs operating in their communities.

The challenge for CW is then how best to proceed, either to advocate for policy reform and service provision or to support community based animal health service delivery (which are also technically and organisationally complex systems). Sustainability may not be a realistic objective for now, in some of the challenging contexts in which CW operates, but networks of CAHWs may be established with an emphasis on cost recovery. Advocacy will be important to encourage authorities to develop their policies towards a sustainable system.

Encouragingly livestock distributions, in the CW operational areas, in most cases do have the potential to be highly relevant and appropriate to the livelihood of the target beneficiaries. This is strengthened when distributions are included **within a wider FIM program,** as part of a more long term programmatic approach, that addresses a range of related household and community needs, and is often linked to appropriate meso and macro level institutional support (e.g. advocacy on policy, structure and process issues etc.). FIM programs provide the opportunity to:

1. Address many of the contextual problems that limit the sustainability of animal health services, such as access infrastructure (roads and culverts), improving interaction with livestock and livestock product markets, natural resource management to address broad environmental degradation, and lack of credit facilities etc; and
2. Incorporate disaster risk reduction (DRR) and emergency preparedness (Concern's roll out in each country program of the Preparing for Effective Emergency Response plans) against future shocks and disasters.

LEGS provides a series of largely qualitative indicators for standard 4, that include:

- Preventive care provided for the livestock prior to distribution
- System of on-going provision of veterinary care established for all members of the community
- Training and capacity building support provided to beneficiaries based on their skills and knowledge of animal husbandry
- Training includes preparedness for future shocks & disasters

Development context:

- Greater attention and follow up programming often establishes more sustainable animal health service delivery systems; and
- Addresses the wider livelihood constraints of the 'extreme poor' and wider community.

Emergency response:

- Food security, shelter and Non Food Item needs are identified according to Sphere standards
- Food security support is withdrawn only when herd size and/ or emergence of other economic activities enable independence from such support

Concluding with monitoring outcomes and impact

The context and type of livestock distributions (apparent from earlier case studies) varies in nature, type of species and scope/ scale so comparisons between countries is difficult where the cost and quality of animals also varies greatly. However the 'efficiency model' is a useful tool for monitoring the cost effectiveness of these interventions: calculating the total economic cost of the intervention and working out the cost per beneficiary (see Table 3.1 the cost efficiency model) and helping to determine whether it is worthwhile to distribute animals (see Table 3.2 for details on the distributions in South Sudan).

In general the review suggests that there is a lack of evidence to suggest significant impact from the livestock distribution (but plenty of opinion to suggest there is potential for impact). There has been a loss of institutional knowledge from livestock distributions implemented in the past and the current interventions are far too early in their implementation to determine significant results! There is a need for ex post evaluation and impact assessments, some 2 – 3 years after the end of an intervention to really determine impact and lasting change.

The key outcome indicator is that the animals stay alive, and that they are able to reproduce to increase the herd and flock size. Then there is potential for increased consumption of proteins, meat, eggs, milk etc or the opportunity of sales to purchase food and agricultural inputs and/ or in meeting other household livelihood needs (especially school fees, medical bills etc.). Short cycle species (such as the small ruminants and poultry) are sufficiently small assets, for CW's target population, to be liquid and convertible for the needs of the poor and by traditional norms often under the control of women and thereby strengthening their ability to secure their livelihood and the well being of their family and dependents. In many instances this is seen in terms of building resilience against shocks and reducing their vulnerability to these household shocks.

Outcomes are especially significant in targeting women as (in many contexts) they see goats as their number one income source and provide considerable care and attention to the management of their animals. Whereas for men, their main focus is, often, on other income generating activities such as the provision of daily labour, giving less attention to the care of their animals. The choice of selection criteria is very much context specific and together with acquiring good quality stock significantly affects outcome and ultimately impact of an intervention.

In establishing appropriate M&E systems there appears to be a need for more reflection/ learning and feedback sessions with staff and with beneficiaries and community members on clarification of the objectives and local perceptions of change. There is potential for more participatory type outcome and impact assessment methods (using PRA tools), as there is a wealth of information to be gained through beneficiary feedback. Good case studies, for instance, suggest that the livestock distributions do play a significant role in assisting the poor to attain some degree of livelihood security e.g. from Sierra Leone: livestock sales helped to diversify the options of the poor and enabled cash to be available at times in the year when the main trade-able crops are not in season. Refer back to section 5 for a more systematic use of process, outcome, and impact monitoring indicators.

The '**ends'** for **replacing lost stock** and **building the assets of the poor** (by far the most common purposes of livestock distributions in this review – 75%) will ultimately depend upon 'how people in that context' use their animals – usually for sources of emergency cash, food source and meeting their socio cultural needs etc. For the purpose of **animal traction**, as an input to the cropping system, then the area of land ploughed (outcome), whilst change in yields through timely planting and even associated income from surplus sales, may well be related impacts. Change in income, itself, would be the main indicator of impact for income generating and **increasing market opportunities**. Where the review has identified least impact has been through inappropriate livestock distributions for the purpose of **genetic improvements**.

A theory of change appropriate for CW's organizational strategy to make 'improvements in the lives of the extremely poor' identifies an impact pathway with: **outputs** related to initial assessments/ appropriate distributions for the target beneficiaries/ effective procurement, transport and distribution/ with support measures; producing **outcomes** with animals staying alive/ increasing flock and herd sizes/ and providing means to generate income, provide additional food (especially protein sources), and meet socio cultural needs; and **impacts** of significant and lasting change in diversifying livelihood options and livelihood security against shocks and disasters of the 'extreme poor' target group.

References

LEGS guidelines
Multi Agency Contributions: Livestock Emergency Guidelines and Standards, Practical Action Publishing, output of the LEGS project 2009

Vetwork: The use of cash transfers in livestock emergencies and their incorporation into livestock emergency guidelines and standards (LEGS), 2011

Poverty focused livestock development
Ashley, Holden & Bazeley: Livestock in poverty focused development by LID, 1999

Catley, Leyland & Blakeway: 'Community based animal healthcare – a practical guide to improving primary veterinary services' (ITDG), 2002

Conroy, Czech: Participatory situation analysis with livestock keepers – a guide (NRI/ BAIF, 2001)
Conroy, Czech: Participatory livestock research a guide, ITDG/ NRI, 2005

Waruru, Maina: Kenyan farmers may soon receive first drought pay out, Guardian Development Network, 2011

RRA notes 20 – special issue on livestock (April 1994)

PLA notes 45 – community based animal healthcare (October 2002)

Concern Worldwide: data sources & references by country

***Afghanistan**: Skype call & emails with Samuel Mamo on 9/10/2011; Aga Khan 'Mountain to Market' watershed management strategy on PPT; series of briefing documents on 'agricultural inputs & asset transfer' for staff capacity building in the country program;*

***Angola**: MTE of the Goats Incentive Food Security project, June 2009 by Sandra Gilissen; and email submission from Abraham Bongassie Wanta on 28/10/2011;*

***Bangladesh**: Email from Oliver Wakelin on 15/9/2011 and follow up Skype call on 23/9/2011;*

***Burundi**: Email communication with Peter Rugu 15/9/2011; Skype call with Peter on 28/9/2011;*

***Cambodia**: Email communication with Janardhan Rao 13/10/2011; and Two archived case studies from local partners working with the CW Cambodia country program on chicken rearing;*

***Chad**: Email from Francesca Reinhardt 15/9/2011; and follow up Skype call on 6/10/2011; 2011 MTR of Gore project by Paul Wagstaff and 2008 OGB/ CW joint food security assessment mission report.*

***DR Congo**: Email communication with Pete McNichols 3/10/2011 and Skype call 30/9/2011; Review of log frame for Katanga FIM program; Review of Final report to donor (FPV) of livelihood security: support to food production & access to markets, November 2010;*

***Ethiopia**: Email submission from Abreham Menber 9/10/2011; and Skype call with Abreham on 18/10/2011; feedback from local implementing partner on 21/10/2011; and await FIM program evaluation report. Email submission from Endalemaw Belay on 28/10/2011;*

***Haiti:** Pathways to a better life: CLM project final evaluation, March 2010 by K. Huda (BRAC Development Institute) & A. Simanowitz (IDS);*

***Liberia**: Grand Bassa food security program 2002 – 2006 final report to the EU; Skype chat with Rajesh Singh 23/9/2011; Email communication with John Reid 15/9/2011; VOIP call with Victor Ngorbu 7/10/2011 & Draft copy of the Lofa County livelihood program EOP evaluation;*

***Niger**: Email communication with Jenny Aker 28/9/2011; and Amanda McClelland 29/9/2011;*

***Pakistan**: Skype call with Hamza Abassi on 10/10/2011; email contact with IRC Jason Phillips in August;*

***Rwanda**: Concern Worldwide case study on smallholder farmers in Rwanda by NRI, University of Greenwich, September 2011(draft version); Skype call with Joanne Smyth 17/10/2011*

***Sierra Leone**: Overview of livestock restocking in KholifaMabang, 2006 by Concern FIM team; EOP evaluation of KholifaMabang livelihood security project, 2006 by Dom Hunt; Field notes from Malenky village, 2011 by Alistair Short; Email input from Dennis Yankson 28/9/2011; and VOIP call with Tayo Alabi 22/10/2011;*

South Sudan: *Email from Joram Mwesigye 15/9/2011; and Skype conversation with Kayi Joseph on 21/9/2011; MTE for donkey & poultry distributions anticipated by November 2011;*

***Tanzania**: Email input from Burton Twisa on 7/10/2011 and 28/10/2011; and follow up Skype on 17/10/2011;*

Uganda: *Email communication with* Joram Mwesigye 12/10/2011;

***Zambia**: Conversation with Oliver Wakelin on Bangladesh experience with brief input on Zambia 23/9/2011; Email input from Kenneth Oyik on 19/10/2011; and follow up Skype calls on 21/10/2011 and again 28/10/2011;*

***Zimbabwe**: Reference: Email submission from Garikai Mabeza 7/10/2011 and Gift Mashonga 18/10/2011; FIM program 2008 – 2011 final evaluation July 2011; and PRP agricultural inputs guidelines 2011/12; and planned Skype follow up call on 31/10/2011;*

Other agencies
Heifer International website www.Heifer.org *and marketing newsletters;*

Hamid, Ezedeen: The importance of donkeys in a restocking programme in Eritrea, in Donkeys, People & Development (Starkey & Fielding Ed) – a project funded by DFID and implemented by Christian Aid & Oxfam GB

Kosgey I S, Breeding objectives & breeding strategies for small ruminants (2004) Ph.D thesis;

VSF Suisse in The Gambia 'Poultry production & women farmer's associations' B. Bonfoh & A. Short (1998);
VSF Suisse in The Gambia 'Small ruminant production & rural income generation' B. Bonfoh & A. Short (1998);

VSF France in Liberia: Proposal for the restocking of small ruminants in the VSF Liberia project area, 2000
VSF France in Liberia: Technical report to the EU on the improvement & rehabilitation of livestock in Lofa, Bong & Nimba, 2002

Wekesa, Mike: Evaluation of the SCUK IDP restocking project in FikZone of the Somalia Region of Ethiopia, 2005

List of annex

References

LEGS guidelines
Multi Agency Contributions: Livestock Emergency Guidelines and Standards, Practical Action Publishing, output of the LEGS project 2009

Vetwork: The use of cash transfers in livestock emergencies and their incorporation into livestock emergency guidelines and standards (LEGS), 2011

Poverty focused livestock development
Ashley, Holden & Bazeley: Livestock in poverty focused development by LID, 1999

Catley, Leyland & Blakeway: 'Community based animal healthcare – a practical guide to improving primary veterinary services' (ITDG), 2002

Conroy, Czech: Participatory situation analysis with livestock keepers – a guide (NRI/ BAIF, 2001)

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***DR Congo**: Email communication with Pete McNichols 3/10/2011 and Skype call 30/9/2011; Review of log frame for Katanga FIM program; Review of Final report to donor (FPV) of livelihood security: support to food production & access to markets, November 2010;*

***Ethiopia**: Email submission from Abreham Menber 9/10/2011; and Skype call with Abreham on 18/10/2011; feedback from local implementing partner on 21/10/2011; and await FIM program evaluation report. Email submission from Endalemaw Belay on 28/10/2011;*

***Haiti:** Pathways to a better life: CLM project final evaluation, March 2010 by K. Huda (BRAC Development Institute) & A. Simanowitz (IDS);*

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***Tanzania**: Email input from Burton Twisa on 7/10/2011 and 28/10/2011; and follow up Skype on 17/10/2011;*

