FINAL IMPACT EVALUATION

COOPERATIVE DEVELOPMENT PROGRAM: "STRENGTHENING FARMER COOPERATIVE COMPETITIVENESS"

GENEX CDP, Peru & South Africa, August 2018-August 2024

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ACRONYMS

AI	Artificial Insemination
BTD	Blue tongue disease
COP	Chief of Party
CDP	Cooperative Development Program
DQA	Data Quality Assessment
EDC	Electronic Data Capture
EC	Eastern Cape
ET	Evaluation Team
EQ	Evaluation Question
FI	Financial Institution
FMD	Foot & Mouth Disease
GIS	Geographic Information System
HV	High Veld
INIA	Instituto Nacional de Innovación Agraria
IP	Implementing Partner
KII	Key Informant Interview
KZN	KwaZulu Natal
LOP	Life of Project
LRED	Local and Regional Economic Development Policy
MEL	Monitoring, Evaluation and Learning
OCDC	US Overseas Cooperative Development Council
PEAM	Proyecto Especial Alto Mayo
PO	Producer Organization
SENASA	Servicio Nacional de Sanidad Agraria del Perú
TA	Technical Assistance
TAPE	Tool for Agroecology Performance Evaluation
UNALM	Universidad Nacional Agraria La Molina
UNMSM	National Major University of San Marcos
USAID	United States Agency for International Development
VAS	Valley Agricultural Software

EXECUTIVE SUMMARY

Project & Evaluation Background

GENEX served as implementing partner (IP) of the Cooperative Development Program (CDP) project "Strengthening Farmer Cooperative Competitiveness" from October 2018-August 2024 with 33 livestock producer organizations (POs) in both the dairy and meat value chains—in Peru and South Africa. The project objectives were to: (1) Support cooperative growth and stability by strengthening governance, business management, and agricultural know-how, (2) Mitigate economic, market, weather, and production risks, and (3) Replicate GENEX's CDP strategy and approach.

In both countries GENEX CDP provided direct training and field support to livestock farmers and business capacity training to PO leaders; other elements differed significantly between countries. In Peru the project focused on artificial insemination (AI) promotion with imported, improved-breed semen, training AI technicians in each PO and establishing relationships with local suppliers of semen straws and other materials. This was in line with GENEX's original vision for the project, as GENEX itself is a global AI company that develops AI markets. In South Africa, by contrast, the program did relatively little AI work and instead focused on livestock health by purchasing bulk medicines, with GENEX "mentors" administering vaccines directly. Interns were also employed as quasi-managers for each PO.

This Evaluation was conducted from May–September 2024 by an independent evaluation team (ET) including a US-based team lead and consulting firms in each country. A mixed-methods approach was used, comparing qualitative data from 72 key informant interviews and quantitative data from 162 farmer surveys executed by the ET, plus farmer- and PO-level data collected by the GENEX team.

Key Findings:

1. There have been changes in PO capacity and business performance which can be partly attributed to GENEX CDP, but improvement was not universal, and impacts are only likely sustainable for around half of the served POs, and more in Peru than in South Africa.
2. GENEX CDP had a sizeable positive impact on farmer adoption of livestock improved practices, productivity, and sales, though the ET could only verify these household-level outcomes for 1,167 farmers (1/3 of registered PO members) based on the member lists GENEX staff provided for sampling. Farm-level improvements have a good chance of sustainability but are at risk where POs are still weak.
3. GENEX CDP had only limited impact on the cooperative enabling environment in Peru and South Africa, though one impact was to increase awareness and appreciation of the cooperative model.
4. GENEX CDP did several things differently from other CDP IPs: some positive (especially hands-on follow-up support through locally embedded staff) and some negative (not providing enough PO capacity and business development support; inadequate and late finance access support).
5. Learning and dissemination was weak for GENEX CDP, particularly due to lack of an efficient MEL system with no dedicated MEL staff, though farmer peer exchanges were one positive contribution.

Recommendations for GENEX and other CDP IPs:

1. A community-embedded support staff model is very impactful and should be scaled up.
2. CDP IPs should put emphasis on both cooperative business development *and* farmer productivity.
3. Financial support—either via direct grants or facilitation of external loans or grants— is critical for cooperative development and should be planned and integrated early. It can be executed in a way to fight hand-out mentality and build entrepreneurial capacity if, for example, funding is made conditional on an application with a solid business plan and/or partial cost-share requirements.
4. Organized MEL systems are crucial; stakeholders should be aligned on the value of quality data.

PROJECT OVERVIEW

The $7.7 million GENEX CDP project "Strengthening Farmer Cooperative Competitiveness" was implemented from October 2018-August 2024. It was a direct follow-on to the CDP project led by GENEX's predecessor organization, Cooperative Resources International, in Nicaragua, Tanzania and South Africa from 2010-2018. GENEX is not a typical CDP implementing partner (IP), as it is a private livestock genetics firm, one of several operating under the URUS holding company. GENEX's Global Development division implements projects with USAID and other donors as public-private partnerships.

The objectives of GENEX CDP 2018-2024 were to: (1) Support cooperative growth and stability by strengthening governance, business management, and agricultural know-how, in line with USAID CDP objectives of member equity increased and cooperative governance, cooperative management, and market performance improved; (2) Mitigate economic, market, weather, and production risks, in line with USAID CDP objectives of improved access to services and resources; and (3) Replicate GENEX's CDP strategy and approach, in line with USAID CDP objectives of more effective programming for cooperatives and increased dissemination of learning.

GENEX CDP worked with 33 livestock producer organizations (POs), including primary and secondary cooperatives, associations, and others. In Peru, this consisted of 21 total POs with 1,671 total members, divided across the three regions of Huánuco, Pasco, and San Martin, as shown in detail in *Appendix 1*. The work in each region was overseen by a Regional Manager (RM). Most POs were associations and not registered cooperatives at baseline, though the program helped 10 to make the transition to cooperatives. The majority were dairy associations, though a few sold beef cattle or live cattle in addition or instead. In South Africa GENEX served 12 POs with 2,220 total members, all registered cooperatives, with details shown in *Appendix 2*. They were also split across three managerial areas, each overseen by an RM: Eastern Cape (EC) province, KwaZulu Natal (KZN) province, and 3 different provinces of the High Veld (HV) region. Most centered on production of beef, sheep, and other livestock for meat or live sales, though two also produced milk. Of note, 4 of the 12 POs in South Africa were also involved in the earlier CDP project from 2010-2018, and the remaining 8 were specifically formed in 2018 in order to join the new GENEX CDP. In both countries there were several "communal" cooperatives which worked on communal land and livestock herds together; these tended to have production on shared communal land (though some members also had private farms), much larger membership dominated by smaller substance farmers, and more listed members who did not actually take part in livestock production. However, most supported POs were composed of individual commercial (larger-scale) farmers and had much lower membership sizes than the communal cooperatives.

Based on learnings from the 2010-2018 project, GENEX designed this current iteration of the project under a decentralized model, with key decisions taken by the teams in each country in response to local needs and opportunities. As a result, though there were a few core project interventions common across both countries, other interventions were unique to one country or the other.

Program Interventions Common Across Both Countries

- ***Technical assistance (TA) to farmer members of selected POs***, on improved dairy or beef production practices**,** the benefits of collective action through POs, and good business management practices. The main goal of these extension efforts was to make farmers "cooperative ready," i.e. capable of producing reliable quantity and quality to sell through a cooperative and appreciative of the cooperative model. These generally followed a 30% classroom training vs. 70% hands-on field follow-

up split in South Africa, while in Peru two TA strategies were used: group trainings that were 50% theory and 50% practical, and 1:1 visits which were 100% practical.

- The primary providers of the TA were "mentors," who were successful farmers living in the served communities who were hired (full-time in Peru and part-time in South Africa) to provide support to members of the targeted POs. Some trainings were led by other staff, including the RMs and Country-level Chiefs of Party (COPs)—all of whom had a technical expertise in livestock production and/or marketing— and there were group trainings provided in-person and online by US-based URUS/GENEX staff, other international experts, and local government or private organizations. Both countries also tried to promote peer-to-peer learning through study groups and newsletters.
- The South Africa team provided TA very differently to the individual commercial farmers versus the farmers in communal cooperatives. For the most part, individual farmers were regularly visited 1:1 at their farm and given personalized advice or assistance, while—because of large membership sizes and because production was concentrated on shared land anyway— communal farmers were trained or assisted together as a larger group during communal workdays (e.g., vaccination days). By contrast, in Peru the team served the communal cooperatives and other POs in the exact same way.
- The GENEX CDP South Africa team reported that 236 different training session were conducted over LOP, with the highest number focused on Animal Health & Biosecurity (95), Animal nutrition (32) and general herd management (32). In Peru the team reported 145 different training sessions, and main topics were cooperative management/governance (37), animal nutrition (31), and reproduction and AI (30).
- A tally of monthly report records show that there were a total of 11,248 TA sessions/visits in Peru and 7,167 TA sessions/visits in South Africa over the life of project (LOP).

- ***Governance and management training and coaching for PO leaders to improve "market readiness":*** GENEX CDP RMs provided support directly to PO leadership on organizational development objectives that facilitated access to higher-value and more reliable markets, such as stronger management skills, improved financial record keeping, and development of strategic business plans.
- ***Facilitating access to external financial sources***: Some project POs received support to obtain financing, primarily through assisting with applications to government funding programs in Peru (e.g., Agro Ideas, Agro Rural, ProCompite) and connecting to local government offices and some private funders in South Africa. This was a particularly important part of the program in Peru, where all 21 supported POs were assisted to apply for financing; some won grants during the course of the program, and the total amount of awards exceeded the total CDP program budget for Peru, while others continued to win awards after the official end of the program. The funding sources would have been practically unreachable without GENEX's assistance and training.
- ***Promotion of gender empowerment:*** Project teams in both countries focused on increasing female and youth participation in target value chains via targeted recruitment of women for GENEX CDP intern and AI technician positions, as well as ensuring that women and youth were included in TA activities by accommodating their schedules and learning styles. Women's participation was also promoted within the POs themselves, with GENEX staff encouraging POs to target more women as new PO members and for high-level board positions. In Peru there was a significant increase in female representation in decision-making roles over the life of project (LOP).

Peru-specific Program Interventions

- Promotion and adoption of genetic improvement programs based on the selection of superior individuals according to genetic values and total genetic merit indices, enabling sustainable improvement over time.
- Promotion of Artificial Insemination (AI) services, including general training/sensitization on AI, providing technical training to a cohort of 70 PO members as AI technicians, and forging sustainable commercial connections between PO members and local AI companies (e.g., Gloria SA, Vetex, and GESTAR) for access to imported semen and other AI materials. Over LOP 7,765 inseminations were performed by GENEX staff and AI technicians trained by GENEX and 4,374 improved-breed calves were born as a result of AI, compared to a total population of approximately 10,000 cows across the 21 POs. In contrast to South Africa, the Peru team prioritized a wide scale of AI adoption, with 75% of farmers adopting over LOP, though many received free services and semen.
- An animal nutrition program, focused on efficient forage management and the inclusion of trees in silvopastoral systems, with carbon footprint evaluation to promote environmentally sustainable livestock with low or zero emissions.
- Soil recovery and management program based on laboratory analysis and strategic fertilization plans.
- Applied research projects, in collaboration with outside partner organizations to generate learnings on key issues in dairy and beef farming while providing direct services to participating farmers. See "Learning" section below and Appendix 3 for more details.
- Promotion of diversification and value addition of milk, with 5 POs (those with dairy facilities) investing in equipment for improved milk storage and processing.
- Provision, at the end of 2023, of a total grant pool of $150,000 from the CDP budget to provide different in-kind grants to POs based on their needs. This included imported bull semen straws for AI technicians to use in promoting AI, fertilizers for forage demonstration plots, and some larger capital investments in milk processing machinery for select POs.
- Provision of remote TA during the COVID pandemic, including technical training videos, webinars, newsletters, and printed technical guides. In combination these reached 800 PO members. The team found that in-person TA is still superior, but remote TA can be a good supplement; for example, mentors referred to the written guides during in-person visits with farmers once in-person TA resumed post-pandemic.

South Africa-specific Program Interventions

- Emphasis on support for animal health management, including vaccinations directly provided by CDP project mentors
- An internship program with 1 paid intern allocated to each PO to essentially act as the PO manager and to also provide some in-field farmer support. 80% of interns were female, an intentional choice to increase female empowerment and involvement in the cooperative sector. The original vision was that POs would retain these interns as professional managers after the end of GENEX CDP, though this only came to fruition in a few POs.
- Establishment of FarmMark in 2021, a Special Purpose Vehicle which carried out bulk purchases of inputs (vaccines, mineral licks, medicines or supplements) in order to increase access and affordability for PO members.
- Provision, in early 2024, of in-kind grants of around $12,500 worth of medicines and nutritional supplements to each PO. The POs received these with the idea that they would sell to members and

others in the community and use the revenues to purchase more medicines in the future, thus creating a revolving fund to support medicine supply indefinitely.

