

research program on Livestock

More meat, milk and eggs by and for the poor

What works to empower women livestock farmers?

A synthesis of GAAP2 Livestock projects

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Acronyms

WEAI	Women's Empowerment in Agriculture Index
GAAP2	Gender, Agriculture and Assets Project, phase 2
VICOBA	Village community bank
IPV	Intimate partner violence
HI	Heifer International
FGD	Focus group discussion
NPR	Nepalese rupees

1 Introduction

Over recent years, women's empowerment has become a centerpiece of many development programs and government policies aiming to achieve women's empowerment as a primary goal or or as a means of accomplishing the sustainable development goals (Deere and Doss 2006; Deere et al. 2013; Johnson et al. 2016; Meinzen-Dick et al. 2011). Empowerment refers to the process of enhancing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. The empowerment of rural women involves expanding women's assets and capabilities to participate in, negotiate with, influence, control and hold accountable the institutions that affect their lives (Narayan 2005). Given that women's empowerment is an important developmental goal in itself and a pathway to economic development, it is important that development practitioners, researchers and policymakers understand how development interventions affect women's empowerment and how to measure them.

The Women's Empowerment in Agriculture Index (WEAI), is a survey-based index designed to measure empowerment in five domains in agriculture—production, resources, income, community leadership and time use—based on interviews of a primary male and a primary female adult in the same household. However, the population-based instrument requires adaptation to be suitable for individual projects. The Gender, Agriculture and Assets Project phase 2 (GAAP2) seeks to adapt and validate a measure of women's empowerment that agricultural development projects can use to diagnose key areas of women's (and men's) disempowerment. The project aims to design appropriate strategies to address deficiencies and monitor project outcomes related to women's empowerment by testing and validating the project level Women Empowerment in Agriculture Index (pro-WEAI). The development of pro-WEAI includes expanding the scope of empowerment measures beyond agriculture by developing a refined set of core indicators that are adaptable to the needs of specific projects or sets of projects, with more emphasis on livestock related projects, a sector that is underrepresented in the WEAI.

This report synthesizes qualitative findings from two livestock projects in the GAAP 2 portfolio highlighting the underlying mechanisms that empower women livestock farmers and measuring women's empowerment in livestock. It does so by assessing the potential source of improvement in women's empowerment as a result of physical livestock asset transfer or micro-credit. The projects are presented as case studies and analyzed to reveal the empowerment patterns. The quantitative pro-WEAI indicators are categorized into three. Intrinsic agency (power within)—autonomy in income, selfefficacy and attitudes about domestic violence; instrumental agency (power to)—input in productive decisions, ownership of land and other assets, access to and decision on credit, control over use of income, work balance and visiting important locations; and collective agency (power with)—group membership, respect among household members (Malapit et al. 2018, forthcoming). This report reflects on these indicators to assess their suitability to measure empowerment of women livestock keepers.

2 Methods

This paper presents a review of two qualitative baseline reports for two livestock projects in GAAP2 portfolio The projects whose reports were reviewed are: i) Savannas Forever Tanzania Maisha Bora project report (Krause et al. unpublished) and ii) Heifer's empowerment, resilience and livestock transfer project, Nepal (Nepā School of Social Sciences and Humanities 2017, unpublished). These projects conducted both quantitative and qualitative studies using the livestock enhance pro-WEAI tool and the qualitative pro-WEAI protocols respectively. The projects used focus group discussions to identify barriers to empowerment and what works to empower women in project settings, semi-structured interviews to document life histories, and key informant interviews with project and non-project beneficiaries in the study. All the qualitative baseline reports available for review were drafts, and the report from Savannas Forever Tanzania integrated both qualitative and quantitative findings, but this report focuses on the qualitative findings. The results and in the Tanzania case study report are not differentiated by action or control site so it's not possible to discern perceptions from the action and control groups. Therefore, this report will provide a general overview of what empowers women livestock keepers and how the measures aligned with the quantitative pro-WEAI indictors.

3 Results

This section presents the approaches or strategies used by each project and the empowerment outcomes, before analyzing change. It reflects on the pro-WEAI empowerment indicators showing how they are expressed in the livestock qualitative studies.

Case study 1: Savannas Forever Tanzania (SFTZ): Maisha Bora project

Program strategy

Maisha Bora (Good Life) is a women's food security program for impoverished Maasai households implemented in the districts of Simanjiro and Longido in Tanzania. Maisha Bora is a five-year integrated program financed by the Belgian Technical Cooperation (now called Enabel) and implemented by Savannas Forever Tanzania together with five international partners and more than 10 local partners. The program's objective is to increase food security in 15 most remote and food insecure pastoralist and semi-pastoralist villages in northern Tanzania through a more diversified and secure income from improved livestock production, provision of entrepreneurship and business skills training, and advocacy for women in pastoralist organizations. This program is livestock-based and targets a core set of empowerment domains —production, resources, income and leadership—but with different approaches. The project uses agricultural extension services to train women about asset management and creates credit and savings groups along with women-only livestock enclosures (*bomas*) to improve women's access to resources.

Each partner organization focuses on a specific program component which include improved and sustainable livestock production (both large and small); improved food security; financial literacy; entrepreneurship training; formation of savings and credit groups called village community banks (VICOBAs) focusing on women and youth; access to safe water, livestock management, food budgeting groups and gender awareness trainings to address community-wide gender norms. Community conversations held with traditional leaders and men serve to raise awareness about gender-based violence and sensitize men about the economic empowerment opportunities for women. Where possible, economic empowerment initiatives for women are linked with economic opportunities for men. Maisha Bora also builds on the embedded social practices such as the formation of female-only *bomas* to provide opportunities for livestock breeding while considering the social and political structures and local institutions in place, as well as local institutions. Most of the Maasai women, who are typically pastoralists live in polygamous marriages and culturally, livestock is controlled by men. The household of each wife is called *"enkaji"* and includes one wife, her children and other dependents. The Maasai polygamous unit, which includes all of the wives and dependents is called an *"Omari"*.