Uganda: *Email communication with* Joram Mwesigye 12/10/2011;

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***Zimbabwe**: Reference: Email submission from Garikai Mabeza 7/10/2011 and Gift Mashonga 18/10/2011; FIM program 2008 – 2011 final evaluation July 2011; and PRP agricultural inputs guidelines 2011/12; and planned Skype follow up call on 31/10/2011;*

Other agencies
Heifer International website www.Heifer.org *and marketing newsletters;*

Hamid, Ezedeen: The importance of donkeys in a restocking programme in Eritrea, in Donkeys, People & Development (Starkey & Fielding Ed) – a project funded by DFID and implemented by Christian Aid & Oxfam GB

Kosgey I S, Breeding objectives & breeding strategies for small ruminants (2004) Ph.D thesis;

VSF Suisse in The Gambia 'Poultry production & women farmer's associations' B. Bonfoh & A. Short (1998);
VSF Suisse in The Gambia 'Small ruminant production & rural income generation' B. Bonfoh & A. Short (1998);

VSF France in Liberia: Proposal for the restocking of small ruminants in the VSF Liberia project area, 2000
VSF France in Liberia: Technical report to the EU on the improvement & rehabilitation of livestock in Lofa, Bong & Nimba, 2002

Wekesa, Mike: Evaluation of the SCUK IDP restocking project in FikZone of the Somalia Region of Ethiopia, 2005

Annex 1.1: Terms of Reference

Critical review of methodologies for livestock distribution and breed improvement used by Concern Worldwide and other development agencies and the development of guidelines for future projects

1.0 Rational for the Consultancy

Concern Worldwide frequently distributes livestock to replace animals lost during natural disasters or civil conflict; to build the assets of the extreme poor; to create business opportunities for the poor; to promote animal traction or to improve the productivity of local livestock breeds. Each country has developed their own approaches, or copied other NGOs, and there has been no critical analysis of these approaches to determine their effectiveness, and under what circumstances they are appropriate. Most of the research work that has been done on livestock distributions has concentrated on pastoralists in "emergency" situations, and there is much less literature comparing approaches to livestock distributions in development contexts for agro-pastoralists.

2.0 Purpose of the consultancy

The purpose of the consultancy is to document and critically review the methods of livestock distributions that have been used by Concern Worldwide so that project managers have access to a guide for planning livestock future distributors. The study will compare Concern's approaches to those of other development agencies.

The study will critically examine the strengths and weakness of each method, describe the prerequisites need for each approach, look at who benefits most from each method and create guidelines, in the form of a decision support tool, for deciding which method is most appropriate. The study will examine technical issues, like the availability of veterinary services, disease prevalence, reproduction rates, costs per beneficiary, etc, and the wider impact of the distribution of livestock on livelihoods, gender and equality and relationships within the community.

Livestock restocking projects for pastoralists are covered by the LEGS guidelines (part of the SPHERE guidelines) and extensive research literature[1]. The study will look at how Concern's experiences with pastoral communities compare with the LEGS guidelines and the learning documented by researchers. The consultant will develop a decision support tool that will guide managers through the planning and data gathering needed to decide if livestock distributions are appropriate and to choose the most appropriate livestock distribution method for the target beneficiaries.

The decision support tool should start with the questions: "*why do you want to distribute livestock?*" and guide the user through developing a theory of change and impact pathway to achieve the intended objective. The tool should cover, though is not limited to, the commonest reasons for distributing livestock:

- To replace animals lost due to war, disease, disaster, cattle rustling, for communities familiar with animals.
- To build the assets of the poor – who may, or may not, be familiar with animal husbandry.
- To improve the genetic quality of local herds, for example cross-breeding to improve milk production or, increasingly, to adapt to climate change or disease risks.
- To promote animal traction.
- As an income generating project.
- To adapt traditional practises to new circumstances: camels instead of cows in areas suffering from increasing droughts, pigs instead of cows in areas of chronic cattle rustling.

The tool will provide sample results indicators appropriate for the method selected.

3.0 Scope of works and methodology

The consultant will:

- Document the methods used by Concern Worldwide and other development agencies to distribute livestock and upgrade the genetics of local breeds. For each method document:
    - Why the method was used.
    - Who was involved in the design of the distribution method?
    - Did the method benefit the intended beneficiaries and if not, who benefited most?

[1] The Feinstein Centre, Tuft University, has produced many studies on interventions for pastoralist, as have NGOs like Oxfam and Practical Action, and ILRI.

- Gender issues: did men and women have different expectations and benefits from the intervention?[2]
- What was the livestock mortality rate and what was considered an acceptable mortality rate[3]? Was the reported mortality rate separated from slaughter for sale or consumption or the end of the animal's natural productive period?
- What were the reproduction rate/ herd growth rates?
- What were the prerequisites: veterinary services, vaccinations, quarantine, livestock movement licenses, AI services, hatchery, etc?
- How was the issue of feeds and fodder handled?
- How was inbreeding avoided?
- What were the costs involved and the cost per beneficiary?
- Did the project include any form of insurance and, if not, what was the projects approach to animal health and mortality, particularly after the end of the NGOs' intervention?
- Was the physical capacity of the beneficiaries taken into account/
- Minimum land holding size required.
- What was the contribution of the beneficiaries?
- What was the contribution of the wider community?
- Where there any special donor procurement requirements that had to be met?
- How were outcomes and impact measured? Were the indicators SMART?
- How long did it take to achieve a significant impact?

- Develop a basket of SMART indicators for measuring the outcomes and impact of each methodology.
- Develop a decision support tool.
- Provide a brief outline of some of the major donor procurement regulations that relate to livestock distributions.
- Summarise the findings of the study in a "Best Practise" paper.

The study should be limited to commercially domesticated mammals[4] and will not include companion animals or non-mammals: insects (bees, silkworm, mopane worms, grasshoppers, termites) fish, mollusc, and crustacean farming.

The consultant may be asked to present the findings to Concern livestock technical staff and train the staff in the use of the tool at a workshop in 2012. The workshop will probably be held in Africa and will be a separate contract.

4.0 Methodology

- The consultant will prepare an inception report and work plan detailing how s/he intends to carry out the study.
- Desk Review of the methods used by Concern Worldwide and other development agencies to distribute livestock and upgrade the genetics of local breeds. This will include reviews of Concern reports, literature searches and phone/ skype interviews with key field Concern staff and international livestock experts.
- If required for a deeper understanding of innovative livestock distribution methodologies and/or to field-test the decision support tool Concern will arrange a field visit for the consultant. The location of the field visits will be agreed upon by the consultant and the Head of SEDU.

5.0 Consultancy deliverables

- Inception report and work plan.
- Manual on livestock distribution methods.
- Decision Support Tool for livestock distributions.
- Best Practice paper on livestock distributions.

[2] Men may see animals as a status symbol and prefer to retain animals to build up their herds, while women may see animals as a commercial, semi-liquid, asset and will be more prepared to sell animals when cash is needed or when the animal's production falls.

[3] High mortality rates are common with beneficiaries starting a new livestock enterprise, but people learn from their mistakes and if the project budgets for a 2nd round of distributions, mortality rates quickly fall.

[4] Cattle (*taurus* and *indicus*), sheep, goats, poultry (chickens, turkeys, ducks, pigeons, guinea fowl), pigs, rabbits, guinea pigs, mice, yaks, camels, donkeys, horses, water buffalo.

The consultant will submit a draft guide and decision support tool for review, followed by the final guide incorporating feedback from the workshop. All documents should be submitted in MS Word, though Concern Worldwide welcomes any recommendations for software that can make the decision support tool interactive.

6.0 Lines of communications

The consultant will report to the Head of SEDU in Dublin on contractual issues and will liaise with the Agriculture Advisor, Dublin, on technical issues. While on country visits the consultant will report to the Assistant Country Director, Programs. The consultant will be expected to follow the security regulations and directives issued by the Country Director during field visits.

7.0 Duration of the Assignment/ timeframe

A total of 30 working days within a 3 month period, starting in September 2011.

8.0 Logistics and Payment Schedule

Concern will arrange all reasonable travel related to the consultancy. Tickets will be booked in the cheapest economy class. Accommodation during field visits will be organized and paid for by Concern in addition to the consultancy fee. Other expected expenses should be included in the fees quoted by the consultant.

Payment will be made against invoices issued by the consultant according to the agreed payment schedule. The Consultant is responsible for all taxation and reporting obligations in respect of this contract.

Any equipment used by the Consultant for the purpose of this Agreement is solely the responsibility of the Consultant and Concern cannot be held liable for any damage or theft to the said equipment.

The Consultant will ensure that she/he is covered by professional, medical or other insurance appropriate for this contract, including, but not limited to, Workers' Compensation and Employer Liability Insurance, Comprehensive or Commercial General Liability Insurance, and/or Comprehensive or Commercial Automobile Liability Insurance.

Give that this contract will require contact with livestock in remote rural areas, the consultant should ensure that she/he is covered by appropriate vaccinations and takes prophylaxis against malaria. The consultant must also ensure that they are aware of, and comply with, any sanitary regulations in force governing contact with farm animals in both their country of residence and those countries visited for this contract.

9.0 Programme Participant Protection Policy

Concern strives to maintain the highest standards in our work and in the day-today conduct of our employees, partners and consultants. We are strongly opposed to any form of discrimination, sexual exploitation, violence, intimidation, misuse of funds/alcohol/drug, or harassment of any kind. The consultant is required to read and agree to Concern's Programme Participant Protection Policy.

11.0 Qualifications and experience.

11.1 Essential

- A degree, or higher, in rural development, livestock production, veterinary medicine, agriculture, or agricultural economics.
- 10 years experience of livestock development projects for smallholder farmers in Africa and Asia.
- Computer skills and knowledge of MS Office and internet.
- Excellent oral and written communication skills in English.

11.2 Preferable

- Previous consultancy experience. The consultant should submit a list of previous consultancy assignments relevant to this contract.
- Additional language skills: French, Kiswahili, Arabic.
- Knowledge of Concern's work.
- Experience of developing interactive decision-support software.

Annex 1.2 A Checklist for review of livestock distribution in country programs

Location:
Relevance & context: 1. Are livestock interventions the most appropriate 2. Targeting: beneficiary capacity/ minimum land holding or other key assets a precondition/ 3. Any donor procurement requirements/
Effectiveness: 4. Why the method/ 5. Who was involved in the design of the method/ 6. What were the livestock mortality rates (acceptable?) and other off take factors (consumption, sale, end of productive life/ 7. Indication of reproductive/ herd growth rates (species related) – for the poor stick with short cycle species (4)! 8. Any pre-conditions: veterinary services, vaccinations, quarantine, movement licenses (AI services/ hatchery in case of breeding programs)/ 9. how was feed & fodder handled/ 10. inbreeding avoided
Efficiency: 11. Costs and cost per beneficiary / 12. beneficiary contribution/ community contribution
Impact: 13. Did the method benefit the intended beneficiaries and if not who benefited/ 14. Did men & women have different expectations & benefits/ 15. how were outcome & impact measured/ 16. Any SMART indicators/ how long to achieve a significant impact
Sustainability: 17. Was insurance included (strategy) and implications of mortality/ 18. Strengthening supportive structures & institutions/ partnerships & coordination etc.
Recommendations & lessons learnt: 19. What can be taken and utilized in the 'best practice' paper & set of future guidelines/ 20. Any useful decision support tool materials?

Annex 1.2 B: Follow up questions

Follow up questions to Paul Wagstaff's initial enquiry into country programs and their **livestock distribution interventions** (past, current & planned) via SKYPE or email with Alistair Short (livestock researcher)
Study to address the lack of data and poor institutional memory on this topic – output to be presented at the next FIM workshop later in 2012:

Two key questions:

1. Why did you choose the **distribution method** used? And
2. Any innovative applications and **lessons to be shared**?

Other guiding Qs – if time permits:

Effectiveness/ strategy:

- Why the method was used.
- Who was involved in the design of the distribution method?
- What was the livestock mortality rate and what was considered an acceptable mortality rate? What were the reproduction rate/ herd growth rates?
- What were the prerequisites: veterinary services, vaccinations, quarantine, movement licences, AI services, hatchery, etc?
- How was the issue of feeds and fodder handled?
- How was inbreeding avoided?
- Did the project include any form of insurance and, if not, what was the projects approach to animal health and mortality, particularly after the end of the NGOs' intervention?
- **Targeting**: Who/ How/ Why? Was the physical capacity of the beneficiaries taken into account/ minimum land holding size required?
-

Impact/ outcome:

- Did the method benefit the intended beneficiaries and if not, who benefited most?
- Gender issues: did men and women have different expectations and benefits from the intervention?
- How were outcomes and impact measured? Were the indicators SMART?
- How long did it take to achieve a significant impact?