- Three pilot projects conducted at several cooperatives, including: provision of a pregnancy scanner to Vukalandbou cooperative, with the idea that they could use it to offer paid pregnancy detection services to members and non-members; support for a "backgrounding" initiative to help Immerpan develop a program focused on intensively raising healthy youth animals to sell to feedlots; and support for improved forage production at 8 cooperatives. For more details on these see Appendix 3.
- Efforts to promote AI adoption tended to focus on a smaller number of large, commercial farmers when compared to Peru. Though basic AI awareness training was provided to all, only around 3% of farmers adopted AI, though the total number of inseminations performed was 5,214 over LOP, not that far behind Peru. Those who adopted tended to be wealthier farmers with large herd sizes, and all paid for the AI services.

EVALUATION OBJECTIVES, METHODOLOGY, & LIMITATIONS

Evaluation Objectives

The goal of this evaluation was to (a) objectively quantify the impact of the GENEX CDP project on the supported POs and their member farmers; (b) identify gaps and innovations in the project's design or management approach; (c) help inform improved design of new projects; and (d) contribute to the evidence base on effective development approaches. Specifically, the final evaluation will respond to the following evaluation questions (EQs):

1. To what extent has GENEX CDP contributed to changes in the business performance, management, and/or governance of partner POs? In turn, how has this affected changes in services to cooperative members, and how has this affected farm-level livelihood outcomes?
2. To what extent has GENEX CDP contributed to strengthening cooperative enabling environments in terms of external engagement and market linkages?
3. To what extent has GENEX CDP facilitated PO-level sustainability?
4. To what extent has GENEX CDP used practices or approaches that were new or unique to CDP POs or farmers?
5. To what extent has GENEX CDP contributed to cooperative development learning?

The Evaluation Matrix *(Annex 1)* further breaks down each of these evaluation questions into more detailed sub-components that were be investigated in order to answer the main questions listed above. It also shows the sources of data which were used to investigate each component.

Evaluation Methodology

The evaluation used a mixed methods approach, triangulating between a qualitative desk review of GENEX documents, quantitative data collected previously by GENEX staff, and new qualitative and quantitative data collected directly by the evaluation team (ET) in Peru and South Africa. The GENEX quantitative data includes all indicator results for all program-supported POs across all years of the project, while the data collected by the ET covers only a representative sample of POs and will focus only on certain key indicators, in order to provide independent verification of GENEX results. For each EQ data was collected from a variety of sources, as specified in the Evaluation Matrix, and the analysis of each question involved comparing and contrasting the results found from the different relevant data sources. The Evaluation was implemented between May-September 2024. The ET consisted of a US-based Team Lead (who organized the methodology and data collection tools, implemented some high-level KIIs, conducted all analysis and

report writing) and locally-contracted consultant firms in Peru (GRADE) and South Africa (Fructuous Consulting) which adapted data collection tools for local contexts and translated them, implemented quantitative surveys and in-country KIIs, and supplied cleaned data sets and preliminary summary reports to the lead evaluator).

GENEX Qualitative Data

A desk review was conducted of documents including the annual and semi-annual reports produced by GENEX in the past, the internal baseline and mid-term reports, select monthly summary reports for each country, a culminating final progress report written by the Peru team, and other selected publications including newsletters, success stories, and applied research reports. These documents were primarily used to write the project background section of this evaluation and to plan the methodology and data collection tools, but results from those reports are not explicitly referenced in the findings sections below.

GENEX Quantitative Data

This included analysis of three main sources per country:

A. **Cooperative Databases** (1 per country), with data including member numbers, sales, expenses, profits, income distributed to members, services provided to members, and scores on dummy-variable "governance" questions for each PO in each year of the program. South Africa also collected value of services data, but only starting in 2023.
B. **Farmer-level Databases** (1 per country), with panel data for approximately 10 farmers per PO that includes quantity of products sold (# animals, sometimes kg of animals or meat, liters milk, etc.), sales values, expenses, profits, services received from the PO, and adoption of AI and record keeping, and calving or lambing rates in the case of South Africa only.
C. **Project Key Indicator table,** showing the targets versus actual results for key project indicators, mostly derived from the Cooperative Databases. Based on concerns raised in a Data Quality Assessment (DQA) in October 2022 extra efforts were taken, with support of a MEL consultant, to revise indicator definitions and double check calculations in 2023, so data starting that year is considered more accurate. Appendix 5 shows a simple summarized version of the project indicator table with LOP outcomes through 2024, while Annex 2 is the full official Project Progress Report (PPR) table for all years through 2023. For a few indicators in Appendix 5 the values are not completely aligned with those in the official PPR table in Annex 2, because where the ET had it's own independent data that called some indicator results to question it made adjustments.

ET Qualitative Data

The ET conducted a total of 72 Key informant interviews (KIIs) with program staff, beneficiaries and other stakeholders in Peru (36), South Africa (29) and the United States (7). Table 1 below shows the different categories of stakeholders identified and the sample frame versus the chosen sample for each. The full list of individuals included in KIIs is included in *Appendix 4*. KIIs were conducted either virtually or in-person, as noted in *Appendix 4.*

Table 1: Key Informant Interview Participant Selection

Broad Group	Detailed Category	Total in Program	Sample	Comments
GENEX/URUS High-level Staff	US-based staff (current & former)	7	7	Includes all involved in CDP management & MEL from 2018-2024, and 2 involved in high-level planning of GENEX development work

	Country-level staff	8	8	Includes both Country Chiefs of Party and all Regional Managers
GENEX CDP field implementors	Peru Mentors	8	7	Chose mentors for the 9 sampled POs (some covered multiple)
	Peru AI Technicians	53	8	Chose AI Technicians for the 9 sampled Pos, but 1 PO had none
	South Africa Mentors	12	7	Chose mentors for the 6 sampled POs + Vukalandbou
	South Africa Interns	23	7	Chose 1 intern per sampled PO + 2 for Isibonelo since first only worked for 4 months
PO leaders	Peru PO leaders	21	9	Leaders, mostly Chairpersons, of 9 sampled POs
	South Africa PO leaders	12	6	Leaders, mostly Chairpersons, of 6 sampled POs
External Stakeholders	Peru Stakeholders	22	8	Peru COP helped select sample, including some research institutes, government funders, USAID/Peru; sample excludes AI distributors, milk processors/buyers, government institutions outside of funders
	South Africa Stakeholders	18	5	South Africa COP helped select sample, including some local government and training partners; sample excludes FIs and most private sector partners
TOTAL		**169**	**72**	**42%**

ET Quantitative Data

The ET selected a sample of POs per country, making an effort to represent the different regions/provinces, types of POs, value chains, and, in the case of Peru, to include both highland and lowland areas. Refer to *Appendix 1 and 2* to see which POs were chosen compared to the full list. Then, the ET selected a random sample of members on lists provided by the GENEX team. The intended sample size was 10 per PO for most POs (for ease of logistics/planning by the field team), except for Zulukama in South Africa which had much larger membership than other POs (1,200, versus 489 at the next largest), so the ET sampled 25 members there. Table 2 below shows actual survey sample reached by region and a few other identifying details. The survey included questions about identifying information including demographics and livestock herd sizes, services received from GENEX, awareness of and attitudes toward cooperatives, adoption of improved livestock practices, general trends in key livestock commodity productivity, sales, and production expenses, and observations of changes over time (in governance, service provision, market access, etc.) in the POs of which they are members. Note that the ET considered conducting Focus Group Discussions with farmers, but decided to forgo them in favor of only the quantitative survey due to budget limitations.

Table 2: Evaluation Team Farmer Survey Sample

Country & Region	# POs sampled	# farmers surveyed	% also in GENEX farmer survey*	% Current PO leaders	% Male	% Youth
Peru	**9**	**90**	**44%**	**18%**	**72%**	**6%**
Huanuco	2	20	35%	20%	60%	10%

Pasco	4	40	48%	13%	83%	8%
San Martin	3	30	47%	23%	67%	0%
South Africa	**6**	**73**	**18%**	**21%**	**64%**	**7%**
Eastern Cape	3	47	15%	11%	55%	6%
High Veld	2	16	19%	19%	69%	13%
KwaZulu Natal	1	10	30%	70%	100%	0%
*This shows ET survey overlap with the GENEX farmer sample. It is higher in Peru because A) 13 POs in Peru had between 10-35 members only, so a high degree of overlap was unavoidable B) For larger POs, the Peru team provided more limited member lists to the PO for sampling which seem to have over-represented members with close follow-up (including those in the GENEX annual survey)						

Limitations of the Evaluation

There are several limitations which reduce the ability of the ET to make solid conclusions about GENEX CDP program impacts, including:

- **Inconsistencies and concerns with original GENEX data:** When analyzing the original GENEX data, even before triangulating against other sources, the ET came across a number of issues. First, some variables were collected differently between the two countries. South Africa supplied a combined farmer database that had been internally cleaned, while Peru's farmer data was kept in completely separate files by PO, year, and individual farmer and the ET had to combine it into one database in order to analyze it, but found in some cases that livestock sales were reported in different units (i.e. kg of animals vs. number of animals) which made it challenging and likely to still contain errors. South Africa reported data on calving and lambing rates per farmer in that database while Peru did not, and so calving rates in Peru had to be drawn from other sources with a smaller sample size. Much of the richest data from both countries was included in monthly reports showing services delivered each month, but these were only available in Word format and it would have been too time consuming for the ET to combine them into a single database to confirm number of unique people served.
- **Incomplete farmer lists received for sampling:** The ET requested lists from GENEX of all PO members reported in the GENEX Cooperative Database (3,891), but for many POs the lists included far fewer farmers than those official counts. Both country COPs stated that some PO members were not appropriate to include in the sample because in communal cooperatives some were not even livestock farmers, or they were not active members in the PO, or GENEX had not served them. The PPR Table LOP target for number of farmers receiving services was already reduced because of this, to 2,335. In 2024 the COPs reported 2,281 farmers received services (based on PO-reported members served in their annual Cooperative surveys, as well as monthly mentor reports on GENEX service provision), as shown in the formal PPR table results in Annex 2. But the country COPs were not able to even provide clear lists of those members served from the sampled POs—apparently no central database was kept of these names, just tallies of those receiving services (so it is impossible to verify the number of unique people served, versus potential duplicates). After several requests and discussions, both COPs shared slightly longer lists with the ET than were initially provided, but on average they still only included 9% (Peru) or 12% (South Africa) of the official total members in communal cooperatives and 71% (Peru) or 98% (South Africa) of members in other POs. Based on this, the ET only feels confident to extend conclusions from its farmer survey to 1,167 farmers (and thus this is the number shown in the Appendix 5 modified indicator table), assuming the same proportions of verified farmers in sampled POs apply to the remaining POs (see *Appendix 1 and 2* for numbers per PO). The ET thinks it

possible that no other farmers received any benefits from GENEX CDP outside this verified 1,167 farmers, though it is also possible that the full 2,281 that the COPs claimed were served, or even that all 3,891 member received indirect benefits based on PO marketing and other improvements. Unfortunately, there is just no way to be certain since the ET was given such limited lists from which to draw the survey sample.

- **Inability of ET to back-check hard data, could only compare trends:** The ET conducted its own survey of POs and farmers in order to verify GENEX reports of increased production, sales, profits, etc. But it was not possible—due to time constraints and the fact that farmers would not be able to accurately recall data from the past—for the ET to collect data on actual numerical values for comparison. At the PO level, the ET did ask for specific sales figures and request to see supporting documents, but no PO was able to furnish them. Thus, the ET direct data collection and analysis had to rely on Likert scale questions about the level of change over time in different key outcomes. That is, for variables including key commodity productivity, sales value, and expenses, farmers were asked to pick one option from among "significantly improved, somewhat improved, no change, somewhat declined, significantly declined." Similar questions were asked of PO leaders, along with questions asking them to rate the extent to which any improvement was due to GENEX support. We believe that farmers and PO leaders will be able to accurately answer such questions on general level and attribution of changes (as opposed to concrete numbers), so the results of such questions should give a valid representation of GENEX impacts. But it, unfortunately, does not allow the ET to clearly confirm or refute specific numerical results provided by GENEX, unless the overall trends do not match.
- **External partner KIIs not representative of the full sample frame:** The ET asked the GENEX CDP team to provide a list of all external partners and stakeholders from which KII respondents could be drawn. However, the list of organizations provided turned out to exclude several important partners, which the ET discovered only later. So, for examples, no AI distributor partners in Peru or financial institutions and private companies who supported pilot projects in South Africa were interviewed.

FINDINGS BY EVALUATION QUESTION

EQ 1A: Impacts on Producer Organization Capacities & Business Performance

Summary Finding: This section shows that there have been changes in PO capacities and business performance over the GENEX CDP life of project (LOP) and there is some evidence that it can be partly attributed to GENEX, but improvement was not universal and many POs still have major weaknesses in this area.