Women's empowerment

Membership to economic groups

The Maasai women have membership to different economic groups such as the VICOBA, agriculture or livestock, beading/retail/trade, and other formal or informal groups. The most common groups are VICOBA serving as a mechanism to economically empower women and achieve independence. Women in VICOBA reported being able to build "modern houses" (iron sheet roofs and/or baked-brick construction), pay school fees and purchase more nutritious food. Spouses of women in economic groups often support the involvement of their wives in economic groups. Women who want to be members of an economic group need to pay a fee and get approval from their spouses. A woman cannot

join if her husband does not approve group membership; all women interviewed, except widows, said they need their husband's permission to join. Women also reported that many husbands prevent their wives from joining or are unable to raise membership fee. Most women said they needed to ask their husbands for money to pay membership. Men must provide the initial investment when a woman needs to join a group. In other circumstances, a husband will see the economic benefits that the family can reap from belonging to groups such as these and support his wife's participation. Sometimes, a woman will secretly ask another woman to participate for her with money she has been given by her parents or earned on her own. Some male and female study participants remarked:

Women are supported by organisations like VICOBA and they can get capital from there. Women are always in these organizations to get money and that's why nowadays a man allows a woman to attend groups, so they too can benefit from the organizations.

- Man in VICOBA focus group

It is only our husbands [who decide]. If he loves you, when you tell him about joining the group he just allows you to join. But there are other women in this *olmarei* (homestead with a husband and all his co-wives and children) who are totally not allowed to join any group because their husbands hate them and don't listen to them about anything.

- Woman interviewed at home

It is my husband only [who decides] so I tell him that I want to join a group. I ask him permission to join the group and when he asks how, I suggest that I sell my goats so I can get the entrance fees and I am not ashamed by not having the group contribution.

- Women's focus group participant

Education plays a key role in group membership, considering that economic groups may require some numeracy or literacy skills.

Acquisition and control over livestock

Livestock, both small and large, are common among the Maasai. The species could include large ruminant (diary, beef or mixed), small ruminants and poultry. Men own large livestock almost exclusively and wealth is often defined by the number of cattle owned. Men control the purchase and sale of livestock although many women influence livestock decision making on small ruminants. Women rarely own livestock unless they purchase them with a women's group, or they are widowed. Often, widows own their own livestock but sometimes, the ownership rights of her husband's livestock are inherited by her sons or owned jointly with the sons. However, if a woman belongs to a VICOBA or has her own income and purchases goats, cattle or chickens in a group, or receives a goat from the group, the animal may be considered hers. Although the husband might consider the animal as family property, she is the animal's owner and her husband cannot sell it. Women's ability to purchase livestock appears to be changing in villages close to major markets such as Namanga and Eworendeke, which are located near the Kenyan/Tanzanian border, or in villages in which Maasai and other ethnic groups reside together.

Decisions related to livestock, mainly beef or dairy cattle in this region of Tanzania, are the major production decisions among the Maasai. Women have almost no direct decision-making power over

livestock in the *olmarei* (homestead with a husband and all his co-wives and children) and at the *enkaji* level (usually one wife and her children).

I have three cows and I don't have authority to sell them because they belong to my husband, and if I dare sell them, I will be beaten. — Women's focus group participant

Women have somewhat more influence over decisions about smaller livestock such as goats and poultry and what they purchase using money from VICOBAs. NGO projects have introduced new types of livestock to women's groups, particularly chickens. Traditionally, Maasai do not eat chicken or eggs so poultry keeping has more flexible gender relations than goats or cows and women can buy and sell poultry and poultry products at their own discretion.

The husband is the one who keeps money after selling an animal even if it's a woman's animal. But if a woman sells chickens and earns some money, the husbands say, 'we can't follow the money from birds', so the woman gets to keep the money from chickens.

- Women's focus group participant

Women have control over livestock products including milk and animal skin only for the animal assigned to her by her husband. Milking rights are distributed equally among women when animals are acquired through bride wealth (Bridal wealth goes to the bride's family). However, a man retains a portion of the livestock and can distribute milking rights of his cattle to his wives, according to favoritism. If more of one wife's cattle die, she must request additional milking rights from the other wives.

Access to and control of income or credit

During the group discussions, both men and women indicated that women are empowered when someone helps them financially either through fundraising in the community or from outside organizations. This financial support helps women to run their own businesses; diversify income sources; take care of their livestock; buy land and cattle; and take care of their children and family by providing food, clothing, housing and education. These are some of the characteristics of an empowered woman.

The only empowerment I have is being in a group. Through that, I can get money to buy sugar, food and clothes. — Woman VICOBA focus group participant

An empowered woman can build a modern house. You can see it [empowerment] because she takes care of her family and livestock, buys medicines for her livestock and her children have good clothes. You can see it when a woman buys a plot of land and builds on it and when she engages in farming. You can see she is involved in groups. She has her own business and sends her children to school. — Woman interviewed at home

On the other hand, when women successfully improve their financial status, community members try to hold them back by accusing them of witchcraft or prostitution or other inappropriate behaviors. However, a woman may be able to minimize negative reactions if she contributes at community fundraising events, shares her wealth with family members and neighbors and does not draw attention to her change in status. Similarly, if she gains a leadership position, she must attend meetings and report back faithfully to her constituency. People can say that you are a prostitute or a thief because you do not stay at home and they think that you spend most of the time on the road doing "bad" things, yet you are busy with your business. — Woman focus group participant

Some spouses demand to be given all the earnings their wives bring home although many men claimed they allow their wives to keep most of their earnings. Many women say they do not inform their husbands how much they earn.