Efficiency:

- What were the costs involved and the cost per beneficiary?
- What was the contribution of the beneficiaries?
- What was the contribution of the wider community?

Donor requirements:

- Where there any special donor procurement requirements that had to be met?

These are the key questions included in the TOR attached – I hope we can cover some of this ground; time permitting and if there is a strong interest within the country program (which may not necessarily be just within the FIM teams).

Annex 3.1 Table summarizing the context in which Concern Worldwide implements animal distribution interventions

CW country program	Replace livestock lost due to wars, disaster, disease	Build assets of the poor		Genetic improvement	Animal Traction	Market opportunities	Adaptation of traditional practices	Other	Comment
		Livestock experience	New enterprise						
Angola	1	1							No update post 2009 - following up with Wanta in Ethiopia; post conflict recovery
Burundi	1	1		1		1			Bull breeding discontinued (lacking institutional memory on genetic improvement); Interesting targeting with imported Jersey cows for those with assets (marketing milk) and goats for those without; also post conflict
Chad	1	1			1				Sahel - complex, protracted emergency: raiding/ dafur/ CAR refugees & cyclical drought!
DRC	1	1	1						Number of livestock experiences includes very interesting multi sector cash voucher scheme in Masisi; high malnutrition & cycles of conflict
Ethiopia		1							High risk drought/ flood/ land degradation/ malnutrition/ food insecurity transition towards 'development' after 20 years
Kenya									Drought / post election violence/ HIVAIDS
Liberia	1	1		1					Post war rehabilitation & reconstruction: comparable to Angola/ South Sudan/ Sierra Leone; failed breed improvement - pigs & poultry!
Malawi									Poverty/ drought/ HIVAIDS etc

Niger								1	Social safety net for the extreme poor
North Sudan									On-going Nuba mountains conflict
Rwanda	1	1	1					1	Crop-livestock interaction: improving soil fertility & crop production with composting; and importance of re-establishing post genocide social fabric & glue via indigenous animal distribution
Sierra Leone	1	1	1						Post war recovery & rehabilitation - building assets; many villages baseline zero animals after the war see Malemkay case study
Somalia									On-going drought response
South Sudan	1	1	1		1				Strong case for donkeys also from Christian Aid/ OGB in Eritrea!
Tanzania		1	1						Development focus - areas on high population and declining crop & grazing resulting in land pressure
Uganda								1	No distributions within pastoral area of Karamoja
Zambia		1	1					1	RAIN - and contribution to nutrition with intensive M&E exercise by IFPRI; building assets of poor in Western Province
Zimbabwe		1			1				Building assets in communal lands after economic meltdown & recovery
Afghanistan	1	1				1			Integrated from 2010 into the 'Montain to markets' watershed management strategy: with floods/ drough/ conflict!
Bangladesh	1	1	1						General development & post cyclone: Goats/ Chickens for poor; issues with cows being high risk for poor;
Cambodia		1	1			1			Strong market demand creating rural enterprises via NGO credit scheme

DPR Korea									Need for genetic improvement but lack the space, fodder & animal health service delivery for improved breeds or any large scale restocking;
Pakistan	1	1	1						Past 6 - 7 years shifted to emergency response mode with short term funding
Haiti		1	1			1			Widespread poverty (54% in extreme poverty) + shocks: quake/ hurricanes/ food prices & goat epidemics!
Total	**11**	**17**	**10**	**2**	**3**	**4**	**0**	**4**	**51**

Annex 3.2 Table summarizing the main species distributed within Concern Worldwide's animal distribution interventions

CW Country program	Goats	Sheep	Donkey	Cattle[1]			Camels	Pigs	Poultry[2]	Small livestock[3]	Others [4]	Comment
				Dairy Cows	Bulls	Draft Oxen						
Angola	**1**											MTE consultant questions whether goats were the real priority as compared to animal traction
Burundi	**1**			**1**	**1**							No details of past bull distributions; Jersay cows for zero grazing; poor with resources; goats for poor without resources
Chad	**1**		**1**			**1**						Donkeys & Ox for animal traction; rebuilding agro pastooral livelihoods;
DRC	**1**									**1**		Goats via livestock fairs (vouchers) + training & AHS support with paravets etc; rabbits via groups & HH ownership;
Ethiopia	**1**	**1**						**1**				Herd reconstitution - SCUK; Pass on mthods in Afghanistan from CRS & SCF; CW experimentation with loans approach;
Kenya			**1**	**1**								Failed to utilize Dr Leina Mpoke's veterinary expertise due to on-going drought response

Liberia	**1**	**1**						**1**	**1**	**1**		Unique documentation from VSF (2000)/ CW (2002 - 2006) & 2011: improved breeds/ inbreeding/ feeding/
Malawi												Excluded from the research owing to current staff issues
Niger												Social safety net cash transfers - importance in post recovery period after a drought - no evidence of animal being purchased
North Sudan	**1**		**1**						**1**			Excluded from the research due to on-going issues in Nuba mountains
Rwanda	**1**			**1**				**1**				Government one cow per HH policy and traditional 'pass on' mechanisms
Sierra Leone	**1**	**1**										Small ruminants - improved strategy & 'learning process' over time: 1,300 animals distributed + 48 para vets trained
Somalia												Excluded from the research due to on-going staff commitments to the drought response;
South Sudan	**1**		**1**						**1**			Strong case for donkeys also from Christian Aid/ OGB in Eritrea!
Tanzania	**1**							**1**	**1**			Past dairy cow by other agencies; CW focus on goats & chickens; pigs low preference
Uganda												No animal distributions to reduce pastoral dependence upon livestock!

Zambia	**1**								**1**	**1**		RAIN interest in lessons for future rabbit & poultry distributions in 2012;
Zimbabwe	**1**								**1**			PRP program procurement using livestock fairs & commodity vouchers
Afghanistan		**1**							**1**			Shift from improved poultry breeds to traditional;
Bangladesh	**1**											Cattle experience as part of DFID CLP program (less prop poor) & Helen Keller for chickens
Cambodia									**1**			Rural enterprise through poultry via credit;
Pakistan	**1**								**1**			In the past cows & bulls for breed improvement;
Haiti	**1**								**1**			Beneficiaries later invested income in large stock: horses, donkeys & cows
Totals	**16**	**4**	**4**	**3**	**1**	**1**	**0**	**4**	**10**	**3**	**0**	**46**

No data available during this current assignment

[1] Cattle (taurus and indicus)

[2] Chickens, guinea fowl, pigeons, ducks and turkeys.

[3] Rabbits,mice and guinea pigs.

[4] Horses, water buffalo, etc.

Annex 3.3 Summary of the country programs reviewed in the animal distribution research assignment

	Project details				Animal distribution method										
Country	Agency	Period	Area	Program brief details	Direct to HH	Heifer chain 'pass on'	Group herd	Credit loan repay	Live-stock fairs	Local market direct	Trader supply contract	Indigen-ous re-stock	Cash transfer	vet	Comment
Afghanistan	CW	2003 - 2011	NE region	NRM focus to new Fim program: Mountains to market integrated catchment management	1	1					1			1	Past 8 years distribution direct to HH with lack of documentation; new strategy from 2011 'pass on' with learning from CRS & SCF Ethiopia; approach to be complemented withcredit & savings groups;
Angola	CW	2007 - 2010	Kunhinga & Ekunha municipality	Goats incentive food security project				1			1			1	Repayment made to the group in compliance with Government policy; unclear how exactly repayment is made or recorded
Bangladesh	CW	Recent - past 5 years	Various	Post cyclone & general livelihood development programs		1				1				1	Key informant with experience from CW, Helen Keller & DFID; and critique of the Heifer type 'pass on' model favoring direct distribution (no pass on)
Burundi	CW	2011 - 2013	Various	Broad livelihood program (EU & IA)		1					1				Critique of 'pass on' in second location to pilot variation passing on mother but constrained by funds for larger scale distributions! EU would not permit local livestock fairs
Cambodia	CW	Recent past 3 years	Various	On-going Pr Poor Livelihood Improvement program				1		1					No livestock distribution as such but procurement by targeted poor through grants & loans from SHGs

Chad	CW	Since 2008	East - Dafur overspil; South CAR refugees	Ad hoc emergency response by CUSA (East) & EU via UNHCR in South	1			1			1				South (UNHCR strategy) support better off with productive assets - repayments funds CT for poor; more 'hit & run' with limited follow up in East;
DR Congo	CW	Since 2002	Kasongo/ Katanga/ Masisi	Emergency nutrition program transitioning to broader livelihood rehabilitation		1			1			1	1	1	Goats 'pass on' & issues of sustainable animal health services + para vets; procurement via **livestock fairs** (commodity vouchers) and multi sector cash voucher scheme;
Eritrea	CA & OGB	1991 - 2000's		Refugee Reintegration & Rehabilitation of Resettlement areas in Eritrea	1										Refugee re-integration program post war of liberation: choice by 2,117 (55%) HH for a donkey - benefits in ASAL locations: riding, pack animal (firewood & water) & draft animal
Ethiopia	SCUK	2002 - 2003	Somali Region, Fik Zone	Post drought (1998 - 2000) IDP restocking	1				1					1	Only exapmle of **pastoral herd reconstitution**: 30 small ruminants per HH plus 1 donkey; strong on impact/ sustainability; **livestock fair** - inflation & mortalities;
Ethiopia	CW	2006 - 2011	SNNPR & Amhara	Wider livelihood program: NRM/ crop/ livestock/ IGA & Watsan		1		1	1	1					2 different approaches: SNNPR: tradional 'pass on' system shifted to LNGO implemented credit repayment scheme; Amhara livestock fair via loan to beneficiaries
Haiti	CW	2007 - 2009	Rural areas: Boukon Kore; Laganov; Twoudino	Pathways to a better life - microfinance CLM project for the extreme poor	1								1		CLM project beneficiaries provided with goats + chickens; plus cash transfer (stipend) - in some cases used to purchase large stock; challenge of targeting the extreme poor.
Liberia	VSF	2000 - 2002	Bong & Nimba plus Lofa counties	Livestock improvement & rehabilitation		1	1			1		1		1	Group herding for improved cockerels within a community; Small ruminants HH ownership 'pass on'; indigenpous poultry restocking with NCD vaccination support

Liberia	CW	2002 - 2006	Grand Bassa & Lofa County	Wider livelihood security program: various micro projects & Lofa area		1	1				1				Improved cockerels - group herding; failed in 2000 & 2011; 2002 donor report (VSF); 2006 donor report (CW) & EOP evaluation 2011 - best documented
Niger	CW	Since 2008		Emergency response to drought - social safety net cash transfers									1		Role of cash transfer in slow onset emergency drought response - research suggests no evidence that poor HH bought livestock
Pakistan	CW	Past 6 - 7 years	Various upland & lowland locations	Livelihood program responding to a series of shocks: floods/ quakes/ conflict & IDPs	1					1	1		1		Emergency response mode: focus upon inputs including animal distributions & later rehabilitation to include improved animal health services. No indication that cash transfers are used to buy animals;
Rwanda	CW	2007 - 2011	Rural areas: Gakenke; Huye; Nyaruguru	Five year Livelihood security program:	1	1		1		1		1			Government policy for one cow per HH; traditional forms of restocking officially endorsed & encouraged; and three LNGO partners with different approaches
Sierra Leone	CW	2004 - 2011	Tonkolili district	Multi donor Enhancing Sustainable Livelihood Initiatives program 2004 - 2010		1	1				1	1		1	Initial strategy group based. Later shifted to HH ownership & 'pass on' model; system complements indigenous restocking schemes & 'normal' market purchases once assets increased
South Sudan	CW	Recent past 5 years	Aweil district (BEG)	OFDA livestock distribution projects within a wider FIM program	1	1	1	1			1	1		1	Learning from goat & poultry distributions shifted from group to individual ownership; donkey ploughs repayments made to VDC; examples of indigenous mechanism part of Dinka & Nuer culture; OFDA not permit local market purchase but open tender single supplier;