Table 3: Selected Governance & Management Metrics*

Country & Region	From GENEX Data					From ET Farmer survey			
	Change in Gov. score	POs with higher Gov. score	POs with more staff	Change in Female Board representation	Change in Youth Board representation	% say governance improved	% say management capacity improved	% say female inclusion improved	% say youth inclusion improved
Peru	255%	100%	43%	62%	48%	72%	72%	47%	50%
South Africa	45%	75%	25%	17%	25%	56%	41%	55%	40%
TOTAL	**150%**	**91%**	**34%**	**40%**	**37%**	**64%**	**57%**	**51%**	**45%**

*This and subsequent tables only show country-level averages, but you can find region/province disaggregates in Appendix 6

Governance Capacity: *Medium evidence of impact, higher for Peru.* The Appendix 5 indicator chart shows that 91% of POs had improved governance over LOP, which was 91% achievement of the target (only 3 POs in South Africa did not show improvement). Quantitative results from Table 3 show that while GENEX recorded a 150% improvement in PO governance scores over the LOP. ET data suggests the reality may be somewhat lower, as only 64% of farmers reported that their PO's governance improved. GENEX staff point out that farmers do not know the criteria used to measure governance, so judging the program on their perceptions might not be fair. The ET believes there is some truth to this, but it is also true that major improvements should be perceived by the farmer members, as a key part of good governance is increased member ownership and participation.

On many governance metrics the results for Peru were better than for South Africa. Diversity and inclusion in leadership is a key element of governance, and this seems to have improved for 62% and 48% of POs in Peru for women and youth, respectively, while in South Africa it was much lower at 17% and 25%. One KII respondent explained this, saying that it was difficult in South Africa to find qualified or interested women to be leaders because of broader cultural challenges, so they just focused on increasing numbers of normal female members. Looking at KII results more broadly, 33% of PO leaders reported significant governance improvement due largely due to GENEX support, while another 40% reported small improvement in small part because of GENEX. Common impacts mentioned include: improvements in transparency of financial data, more frequent meetings with higher member engagement, and increased use of technology to communicate frequently with members. 35% of other KII respondents (aside from PO leaders) mentioned seeing improvements in PO governance because of the project. Several mentioned that GENEX Peru helped to formally register a number of POs as cooperatives and to begin the transition process to acting as a cooperative. A few respondents made negative comments about governance, however, calling out leaders of some POs, like Immerpan in South Africa, for not following good principles and losing member trust.

Management Capacity: *Medium evidence of impact, higher for Peru.* For indicator EG.5.2-2, the official PPR table and Appendix 5 indicator results show that all 33 POs had improved management practices or technologies over LOP, meaning that they adopted at least one new practice including a new business strategy, registration as a formal cooperative, formal bylaws, new marketing practices, etc. As seen in Table 3, 34% of POs increased their levels of professional staff over LOP, and 57% of farmers said their POs improved their management capacity (staffing, business expertise, record keeping, etc.). Both these metrics were higher in Peru than in South Africa. In KIIs, all 15 PO leaders interviewed claimed that they had at least partial improvement, while 53% of those mentioned larger improvements and attributed their progress largely to GENEX support. Many talked about how they improved financial records and other record keeping. In South Africa many specifically talked about the intern and how their support helped strengthen record keeping and other administrative aspects of the PO's work. 35% of other respondents mentioned GENEX impacts on PO management, particularly how it increased the business mindset of the PO leaders and helped them to adopt business plans and more professional record keeping. Some negative comments were made, however, including that several POs still did not have professional records even by 2024 and needed more hands-on support than they received to professionalize in the future.

Member Levels & Commitment: *Medium-low evidence of impact, higher for Peru.* Table 4 data shows that in aggregate PO membership increased by 43% and for 39-42% of POs. Regarding member participation, 52% of farmers said meeting attendance increased. The ET survey metrics showed stronger increases for Peru. In KIIs, 47% of PO leaders said that their POs had medium to high increases in active, committed

members over the LOP—and 70% of those specifically credited GENEX. 16% of other respondents mentioned GENEX impacts on membership levels and participation, several attributing it interest in receiving GENEX TA. But 10% of respondents mentioned decreased member numbers, with reasons including: disappointment that GENEX was not providing more tangible support, high distances to travel for PO services, COVID challenges, and older farmers dropping due to age and fatigue. One respondent noted that there is a key difference in membership changes for communal cooperatives compared to those made up of commercial farmers; the former have membership fluctuating up and down based on population and economic changes, whereas the latter make a concerted effort to grow and expand membership.

Table 4: Selected Member Level & Commitment Metrics

Country & Region	From GENEX Data					From ET Farmer survey			
	Change in # members	% POs with increased members	% POs with increased youth	% POs with increased women	% POs with increased member equity	% say portion active members up	% say meeting attendance up	% say member numbers up	% say member monetary contributions up
Peru	36%	19%	24%	33%	62%	37%	62%	52%	20%
South Africa	49%	58%	33%	58%	50%	47%	42%	32%	19%
TOTAL	**43%**	**39%**	**29%**	**46%**	**56%**	**42%**	**52%**	**42%**	**20%**

Member equity: *Mixed but generally low evidence of impact.* Table 4 shows that according to the GENEX Cooperative database 56% of POs had increased member equity over LOP. The numbers in that database did not align with those reported in the formal PPR table in Annex 2, however. There was confusion about the definition of the term member equity which led to an application of different methodologies to estimate this indicator in the PPR chart in different years: for 2019-2021 it seems to have been calculated using a set value per member, then in 2022 total cooperative equity from financial statements (assets minus liabilities) was used, and then in 2023 the level reported was zero, because an external MEL auditor realized that no POs had formal member shares programs elaborated in their bylaws, so it seemed that none had any member equity according to the official USAID definition. However, in Peru the team delved deeper into the results and found that for several of their POs the equity calculated in their financial reports also deducted the results of the financial year and reserves, generating in what is known in Peru as "social capital" or "member's equity," funds which would be returned to the members if they left the cooperative. The GENEX MEL consultant verified these results for 3 POs (all of whom were formally registered cooperatives) in Peru in 2024 and so the official PPR table shows a member equity value of $861,140 for both 2024 and LOP. Unfortunately, it is impossible to comment on whether that represents a change over time because the measurement methods were so different in the past.

The ET could not verify the member equity numbers directly because they did not have access to financial statements, and surveyed farmers and KII respondents were not able to comment on member equity. But as a form of general triangulation the ET asked about general member investments and contributions to their POs and if this changed over time. In member surveys, 20% of farmers reported increased member monetary contributions. In KIIs, 73% of PO leaders reported either no change or a decrease in member

contributions over the LOP, and no other respondents mentioned any impacts in this area. Only 27% of PO leaders reported some increased member contributions, though they did not attribute it to GENEX. However, in one notable case, at Border Rural in South Africa, a subset of members organized themselves in a "stokvel" scheme whereby farmers each put in money to purchase cattle together and share them in a rotational system. This initiative was driven by the cooperative and showed its ability to promote community self-help, but the funds did not pass through the cooperative's bank account.

Female membership: *Medium-low evidence of impact, higher in South Africa.* In the official PPR table in Annex 2, the LOP goal for served farmers was 47% and the actual was 59%. However, the ET could only confirm that 42% of women were served based on the lists provided for the farmer survey, representing 89% achievement of the goal). Table 4 shows that 46% of POs reported increased numbers of female members and Table 3 shows that 51% of farmers said the same; in both sources female membership increased somewhat more in South Africa than in Peru. In KIIs, 60% of PO leaders reported at least moderate improvements in female inclusion over the LOP. 80% of those said the changes happened regardless of GENEX support, though 20% said that GENEX helped to speed up the changes. 16% of other KII respondents mentioned positive impacts on female inclusion due to GENEX, particularly that the POs made more of an effort to recruit female members and leaders because of encouragement in GENEX trainings. One respondent suggested that GENEX CDP should have more proactively boosted female and youth inclusion by encouraging the formation of women-only and youth-only POs. And in fact, there were positive examples in both areas at Zulukama Secondary Cooperative in South Africa, which had among the highest inclusion levels. GENEX helped Zulukama to secure outside funding for chickens for several new female-only primary cooperatives and sheep for 4 new youth primary cooperatives and in their network.

Youth membership: *Low evidence of impact.* Table 4 shows that 29% of POs reported increased numbers of youth members, though Table 3 shows that 45% of farmers reported increased youth; the sources also disagreed on whether it was higher in Peru or South Africa. In KIIs, 53% of PO leaders said that they increased youth inclusion over LOP, 26% attributed the change to GENEX, and 16% of other KII respondents mentioned youth inclusion as an impact. Across respondents, common comments were that youth saw the increased production of other members and were interested to join their POs, and also that GENEX targeted youth for participation in TA, which increased their involvement. Several respondents talked about how they valued the inclusion of youth in their POs, knowing they are dynamic and innovative, but that it has been difficult because many youths are not interested in farming or lack the resources to secure livestock and land.

Table 5: Select GENEX-Provided Metrics on Marketing & Business Performance*

Country & Region	From GENEX Coop Data									
	% Change in revenues**	% POs had revenue increase	% Change in Profits	% POs had profit increase	% Change in member pay-outs	% POs with member pay-outs up	% POs received grant(s)	% POs received external loan(s)	# POs with collective sales 2019	# POs with collective sales 2024
Peru	82%	90%	334%	62%	81%	90%	29%	10%	6	11
South Africa	239%	42%	731%	42%	97%	33%	92%	33%	2	2

TOTAL	161%	66%	533%	52%	89%	62%	61%	22%	8	13
*GENEX collected and summarized financial around April each year with data from the previous 12 months, February-March. **GENEX PO revenue data was not limited to revenue collected into PO accounts, but instead also included revenue earned by farmers who sold individually if the PO helped them to find a buyer or market.										

Table 6: Select ET-Generated Metrics on Marketing & Business Performance

Country & Region	From ET farmer survey				From ET PO Leader survey					
	% farmers said PO marketing improved	% farmers said bulk purchases lowered costs	% farmers said # buyers up	% farmers make any collective sales	% said business perform-ance up	% attribute to GENEX	% said revenue up	% did bulk purchases to cut costs	% improved value-addition	% improved collective marketing
Peru	64%	19%	42%	49%	100%	73%	89%	33%	44%	22%
South Africa	47%	63%	14%	26%	80%	35%	33%	59%	50%	50%
TOTAL	**56%**	**41%**	**28%**	**38%**	**75%**	**54%**	**61%**	**42%**	**47%**	**36%**

Business Strategy & Market Access: *Medium evidence of impact, stronger for Peru.* GENEX data in Table 5 shows that only 5 POs started collective sales over the LOP, all in Peru, and by 2024 11/21 (52%) POs in Peru were selling collectively while 2/12 (17%) were in South Africa, specifically those which produced dairy. Consistent with this, the number of farmers from the ET survey data (see Table 6) who reported making any collective sales through their PO was 49% in Peru and 25% in South Africa. We define collective sales as bulking aggregating member output products for joint sale to market(s), with revenues collected into a common account, and this practice clearly remained relatively uncommon among served POs. However, KIIs suggested there were marketing improvements for some POs outside of collective sales, including that most POs helped connect members to improved buyers for their individual sales. This is likely the reason why Table 6 shows an inconsistently higher proportion (50%) of PO leaders in South Africa who claimed that they improved collective sales; they were likely thinking of the improvements they enabled for individual sales. Table 6 also provides some evidence of these other business strategy changes, with 42% of PO leaders claiming that they did bulk input purchases and 47% that they improved value addition of products. Among farmers, the top specific marketing improvement mentioned was bulk purchasing to reduce costs in South Africa (63% mentioned) and increased number of buyers in Peru (42% mentioned). In KIIs, 70% of the POs attributed market improvements largely to GENEX, particularly because they helped to boost quantity and quality of member production, which helped them to gain access to better markets. 30% of other KII respondents also mentioned GENEX impacts on PO business strategy. A few respondents mentioned how in South Africa the program helped POs to do bulk purchase of inputs and start medicine depots, which were the first collective business actions for many of the POs. In Peru, a few respondents said GENEX helped several POs to develop milk processing operations and sell value-added products for the first time. Several also mentioned that when the biggest milk buyer in Peru, Gloria, S.A., stopped sourcing milk from the San Martin region, GENEX did a lot to help the POs there find alternative markets for their milk. The Peru COP gave additional examples of new business strategies undertaken by POs with GENEX advice and support: coordinating between POs to make joint sales (La Fortaleza and Holandesa), entering new markets (Jarara, Huánuco Viejo, Codo de Pozuzu), developing

new products (Pozuzu, which started selling Angus beef), and opening retail outlets (La Fortaleza, which opened a coffee store).