Autonomy in decision making

The ability for women to make autonomous decisions is very low. The level of influence in decision making appears to vary with the level of trust the husband has in his wife, if a woman has her own business or other source of income, and for widows or single women. Nearly all decisions, according to both men and women, require a husband's permission although the permission is usually granted on enkaji-level. Women have autonomy over kitchen utensils, house construction and repair and the kind of food they cook for her children.

Intrahousehold relationships

Being in good relationship with their husbands enables women to have their needs addressed by their spouses, acquire resources and participate in important decisions as noted by women and men who participated in the study.

It all depends on her relationship with her husband. If it is good, a woman might suggest a certain cow to her husband and she can inform him to buy it. She can say, 'that neighbor's cow has a lot of milk', and he will buy it. — Women's focus group participant

If a woman bonds well with her husband they can make decisions together and know what to buy in their family. — Woman household interview participant

A woman's position in a home or her age may not influence the nature of intrahousehold relationships. It basically depends on a woman's conduct, which in most cases determines the level of affection and other benefits the man extends to each woman.

The relationship between husband and wife does not depend on the age of the woman or her position such as the first wife or the newest wife; it depends on the level of love the husband has for each of his wives. The husband can provide everything to some of his wives and forget the rest who are unloved, and this affects their empowerment.

- Woman focus group participant

The husband tends to spend time with the "favorite" or "most loved wife". The most loved wife is often described as highly competent. Her livestock are well tended; her children are healthy, well fed and attend school; and she takes good physical care of her husband. These characteristics are similar to those listed as traits of an empowered woman. The husband is more likely to spend time in her *enkaji* and share more resources with her than other wives. The husband often confides in this wife and asks her about important decisions. If he acquires more livestock, he may grant this wife the milking rights.

This evidence of joint decision making was not the case in all households. There were cases of increased risk to domestic violence regarding participation in decisions around livestock. In some families, a husband might beat a wife for trying to interfere in a man's domain.

Domestic violence is a common part of the life of Maasai women that were interviewed. It is deeply embedded within the culture and according to the women, the beatings can be frequent and severe. Beatings are widely accepted under many circumstances such as poor care of livestock, neglect of children, infidelity or other disagreements with their husbands. In some households, a woman can be beaten for trying to influence an important decision. Violence against women prevents their participation in decision making and becoming autonomous. It can also be used to restrict their mobility and group membership.

I'm worried to make any other decisions because I might be beaten by my husband and he tells me that I'm nothing and can't do anything that can bring fruits to this family. — Women's focus group participant

There is some indication that there is less violence in households led by younger men and in areas where Maasai mix with other tribes.

Control over time and labor allocation

Time use is an important indicator of empowerment as it helps assess women's time and labor burden. Amongst the respondents interviewed, women do low wage and unpaid work, and spend nearly four times as much time in childcare than men. Husbands typically decide on the duties of household members although wives may influence these decisions. Women's and men's roles are culturally defined, including the social practice that permits men to tell women what additional tasks they need to complete. If women do not carry out the assigned roles, especially activities directly related to livestock care, they can be beaten. Also, men can control a woman's ability to participate in activities outside the home by assigning her more tasks. However, many women say they share work with their co-wives so that they can attend meetings or events. Collaboration among co-wives helps them to free up time and engage in other productive and group activities. Women partner with co-wives to cover their housework or childcare so that they run businesses or participate in group activities.

Physical mobility

Women reported limited mobility to travel far from home, especially if the travel is overnight. Sometimes women are allowed to travel when in a group of women. Uneducated women are further limited because they often speak only the tribal language and do not know how to count money in case they went to the market. Although age may not explain the nature of intrahousehold relationship, it plays a role in mobility. If a wife is older and trusted by her husband, she may have greater mobility. Except for widows, most women need permission from their husbands to travel beyond visits to nearby neighbors. Some of the women and men reported:

You will be free to go somewhere you want only if you are faithful and trusted by your husband and return to your *boma* as early as possible and don't do two things at once, like tell him you're going to the market and go somewhere else. When the husband discovers that, you will not be allowed to go anywhere again. — Women's group participant

Some wives can travel far without any escort but with my consent. This is mostly for a hardworking woman. Others, they cannot travel because of the way they behave. Those who are behaving badly are not allowed to travel. Those who travel by foot should be accompanied because they must have security. Those who bring livestock must also be accompanied by some Morani (warrior) to help her bring livestock home. — Men's focus group participant

My oldest wife goes to the market but the younger can't go because she is still young to know what to do in the market. The young one also grazes cows and does other activities at home like looking after children. — Man interviewed at home