Tanzania	CW	Recent past 5 years	West/ Central & South locations	Broader FIM program: crop production/ value chain/ land tenure issues & livestock		1	1				1			1	Goats direct to HH then 'pass on' ; chickens via a group and then multiplier or passed on from the group starter flock; indigenous breeds & local procurement - exception milking goat (small in quantity);
Uganda	CW	Current	Karamoja (Eastern Uganda)	Wider pastoral livelihoods program approach for those with & without animals										1	No distributions - focus on CAHW & AHS provision and a wider pastoral approach around alternative livelihoods & reducing dependence upon livestock!
Zambia	CW	Past 5 years & RAIN in 2012	Western Province	Wider FIM program and now more focused Re-integrating agriculture & nutrition (RAIN) program with IFPRI	1						1				Past 3 years challenge to procure goats 1,600 km away! Major animal health constraints for cattle & poultry; No details of the planned strategy for 2012 for rabbits & poultry;
Zimbabwe	CW	Recent past 5 years	Gokwe & Nyanga	Wider FIM program: CF/ NG/ GSID/ WASH & livestock		1			1		1			1	Commodity vouchers at livestock fairs - investigating use for vet medicines with private sector; Too early to assess 'pass on'; PRP donor input guidelines
	Total				**9**	**12**	**5**	**6**	**4**	**6**	**11**	**5**	**4**	**11**	**62**

General comments & observations:

General lack of documentation especially of previous projects and programs: project details/ mid term reviews/ end of project evaluations

General lack of institutional memory of current staff (unless individuals been with CW country program for a period of time e.g. Dennis Yankson in Sierra Leone)

General lack of process monitoring data - though some good examples found

General lack of impact/ outcome monitoring data - often reliant on a few case studies/ testimonies etc

End of project evaluations too soon after the end of the project to determine impact and even the sustainability & replicability of interventions; ideal would be a programmatic ex post evaluation that evaluates in same area/ sector of country program interventions that go back 5 - 10 years e.g. WASH program in DPR Korea

Annex 3.4: Different types of "community participation"

1. Manipulative participation (co-option)	Community participation is simply a pretence, with people's representatives on official boards who are un elected and have no power.
2. Passive participation (Compliance)	Communities participate by being told what has been decided. Involves unilateral announcements by an administration or project management without listening to people's responses. The information belongs only to external professionals.
3. Participation by consultation	Community's participation by being consulted or by answering questions. External agents define problems and information gathering process, and so control analysis. Limited if any local decision-making, and professionals are under no obligation to take on board people's views.
4. Participation for material incentives	Communities participate by contributing resources such as labor in return for material incentives (e.g. food, cash). Local people have no stake in prolonging practices when the incentives end.
5. Functional participation (Cooperation)	Community participation is seen by external agencies as a means to achieve project goals. People participate by forming groups to meet predetermined project objectives; they may be involved in decision making, but only after major decision have already been made by external agents.
6. Interactive Participation (Co-learning)	People participate in joint analysis, development of action plans and formation or strengthening of local institutions. Participation is seen as a right not just the means to achieve project goals. The process involves interdisciplinary methodologies that seek multiple perspectives and make use of systemic and structured learning processes. As groups take control over local decision and determine how available resources are used, so they have a stake in maintaining structures or practices.
7. Self - mobilization (Collective action)	People participate by taking initiatives independently of external institutions to change systems. They develop contacts with external institutions for resources and technical advice they need, but retain control over how resources are used. Self-mobilization can spread if governments and NGOs provide an enabling framework of support. Such self-initiated mobilization may not challenge existing distributions of wealth and power.

Source: IIED in Andy Catley's impact assessment report to VSF Suisse (1999)

Annex 3.5 (A) Analysis of animal distribution cost efficiency - Small ruminant distribution in South Sudan - SSP (South Sudanese Pounds)

Project	South Sudan 2010 - 2011	Identifying the 'real' costs	Other comments
Main project details	Procurement of goats, training of beneficiaries, training CAHWs, vaccination of goats, distribution of goats and follow up on goats distributed.	Small ruminant restocking only 6% of the total PGS; Other actions are integral to the restocking component;	US$ 500,000 from USAID OFDA for mainly restocking of Livestock (Donkeys, Goats and Poultry) for only 1 year with amount allocated almost equally for livestock restocking, trainings and other supplies
Project goods & services	132,800	For 750 she goats plus vaccination costs @ 4%	Purchase/ Vetting/ treating/ vaccinating etc
Cost per animal	125	Approximately 125SSP per she goat for purchase and vaccination. All she goats were procured and distributed only	Each beneficiary received 5 she goats after one year she has to transfer two she goats to another set of beneficiaries with transfer facilitated by Village Development Committees and community leaders.
Support costs	176,002	Includes % of expatriate (5%) / local staff (30%) / administration (10%) / transport including the distribution of animals (10%)/ Technical office (30%),Payam Team leader (30%),Finance officer 10% logistics 10%)	Project start up project costs including training 35 CAHWs,for 5 days procurement of 750 goats and vetting the goats, vaccinating them and distributing them.
Community contribution	13,280	Time: training sessions/ meetings/vetting exercise of goats/ distribution to beneficiaries etc. Estimated at 10% of PGS for the 30 villages	Technical expertise required & significant; also community/ organizational/ planning & analysis/ and logistic expertise are high;
Total economic cost of restocking	322,082	Attempt to fairly include all resource costs not just the cost of the animals	Sum of the cost of procurements including vaccination, community contribution
Beneficiaries	1050	175 individuals received a sheep or a goat; factor in their family members at six per family unit	Direct beneficiaries being the members of that household;
Cost per beneficiary	307	5 she goats distributed towards November to December for goats to adapt well to the new environment before the new pastures germinates which has a negative effect to goats newly moved to such locations to reduce on mortality	5 she goats are distributed to each beneficiaries due to the social cohesiveness within the community there are he goats within the community that are able to mate with the she goats during grazing periods.
Ex rate: March 2011	1$=2.55SSP	**US$ per beneficiary - $120**	**US$ per Household - $722**

Annex 3.5 (B) Analysis of animal distribution cost efficiency - Poultry distribution in South Sudan - SSP (South Sudanese Pounds)

Project	South Sudan 2010 - 2011	Identifying the 'real' costs	Other comments
Main project details	Training: staff/ extension workers & CAHWs/ Beneficiaries Bird Purchase: Chicken purchase/ vetting and distribution	Poultry support was only 10% of the total PGS; Other actions are integral to the poultry project;	US$ 500,000 from USAID OFDA for mainly restocking of Livestock (Donkeys, Goats and Poultry) for only 1 year with amount allocated almost equally for livestock restocking, trainings and other supplies
Project goods & services	60850	For purchase of 1990 birds only	Purchase/ screening/ treating/ distribution etc
Cost per animal	31	Approx SSP 31 per Bird	Trial with 40 guinea fowls; while the rest were supported with chicken both on individual basis and some in group
Support costs	176002	Includes % of expatriate (5%) / local staff (30%) / administration (10%) / transport including the distribution of animals (10%)/ Technical office (30%),Payam Team leader (30%),Finance officer 10% logistics 10%)including partner CBO support cost to the project	Project start up project costs including training 35 CAHWs,for 5 days procurement of 1990 birds and vetting the birds and distributing them.
Community contribution	9128	Time: training sessions/ meetings/ supporting up 2 CBOS for restocking / construction of shelters using local materials etc. Estimated at 15% of PGS for the initial 30 villages	Technical expertise required & significant; also community/ organisational/ planning & analysis/ and logistic expertise are high; especially in Chicken transportation and handling in the process of distribution.
Total economic cost of restocking	245980	Attempt to fairly include all resource costs not just the cost of the animals	Sum of all the relevant activities involved during the cost
Beneficiaries	2388	398 individuals received chicken, 300 directly by concern while 98 households were distributed the poultry through 2 CBO partners a family is considered to be approximately 6 per family members.	Direct beneficiaries being the members of that household;
Cost per beneficiary	103	Guinea fowls are being piloted with the Partners, while majority of chicen are given to individuals while the other Partner CBO is piloting chicken keeping in a group.	Majority of the beneficiaries have been given chicken individually as keeping them a s a group is challneging during disease outbreak and feeding them is very difficult if they are combined together.

Ex rate: March 2011 1$=2.55SSP

US$ per beneficiary **40.4** for five chickens!

US$ per Household **242.4** again for five chickens!

Annex 3.5 (C) Analysis of animal distribution cost efficiency -Donkey distribution in South Sudan - SSP (South Sudanese Pounds)

Project	South Sudan 2010 - 2011	Identifying the 'real' costs	Other comments
Main project details	Distribute 400 donkeys and 400 donkey ploughs, train 400 farmers, train 35 CAHWS, Vaccinate the donkeys, train 400 donkeys for 20 days, cost recovery after harvest for donkey ploughs, monitor acreage planted.	Donkey provision was only 6% of total project budget with other costs allocated for other components of the donkeys like vaccination trainings etc	US$ 500,000 from USAID OFDA for mainly restocking of Livestock (Donkeys, Goats and Poultry) for only 1 year with amount allocated almost equally for livestock restocking, trainings and other supplies
Project goods & services	244500	400 Donkeys purchased and vaccination cost at 28% of total cost of animals	Purchase/ screening/ treating/ vaccinating etc
Cost per animal	400	400 Donkeys were purchased from North Sudan through 4 different suppliers due to distance of procurement being far	Initial round as a pilot; future phases with 'learning' & improved efficiency;
Support costs	176002	Includes % of expatriate (5%) / local staff (30%) / administration (10%) / transport including the distribution of animals (10%)/ Technical office (30%),Payam Team leader (30%),Finance officer 10% logistics 10%)	Project start up project costs including training 35 CAHWs,for 5 days buying 400 donkey light donkey ploughs
Community contribution	61125	Time: training sessions/ meetings/ set up VDC for restocking & mini pharmacy etc/ Establishment of training sites, formation of training centers in the initial 30 villages including a 20 day animal traction training for 461 farmers	Technical expertise required especially from County livestock department, CAHWs & VDC involvement in Vetting donkeys and distribution, taking care of donkeys; also community/ organizational/ planning & analysis/ and logistic expertise are high;
Total economic cost of restocking	481627	Attempt to fairly include all resource costs not just the cost of the animals	Cost of animals and light donkey ploughs inclusive of other services like vaccination and training CAHWs
Beneficiaries	2680	400 direct beneficiaries received each a donkey and plough with an average family size of 6.7 per household	400 households are houshold heads who received the actually donkeys and light ploughs
Cost per beneficiary	180	Package per beneficiary includes the donkey and light donkey plough which includes training food for 3 beneficiaries for 20 days	Only Male donkeys are purchased that are strong and healthy to be trained for ploughing. This is funded by only USAID OFDA project and there are no funds in other projects for this activity.
Ex rate:	1$=2.55SSP	**US$ per beneficiary**	**70.5**
		US$ per Household	**472.2**

Annex 3.5 (D) Analysis of animal distribution cost efficiency - Goat & chicken distribution in Zimbabwe

	Euro	
Project	**Zimbabwe 2009- 2011**	**Comments**
Main project details	70,782	1569 HH receive livestock (2 goats and 2 chickens each) vouchers for livestock fairs; 1569 households trained; Targeting **extreme poor households without livestock**. Costs also include direct animal distribution vouchers and vaccines.
Project goods & services	10,487	Livestock purchases/ drugs/ CAHW training
Cost per animal	21	Animals were purchased through a livestock fair. The prices ranged from 20 to 30 dollars depeing on area and quantities available for market.
Support costs	232,909	Staff/ administration/ transport/ partner NGO/ evaluation/ IGAs/contingency. These costs have been pegged at 10% of the overall programme that we implemented which had other components such as WASH; GSID; nutrition gardens and conservation agriculture.
Community contribution	0	Some contribution in terms of time & local materials? In addition, the new program has included a dimension of subsidized vouchers, and 10% contribution as handling fees for the agro dealer paid by the community.
Total economic cost of restocking	314199	This seems incredibly good value; my hunch is that not all costs have been included but I don't fully know;
Beneficiaries	9,414	1,569 HH - say with average family size of 6 persons
Cost per beneficiary	33	Compares very favorably with other options such as GSID, nutrition gardens etc.
Ex rate 14/9/11		

314,199

Annex 3.5 (E) Analysis of animal distribution cost efficiency - Goat distribution in Pakistan