Revenues & Profits: *Medium evidence of impact, stronger for Peru.* The Annex 5 indicator table result for indicator EG.5-1 (reported by COPs and not verified by the ET) was $7.76 million in PO sales in 2024 (94% of the target); for indicator EG.5-15 this represented a 36% increase in aggregated sales since baseline (80% of the LOP target which the ET extrapolated from EG.5-1 baseline vs. 2024 levels). The actuals seem to have fallen short of the targets largely because there was a drop in sales between 2023 and 2024 (of -1%), though targets anticipated a continued increase, and because some of the biggest impacts of the program—involving sales of medicines given as in-kind grants in South Africa and milk products produced with machinery granted in-kind—did not have tangible effects until later in 2024, after data collection for this indicator was already completed. It is important to note that for the purposes of data collection on revenues, GENEX counted not only revenues earned into the PO accounts but also counted revenues earned by individual farmer members if the PO helped them to find buyers. The GENEX data in Table 5 shows major business performance improvements in Peru over time, with 90% of POs experiencing sales increases and 62% with profit increases. It also shows improvement, albeit lower, in South Africa, with only 42% experiencing sales and profit increases. The ET-collected results shown in Table 6 partially support the GENEX findings, though they are somewhat more modest. 89% of PO leaders in Peru and 33% in South Africa said that they saw increases, which matches the GENEX data trend for Peru but is lower for South Africa. Farmers in Peru were more pessimistic than the PO leaders, with only 64% saying that they experienced market access and business performance improvements in their POs, though the 47% in South Africa who said the same is more in line with the other data for South Africa.

In KIIs, 60% of PO's indicated that they had business performance improvements and 77% said it was in large part thanks to GENEX. Impacts seemed more common in Peru, where 77% PO leaders mentioned positive changes to business performance, versus 33% in South Africa. 8% of other KII respondents said there were positive impacts on PO business performance and 18% specifically said there were little or no impacts, largely because many POs were still not doing collective sales by the end of the project, while the majority (74%) made no comments on this area. One KII respondent pointed out that GENEX CDP originally envisioned AI services as becoming a money maker for cooperatives, and that unfortunately did not happen, though some POs increased their sales via other means. Also, in some cases there was a general positive trend in business performance reported for the cooperative, and yet in recent years they have faced threats which decreased their production and sales; for example, Mayime in South Africa (which has a diversified portfolio including livestock and viticulture) has faced a drought which prevented them from selling any wine since 2022, and Huanuco Viejo in Peru said they had a big increase in collective sales through 2023, but then did not have any in 2024 because of political issues.

Income Distributed to Members: *Medium but mixed evidence of impact, higher for Peru.* The indicator table in Appendix 5 shows $26.01 million in cumulative income distributed to members over the LOP, contributing to 93% achievement of the LOP target for member income and services value. GENEX data in Table 5 shows an 89% increase in member payouts (the sum of distributed earnings and dividends), similar in both countries, with 90% of POs in Peru and only 33% in South Africa experiencing increases over the LOP. For South Africa the data on member payouts provided were either blank (correctly) or erroneously included non-zero values, because all but 2 POs were not making sales and then distributing a portion back to members; instead, sales figures counted individual member sales. In KIIs, there were not many explicit comments about incomes distributed back to members, but generally it seemed that there

was a positive change for 53% of POs, in line with increased PO-level collective sales. But even for those with a change, it seemed that they were not often thinking about the concept of income distributed to members, showing that they still had gaps in their understanding of cooperative business principles. A few did explicitly mention dividend payments, though only Mayime in South Africa provided details. They said that "through the guidance of GENEX we have made an investment that pays R2,700 per annum to 359 members" and that due to higher wool production they were able to increase dividend pay-outs to members who sell wool through the PO.

Access to External Finance: *Mixed evidence of impact:* From Table 5 data it appears that receipt of outside financing was very high in South Africa, with 92% of POs receiving grants, though only 33% received loans, versus 29% and 10%, respectively for Peru. Driven by high numbers from South Africa, the Appendix 5 indicator table shows the LOP total for indicator EG.3.2-27 on financing accessed as $2.17 million, 445% of the target. This counts loans only; grants are also included in PPR indicator CBLD-10 on total non-donor resource mobilized, and there the LOP value is $4.95 million (192% achievement of the target). And in the KII with the Peru COP in particular, he emphasized that a total of over $480,000 (which exceeds 2 years of GENEX CDP Peru budget) in external grants and loans was secured by POs with GENEX support, which was a significant achievement given how difficult, if not impossible, it was previously for these organizations to obtain financing in the past given FI perceptions of their risk levels.

In contradiction to these results, only 27% of PO leaders in KIIs said that their POs got outside funding during the project. One PO leader said “Without GENEX it could be impossible [to get external funding] because we did not know where to go for support, but thanks to the advice of the GENEX mentors we managed [to develop awareness of opportunities and successfully apply for funding]." But the other 67% of PO leaders said that they needed financial support but were either unable to apply or they applied for funding unsuccessfully. Only 35% of other KII respondents mentioned access to finance as an impact of GENEX CDP, specifically how the mentors or/or interns helped the POs to apply for funding from outside sources, primarily government funds like ProCompite, Avanzar Rural, AgroIdeas (in Peru) and local governments in South Africa. Another 14% of respondents said this was a weak area for the GENEX CDP project. Some said the main obstacle was that POs were still too poorly organized to qualify for financing, while others said GENEX could have done more in this area if they spent more time and resources trying to help the POs find financing.

The South Africa COP says the contradiction between KII results and the 92% figure in Table 5 is because much of the external financing GENEX counted was allocated directly to farmers (including government in-kind grants of inputs like fertilizer and seed), bypassing PO’s bank accounts, because FIs considered the POs too risky to finance, as they had no collateral. External finance access for the POs themselves was very low; in fact, the South Africa COP reported that only 2 POs—Mayime and Bilatye—received any direct financing; they each received grants of R100,000 (about $5,500) each from the Chris Hani District Development Agency. However, he still asserted that the government-provided grants to farmers were partly enabled by GENEX CDP, as the government agents knew the farmers were receiving TA from mentors and had better market access through PO support, and as politicians “they always want to attach themselves to a success story.”

EQ 1B: Impacts on Cooperative Member Livelihoods

Summary Finding: Farmer productivity changes and impacts of direct TA provided to farmers are not a core focus of USAID CDP generally, but since GENEX put this at the heart of its program approach it is

important to evaluate outcomes in this area. From both the GENEX farmer survey (results shown in Table 7) and the ET farmer survey (Table 8), the ET found evidence of high impacts of GENEX CDP on farmer adoption of improved practices and production and sales outcomes. However, the ET can only say with confidence that these findings can be extrapolated to 1,167 farmers (533 in Peru and 634 in South Africa), which is 30% of total official PO members, because GENEX deliberately did not target all members, and because the lists provided for sampling were very limited. For this reason, the ET-adjusted indicator table in Appendix 5 shows 1,167 as the LOP value for indicator CDP IR2, only 50% achievement of the target.

Table 7: Select GENEX-Provided Farmer Livelihood Metrics

Country & Region	From GENEX Annual Farmer survey							
	% change in production*	% with increased production*	% change in sales	% with increased sales	% change in profits	% with increase in profits	% with decrease in expenses	% adopted AI
Peru	144%	76%	117%	81%	150%	72%	17%	75%
South Africa	321%	77%	402%	77%	115%	47%	28%	3%
TOTAL	**233%**	**77%**	**260%**	**79%**	**134%**	**60%**	**23%**	**40%**

*Yields were not clearly and consistently reported for most farmers, so this shows average farmer production, not productivity. For Peru production was measured in liters of milk and kg of animals produced (not necessarily sold) each year, while for South Africa it was based on number of animals sold and kg of wool sold per year.

Table 8: Select ET-Generated Farmer Livelihood Metrics

Country & Region	From Evaluation Team Farmer survey									
	% with yield up	% say yield up due to GENEX	% with sales up	% say sales up due to GENEX	% with costs down	% adopted any new practice	% say adopted due to GENEX	% received GENEX disease support	% adopted improved health practices	% adopted AI
Peru	87%	70%	79%	64%	9%	82%	73%	49%	66%	84%
South Africa	65%	86%	56%	76%	33%	93%	98%	88%	84%	4%
TOTAL	**76%**	**78%**	**68%**	**70%**	**21%**	**88%**	**86%**	**69%**	**75%**	**44%**

Farmer Receipt of GENEX Support: *Very High Evidence that Support Received, higher in Peru.* Though not shown in Table 8, in the ET survey 100% of farmers in Peru said they knew about GENEX, 97% said that they received some livestock training from GENEX (9.7 trainings on average over LOP) and 99% said that they received mentor visits (17.6 visits on average). In South Africa, 97% of farmers said they knew GENEX, 71% said they got livestock training from GENEX (4.8 trainings on average) and 84% received mentor visits (17 visits on average).

Farmer Adoption of Improved Practices: *High Evidence of Impact, though practices varied by country.* The GENEX farmer survey did not include many questions on adoption other than for AI, and its results agreed with those of the ET survey, that adoption was very low in South Africa (4-6%) and very high in Peru (75-84%). The ET survey provided additional information about adoption of other new livestock improved practices, showing that it was very high overall and was thanks to GENEX support, and these results were higher in South Africa (93% adopting, 98% because of GENEX) than in Peru (82%, 73% because of GENEX).

The single practice reported with highest adoption in Peru was AI (84%) and in South it was improved health practices (84%). This seems to be due to the fact that the majority of respondents in South Africa (88%) said they received vaccination or another concrete disease prevention or treatment intervention from GENEX. By contrast, adoption of health practices was only 66% in Peru and only 49% received tangible disease prevention or treatment support.

In KIIs, 80% of PO leaders and 66% of other KII respondents said that increased individual farmer adoption of improved practices as one of the biggest impacts of GENEX CDP. Specific practices mentioned included: use of AI with improved, imported breed dairy cattle in Peru, vaccination of cattle and sheep in South Africa, optimal herd sizing in South Africa, and using more strategic marketing practices (selling to auctions and abattoirs instead of middlemen, selling younger animals) in both countries, but especially South Africa. Several respondents said that GENEX CDP's approach had a bigger impact on adoption than many other projects, because they used extension agents (mentors and interns) embedded in the community, so trust was higher, and an emphasis on demonstrations through model farmers and hands-on support helped convince initially reluctant farmers to adopt. Several respondents said that GENEX CDP focused its TA on the larger farmers who were more likely to be early adopters. Some thought this was the right approach, i.e. targeting the "low hanging fruit" first and using them as models to convince others to adopt later. Some other respondents thought this was a mistake, as it meant GENEX did not do enough to help the smaller, weaker farmers who were in even more need of support. There were also some adoption initiatives which did not succeed, notably an attempt in Peru to promote electronic record keeping via a phone app called DairyComp-Go. Several different KII respondents mentioned that uptake of the app was low, largely because of weak networks, low technology access, and resistance from older farmers. For more information on findings of this pilot project, see Appendix 5.

Farmer Production: *High Evidence of Impact.* Both Table 7 and 8 suggest that GENEX increased farmer production and productivity, with 65%-77% farmers experiencing higher production in South Africa and 76%-87% in Peru. GENEX data suggested the level of production increase was +144% in Peru to +321% in South Africa, but the ET is unable to verify to that level of detail. The majority of farmers (70% on average, similar in both countries) attributed productivity increases to GENEX. In KIIs, 93% of PO leaders and 70% of other KII respondents said productivity gains-- in terms of lower animal mortality, increased birth rates, higher animal weights, higher milk production, and improved quality of milk and wool-- were key impacts of GENEX CDP. The 1 PO leader (in Peru) who did not report increased productivity said he expected increases in the near future, they just had not yet manifested themselves yet because calves born through AI have not yet reached productive age; this same idea was also mentioned by several non-PO leader respondents in Peru. A number of respondents in South Africa mentioned very specific numbers about productivity, though often it was based on individual anecdotes, for example: a farmer whose lamb mortality rate dropped from 50% to 10%, another who doubled production of quality wool, several mentions of calving rates increased from 17% to 78%, and a jump from 50% commercial farmers (defined based on a minimum level of annual animal sales) to 95% in Makhoba Cooperative. In Peru, the COP said that when they began the project in 2019 the POs barely had yields of 3-4 liters of milk per day, and now they average 8-10 liters of milk per day, and some producers who have Girolando or Brown Swiss cows breeds produced through AI are starting to see yields as high as 15-18 liters/day. Comments from a few PO leaders and regional managers also mentioned a similar 100%+ increase in milk production.

Farmer Sales: *Medium-high evidence of impact.* Both GENEX in Table 7 and ET data in Table 8 indicate that sales increased because of GENEX, with 79%-81% for farmers in Peru reporting increased sales,

though this was somewhat more modest in South Africa, at only 56%-77%. In the ET survey most farmers also attributed their sales increases to GENEX support, though it varied by country: 76% in South Africa versus 64% in Peru. It is also worth noting that GENEX data on PO sales in Table 5 counted individual farmer sales data if the PO helped them to find a market, so the 82% increased revenues in Peru and 239% increased revenues in South Africa shown there might be more fairly attributed to this metric. In KIIs, 53% of PO leaders and 27% of other KII respondents explicitly mentioned increased farmer sales as an outcome of GENEX CDP. Some common comments in this area were that GENEX helped the farmers to improve the quality of their production and/or to sell to better markets (auctions or abattoirs instead of middlemen) and thus obtain higher prices. One intern in South Africa said that by increasing animal health and weight GENEX helped farmers to double their sales price per animal sold for meat, while a mentor in another region mentioned a 150% increase earned just by switching to an improved market (i.e. with no changes in animal number, weight or quality). One regional manager in Peru said that some farmers are already selling livestock they have produced with AI, at nearly triple the price that they previously earned for local breed offspring.