Summary

This case study reveals that empowerment of women livestock keepers is associated with membership in economic groups, acquisition of livestock, access to credit or savings and harmony within the household which facilitated women's participation in making important decisions over livestock and other household resources. Aspects of intrinsic agency, such as autonomy in income and self-efficacy are implied in the case study but discussed less explicitly. Intimate partner violence against women is institutionalized amongst the Maasai and accepted by women, as well as men, as an appropriate response to a range of behavior practiced by women. Thus, attitude about intimate partner violence (IPV) may not be a very sensitive indicator. Measuring domestic violence that arises from women's attempt to input into livestock decisions could be a better measure; but this is more problematic to include in surveys. Instrumental agency exhibited through input in productive decisions, ownership of land and other assets, access to and decision on credit, control over use of income, work balance and travelling are reflected in this case study as indicators of empowerment. Work balance can be measured by the ability to control one's own labor. Collective agency evidenced through group membership, belonging to influential groups and respect among household members are also represented in the qualitative discussions. What might not be measured in the survey is women's hidden agency, e.g. when they ask another woman to participate in a group on their behalf, and silently tap into group benefits. On the other hand, harmony has a complex relationship with empowerment. Women's relationship with their spouses is important in determining their pathways to empowerment, including obtaining control over some resources and permission for mobility. However, to secure household harmony, women have to comply with the ideals of femininity and are afraid to exercise agency due to fear of being beaten; which shows that prioritizing household harmony may limit their empowerment.

Case study 2. Heifer's empowerment, resilience and livestock transfer project, Nepal

Program strategy

The main goal of the project is to improve livelihoods through the transfer of productive livestock, mostly goats. Although the project directly focuses on increasing income through goat transfer, it also aims to enhance human capital through different trainings, and social capital through its group-based saving and credit program. After identifying a location to receive the intervention, Heifer International (HI) recruits an original group of direct beneficiaries. Direct beneficiary groups typically consist of most or all the households in a given neighborhood. In the first year of group formation, the self-help group members are given various trainings (1) technical training on improved animal management, fodder/forage development, entrepreneurship, human and animal nutrition, and home gardening, and (2) HI's values-based training on topics of accountability, sharing and caring, sustainability, self-reliance, income management, environmental stewardship, spirituality, self-help group management, gender justice and encouragement to pay it forward. The trainings culminate with the beneficiaries receiving a transfer of livestock which includes two doe goats for each beneficiary, as well as a shared buck of improved stock for the self-help group to facilitate a breeding program. HI encourages members to pay benefits forward (pay it forward model) by recruiting additional community members into the program, giving a gift of livestock (of equal value to what was received), and passing down all technical knowledge that was gained through participation in the program (with minimal support from HI).

Qualitative data were collected from three different villages where Heifer Nepal had implemented its revolving fund project after the earthquake of April 2015. These are Odhare village, ward no. 7 of Chhatredeurali VDC in Dhading district; Akare village, ward no. 2 of Tupche VDC in Nuwakot district in the mid-hills; and Patwari village, ward no. 1 of Kolhuwa VDC in Nawalparasi district in the Tarai. The three sites reflected distinct ethnic groups geographically, culturally, and economically. The Dhading site comprised wholly of indigenous Tamangs with less landholding, subsistence agriculture, and labor work, while the Nuwakot site had mostly high-caste Bahun-Chhetris, more educated with higher income including by migration to developed countries, with some low-class Dalit and Magars. The Nawalparasi site comprised mostly indigenous Tharus with large landholding and high foreign labor migration.

Women's empowerment

Membership in influential groups

In all the research sites, most women had membership in Heifer groups because Heifer aims to include at least one woman from every household, as it is easier for women to take loans from them. Benefits of heifer group membership mostly included easy access to loans (often without collateral and with low interest rate) and getting goats and relief fund (after earthquake); acquisition of knowledge and skills through trainings and meetings; companionship; and shield against domestic violence due to increased solidarity.

The benefit of joining groups means one can go to meetings, get to travel, and understand things better. I like to go to meetings because I hear and learn new things. Although I cannot read or write, when listening, I feel like 'Oh, I should say such a thing on this issue; I should be mindful of such a things'. I like to go to meetings, and I am allowed to go. — Woman beneficiary in Dhading.

With women's increased participation in group activities, women are now able to speak in front of other people and voice their concerns. For women in this community, simply speaking with strangers and speaking on meetings or at public occasions is a great achievement. This applies both for women who are illiterate and literate. This was more felt in Dhading, where almost all women were illiterate, had no contact with outsiders until two years after Heifer started work and entirely had Tamang population (illiterate ethnic group in an isolated area with subsistence agriculture and unskilled labor economy dominated bymen). One respondent noted that before Heifer came, women in Odare and Damdame used to hide inside their houses when strangers came, would hesitate to speak to strange men, and never sit in groups. Now women's confidence has improved, they have separate identity, increased contacts and understand better when given animal health training. During a focus group discussion

(FGD) in Dhading, women said that they didn't go to meetings, held discussions in public or spoken out before Heifer came. But now they have confidence to speak up in front of large number people.

Acquisition and control over livestock

Livestock, small and big, can be considered as shared or household asset, in contrast to dowry and jewelry, which can be considered as personal in that they are individually owned. Livestock may be considered as *pewa* (dowry) and treated as personal property. Livestock such as goats are assigned as *pewa* to unmarried daughters and given during or after wedding. During FGD and interviews in Dhading and Nuwakot, it was found that unmarried women used their savings to buy livestock as their *pewa*. These animals belonged to the women and the proceeds are controlled by them. In situations where the mother kept the income from sale of an animal, the money was spent to the benefit of the owner. After marriage, when living with in-laws, the daughter-in-law has no control over family assets, including livestock. However, women usually have exclusive control over their *pewa* during marriage although women's rights over them may be contested at times of contingencies.