	GBP		
Project	**CBHA Pakistan 2011**	**Identifying the 'real' costs**	**Other comments**
Main project details	Assist in restoring sustainable livelihoods. Cash Grants, Seeds, Fertilizers, Trade Toolkits, Poultry & Goats	Goats restocking 14.82% of the total PGS Total Number of Goats 3300	GBP 281,613 over 9 months. PGS total GBP 1,899,890 with average high staffing / transport & other support costs
Project goods & services	287862	Cost of 3300 goats @ £86 + vaccination costs at actual	Vaccination & deworming
Cost per animal	87	Approx GBP 86 per goat	Cost as per actual through public tender & includes transportation & quarantine
Support costs	9298	Includes Logistics, Personnel, & Personnel Support. But does not include Indirect / HO /Management Support Costs	Local staff, partner staff, logistics etc pro-rated in ratio of %age of PGS
Community contribution	0		No community contribution was budgeted or expected
Total economic cost of restocking	297160	Attempt to fairly include all resource costs not just the cost of the animals	
Beneficiaries	23100	3300 individuals received a goat; factor in their family members at seven per family unit	Direct beneficiaries being the members of that household;
Cost per beneficiary	13		

Annex 3.5 (F) Analysis of animal distribution cost efficiency - Goat + donkey distribution in Ethiopia

	Ethiopian Birr : Euro	
Project	**SCUK Ethiopia 2002 - 2003**	**Comments**
Main project details	500 HH receive restocking package 500 HH voluntarily relocated 'home' Targeting method tested 10 CAHWs trained & equipped	Restocking package provided for all 500 HH but costs for plastic sheets (UNICEF) & food aid (local NGO) not available;
Project goods & services	64090	Livestock purchases/ drugs/ CAHW training
Cost per animal	4	In total 15000 animals were purchased through a livestock fair
Support costs	27010	Staff/ administration/ transport/ partner NGO/ evaluation/ terminal benefits for staff/ contingency
Community contribution	6409	No idea but there must be some contribution in terms of time & local materials??? 10% of PGS as per Liberia - why not
Total economic cost of restocking	97508	This seems incredibly good value; my hunch is that not all costs have been included but I don't fully know;
Beneficiaries	3000	500 HH - say with average family size of 6 persons (that's an estimate by me)
Cost per beneficiary	33	Pretty good value for a full package including 30 small ruminants; Cost per household then = Euro 195!! Compares very favorably with other options: food aid only (cheapest); irrigation etc
Ex rate 14/9/11	23.4	

Annex 3.5 (G) Analysis of animal distribution cost efficiency - Sheep & Goat distribution in Liberia

	Euro		
Project	**VSF Liberia 2000 - 2002**	**Identifying the 'real' costs**	**Other comments**
Main project details	Training: staff/ extension workers & CAHWs Pharmacy set up & CBOs Animal purchase: small ruminants/ cockerels/ rabbits	Small ruminant restocking only 15% of the total PGS; Other actions are integral to the restocking component;	Euro 1 million over 24 months with 6 month no cost extension; PGS total Euro 200,000 with high staffing/ transport & other support costs
Project goods & services	7323	For 175 animals plus vaccination costs @ 10%	Purchase/ screening/ treating/ vaccinating etc
Cost per animal	42	Approx Euro 20 per goat; and Euro 40 per sheep; more goats preferred in the first round of restocking	Initial round as a pilot; future phases with 'learning' & improved efficiency;
Support costs	5053	Includes % of expatriate (30%) / local staff (9%) / administration (14%) / transport including the distribution of animals (16%)	Project start up - initial assessments & analysis; training farmers/ vaccinations campaigns/ training CAHWs/ establishing mini pahramacies etc
Community contribution	732	Time: training sessions/ meetings/ set up CBO for restocking & mini pharmacy etc/ construction of shelters using local materials etc. Estimated at 10% of PGS for the initial 18 villages	Technical expertise required & significant; also community/ organisational/ planning & analysis/ and logistic expertise are high;
Total economic cost of restocking	13108	Attempt to fairly include all resource costs not just the cost of the animals	
Beneficiaries	1050	175 individuals received a sheep or a goat; factor in their family members at six per family unit	Direct beneficiaries being the members of that household;
Cost per beneficiary	12	Does not include the full cost of the other project activities in the same village; these they benefit from and are key foundations to increase the chances of success of restocking knowing the rates (10 - 20%) of mortalities & even theft;	What they have is one female animal; with roaming male (owned by the CAHW) at ratio 1:6; obligation to pass on one female off spring in the chain; potentially a few years until a small flock established;

Annex 3.6 Case study from SCUK in Ethiopia comparing cost effectiveness of restocking with other common rehabilitation strategies

Intervention/ Aspect	Restocking	Cash Relief	Irrigation	Food Aid
Cost of undertaking intervention satisfactorily per household (E Birr)	5,200	2,640	8,122	9,840
Total cost of intervention for 500 households (Ethiopian Birr)	2,600,000	1,320,000	4,061,000	4,920,000
Friendly to the environment	Average	Good	Average	Good
Builds on skills of pastoral communities	Good	Good	Bad	Bad
Is not subject to vagaries of weather	Bad	Good	Average	Bad
Strengthens local markets and local production	Average	Average	Good	Bad
Is a flexible resource transfer	Average	Good	Bad	Average
Administration and logistical requirements are not overwhelming	Average	Good	Good	Bad
Potential to be self sustaining	Average	Bad	Average	Bad

(Source: M. Wekesa, 2005)

Assumptions: Assistance is given to households only for one year (drought recovery year).

1. Costs of restocking associated with provision of plastic sheeting, blankets and 500 kg of maize per household (assuming CRDA maize plus some food relief received during that year) is worked out to be 400,000 Birr for 500 households;

2. Cost of restocking associated with purchase of 15,000 shoats and 500 donkeys including distribution is assumed to be about 2,200,000 Birr for 500 households;

3. Purchasing one ton of food relief maize is approximately 1560 Birr;

4. Distributing one ton of food relief maize 40 Birr

5. Transporting 1 ton of food relief is approximately 5 Birr per km. Assuming 500 km it will be 2500 Birr per ton. Each of the households requires 2.4 tons of cereals per year (a family of 6);

6. To distribute cash relief, each family will require about 200 Birr per month to survive. Another 20 Birr will be distribution costs per family per month.

7. To resettle one family on one acre of irrigated land and to help them start growing crops (assuming land is available and is not purchased) costs approximately 50,000 Birr;

8. The families resettled on irrigated land will require food relief for at least 6 months, amounting to 1.2 tons per family.

Annex 3.7: Process and impact monitoring of project activities at village level after the first 18 months: Gbeneta village, Bong County, Liberia

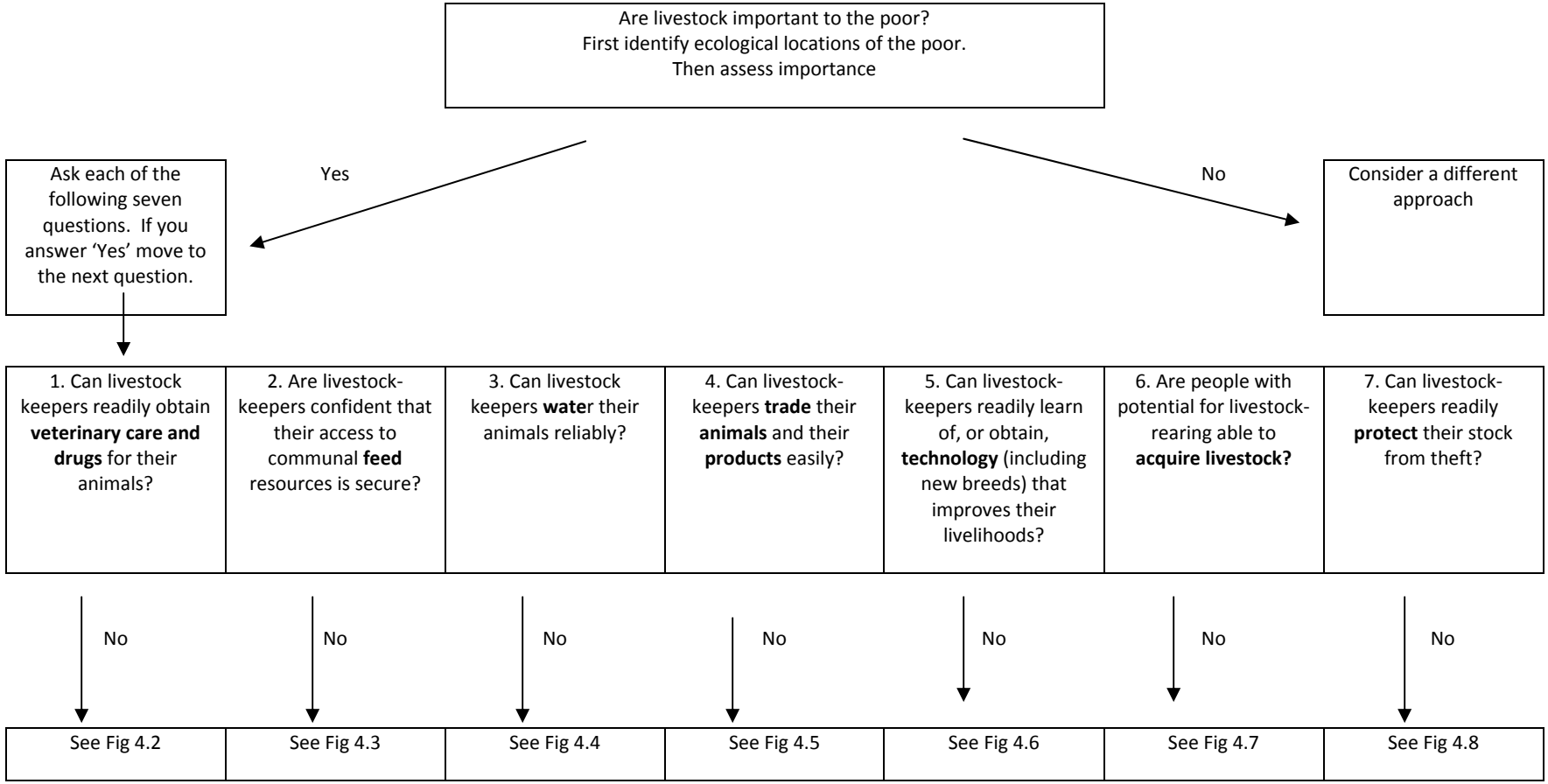
Baseline survey data collected in August/ September, 2000	Clan	Species	Pre war	Post war	Planned restocking program[5]
Village[6]: Gbeneta (387/ 38)	Waytua	Pig Goats Sheep Ducks Chickens	++ +++ +++ +++ ++++	12+ 0 0 20+ 190+	Sheep (6 : 1)

Output	Process monitoring					Impact monitoring
1.1 decentralised training	**Average attendance**					**1) Change in behaviour & or 2) Change in capital assets within the community**
	Date	**Men**	**Woman**	**Youth**	**Total**	
Poultry I	October00	25	33	10	68	Decentralised training program impact by increasing the **human capital** in the community through improved skills & knowledge; Changes in behaviour relate to the introduction of **new feeding, housing, health & management practises** of their livestock keeping; **198** livestock producers trained in the first year of the VSF decentralised training program; good gender balance but how now to involve more of the children & youth in the community;
Poultry II	January01	18	20	7	45	
Small ruminants	March01	18	17	6	41	
Rabbits	May01	10	5	7	22	
Pigs	June01	10	5	7	22	
Total trainees	**-**	**81**	**80**	**37**	**198**	
1.2 auxiliary training	**Name**		**Training date**	**Appraisal**	**Refresher**	**1) Behaviour & or 2) Capital assets**
1 male & 1 female auxiliary	F: Ruth Kollie M: Moses Kapu		November00	January01	November01	Centralised training increased **human capital** through improved skills & knowledge; increased **social capital** through strengthening the function of the CBO & ability to network with NGOs; change in behaviour through the **delivery of a basic animal health service** within the community;

[5] With restocking ratios female : male in parentheses ( );
[6] With population/ N° households in parentheses ( )