Farmer Production Costs: *Low evidence of impact, stronger in South Africa.* Both the GENEX and ET surveys seem to show that production costs did not decrease for the majority of farmers, though there was a sizeable minority that had cost decreases in South Africa, and it was consistent across both surveys (33% vs. 28%). In KIIs production cost changes were not mentioned by many, though several respondents specifically said that costs increased over time due to inflation, related to COVID, the Ukraine war and other causes. A few KII respondents in South Africa mentioned the FarmMark and later the medicine revolving funds and the fact that they helped farmers acquire vaccines and other medicines at lower prices. One respondent in Peru said that the program helped reduce the negative effects of inflation somewhat, and without GENEX production prices would have risen even more.

EQ 2: Impacts on Enabling Environment

Summary Finding: The definition of cooperative enabling environment (shared by ET with all KII respondents) is "the broader situation of financial resources, technical support, services, market linkages/networks, market conditions, government regulations and enforcement, etc. that enable a vibrant cooperative market." Overall, the evidence suggests that GENEX CDP had relatively small impacts on the cooperative enabling environment in Peru and South Africa, largely because this was not a core focus of the program, which largely prioritized individual farmer technical improvements. However, through the positive effects of the program's TA on farmers, advice on market strategies, and some successful capacity strengthening of POs, GENEX did manage to have modest effects on some key enabling environment weaknesses, most notably general livestock health and production and awareness and appreciation of the cooperative model. Several external factors which made it difficult to achieve program impact, on the enabling environment and more broadly, included disruptions due to COVID, an unfavorable pricing environment for farmers, political disruptions, and natural disasters, but the GENEX teams in both countries devised adaptations in the face of these challenges and seem to have done a particularly good job in adapting to COVID so that program services continued.

Initial Enabling Environment Challenges

From the ET qualitative research, key initial challenges faced by POs, among which many are enabling environment challenges, included:

- **Technical farming weaknesses**, including high levels of disease, low adoption of improved practices, low farmer awareness of and/or trust in new technologies, and resultant low herd health and production (mentioned by 32% of KII respondents).
- **Lack of communal spirit** and awareness of the benefits of working together, weak collective structures and actions by POs, POs just existing on paper but not really doing any collective works together (27% respondents). 8% said this was exacerbated by high geographic dispersion of POs.
- **Market problems of various kinds** (mentioned by 27%) including low access to markets with good prices, lack of infrastructure needed to improve marketing opportunities (processing plants, handling facilities, fencing), and poor business orientation (partly caused by some members not being committed livestock farmers).
- **Lack of access to financial services** or capital for investment (mentioned both for the cooperative level and individual farmers), especially in South Africa where land ownership is very low (17% respondents). Additionally, in South Africa many of the POs were new entities formed in 2018, so they faced a "significant difference in maturity and resources" when compared to older POs, according to the South Africa COP.
- **A culture of hand-out dependence**, belief that POs are formed just to get donor or government grants, an expectation that the project would provide free things for the farmers (12% respondents).
- **Low youth involvement** in POs and livestock farming in general, which is a problem because elderly farmers are less innovative and less capable of doing physical labor (12% respondents).

External/Enabling Environment Issues Faced During Program Implementation:

- **COVID Pandemic:** When asked about COVID, only 19% of KII respondents emphasized that it had long-lasting negative effects on project impacts. Many seemed to suggest it did not severely affect the project outcomes, partly because of good adaptation by the GENEX team. 6% explicitly said that COVID did not severely hurt the program outcomes, with one going so far as to point out that it made farmers easier to find at home and thus helped them increase their extension visit impacts. Those who did talk about the lingering negative effects of COVID said: 1) there was positive momentum building on acceptance of the cooperative model before COVID lock-downs which were reversed, and many farmers dropped from their POs during COVID and never came back, 2) COVID led to major inflation of input costs and that affected farmer and cooperative profitability.

  29% of respondents said that they think GENEX CDP did a good job adapting the program in the face of COVID lock-downs so that they were still able to implement their support. 23% said that the key adaptation was continued visits to farmers, either 1:1 to individual farms or to small study groups, which were possible because the mentors and interns lived in the local communities already and because the program applied for and received travel/meeting exemptions from the government. 21% mentioned how the program tried to use virtual means of farmer engagement, including use of WhatsApp and webinars (some with presentations of experts from GENEX in the US), but 36% of those respondents said that virtual support was not very suitable or successful because many farmers lacked access to the needed technologies or networks. A few respondents (in Peru) emphasized how because of COVID the team created more printable tools to share with farmers, including newsletters, comics, and livestock management guides.
- **Macroeconomic challenges** (13% of respondents): Primarily this involved rising input prices due to inflation which reduced profits and made it harder for farmers to invest in new technologies, but also

some commented about low output prices or how one major buyer (Gloria S.A.) in Peru stopped buying from the San Martin region.

- **Political issues at the local or national level** (13% of respondents): In Peru the issue was that the national government changed many times and so the partners they were working with constantly changed, while in South Africa there was disruptive political instability in July 2021 in KZN, and in multiple areas there were local politicians were resistant to the program or only wanted to support if they could gain benefits.
- **Crowding out of the AI market** (12% of respondents): In Peru several respondents mentioned that the government provides AI services with local bull semen for free, which undermined the project's attempt to build a sustainable market for imported bull semen and AI services.
- **Disease outbreak and other environmental disruptions** (10% of respondents): This seems to have affected South Africa more than Peru and included an outbreak of Foot & Mouth Disease (FMD) that led to major market restrictions in northern KZN as well as some drought and flooding problems elsewhere.
- **Cooperative-level leadership disruptions**, including internal coups and deaths (6% of respondents).
- ***Positive factor*- government support:** A few KII respondents (8%) actually mentioned one positive external factor which helped increase program impact, which was government support of and commitment to the cooperative model, including government funding platforms available.

Program Impacts on the Enabling Environment:

Many KII respondents were not able to comment on this, and several said that this was not the focus of the project and they did not observe any effects. Several tried to comment but ended up sharing their opinions of more specific impacts on the cooperative themselves, not understanding what was meant by broader enabling environment. But the key impacts suggested by those who commented include:

- **Improved connections between POs and service providers** (37% of respondents), either from the government (i.e., agricultural extension offices) or other entities (i.e., the RPO in South Africa, universities in Peru), increasing the likelihood that the POs will receive services from them in the future and in some cases improving the capacities of the service providers. For example, some government extension agents in Peru who said they learned AI because of the project, also in Peru INIA started doing more promotion of imported semen for AI and started promoting silvo-pastural systems developed as part of its research with GENEX across other areas in the country.
- **Positive spillover effects on non-member farmers** (34% of respondents), particularly increased awareness and adoption of improved livestock practices more widely. Common comments included: 1) Neighboring farmers saw the positive outcomes for farmers who adopted promoted practices and also decided to adopt, 2) In some cases the mentors and AI technicians provided services to non-members who were interested, 3) Some initial non-members joined POs when they saw the good results of GENEX for member farmers, and 4) Family members of participants benefitted due to improved household production and incomes. Some respondents also mentioned broader benefits to the local communities and their economies because GENEX CDP led to increased production, incomes and purchasing power, so they bought more goods locally and hired more laborers. A few respondents in Peru also mentioned that government institutions took learnings from the project and applied it more widely to other geographic areas. For example, some extension agents learned how to do AI

and the INIA started promoting silvo-pastural systems and imported semen more widely because of seeing the positive effects in the GENEX project.

- **Improved PO connections to private market actors** (27% of respondents) in the targeted value chains, including buyers and markets for livestock output products (especially abattoirs, processors, auctions) and input suppliers (particularly AI distributors, in Peru).
- **Improved awareness and appreciation of cooperative model** (21% of respondents, of which 72% were in South Africa), including an increase in understanding among farmer members as well as other value chain actors about the value of cooperatives and collective action. This was also supported by even more positive evidence from the quantitative ET Farmer survey (see Table 9 below), though those results suggest bigger impacts in Peru than in South Africa.
- **Low impacts on finance access:** Only 4% respondents mentioned that the program helped POs or farmers to sustainably access finance, as they now know where and how to apply for funding in the future, while 6% specifically called out that this remains the biggest enabling environment challenge and GENEX did not change it.
- **Mitigation of risks and threats:** The Peru COP emphasized that a key aim of the program was to help increase PO resilience to risk, and he felt that the program accomplished this, with generally improved business performance across the 21 POs in Peru despite major challenges due to COVID, political instability, inflation, and market disruptions. Several KII respondents mentioned how GENEX Peru helped farmers improve their adaptability to climate change and GENEX South Africa helped reduce the risk of disease spread, most notably in when KZN had an outbreak of FMD. There was also evidence from some other KIIs and the farmer survey that GENEX helped either reduce costs or prevent greater cost increases, especially in South Africa.

Table 9: ET Farmer Survey Metrics on Cooperative Awareness & Attitudes

Country & Region	% aware of cooperative model	% with positive attitude on coops	% with better coop attitude	% better attitude due to training on coops	% better attitude due to services received	% with high trust in their own PO	% with increased trust in PO	% with portion sold through PO up
Peru	67%	76%	83%	54%	17%	61%	69%	40%
South Africa	49%	56%	53%	46%	64%	56%	55%	18%
TOTAL	**58%**	**66%**	**68%**	**50%**	**41%**	**59%**	**62%**	**29%**

Table 9 shows around 50% awareness and appreciation of cooperatives among the surveyed farmers in South Africa compared with around 70% in Peru, and that more farmers had a positive change in mindset about cooperatives in Peru than in South Africa (83% vs. 53%). For those with improved attitudes the two most commonly cited reasons were an improvement in services received (particularly in South Africa) and the official GENEX training on cooperative benefits (particularly in Peru). Levels of trust in one's particular PO were similar between countries, ranked high by around 60% of farmers, but a relatively larger proportion in Peru said their trust increased over the LOP (70%, vs. 55% for South Africa). The portion of farmers making some collective sales through their PO was shown earlier (in Table 6), while this new table shows how many farmers increased the level of sales

made through the POs. This was higher for Peru than South Africa, but still a minority of farmers in both cases (40% and 20%, respectively).

EQ 3: Sustainability of Outcomes

Summary Finding: Overall, it seems that GENEX CDP PO-level impacts are only likely to be sustained for a few of the POs in each country, particularly those which have collective sales or infrastructure and which have already improved member services beyond the TA that GENEX was directly providing to farmers. Impacts on individual farmer-level production for those who were served directly by GENEX seem more likely to be sustained, but even those outcomes are at risk in areas where the PO is not strong. Some farmers still need some on-going support for market access and AI or vaccination delivery, but in many areas neither the PO nor any other actor is able to continue these services after GENEX leaves.

Likelihood of Sustainability of Farmer-level Impacts:

42% of total KII respondents suggested there was a high likelihood that farmer-level will continue, while 31% gave a mixed answer, saying that it varies by farmer, depends on market access or will require continued external support. Another 6% said that there was a low likelihood of sustained farmer outcomes, because they still relied on external support which GENEX did not set up POs to sustainably provide. Where respondents indicated a high likelihood of sustainability, factors highlighted included:

- **Solid proof of profitability:** Through clear demonstrations and hands-on experience farmers had been deeply convinced of the benefit of the benefits and profitability of improved practices, particularly AI in Peru and vaccination/other health management practices in South Africa. Some have even already demonstrated a willingness to pay for improved inputs in services, as evidenced by farmers in South Africa buying mineral licks and medicines through FarmMark and now the medicine revolving funds, and farmers in Peru paying for AI (though only 6% in the ET survey, this is reportedly growing).
- **Medicine revolving funds:** In South Africa, the cooperatives all received in-kind grants of medicine in 2024 which can be sold to members and non-members to create a revolving fund, so it seemed farmers would have on-going support for continuing vaccinations.
- **Community-embedded staff:** The mentors (in both countries), interns (in South Africa) and AI technicians (in Peru) were still members of the PO communities in many cases and several claimed that they would continue supporting the farmers, even if on voluntary basis. In a few cases farmers were already paying for their services. However, likely continuity of support varied significantly by PO.