When we live together in a household, we need to look after each other when ill or in difficult times. We cannot sit saying this is my *pewa*. At most, it should be given as loan in times of need or when someone is ill. When living in the same house, under the same roof, it cannot be kept as *pewa*. There is need to run the house, need to spend for oneself, children, parents-in-law, or husband. — Woman FGD participant

In nuclear families, small livestock such as goats, can be sold mostly in consultation with the husband. In Nawalparasi, where people produce commodities commercially, agricultural decisions depend on whoever knows about markets and goes frequently to markets. Agricultural cooperatives also dictate decisions and they are dominated by men. Income from livestock is important for increasing women's assets such as jewelry. On the other hand, for goats, adequate fodder is not available in all sites and rearing is difficult for small or nuclear families.

Access to and control of income

In Dhading, people began to rear up to 10 goats because Heifer taught that rearing one goat will not be beneficial. However, Heifer goats did not fare well in Odare and people could not benefit from them.

The mother goat given by Heifer died of illness; it gave only 7 kg meat when killed. I gave another home goat as a gift to a sister group. I raised the seed money for a he-goat, but later the he-goat died and I'll have to repay the money. I used to earn NPR4–5,000 from goats, but even after rearing Heifer goats, I earn just NPR8–9,000. — Female beneficiary, Odhare village

In Nuwakot, Heifer gave goats to those who could not afford them; some increased income from the goats. For instance, one of the women in Nuwakot bought three goats on the NPR15,000 given by Heifer. As all the three goats were about to give birth when bought, they bore three baby goats, which she passed on to the group. 'There was a good profit. After gifting the three baby goats, the mothers became my own. I am now selling goats and baby goats. Similarly, another female beneficiary used to rear goats and buffaloes before Heifer came, and this was her major source of income. She got one goat from Heifer, and her goats increased in number. Even now, she has the offspring of the goat she received from Heifer.

Since Heifer goats did not fare well, there was minimal impact of goat transfer in Odarea and for very few. Similarly, in Nuwakot, there was not much impact of goat transfer except for some poor people. This is because most households were well-off from foreign migration and business and had no incentive to produce goats commercially. Nonetheless, due to Heifer goat transfer, there was some short-term economic benefit. Goats form only a part of household income even for women. Although its mostly women who take care of livestock, daughters-in-law cannot make decisions on when to sell and control income from sell of livestock, particularly if living with in-laws. Women have control over family income only after separating from parents-in-law, after their death, or after their sons begin to earn money. It is usually through women's own individual occupation/income that they develop a feeling of empowerment and to a lesser extent, due to their agency in handling/utilizing the money.

Access to and control of credit and savings

Before the intervention, female beneficiaries were afraid to take loans but after, they feel encouraged to take loans and pay it back. Women take loans from groups and cooperatives and invest on income generating activities, such as goat rearing, vegetable farming and opening small shops. They also sometimes use the money to settle family obligations. Low-interest loan was a major motivation to join Heifer groups. Loan interest per month is 5% at moneylender and 2% at Heifer. Women save about NPR50–100 per month.

Heifer also taught women bookkeeping. Previously, women needed to ask their husbands for money to save in group, but not anymore. There is clear evidence that women's savings have increased due to Heifer intervention through livestock transfer and micro saving. However, as the savings are small at the individual level, they take the form of investment through loans at the collective level of groups or cooperatives. Women are gaining more autonomy over their individual savings.

On the other hand, the results revealed that there are very few instances of women taking big loans to increase their assets or income. In Dhading, there are no instances of women initiating work by taking big loans. In Nuwakot, one of the beneficiaries started poultry farming by taking a loan. She also took loans when building her house. Taking a large amount of loan from cooperatives can be at the request of the mother-in-law or husband e.g. to send a son abroad or start a big business which is managed by husband and wife. Although women can open a bank account, such as in Dhading and Nuwakot by women whose husbands are abroad, it is considered inappropriate for women to open a bank account as it may imply hiding money.

Intrahousehold relationships

In all the study communities, there were a lot of bad relations among wives and mothers-in-law, as well as husbands. The situation gets better when wives leave the home of their in-laws or when they become mothers-in-law themselves. There where changes due to the presence of women's groups. Any man who beats his wife is admonished or threatened, so women's groups are feared. Such violence even now occurs only where husbands—and sometimes wives in Dhading—get drunk. For instance, the husband of one of the women in Dhading, used to sell and keep money from selling agricultural produce and livestock. He would spend the money on alcohol and beat her. After joining Heifer, women threatened him, and later she began to have more control over the household income and expenses, as taught by her group members. Another example is of a supposed infidelity of a widow in Dhading. There was a case of supposedly illicit relationship between a widow (whose husband died in the earthquake) and a married man. All local political representatives had decided that the man should take the responsibility

for the widow; that is, accept her as wife. But Heifer women's group took the matter into their own hands, investigated the case, and finally ruled that it was a false accusation and reconciled the case. This shows the power of women's group, especially Heifer's. This shows the power women's groups could exercise if women act collectively. Being involved in a network and supporting each other affords women more confidence and power.

On the other hand, life histories showed that many women suffered from domestic violence over 1–2 decades ago. Domestic violence itself signifies disempowered women, and supportive family relations are required for women's proactivity. In Nuwakot and Nawalparasi, there are no reports of overt physical violence and there seems to be no instances of intrahousehold harmony and decrease of domestic violence due to Heifer intervention.