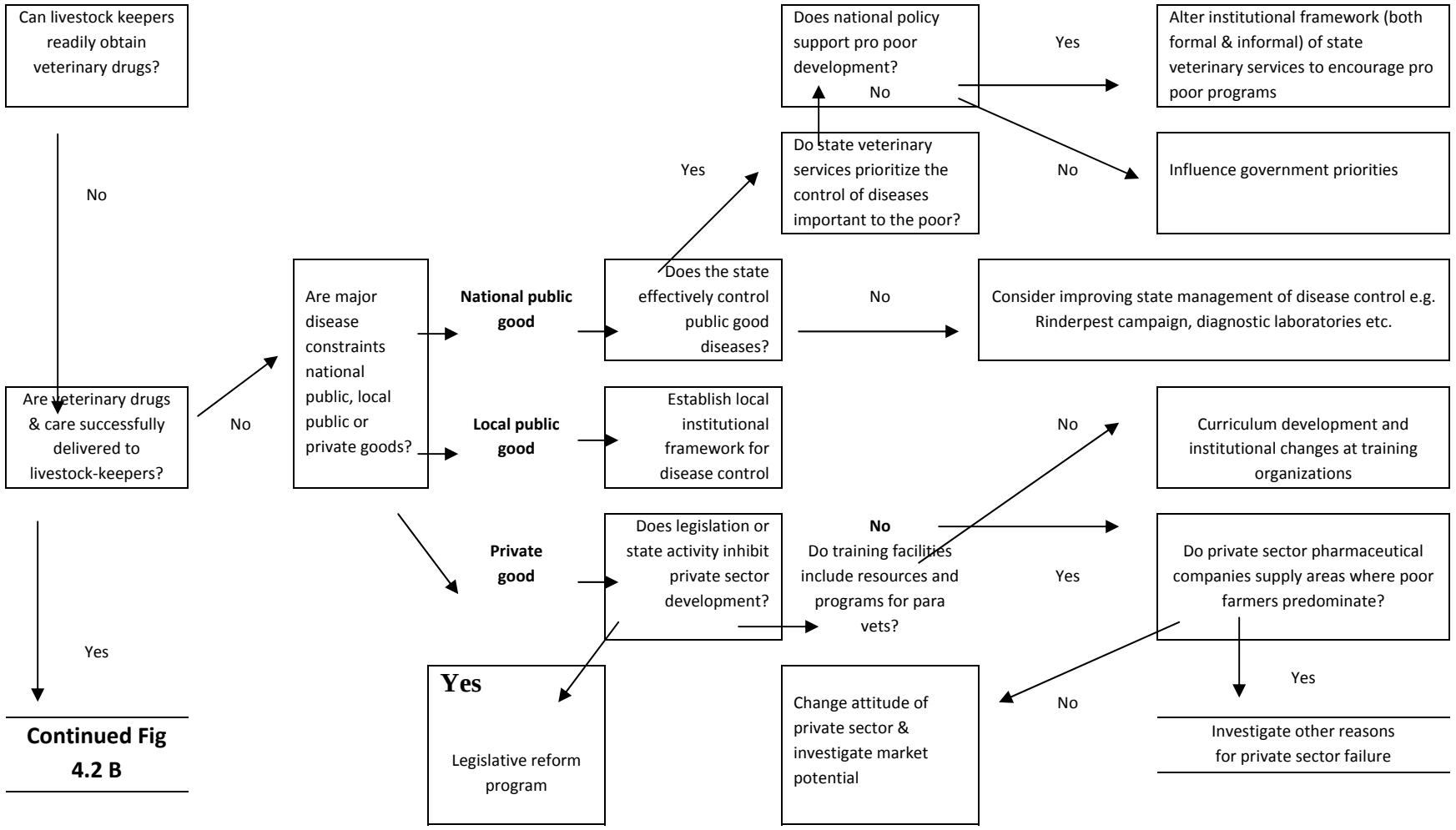
Output	Process monitoring						Impact monitoring
1.3 strengthening CBOs	**Average attendance**						**1) Change in behaviour & or 2) Change in capital assets within the community**
	Date	**Men**	**Women**	**Youth**	**Total**		
Training in Stock & accounts	February 01	2	2	2	6		Increase in **human capital**: skills & knowledge especially in the organisation of the CBO; increase in **social capital**: networking; group membership & organising the community base to develop their own micro projects e.g. mini pharmacy; increase **financial capital** through the provision & sale of veterinary drugs in the community;
Establish mini pharmacy	May01	Stock keeping & financial account records in order after assessment in September01 to facilitate a revolving fund;					
Community action plan (CAP)	March02	Planned activity for 2002 – output to be a PRA exercise with the community developing their own CAP					
1.4 animal health campaigns	**Date**	**Participation in the animal health campaigns**					**1) Behaviour & or 2) Capital assets**
1st NCD Campaign	December00	131 birds vaccinated by the auxiliaries during the campaign;					Perceived increase in **financial capital** by beneficiaries (due to reduced mortality); added value to the community from vaccinating 281 birds = $357 (low case scenario) and $1,111 (high case scenario) after 12 months;
2nd NCD Campaign	April 01	150 birds vaccinated by the auxiliaries during the campaign;					
PPR Campaign	May01	7 goats vaccinated by the auxiliaries (the 7 restocked animals after the war are the only small ruminants in the village);					Change in the **behaviour of livestock keepers** who 1) are willing to pay for an animal health service, and 2) prepared to involve themselves in vaccination and de worming campaigns which have never been done before;
Pig de worming	June01	7 of the 12 pigs in the village de wormed during the campaign;					
1.5 model livestock farms	**Date**	**Introduction of rural infrastructure for livestock**					**1) Behaviour & or 2) Capital assets**
Improved poultry farm	May01	5 improved poultry farms constructed with no purchased inputs using 'appropriate' technology: housing 98 birds					Increase in **physical capital** / rural infrastructure (shelter/ housing for livestock) and **change in management practice** of livestock keepers: feeding/ housing/ hygiene etc;
Small ruminant shelter	August01	Small ruminant shelter constructed prior to the introduction of restocked animals					
2.1 introduction of new species	**Date**	**Preparation & planning**		**Animals introduced**			**1) Behaviour & or 2) Capital assets**
Rabbits	September01	Rabbit hutches constructed		VSF delay in introducing rabbits			Increase in **physical capital** (livestock housing); to date no impact on financial capital as no rabbits or cockerels have been introduced
Improved cockerels	September 01	Prior condition that management/ feeding practise be improved		'Suitable' improved breed yet to be identified			
2.2 restocking of small ruminants	**Date**	**Memorandum of Understanding**	**Distribution Chain**	**Beneficiary Profiles**	**Animals restocked**		**1) Behaviour & or 2) Capital assets**
Sheep/ goats	September01	Signed by NGO; CBO; chief etc	Established & agreed	Completed prior to distribution	7 goats		Organised community base (increased **social & human capital**) and restocked animals (increased **financial capital**)

Annex 4.1 Decision support tree for planning poverty focused interventions



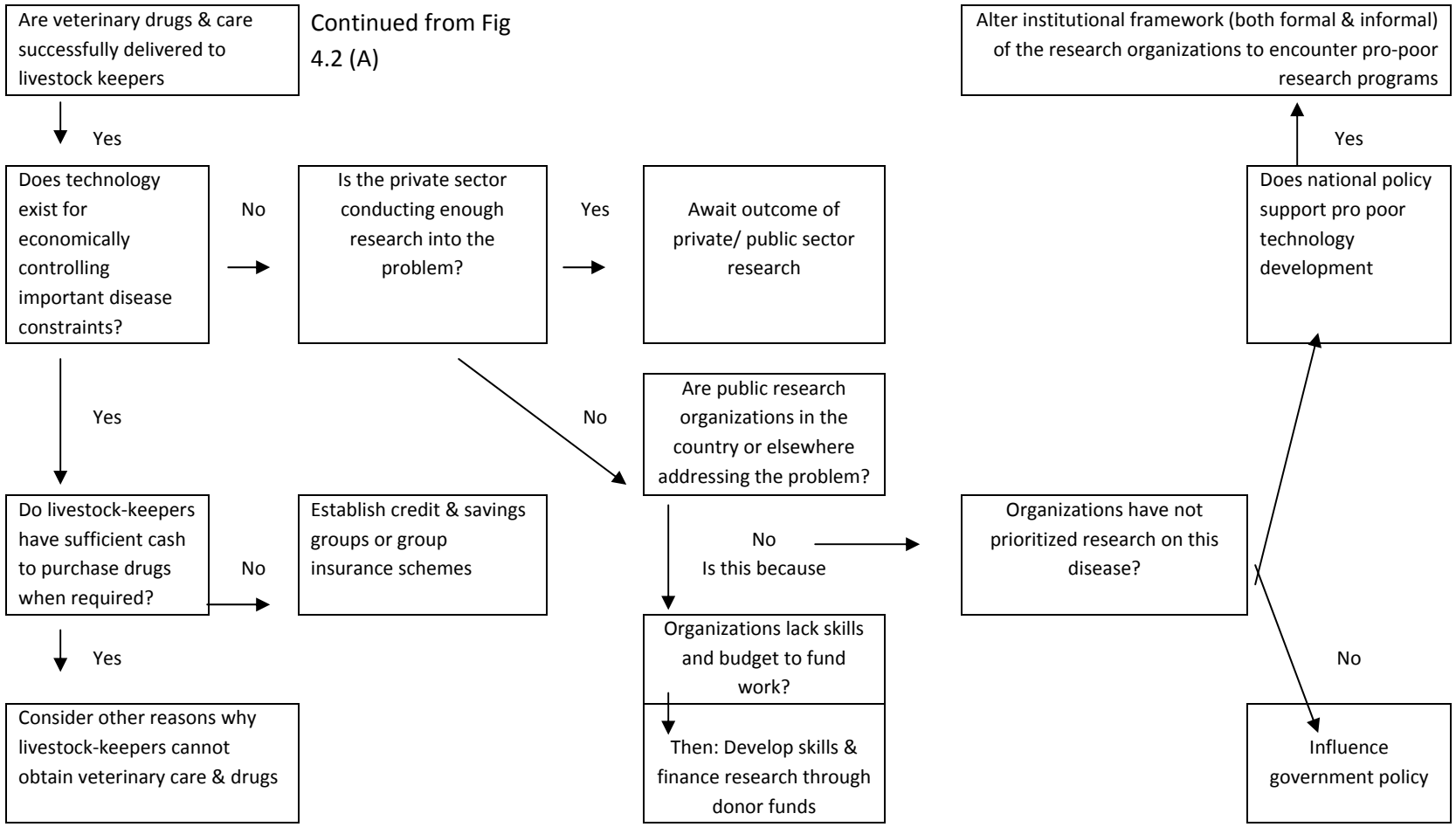
Reference: Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID);

Annex 4.2 (A) Decision support tree for planning veterinary care & drugs interventions



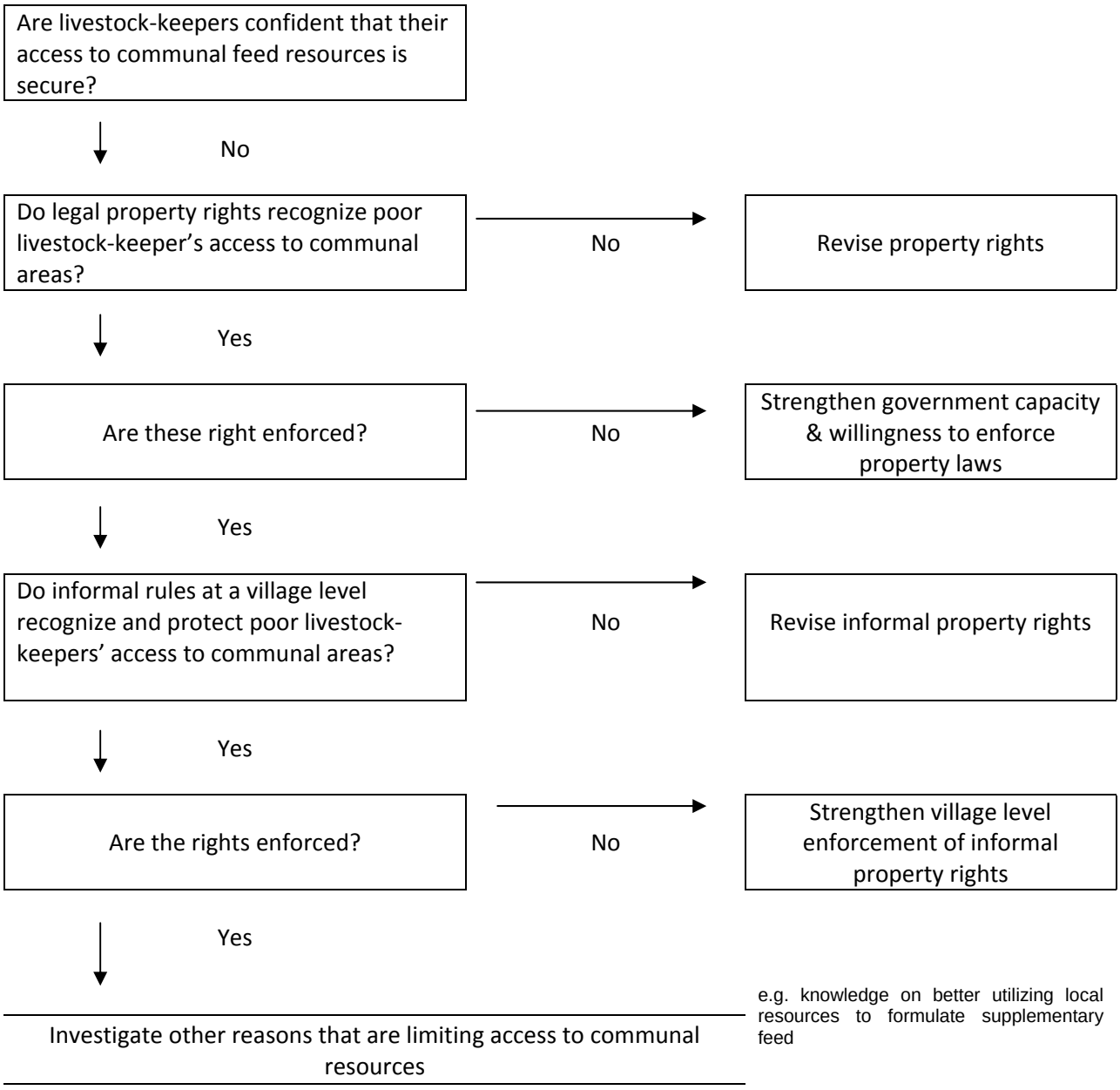
Reference: Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID);