Several respondents said specific farmers more likely to sustain positive outcomes were those who:

- Have larger farms, including both herds and land sizes
- Already have or receive in future key infrastructure like fencing
- Have better market access
- Continue to receive support either from their PO or from the government or other external partner
- Do not experience drought or other natural disaster
- Are younger, as youth are more innovative, and older farmers may retire from livestock farming

Likelihood of Sustainability of PO-level Impacts:

53% of PO leaders said their POs would be able to sustain organizational outcomes, while 27% gave mixed responses and 20% said impacts were not sustainable; the response split was mostly the same for both countries. However, non-PO leader respondents were more pessimistic: 8% felt sustainability of PO-level outcomes was likely, 32% had a mixed response, and 14% felt sustainability was unlikely. 30% of

respondents did not have anything to say on this topic at all and just focused on farmer-level sustainability, which might itself be an indication that PO-level sustainability is low. Common ideas included:

- **Low PO ownership of services:** In most cases the services offered to farmers were done by GENEX-payed staff or with GENEX funding for materials, and there was little effort made to hand-over the management of and funding of these services to the POs, so that means with the program ending many of the services will stop. This is discussed in more detail in the next sub-section.
- **Variable level of PO collective sales:** Peru is leaving behind more functional POs, which are earning common revenues and profits and thus able to sustain themselves, than South Africa, where many POs still do not have collective sales (partly because most were new entities in 2018 and started with no initial financial resources). The medicine grants given at the end of the program may change this for South Africa, but it was done so late in the program that it was difficult to say how well and sustainably those would be implemented.
- **Support, especially financing, needed for a few more years:** A few POs are on the cusp of being sustainable businesses, but they need some additional support for 1-2 more years to continue momentum and solidify gains, and/or some type of tangible support for capital development to help launch business operations. This idea was brought up more often in South Africa, with respondents indicating a need for financing of infrastructure like land, feedlots, or processing facilities to better enable collective marketing. Some POs in Peru also said that lack of adequate financial resources to fund AI services or other initiatives was a threat to sustainability.
- **Mixed AI Technician and Intern Continuity:** Some of the 53 approved AI technicians in Peru had apparently already dropped and stopped offering services by 2024, but among those the ET surveyed many said they planned to continue doing inseminations as a part-time occupation since they live in those communities anyway. One KII respondent in Peru noted that only a minimum of 4 qualified AI technicians per region are needed to fulfill the needs of all 21 POs in the future, and even with some attrition far more than those will continue working. In South Africa most of the interns said they were theoretically interested in continuing to work with the POs, but only 2 said they definitely would stay. It was suggested that they could sustain themselves using funds earned on the medicine revolving funds (as revenues earned on these medicines to PO accounts could be used partially to buy more medicines for the future and partially to pay intern stipends), but it remains to be seen if that will happen or not. But even if AI technicians and interns do continue to work, they may work 1:1 with farmers instead of through POs, so they will not necessarily contribute to PO sustainability.
- **Sustainable AI Value chains build in Peru:** Regarding AI markets, in South Africa a functioning supply chain for AI was never set up and adoption was low even during the program itself, while in Peru GENEX was more successful in establishing connections between POs and semen distributors (Gloria SA, VETEX, and GESTAR), though this was not universal. Some respondents suggested that 40-50% of POs are likely to continue offering AI services to members. The Peru COP said he has observed continued purchases of semen straws by POs since the project ended, and that the Peruvian jungle has become a new market hotspot for selling semen and AI services, which it was not before GENEX CDP helped build up the market. As one unintended consequence, GENEX significantly boosted demand for tropical breed semen which must be imported for Brazil, but SENASA has not yet approved that import, so there is currently a lot of illegal cross-border trading.
- **Staff support continuity in South Africa through Farm Vision:** In South Africa the consultant firm FarmVision, of which GENEX Country Director Lieb Venter is a managing director, plans to keep working with livestock farmers, possibly through some of the same POs. Note that FarmVision is a

company with many current and past initiatives in the livestock sector in South Africa that overlapped with GENEX CDP, including FarmMark, the 2021 initiative to offer medicine inputs on loan to farmers. Some respondents commented on how FarmVision's continued presence will ensure sustainability of outcomes. For example, FarmVision has recently negotiated a large off-loading agreement for beef with a large buyer in China, though it remains to be fully operationalized and it is unclear if any of the 12 GENEX POs will participate in that program or not, and one KII questioned if the initiative will succeed due to concerns with FMD outbreaks in South Africa. Some other KII respondents actually had a hard time distinguishing between GENEX and FarmVision, attributed CDP program outcomes to the latter, and equated their plan to continue working with individuals from FarmVision as a continuation of GENEX CDP.

- **Capacity loss risk with PO leadership changes:** Even where GENEX strengthened the management capacities of some PO leaders these changes will not necessarily be sustainable long-term because the leadership will change. It will be necessary for the current leaders who received GENEX training to pass that knowledge on to new leaders down the line, but there is no clear incentive for this. The Peru COP said that GENEX's focus on training many farmer members and getting them bought into the idea of cooperatives will help ensure continuity, as they form the ranks from which future leaders can be drawn and will help hold new leaders accountable. But this could still be a risk at many POs.
- **Climate and disease threats:** Climate change may lead to increased droughts, disease outbreaks and other natural disasters in the future that could affect farmer production and by extension cooperative business performance. In Peru GENEX made some efforts to help farmers adapt to climate change, including providing tree seedlings and training for establishing silvo-pastural systems and promoting recovery and efficient management of soils via the soil sampling and forage fertilizer pilot. This might help somewhat to reduce risk in Peru, but it does not eliminate the threat, and risks remain even higher in South Africa.

Detailed Analysis on Member Service Impacts & Sustainability

Table 10: Selected Member Service Metrics

Country & Region	From GENEX Farmer Data		From GENEX Coop Data			From Evaluation team Farmer survey			
	# PO services farmers got at Final	% change in # services	# Services PO provides at Final	% members accessing services at Final	POs with increase in % members accessing services	% farmers said PO services improved	% farmers said PO offered improved TA	% farmers say PO has services beyond TA & marketing	Average # of service improvements mentioned
Peru	2.0	89%	2.3	66%	52%	72%	60%	53%	3.7
South Africa	1.6	402%	5.2	74%	50%	52%	67%	48%	4.0
TOTAL	**1.8**	**246%**	**3.8**	**70%**	**51%**	**62%**	**64%**	**51%**	**3.9**

Table 10 shows the results of several different metrics on PO member services. These are somewhat contradictory, as different definitions of what constitutes a service were used across data sources. On most metrics the ET data suggests more modest improvements in this area over LOP than the internal GENEX data, but for number of services offered in Peru the ET data is higher, because the Peru data only considered a limited list of 4 services when counting this metric. Overall the data does suggest positive, though not universal, improvement, with 72% of farmers in Peru and 52% in South Africa saying that

services improved and an average of 4 provided by each PO by the end. By far the main single service mentioned is TA, and that was provided directly by GENEX during the period, so it cannot be counted as a service that POs will sustainably provide on their own in the future. Marketing improvements also were largely driven by GENEX direct support. However, even when the data is narrowed to show only services mentioned outside of TA and marketing, around 50% in both countries still say their PO had improved offerings over the LOP. Unfortunately, it is not possible to accurately quantify the value of service change over time. The cumulative LOP value of services in the Appendix 5 indicator table was $900,229, but this only includes detailed, verified numbers for South Africa for 2023 and 2024. But the trend of the data in Table 10 suggests there would be an improvement in value of services in both countries, and likely slightly higher in Peru than in South Africa.

Qualitative ET results suggests that some, but far from all, POs are likely to continue offering improved services to members now that GENEX CDP is ending. 60% of PO leaders indicated that there was at least improvement in the services they offered to members thanks to GENEX, beyond just the training and extension services which GENEX itself temporarily provided to the members. 30% of other KII respondents made positive comments about improved and sustainable member services. However, 31% of total KII respondents said they either saw no change in PO services or that the only services provided came directly from GENEX staff and thus were not sustainable. The main sustainable services mentioned were provision of low-cost medicines to members in South Africa and continued AI services in Peru. That is, in South Africa the POs plan to use the GENEX grant provided in 2024 to set up a revolving fund and continue to supply the medicines in the future. In Peru the AI technicians still have a way to source new semen straws through AI distribution companies and they still live in the villages, so will continue to provide AI for members. A few POs mentioned adding other sustainable services, for example Zulukama and Mayime in South Africa both said they built shearing sheds with partial support from GENEX and now offer paid shearing services to members, while Montevideo in Peru says that PO leaders will continue to conduct field visits with farmers (albeit in smaller number than during GENEX) and will charge a small fee for these services.

Reasons for Variable Outcomes by PO

A number of KII respondents said that the likelihood of sustainable outcomes varies substantially by PO, as some had more success over the course of the project than others and are now in a stronger position to be self-sustaining, while others are still weak and may not even continue as POs after the program ends, much less continue to provide any support or services to members. Common factors mentioned for success of some POs included:

1. **Level of skill, experience, and commitment to collective goals of leaders** and PO members. For example, in South Africa Immerpan apparently had some major leadership problems which reduced member trust, participation and outcomes. Vukalandbou and Bihar were among the poorest performing POs, largely because the members saw livestock farming as a side hustle and were not committed to mobilizing funds and doing collective sales or other works, while in contrast Zulukama, Bilatye and Border Rural had many enthusiastic members willing to adopt new practices and work together, and they had better performance as a result. At Border Rural some members were so proactive that they started their own crowd-funding initiative to help some members purchase animals. In Peru, Montevideo and Huánuco Viejo had stronger governance and high levels of trust and cohesion, as noted in KIIs and also the Tool for Agroecology Performance Evaluation (TAPE) tool

analysis, and program impact on farmers and cooperative business performance was relatively high. By contrast, and El Dorado, Andachaca and Huallaga Central had weaker than scores in the TAPE tool for governance and “human values”, and they also among the lowest business performance outcomes.

2. **A good balance between scale and geographic concentration of members**. Those which were less spread out had more cohesion and did better, but also those which were too small struggled, so some degree of membership scale was required. For example, within KZN province in South Africa Owathathe was the poorest performer because members were too spread out and did not work together well, in contrast to Isibonelo which was much more concentrated and performed better. But Makhoba cooperative was the best performer in KZN, even though its geographic concentration was in the middle-- it's large land area and average farmer herd size helped make it successful, after the GENEX team did initial work in parsing out which were the committed livestock farmers to work with. Makhoba also has a centralized dairy facility that operates commercially. In Peru, some of the smallest POs, like Nuevo Egipto with only 10 members and Huancabamba with only 11, had among the lowest business performance improvement in the program, and some like Huallay, Andachaca and Sacra Familia with much larger (90-490), dispersed membership also did not do well. The best peformers in Peru, like Montevideo, Jarara, and Huánuco Viejo and a medium number of members, 30-60.

3. **Higher degree of organization/development from the beginning.** The POs which were older and thus had more established market networks and resource bases, had better outcomes during the project and better prospects for sustainability. Those which were already doing collective sales at baseline were particularly successful, and GENEX was able to do more to help take their marketing to the next level. This partly explains the relative success of Montevideo in Peru and Zulukama and Makhoba in South Africa, which were among the oldest cooperatives and the highest performers. And in fact, all 4 of the POs in South Africa which had the best outcomes were those which had been part of the earlier CDP from 2010-2018. The other South Africa POs, which only formed in 2018, struggled more because they started with no established networks or resources.

Some other factors cited as being correlated with successful outcomes and likely future sustainability included: whether the cooperative received outside funding, whether the cooperative had connections with good buyers/output markets, the level of youth inclusion (those with more youth were more dynamic and innovative), and level of land ownership (POs with collective parcels and/or with more members who owned their own land, instead of just leasing, were more committed to investing in improved technologies and practices). For example, La Fortaleza and Holandeza Perla Mayo were among the stronger POs in San Martin because the program managed to connect them as suppliers to the government's "Glass of Milk" program and because they received support from outside funds.

In Peru, the ET also believes (though it was not mentioned in any KIIs) that the number of successfully trained AI technicians per PO may be an important factor behind the sustainability of AI adoption, and by extension to sustainability of farmer productivity outcomes and PO business performance improvements (which in Peru came mostly from genetic improvement). The number of approved AI technicians varied substantially across POs: three (Huallaga Central, Nuevo Egipto and El Dorado) had no successful/approved AI technicians, three others (Andachaca, Sacra Familia and San Pablo) each had only 1 approved technician, but others had significantly more, particularly Oxapampa (7), San Antonio de Rancas and Pozuzo (5 each). When comparing these figures to the level of adoption for those in the

evaluation sample, there is a clear correlation of more qualified technicians and higher adoption levels, with one notable exception-- Oxapampa did not have among the highest levels of AI adoption (82%, versus 90-100% for many others), though it did have the highest rate of people paying for insemination (60%).

EQ 4: GENEX Approach- Innovations, Strengths, Weaknesses

Summary Finding: Overall, GENEX CDP seems to have done a number of things different from other CDP IPs, some positive and some negative. On the positive side, many stakeholders praised GENEX for including support to boost farm-level productivity, for pushing POs and farmers to have a business mindset, and particularly for providing close follow-up by agents embedded in the served communities. On the negative side, many said that GENEX did not put enough emphasis on capacity building and business development of POs, that they should have provided early financial support to POs to catalyze growth, that support should have been more uniform and holistic (balancing genetic, health, nutrition, and market access improvement)— beyond just training—across both countries, and that they did not have an efficient MEL system to enable effective adaptive management.

What Made the GENEX Approach Different from Other CDP IPs?