Workload

Women's workload differs according to their dependence on agriculture (subsistence or commercial). In Nawalparasi, due to high foreign labor migration, high landholding and commercial agriculture, women's workload is high. In all the research sites, the intervention changed the nature of workload by helping change gender division of labor (i) by involving women in agricultural and other income generating activities; (ii) by providing technology or institutions for decreasing women's workload; or (iii) by involving women in new activities, mainly in groups. The introduction of the *ghanta* system of labor exchange (labor exchange system with nominal hourly pay) decreased women's agricultural workload considerably. Women's workload, including for child care, is high in the rural areas, and men's work outside the home village or foreign labor migration is having mixed results on workload in different families. Women in families with small landholdings have more time to care for children than women with large landholdings in nuclear families. But due to increase in nuclear families, child care is becoming a major workload for women.

Physical mobility

Women's mobility was a major concern and restriction in their lives. Women in all sites are usually allowed to travel alone for work, such as to the market, forest and to visit relatives. Mobility also depends on marital status and family type. Mobility changes through a cycle—before and after marriage, as daughter-in-law and mother, and as mother-in-law. When unmarried, women are usually restricted from mobility by parents or guardians mainly due to fear of being blamed for sexual misconduct. After marriage, as new wives, women rarely go outside the village for visits or entertainment or other work, except to their natal homes. This is due to the workload both in agriculture and household work, as well as due to restriction by in-laws and/or husband. After leaving the in-laws, women's mobility increase.

As a result of Heifer intervention and other group activities, both women and men in the three sites agreed that men now accept women's participation in group activities (such as tours, meetings and trainings) due to the benefits that women accrue. Women's participation in development programs and meetings and their mobility to attend these activities is less questioned by their husbands. This impact was felt more in Nuwakot than in Nawalparasi and Dhading as stated by women who participated in the FGDs in Nuwakot.

In Dhading, before Heifer, husbands would not send wives outside. But after Heifer, men easily accepted women's participation in programs and send them to exposure visits organized by Heifer

Now, no one says do not go outside or do not go to visit. In the past, if women went somewhere other than for gathering grass or firewood, people would say "the daughter-in-law went being nakkali (showy in attire). But now with meetings and training, there is no fear because organizations like Heifer

On the other hand, with the increase in women's participation in group activities, their leisure time has been considerably reduced.

Individual empowerment and life satisfaction

Life satisfaction may come from well-being and being empowered. Comparing views on life satisfaction, some important points can be made: (i) Women who had suffered in the past and are still suffering see their life as ruined or not worthy; while (ii) women who had suffered in the past but now are in good economic condition and family relation feel satisfied. But their satisfaction mostly came after their children began to earn money. In addition, some women seem to relate self-fulfillment to agency and personal accomplishment.

Nutrition

Empowerment seems to be related to decision-making on nutrition. In all three sites, women are responsible for nutrition of household members. Women realized that lack of control over family grains and food was due to their position in the household. Their efforts at separating from in-laws can be considered a move to get out of such gendered power relations. Health care decisions, such as deciding on treatment of illness, are mostly done by men as they have the money. However, in decisions regarding family planning, women seemed to be much active and persistent as it is related to their bodies and their fear of not being able to feed children.

Summary

In this case study, women's empowerment was enhanced by membership to economic and influential groups, acquisition of livestock and access to credit or savings. Acquisition of livestock by women as *pewa* helps them control that livestock before and during marriage. During marriage, wives who live with their in-laws have very little control over livestock in extended families.

Similarly, intrinsic agency indicators such as autonomy over income from livestock and self-efficacy are implied in the case study but not explicitly stated. A woman's autonomy can be exercised over her *pewa* but still, the decision to sell and control income from *pewa* may be influenced by family members. Domestic violence is experienced more by wives living with extended families; this tends to get better in nuclear families.

Instrumental agency seen through input into productive decisions, ownership of livestock and other assets, access to and decision on credit, control over use of income, work balance and visiting important locations are reflected in this case study. However, empowerment does not necessarily imply a reduction in workload. Input into productive decisions by wives is not common unless they leave the

home of their in-laws. Although women may decide to take credit, the drive to do so might come from their spouses or in-laws.

Collective agency exhibited through group membership, belonging in influential groups and respect among household members are also represented. The ability of protect fellow women against domestic violence demonstrates the power of membership to influential groups. The ability to speak up in situations where women never spoke up might be an indictor to consider in certain situations as it may be a building block for other indicators of empowerment or a measure of empowerment as an outcome. Respect among household members or harmony within households is manifested mostly when wives leaves their in-laws' household.

4 Analyzing change in women's empowerment

Change in women's empowerment can be analyzed in terms of context, approaches used and empowerment outcomes.

Contextual factors

The geographical, agroecological, sociocultural, economic and political aspects differed across the project sites in Tanzania and Nepal, which contributed to the differences in registered change. The sites in Tanzania and Dhading in Nepal are relatively remote with very low literacy levels among women. In Tanzania, livestock production is a major livelihood activity that both men and women value unlike in Nepal, where goat production was not a main livelihood activity. Odare in Dhading was characterized by subsistence agriculture by women, with seasonal commercial farming of few crops; and unskilled and semi-skilled labor by men. In contrast, Tupche in Nuwakot had somewhat literate women, subsistence agriculture but with irrigated fields and men engaging in government offices or business, most men abroad mostly in developed countries. Nawalparasi was characteristic by large land holdings and high foreign labor migration. In Nepal, women's decision-making power goes through a life cycle from being unmarried, married living with in-laws and after separating from in-laws. According to the Maasai culture, livestock is under men's control particularly cattle; while in Nepal, livestock, small and big, can be considered as "shared" or "household" asset, and women can individually own livestock as pewa. Additionally, exposure to development programs could also explain the differences in change. Odare in Dhading there is no history of developmental activities through NGOs, including women's groups while Tupche in Nuwakot had a history of agricultural and financial development activities through cooperatives. Lastly the communities in Nepal were recovering from the earthquake, and had lost livestock unlike those in Tanzania, which could explain low impact as a result of goat transfer.