Annex 4.2 (B) Decision support tree for planning veterinary care & drugs interventions



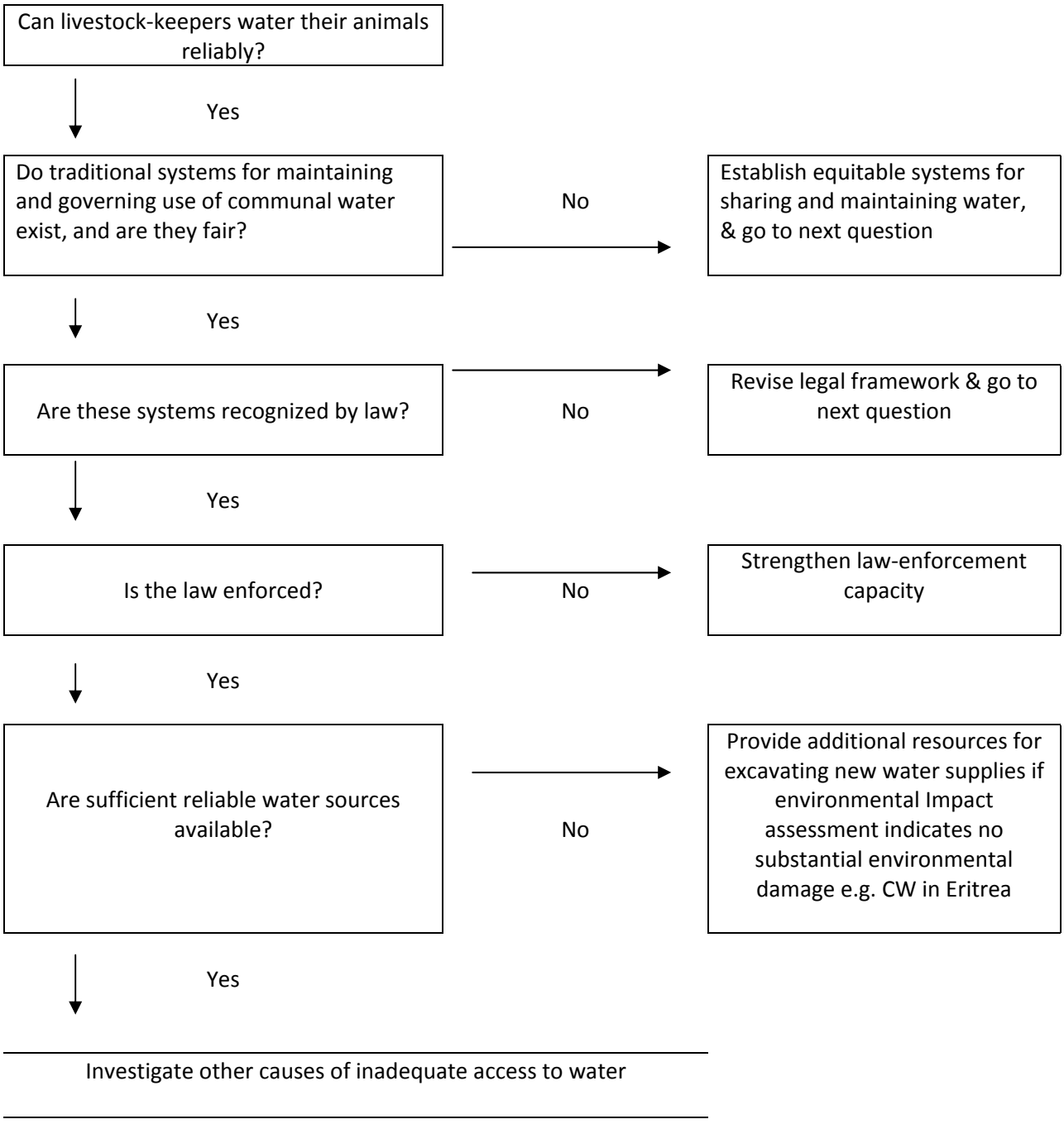
Reference: Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID);

Annex 4.3 Decision support tree for planning communal feed resource interventions



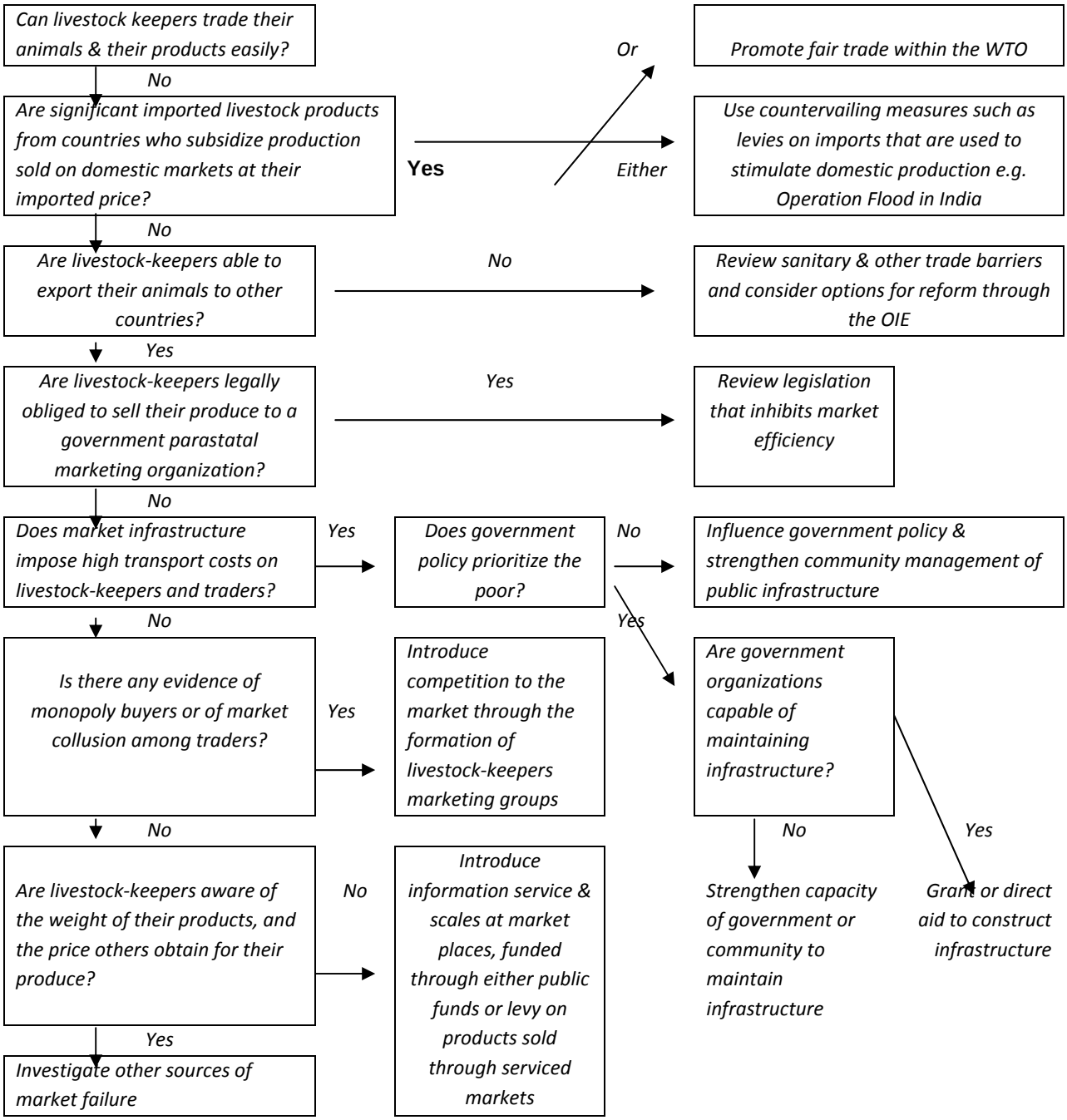
Reference: Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID);

Annex 4.4 Decision support tree for planning livestock watering interventions



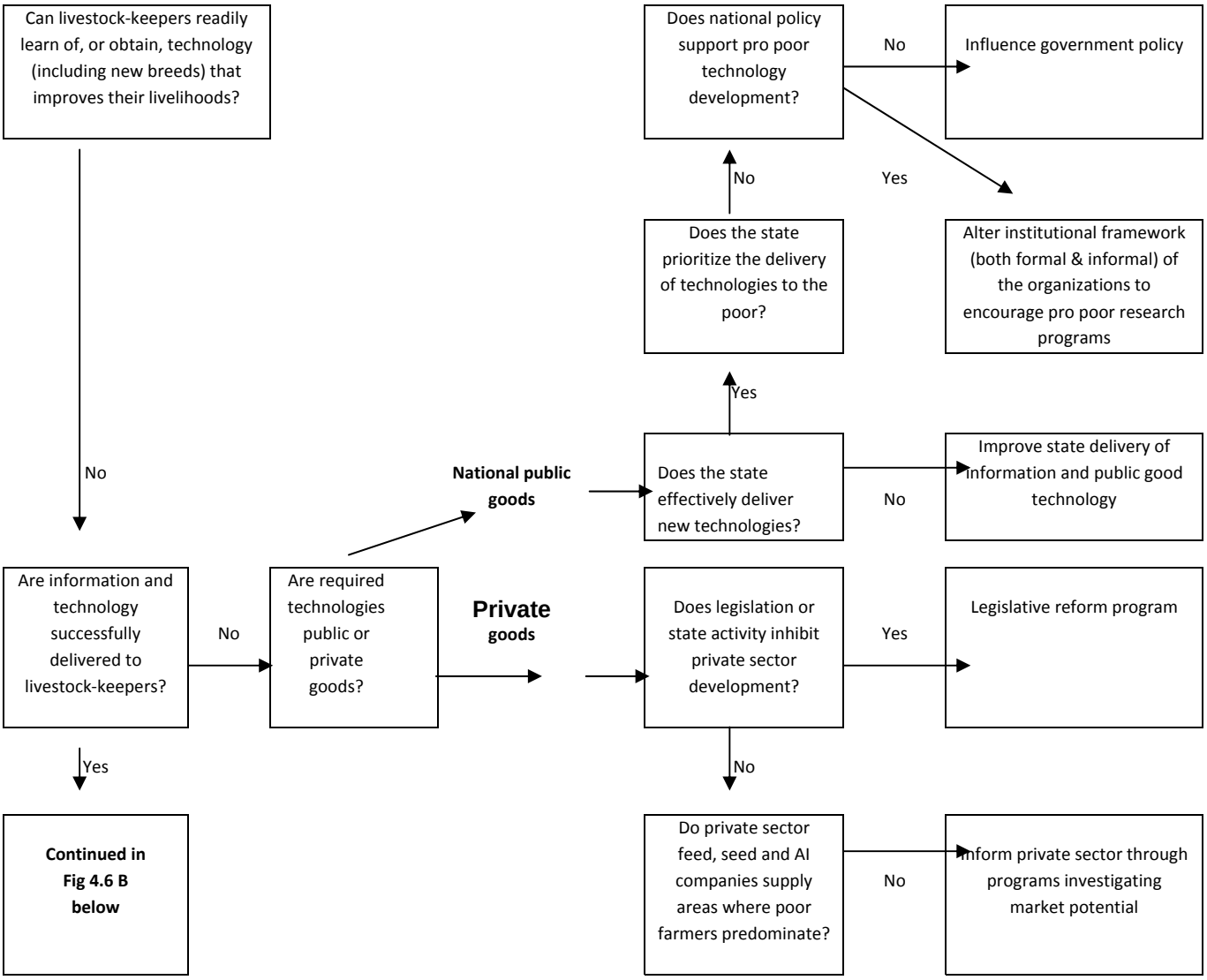
Reference: Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID);