1. **Ethos of self-reliant business development:** 38% of KII respondents said that the key factor which distinguished GENEX's approach to the CDP, across both countries, was its emphasis on market and commercial development, which manifested in targeting larger farmers, promoting business mindset and profit-maximizing strategies among farmers and POs, and a reluctance to give beneficiaries anything for free. Opinion was divided on whether this was the right approach or not. Some respondents (especially in Peru) said that it was positive, as it is important to promote sustainable markets instead of donor-dependency. Other respondents said that the approach was flawed from the start, because initial capital support is crucial for resource-poor farmers to give them a kick-start, and because the smaller non-commercial farmers are those who really need support and would be best served by the cooperative model. Still other respondents lamented that the approach was sound but it was not executed as well as it could have been.

   One execution issue mentioned was initial cooperative selection, as those with widely dispersed membership, high numbers of non-farmers or uncommitted farmers (especially in "village cooperatives" where all residents were on the lists), or too many different commodities did not have enough common purpose to support a strong collective business. Another issue mentioned was poor execution of specific initiatives; for example, Farm Mark (the first medicine bulk buying initiative) and building connections with local semen distributors for AI promotion in South Africa both did not succeed, which some respondents blamed on a lack of focus given too many disparate initiatives. Finally, several respondents said that GENEX's goal for how to build cooperative business was unclear-- there was not a strong vision promoted that the POs would start collective commodity sales and begin to earn revenues into a central account. Instead they were taught general principles of collective action and encouraged to pick a way to earn money from a menu of options, but this was not given a lot of emphasis or follow-up, and very little tangible support was given to jumpstart any collective action. Because of this, it appears that only 4 POs (all in Peru) which did not have collective sales of member production at the beginning added this over LOP.

2. **Focus on farm-level production on par with cooperative organizational development.** Several KII respondents also said that GENEX was unique because it tried to combine an emphasis on cooperative

business development with an emphasis on boosting livestock production through technical support. Many other CDP IPs tend to focus only on business strategies and organizational capacity development, working primarily with cooperative leaders, with the idea that it will have a trickle-down effect on member livelihoods. By contrast, the GENEX mentality was that farmers and their production are the legs supporting the POs, and so it is crucial to work with them to boost animal health and production first, to enable successful POs.

3. **Decentralized program design and decision making:** Several KII respondents at the high level mentioned that GENEX CDP had a rather unique approach in allowing the two country COPs to make program design decisions on their own. This was apparently a strategic decision that came out of GENEX's experience with their previous iteration of the CDP project. The result was very different programs in the two countries. The Peru program worked largely with dairy POs (most associations, not formal cooperatives), focused on promotion of AI with imported bull semen, and conducted a number of applied research studies. By contrast, the South Africa program worked largely with formal cooperatives whose members sold cattle, sheep or other animals for meat (but usually not collectively) and focused on providing low-cost medicines and vaccination support. Some KII respondents praised this decentralized model, saying that enabled the teams to focus on what was most needed for the context and to adapt to local challenges that arose. Other KII respondents said that the lack of a clear central vision was a weakness of the program, exacerbated by frequent changes in high-level management, and low experience with USAID project implementation at all levels. For example, neither team created a grant fund to provide tangible support to POs until end 2023/early 2024, because no GENEX staff were initially aware that this was an option under USAID compliance rules. As another example, POs in South Africa were very diverse (covering many different commodities, some commercial and some communal, some primary and some secondary), and serving the needs of all these different POs was difficult to do well; it may have been more impactful if there was central guidance from the top GENEX managers to focus on more uniform types of POs based on strategically-chosen characteristics.

4. **Emphasis on AI market development specifically:** As explained by high-level GENEX and URUS staff in KIIs, GENEX is a private company specializing in improved genetics and artificial insemination, and when its predecessor organization, CRI, first got involved in international development, the vision was to implement a public-private partnership that could help develop livestock markets in developing countries which would both boost local economies and develop the customer base for GENEX. The recipe was supposed to include building up beneficiary farmer production and incomes so that they could sustainably invest in AI, training select local farmers as AI technicians (within POs) to provide insemination as a paid service, and connecting the POs to GENEX or affiliated distributors of imported/improved breed bull semen to create a sustainable supply chain. One former GENEX employee described development money used to fund such projects as a type of "patient capital," allowing investment in markets which the parent company would not otherwise invest in because they were seen as risky or the potential returns would happen too far in the future.

   Apparently, the model did have success in India in the past, but it did not really pan out in the first GENEX CDP iteration. During 2018-2024 GENEX CDP program, the AI promotion model also seems to not have succeeded in South Africa (with only 4% adoption), because of an uninterested semen distributor, low farmer ability to pay for AI, and dynamics of beef cattle production which make AI less suitable. The South Africa COP emphasized that AI adoption increased over the LOP and that there

was a total of 5,214 inseminations performed over LOP, but this seems to have been concentrated among only a few wealthy farmers with very large herd sizes. On the other hand, in Peru the AI promotion model seems to have worked at least partly as envisioned, as the team there was able to connect the farmer POs with a few distributors of imported semen, train local AI technicians, and achieve sizeable AI adoption among farmers (75-85%) with 7,765 inseminations performed and 4,374 improved breed cows born over LOP. However, in Peru payment for AI was fairly low, with only 6% of inseminations paid according to the ET farmer survey. Apparently at first farmers were asked to pay for AI, but then in 2023 GENEX donated 100 semen straws per PO to use for free demonstrations with farmers, and this accounted for the majority of adoption. It remains to be seen if a larger number of farmers will really continue utilizing AI as a paid service in the future, though the Peru COP reported observing many individuals and POs continuing to pay for imported semen for AI. And interestingly, in South Africa, although the percent of farmer adopting AI was low, 100% of those who adopted paid for the service.

Strengths of GENEX CDP

The most commonly cited strengths of GENEX CDP among KII participants included:

1. **Farmer-level Impacts on Improved Practice Adoption and Production**. This was mentioned by 80% of respondents, with stronger emphasis in South Africa, likely because the key intervention there was vaccination/livestock health and this led to more immediate gains than AI, which was the primary practice promoted in Peru. Most respondents were very happy with the program's emphasis on individual farmers and their production, including all the in-country staff and PO leaders, but some higher-level staff pointed out that this was not supposed to be the focus of the CDP program and thought that individual production was given undue influence at the expense of PO business development.
2. **Use of mentors and other staff with technical expertise, and emphasis on hands-on, in-field support:** In both countries the fact that mentors frequently followed-up with farmers at their farms and offered tailored advice and hands-on support was highly praised and the positive farmer-level outcomes were largely attributed to this approach. 65% of KII respondents mentioned this, though again this was more emphasized in South Africa than in Peru. In the ET farmer survey 69% of farmers in South Africa and 53% in Peru cited mentor visits as one of the 3 most helpful GENEX services (see Table 11 below). On reason why this TA was so well appreciated was because most of the mentors and other GENEX country staff had a high level of expertise and experience in livestock production in Peru or South Africa, and so the TA curriculum, tools, tangible support and advice they shared were well targeted and executed and lead to significant production improvements as result.
3. **Training, especially in South Africa:** 66% of KII respondents in South Africa and 68% of farmers in the ET survey cited training generally, including the classroom-style trainings, study groups, and peer exchanges as being very impactful, though many also emphasized that it was important to do these in combination with the mentor in-field follow-up. Training was mentioned as a strength by some in Peru as well, but far less often, and was only cited as helpful by 10% of Peruvian farmers.
4. **AI program in Peru:** For KII respondents in Peru or at the high-level, Peru's AI program was cited as a key strength by 56%. In the ET farmer survey 75% of farmers in Peru said AI services were one of GENEX's 3 most helpful intervention.
5. **Livestock health support in South Africa:** For KII respondents in South Africa or at the high level, health intervention support including administration of vaccines, provision of medicines, and livestock

health trainings were mentioned as a key strength by 47%. In the ET farmer survey 75% of farmers in South Africa said disease treatment and prevention support was one of GENEX's most helpful interventions, and 49% said bulk purchases to lower costs (which were primarily done for vaccines and other medicines) was one of the most helpful interventions.

6. **Soil testing & forage fertilizer provision in Peru:** 37% of relevant KII respondents said this was a key strength which helped boost forage productivity and animal nutrition.
7. **Intern program in South Africa:** 34% of relevant KII respondents mentioned this, saying that it offered embedded administrative and record-keeping support to coops, increased youth engagement, and provided another source of farmer follow-up.
8. **Improving business-orientation of farmers and POs:** 31% of KII respondents across both countries mentioned this, with comments including how farmers were pushed to think strategically about their sales strategies, POs were helped to develop better business strategies and professionalism, and the idea of profitability was emphasized at both levels.
9. **Environmental sustainability-focused interventions in Peru**: 14% of relevant KII respondents cited this as a strength. This was mostly conducted as part of applied research, including the carbon emissions study and silvo-pastural system promotion.

Table 11: ET Farmer Survey Results on Key Strengths & Weaknesses of GENEX

Country & Region	% Farmers who said the most helpful GENEX services included:					% Farmers lists ways GENEX could have improved as:					
	Training	Mentor visits	AI Service	isease treat & prevent support	Bulk purchase to lower input costs	Continue the project for longer	Do more to strengthen POs, collective marketing	Cover different topics in TA	Make services more widely accessible	Increase frequency of services	Use more skilled TA providers
Peru	10%	53%	72%	47%	13%	28%	15%	20%	15%	25%	22%
South Africa	68%	69%	4%	77%	49%	70%	64%	57%	49%	34%	20%
TOTAL	**39%**	**61%**	**38%**	**62%**	**31%**	**49%**	**40%**	**39%**	**32%**	**30%**	**21%**

Weaknesses of GENEX CDP

The most commonly cited weaknesses or areas of improvement for GENEX CDP included:

1. **Need to provide more support in developing the capacity of POs as a sustainable business.** 63% of KII respondents across both countries mentioned this, as did 64% of surveyed farmers in South Africa (though only 15% of farmers in Peru), as shown in Table 11. Several respondents said the program prioritized technical support to individual farmers too much at the expense of building up the POs as structures which can continue to support farmers in the future. Others said GENEX should have done more to help POs initiate collective marketing as that is the core of what is needed for POs to function as businesses and earn money to provide member services in the future). In Peru, several respondents thought GENEX should have done more to help more POs develop value-added milk processing. The POs which had the most apparent successful progress and likelihood of sustainability (particularly Montevideo in Peru and Zulukama in South Africa) were those with collective marketing and which GENEX had successfully supported to improve marketing strategies. Unfortunately, this type of successful support and improvement was not common across the supported POs.

2. **Need to provide more tangible financial or capital support in South Africa,** to POs and/or farmer members (60% of South Africa-relevant KII respondents). Most of these respondents cited lack of monetary resources, land titles, and resultant access to formal financing as key constraint for small black farmers and the POs they have formed. They said that, in order to jump start actions like collective marketing or bulk input purchasing, some form of seed capital was needed, and that it should have been provided in the early years of the GENEX program. Specific suggestions made included: providing livestock directly on lease (which could be returned using calves born by end of the program), providing grants or helping secure loans for key infrastructure like fencing, land, feedlots, or processing plants, and working with Financial Institutions (FIs) to provide financial products to the POs or farmers that do not require land as collateral. The South Africa COP said that his team recognized financial access as the most crucial barrier from the outset and tried to address—and they did secure some outside financing for at least some members of all POs by the end—but they could not do as much as needed in this area because of lack of commitment from GENEX headquarters and USAID, who preferred to focus on TA. Some (though not all) respondents recognized the grants given near the end of the project as a type of tangible capital support and said it was helpful, but many of those said it came too late and/or did not help the POs to address their most important business needs. 3 respondents (2 at Zulukama, 1 at Border Rural) mentioned other tangible assets that GENEX helped them acquire through outside funding-- shearing sheds, feedlots, land, chickens for women's groups, goats for youth groups-- and emphasized how impactful those things were-- but this was a minority intervention.
3. **Need to strengthen AI promotion in South Africa** (40% of relevant KII respondents mentioned). Many respondents in South Africa were convinced of the value of AI but did not think the program did enough to enable increased and sustainable AI adoption, at least for farmers beyond a small group of wealthy farmers with large herds. Many respondents said that certain initial conditions needed to be addressed for AI to be feasible, notably that farmers needed support to set up more fencing, feedlots, and corrals to better manage animals, since they must be closely monitored for heat timing for AI to be possible. Others said that GENEX CDP did not set up systems for farmers to access AI, including connections to semen distributors and trained AI technicians. Some questioned whether AI was really appropriate for the context, given that beef cattle farmers generally have dispersed herds out of necessity and earn lower margins than dairy farmers, so investing in AI and the infrastructure to make it more feasible may not be economically optimal. But the topic got a lot of attention since it was part of the initial vision for GENEX CDP and the awareness building work they did piqued farmers' interest, but then they were not able to deliver at a wide scale.
4. **Need to strengthen health & nutrition support in Peru.** 47% of KII respondents in Peru mentioned this. Several respondents said that too much relative focus and resources were placed on genetic improvement, but to sustainably increase production improved breeding must be part of a holistic package with improved feed and health practices. Other respondents said that although livestock health and feed were covered in trainings in Peru there was not much tangible support to develop systems or provide input access in these domains, like was done for AI. Many of the mentors and AI technicians suggested that they should have been given a veterinary kit with basic medicines so that they could help farmers when they found sick animals during their visits.
5. **Data quality & system improvements needed:** 27% of all KII respondents mentioned that there were at least partial weaknesses in the data collection system, with most comments mentioning unreliability of financial data at the farm and PO level, especially for those other than the formally

registered cooperatives (who have legal financial reporting requirements). A number of KII respondents said that the field teams did their best to overcome these weaknesses, including conducting in-depth interviews with PO leaders to reconstruct financial records and come up with decent estimates, and training then to keep better records, but it was still hard to get very accurate data for all POs. A few HQ-level GENEX consultants and staff commented on wider problems in the data collection system, notably that there was no formal, well-organized Monitoring, Evaluation and Learning (MEL) system, including no MEL specialist(s) at headquarters or at ground level, no formal MEL training of the team, and no one to confirm that everyone was using the same definitions for indicators and then check the accuracy of the data. Notably, a DQA in October 2022 uncovered errors in how indicators were calculated, with some inaccurate indicator definitions applied and concerns on quality of source data. The ET also made some direct observations of weaknesses in this area, discussed in detail in the next sub-section.