Mechanisms to empower women

There is a difference in approaches used by the two livestock projects. In Tanzania, women accessed loans and purchased livestock either individually or in groups. They could decide on the species to invest in and exercise control over their livestock, particularly if they claimed that livestock was purchased as a group. In Nepal, Heifer physically transferred goats to women either by purchasing or gifting to group members, with no flexibility in livestock options. This limits women's ability to make livestock choices and act upon them to achieve their desired goals. In the two projects, we noticed that women were organized in savings and credit groups through which they accessed credit or goats, i.e. VICOBAs in Tanzania and cooperatives in Nepal. In the two case studies, organizing women in collectives seemed to yield positive empowerment outcomes which are further discussed below. In both projects, capacity development was conducted to equip women with the knowledge and skills to raise livestock and manage their businesses. However, in Nepal, the main document presents an indication that training was done for a selected few and mostly the group leaders. It appears that spouses were not involved in trainings on gender relations.

Empowerment outcomes

These contextual and interventional approaches explain the differences in empowerment outcomes across the two projects. The contextual factors have more explanatory power than the approaches used.

i) Group membership and influence

In the two case studies, women achieved empowerment through membership in economic groups and diversifying income sources. Through the groups, women worked together to save, buy assets and support each other in times of crisis. In the two case studies, we noticed that women had a stronger voice when they acted as a group. Heifer groups, more than other groups, increased trust and solidarity between intra-group members. In both Nuwakot and Dhading, women were closely related to each other as friends, neighbors and relatives even before Heifer, and this increased trust between them, especially in terms of loan repayment and settling disputes. This could also be attribute to the training conducted by Heifer that instilled group values among members. Group participation seems to have positively affected many aspects in women's lives such as physical mobility, understanding new concepts, speaking up and voicing concerns in public, and economic independence. However, the level of support provided by groups or projects to help individuals pursue their own initiatives is not very evident.

ii) Control over livestock assets

Overall there was increase in access and control over livestock by women in Maisha Bora sites, and goats in both Dhading and Nuwakot in Nepal. In Tanzania, information about changes in livestock species or type (local, improved or cross) was not documented, making it difficult to draw conclusions on the species or type of livestock that women invested in most, although there are indications that women were more likely to influence decisions over small ruminants. In Nepal, there was some economic benefit due to Heifer goat transfer. However, as people did not intend to farm goats commercially it does not seem like there was any significant benefit in the short term, especially given the destruction of houses and sheds during the earthquake, loss of goats and lack of feed. Nonetheless, with the mushrooming benefits from goats accrued by some women, there is an opportunity to increase incomes and access to meat and milk by these households in the long run. Moreover, there is no evidence that Heifer goats played any important role in mitigating the shock of earthquake but the timing of the study and the fact that households were just recovering from shock could explain the slow returns. In Tanzania, ownership of livestock bought using the group loan increased women's bargaining power to some extent, though not completely. Even were women acquired livestock using their own money or money borrowed from relatives, men could still claim control over these livestock and the proceeds, particularly the larger livestock. Women have control over livestock if they claim that the livestock belongs to the group. Women had full control over chickens and their proceeds. This could be explained by culture, which gives men full control over larger livestock. In Nepal, women seemed to have more control over vegetable production. In the two case studies, women's position in the household (in Nepal) and their conduct (in Tanzania alone) influenced their access and control over livestock and the related benefits. Women's control over livestock undergoes a series of transitions from being single, married and living with in-laws, and not living with in-laws. The last stage is where they realize increased control over livestock.

iii) Access and control over income credit and savings

In the two case studies, when women had access to income, credit and savings, they were in a better position to manage their membership in groups (sometimes after reliance on husbands for initial capital) and invest in other income generating activities without relying fully on their husbands. In Tanzania, the Maasai women received credit which they invested in livestock and other businesses. The returns where invested in building modern houses, buying land and taking good care of their children. These women also gained higher social status within the communities and a better decision-making position within the household although influenced by the bond

between spouses and community members. Maasai women can control income from sale of small livestock that they purchased using the group loan, and income from chickens. However, women whose income increased experienced criticism and had to compromise other empowerment aspects (such as voice and agency) for them to be accepted by society and not be ridiculed. Women's saving culture increased due to the nature of the groups (although the amount was not documented in the reports) which they manage to control. Culturally, income from livestock is controlled by men and in some cases, jointly with his favorite wife. In Nepal, increase in income from selling goats was felt more at the collective level than at individual level as individual savings are small. In Nepal, women from nuclear families solely or jointly controlled income from goats unlike those in extended families.

iv) Intrahousehold relationships

In Nepal, the nature of intrahousehold relationship depends mostly on the position of women in the household/family cycle. Women are much empowered after they separate from in-laws. This is due to the power struggle between in-laws and wives on household resources, husband's income and family property. Intrahousehold relations get better when wives move to nuclear families and manage their household resources. In Tanzania, intrahousehold relationships mainly depend on the woman's conduct/behavior. Intra-household relationships are very important in creating opportunities for women to join groups, participate in decision making at household level and accumulate assets. However, in both projects it's not evident if giving livestock helped women build harmony within households. In Tanzania, it is evident that harmony depends on women's conduct towards their spouses as it determines the strength of the bond between spouses, the benefits received from husbands and opportunities tapped into by women. In Nepal, harmony depends mostly on the position of women in the household/family cycle, but groups play a role in protecting these women.