Annex 4.5 Decision support tree for investigating access to trade in livestock and animal products



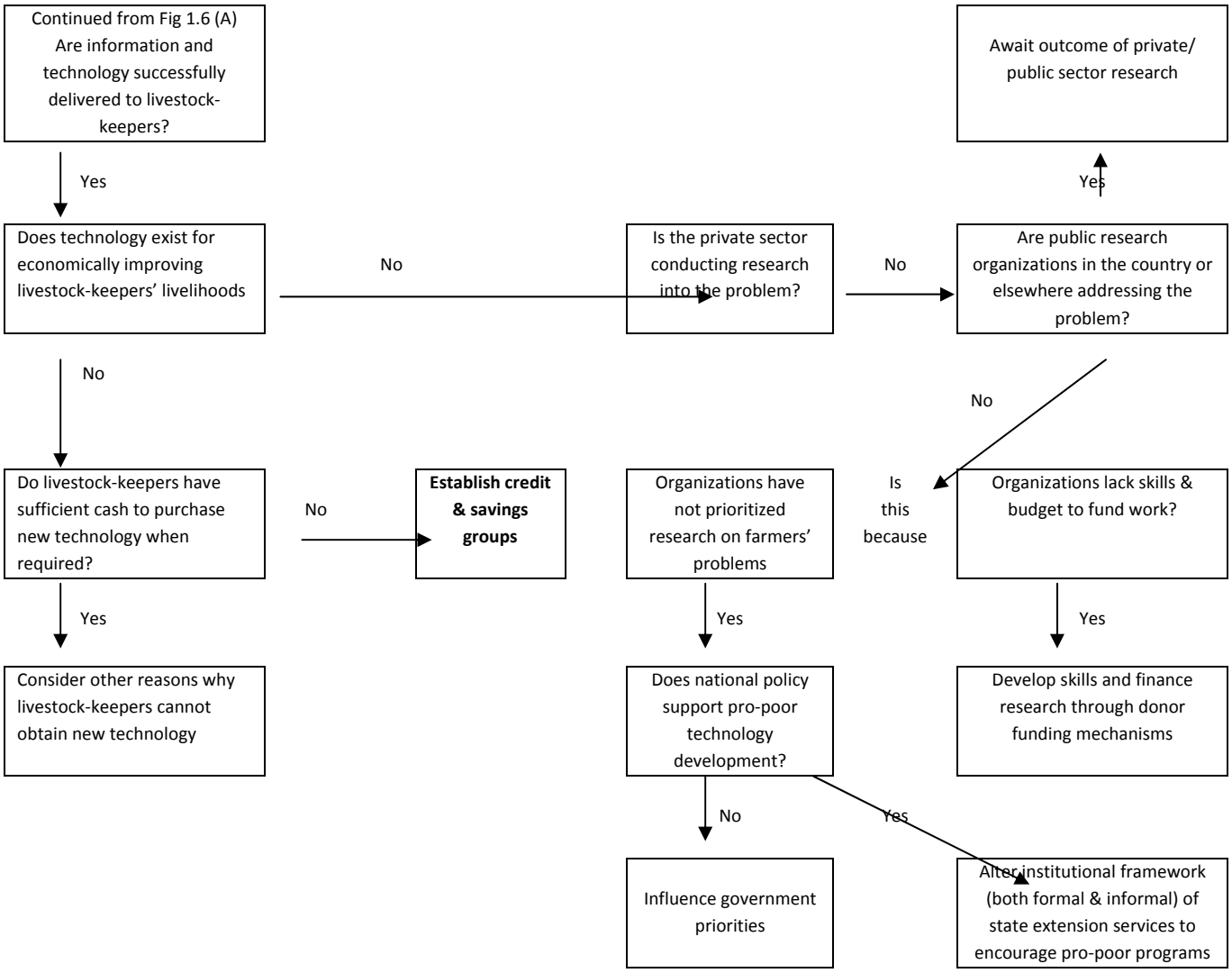
Reference: Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID);

Annex 4.6 (A) Decision support tree for investigating access to new technology & new breeds



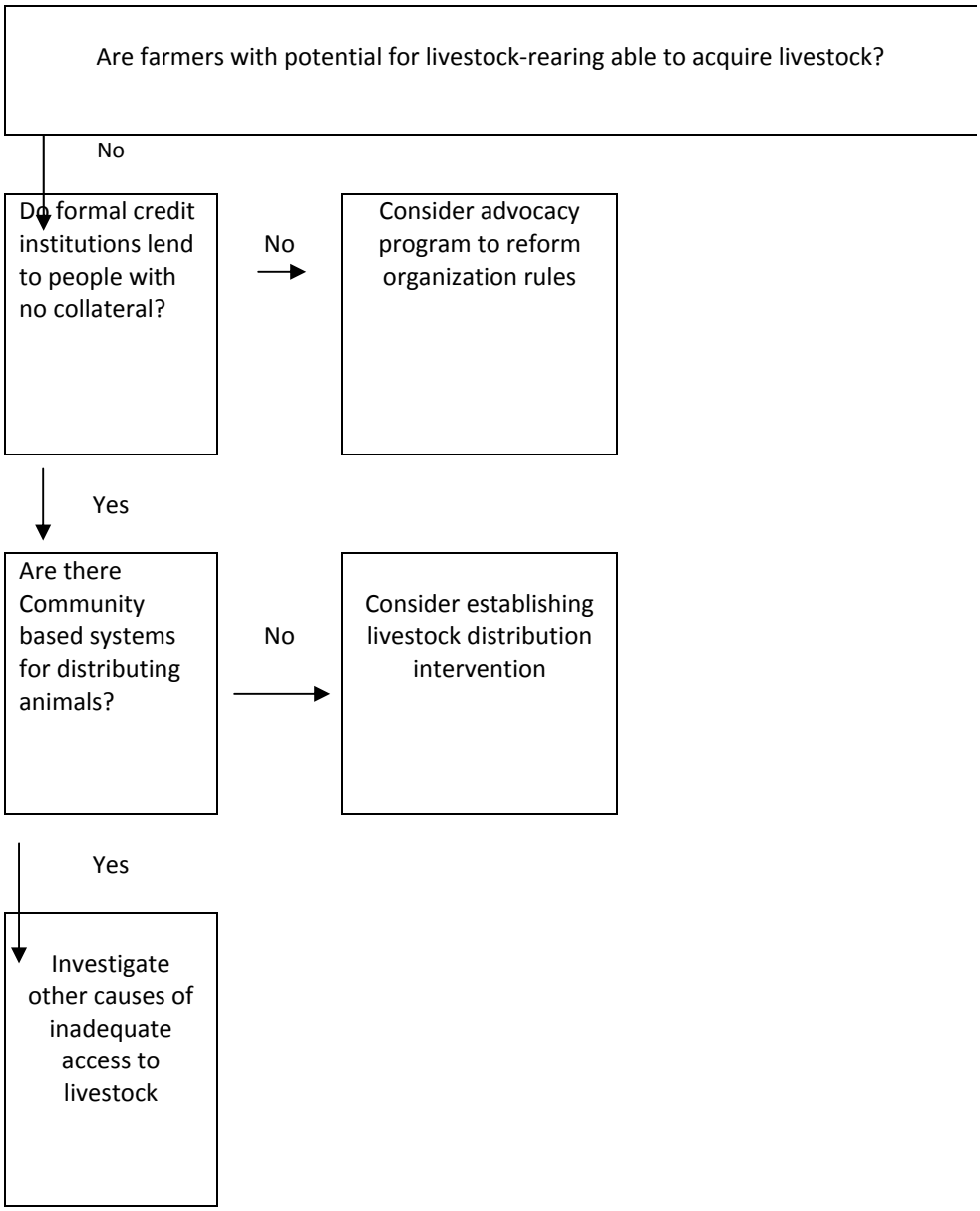
Reference: Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID);

Annex 4.6 (B) Decision support tree for investigating access to new technology & new breeds



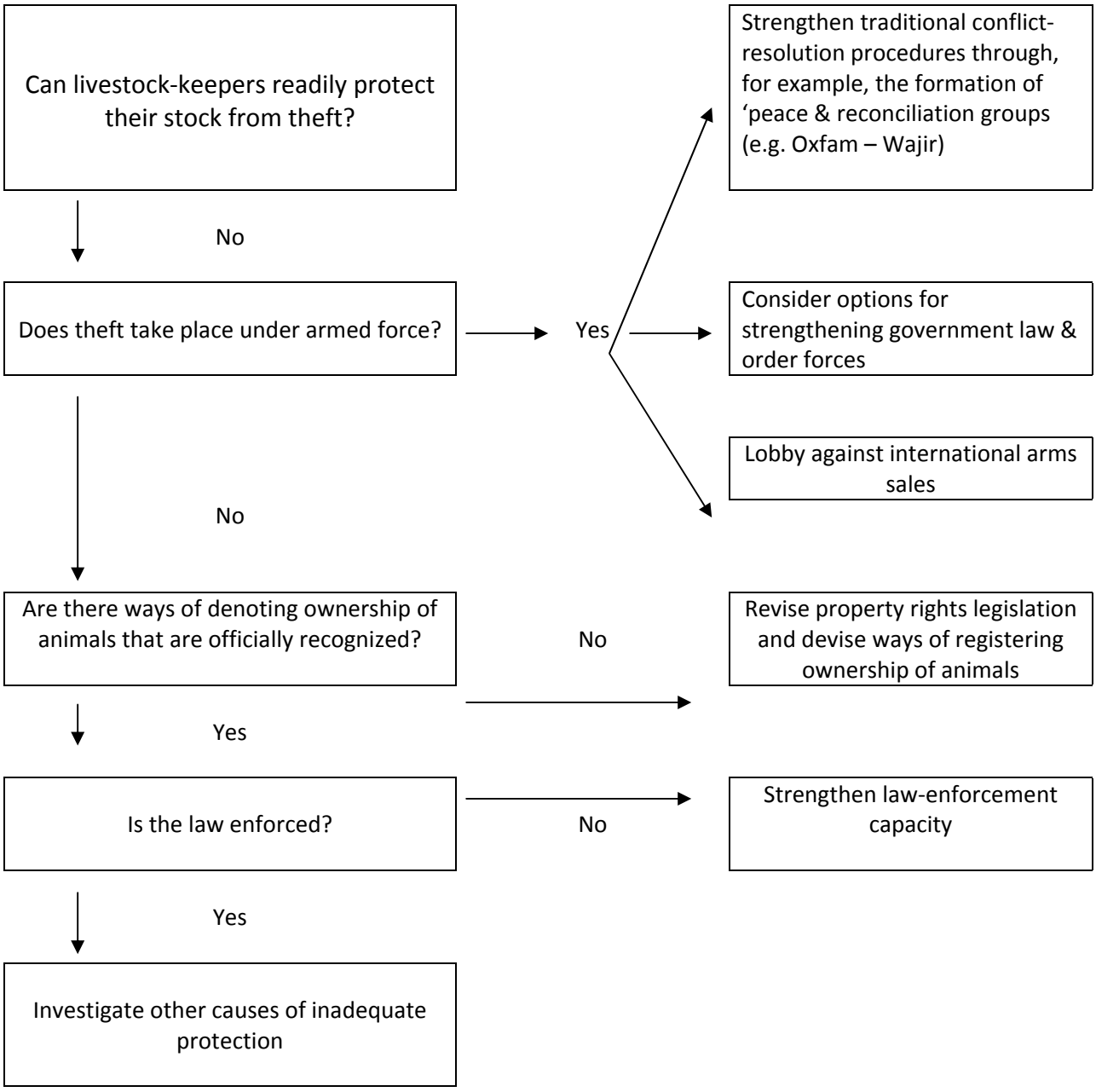
Reference: Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID);

Annex 4.7 Decision support tree for planning livestock distribution interventions



Reference: based on Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID);

Annex 4.8 Decision support tree for assessing livestock protection against theft



Reference: Livestock in Poverty-Focused Development, 1999, Ashley, Holden & Bazeley (LID);