v) Autonomy

In the two case studies, autonomy over income or assets was expressed minimally in households with husband and wife. However, the Maasai women have somewhat more influence over decisions about smaller livestock such as goats and poultry and what they purchase using money from VICOBAs.

vi) Workload

In both Tanzania and Nepal, the livestock interventions did not contribute to reduction in women's workload. In Nepal the *ghante* system of labor exchange seemed to reduce women's workload. However, workload varied based on the scale of operation but overall, the labor burden was more amongst women with children, in nuclear families. The Maasai women's labor was controlled by men, although they had mechanisms to manage their time without the notice of their husbands; e.g. by asking the co-wives to carry out the assigned roles and take care of the children. This helped women take part in productive and empowering activities. The reports do not document the amount of time that women spend on livestock and other productive or reproductive activities.

vii) Mobility

In Tanzania, the livestock project did not have impact on increasing women's mobility and this could be explained by the complex nature of intra-household relationships. Older and trusted women had more mobility than younger women. In Nepal, men's recognition of positive changes amongst women in Heifer groups changed their mindset about women being in heifer groups, which helped women to be more mobile to attend trainings, meetings and visit other places.

5 Conclusion

This paper analyzed reports of two livestock-related projects in the GAAP2 portfolio to understand what empowers women livestock keepers and measure women's empowerment in livestock. From the results, it is evident that livestock is a very complex commodity for women to easily have a voice and exercise agency over, particularly in contexts where culture strongly favors men over women. Cash transfer gives women more flexibility in deciding on the livestock species to invest in (and other investible options) unlike physical asset transfer. Assessment of the two projects reveals that building social capital played a very important role in empowering women in the livestock projects. Using groups as entry points is very important to develop women's assets, capabilities to manage their livestock as a livelihood option, have control over their livestock and have a voice. Developing social capital at group level is not enough. Projects need to strengthen relationships among spouses and other members within the households. Projects need to enhance women's access to financial capital either through credit or linking them to profitable markets to help them generate income and re-invest in livestock over which they have more control. It is usually through women's own individual occupation/income that women develop a feeling of empowerment. Group loans give women livestock farmers more bargaining power and control of proceeds from livestock purchased using that income. collectives give women more voice to counter men's dominance over their businesses and curb domestic violence. Increase in knowledge about livestock and the inequalities in communities helps women build a collective voice to challenge discriminatory norms and practices. Empowerment of women through livestock does not necessary reduce their labor burden. Women's position in households and communities influences their empowerment. Women need to manage the social acceptability of woman's livestock ownership (at household and community level) as it mediates their ability to control livestock and sustain empowerment.

6 Implications for livestock projects

The results reveal that it's harder to achieve empowerment by strengthening women's economic decision making in contexts where there is a greater degree of gender discrimination. For livestock projects to empower women, there is need to first identity how gender based cultural norms and values influence women livestock keepers. Investing in livestock that women can decide for themselves could be a good starting point for livestock projects to empower women. For instance, the Maasai men undervalue chickens and women control all the proceeds from chickens. When women sell the chickens and buy other livestock species (large or small), they have more bargaining power over that livestock. Additionally, building on traditional mechanisms for accessing livestock assets e.g. pewa in Nepal might salvage women's lack of control over livestock since it aligns with the socially acceptable cultural norms. Credit that comes in the name of women to purchase livestock can be empowering, unlike physical livestock transfer which goes to the household as it might be controlled in the normative manner. Livestock projects need to develop the social and cognitive aspects of empowerment for women to attain economic empowerment. Supportive intrahousehold relationships are very crucial in helping women exercise agency over livestock. Fostering harmony among household members through continuous community engagement activities is very important. Inclusion of male leaders and men in initiatives that target women helps to transform traditional beliefs, family structures and perceptions about women, and reduces exclusion of women by leaders. Overall, livestock projects need strategic and holistic approaches and technological packages for them to empower women economically.

7 Implications for pro-WEAI quantitative indicators

The quantitative Pro-WEAI indicators are categorized into three. Intrinsic agency (autonomy in income, self-efficacy and attitudes about domestic violence); instrumental agency (input in productive decisions, ownership of land and other assets, access to and decision on credit, control over use of income, work balance, visiting important locations), and collective agency (group membership, membership in influential groups, respect among household members). These indicators are reflected in the qualitative results. Attitudes about IPV may not be a very sensitive indicator. Measuring presence of domestic violence as a result of women's attempt to input into livestock decisions could be a better measure, but this is more problematic to include in surveys. Harmony might be a means for empowerment or an empowerment outcome, so this has to be teased out clearly. Women's autonomy in livestock production manifests to a lower extent since livestock tends to be household property and culture favors men to be in control over livestock. Work balance can be measured by the ability to control own labor and control of benefits from one's effort, and engagement in productive activities vis-à-vis reproductive activities. For group membership, there might be need for indicators of empowerment at individual and group level. Self-efficacy seems to be redundant as it implicit in all the other achievements and without data, it's not feasibility to make conclusions on women's ability to attain their desired goals.

Analysis of these case studies shows a relationship between these indicators, whereby one empowerment indicator is a process indicator for another output, posing challenges in defining outcome-empowerment indicators as independent variables. Therefore, to measure women's empowerment in livestock, it's important to consider the relational indicators (at intra-household and group level), personal but also environmental indicators such as access to services, ability to influence at political level and cultural norms. It's important to understand how the indicators relate to each other, combinations of indicators that are important and at what threshold these indicators are empowering. Contextual factors need to be considered when measuring empowerment in livestock.

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