6. **Need to do more strategic selection of POs:** 13% of KII respondents said that a key weakness of GENEX CDP was in choosing POs which were difficult to work with and had poor prospects for success as a sustainable business from the beginning. This included POs with members that were too geographically dispersed from one another to work well together, those with too many members who were not committed to livestock farming or even were not livestock farmers at all, and those with either too many highly diverse members (without enough common commodities) or too few members to get adequate scale for marketing.
7. **Some improvements could be made to training design**. 12% of KII respondents said that training was either too basic or too advanced for some members, that training attendance was very low in some POs, or that it omitted some important topics. On the farmer survey, some of the more frequently chosen improvement areas related to this topic. 57% of farmers in South Africa (and 20% in Peru) said the trainings needed to cover different topics, 49% in South Africa (and 15% in Peru) said that they should have been made more widely accessible, 34% in South Africa (and 25% in Peru) said they should have happened more frequently, and 22% in Peru (and 20% in South Africa) said they needed more skilled TA providers.
8. **Longer program duration needed to solidify gains:** 8% of KII respondents said that the program was too short, especially given the disruption of COVID, and more time was needed to solidify progress made. This latter point was the most frequently cited area of improvement among surveyed farmers as well: 28% of farmers in Peru and 70% in South Africa said that they wanted or needed the program to continue its support for a longer period.

More Detailed Discussion of MEL System Improvements Needed from ET Observation

As the ET spent a lot of time reviewing and analyzing GENEX data, we also have some direct observations.

1. The program teams spent a very high amount of time and effort on data collection, but the system was often inefficient and it was not possible to use the data for real-time adaptive program management or even to make clear conclusions on scale of interventions and the impact at the end of the program. For example:
    a. Regional Managers delivered detailed reports in Word format every month to the country COPs including numbers of people receiving various services from mentors. The country COPs compiled these into detailed summary documents, also in Word format. Compilation in this chosen format was very time consuming and produced no central electronic database, so it is not possible to get an accurate count of unique farmers served.

b. Panel data was collected on paper documents and entered by hand into Excel data sheets each year from roughly 10 farmers per PO. However, the data in South Africa was only compiled by the GENEX team into a single database at the very end of the project, and in Peru the GENEX team never combined the data. That step was only done during the evaluation by the lead evaluator on her own initiative, in order to enable analysis of the data for clear comparisons. Instead, the data was kept in separate Excel sheets per cooperative, individual, and year. Also, the data was collected in slightly different ways by each country team and even across regions in the case of Peru. Thus, the GENEX team was not able to do annual analysis of farmer impact summary statistics and use the data for adaptive management.

2. There were also flaws in the choices of which data to collect and the level of detail needed, which meant that GENEX lacked key tools that would be useful for targeting interventions and checking progress of cooperative development. For example:
    a. It became apparent during the evaluation that the GENEX team did not maintain updated, digitized lists of the members of all served POs to note which members attended trainings, received mentor visits, or sold collectively through the PO. As a result, there were not records of the percent of members served by the program or data that could be back-checked to understand why mentors selected specific farmers to receive TA over others within the largest POs. Ideally GENEX should have collected member lists from POs early on and noted key factors for each member (gender, age, location, livestock commodities produced, are they a community leader, etc.) and used this information to make strategic decisions about who to target for TA as well as to report on the portion of total members, and certain kinds of members, receiving GENEX services. GENEX CDP staff state that they generally developed and followed strategic plans in order to serve as many PO members as possible, and particularly to target promising early adopters, but this could not be verified by the ET using data.
    b. GENEX did not create improvement plans for the POs and measure progress on improvement plans each year, as is required under indicator CBLD-9. Instead, as part of the cooperative survey the team used a simple survey prescribed in a Cooperative Governance Manual developed by GENEX headquarters staff, which had been derived from the OCDC Framework for Cooperative Governance. The survey tool was a very simple yes-no checklist of 11 questions on governance, including items like “does the PO have a budget” and “does the PO follow by-laws,” and the score was the number of “yes” answers divided by 11. Thus, the results were very limited in scope. There was relatively little change in the responses to those questions over time, and for the most part the team counted all POs as "improved" unless they had major back-sliding on these questions or on financial metrics. If GENEX had developed a slightly more sophisticated PO capacity measurement tool, or set clear personalized goals for each cooperative based on an initial needs assessment, and then checked on progress on that tool or those goals each year, they would have a more meaningful measurement of PO development over time.

EQ 5: Contributions to Learning on Cooperative Development

Summary Finding: Overall, the ET found that there was some evidence of dissemination of project learnings conducted by GENEX CDP, but for the most part this was a weak area of the program. Key weaknesses include that existing reports were not widely shared and that there were not clear program learnings to begin with because of the weak MEL system. On the positive side, it seems that GENEX CDP had some good initiatives for encouraging peer exchange of learnings among farmers and POs themselves,

including field days, exchange visits, newsletters, and applied research—especially in Peru— that included work directly with farmers and shared the results back to them directly.

37% of all KII respondents made positive comments about the learning and dissemination done by GENEX CDP, while 15% made negative comments, and 12% made mixed comments that emphasized some positives and some areas for improvement. But 36% of KII respondents were not able to comment on this question at all, which by itself suggests the learning and dissemination system was weak. For example, almost none of the external partners interviewed for either South Africa or Peru could say anything about the broad objectives and key results of the GENEX CDP, and even if they mentioned that GENEX presented results to them sometimes they all said that reports (on the program itself or applied research conducted) were never shared with them. There were far more positive comments on learning and dissemination in Peru than in South Africa, as the team in Peru seems to have put a greater focus on conducting applied research and sharing the results locally, sharing success stories and other learnings out with cooperative leaders and members via newsletters, and conducting exchange visits and field days for farmers.
Based on KII respondent comments, the key methods through which GENEX CDP seems to have disseminated learnings include:

- **Applied Research:** Some of the applied research work done in Peru was relatively well-known and appreciated, with 30% of respondents in Peru, including many PO leaders, bringing it up. The soil sampling and related forage fertilizer development/dissemination was mentioned the most often, but some respondents also made positive comments about the carbon footprint analysis, milk composition analysis, and silvo-pastoral system work. More details on applied research and pilot projects in both countries can be found in *Appendix 3*.
- **Exchange Visits:** 23% of respondents (in both countries, but particularly Peru) mentioned how the program organized exchange visits and/or field days so that farmers could visit other areas and learn from one another, and they felt that this was very impactful. Several said there should have been even more such exchange visits.
- **Written materials:** 15% of respondents (most in Peru) mentioned how the program shared success stories in written form-- newsletters, reports, and social media posts-- between POs and with other stakeholders. However, all the external partners interviewed said that reports/results were not shared with them and they would have liked to see those.
- **Presentations for local governments & private sector partners:** 15% of respondents (most in South Africa) mentioned how the program organized presentations at meetings with government officials and other stakeholders and helped to disseminate some of their best practices and success stories via these fora. However, most of the external partners interviewed said that they didn't receive any written reports from GENEX and would have liked to see those also.
- **GENEX Internal Knowledge Exchange:** 12% of respondents (all GENEX staff, with equal spread between the countries) talked about how the team members participated in internal meetings to share results, including challenges and success stories, across regions and POs so that they could learn from one another and improve their work, and that this helped them improve their impacts. On the other hand, some country-level staff said that GENEX headquarters staff did not listen to some of their key learnings and requests, notably to provide tangible financial support to the POs earlier in the program, as it was one of their most crucial needs. This suggests that GENEX still needs to further improve its culture of internal learning and adaptation.

- **Global Knowledge Sharing:** 10% of respondents talked about efforts to share learnings with other global CDP IPs via OCDC events and more broadly with the global development community through social media posts and presentations in other fora. For Peru, this included a presentation made by Joe Mantilla at an NCBA Cooperative Hall of Fame Induction event in October 2023 and several USAID Peru partner meetings over the LOP. For South Africa, Lieb Venter commented that stakeholders in other countries including the DRC and Mozambique have reached out to him (under the auspices of his leadership in FarmVision) and have expressed interest in the GENEX CDP model and how it could be extended internationally, so he has shared information about it with them and FarmVision has plans underway to set up something like the CDP in the DRC.

Beyond specific KII comments, the ET also observed in document review that many reports which were produced emphasized anecdotal evidence rather than comprehensive analysis of results, which was likely caused by the fact that program data was not collated into central databases for analysis of summary statistics and that there was no dedicated MEL staff. This made it difficult for GENEX CDP to even generate clear learnings to disseminate locally and globally. And where the team did try to share summary statistics it was difficult to do so accurately. One KII respondent mentioned how a figure about total cooperative sales generated by the program was shared with a US-based publication, but that figure was far too high to be accurate; it probably came from an effort to extrapolate data from limited farmer success stories to the full official list of PO members, but this was a flawed approach.

RECOMMENDATIONS

Overall, based on the findings of this Evaluation the ET makes the following recommendations to GENEX and other IPs for future CDP programs:

1. A Community-embedded support staff model is very impactful and should be scaled up: The strongest component of GENEX was the way that it selected mentors, interns and AI technicians who already lived in the communities being served. Because these staff lived close to the farmers, they were also able to compliment general trainings with hands-on support in follow-up visits, which farmers found more useful and convincing than training alone. This led to increased trust from the farmers, which increased adoption rates, and it built up local skills/knowledge and enduring connections which should increase sustainability of outcomes in the future. This model should be emulated in future agricultural development projects, though for the CDP in particular the model could be modified to put more emphasis on follow-up support with PO leaders on cooperative business capacity development and marketing and a bit less on individual farmer production.

2. Cooperative development programs should put emphasis on both cooperative business development *and* farmer productivity: GENEX did make significant impacts on farmer productivity, and this was greatly appreciated by farmers and cooperative leaders. Other CDP IPs who do not focus on this currently should consider adding activities aimed at farmer production. But GENEX CDP did not do enough to boost cooperative business capacities and change business performance, and this puts its sustainability into question. Many of the POs are not well equipped to support members well in the future. However, in a few cases, like Montevideo, Jarara, Pozuzo and La Fortaleza in Peru and Zulukama in South Africa, the program was successful in both aspects, and that is where the major impacts were seen. These POs can serve as a model for what GENEX and other CDP IPs should strive to achieve with all supported POs in the future. The winning formula seems to be a) starting with POs that have potential for growth (strong leaders, member common interests), b) providing PO leaders with TA and tangible financial support aimed

at improving PO management capacities and business strategies, specifically to initiate or increase collective sales and other revenue-generating activities so that POs could earn funds into central accounts, and c) concurrent TA and input access support to farmers to boost their production. Ideally the farmer TA should be delivered through the PO somehow, with business profits used to fund extension agents or input delivery by the end of the program. But hiring at least some staff with technical expertise in the target commodity of the served POs, as GENEX did with livestock experts, is a good practice: such staff can help to create better materials and provide better strategic support and TA to POs to support their members.

3. **Financial support is a crucial ingredient for cooperative development, and it should be well planned and included early on:** Many of the biggest impacts of the GENEX CDP were seen where the program did provide tangible support— the in-kind medicine grants to establish revolving-fund in South Africa, the improved breed semen straws provided free to AI technicians and the free fertilizer provided for pasture demo plots in Peru, and successful assistance to some POs to acquire external funding for capital investments. Unfortunately, much of this came near the end of the LOP and was not planned systematically from the beginning, partly because of an attitude among high-level managers that GENEX did not want to give hand-outs. The program was correct to try to build self-reliance of the POs and farmers, encouraging them to make and invest their own money instead of always waiting for government and donor money. But including some finance access support to help kick-start business expansion is important, especially in South Africa where the target population has very low monetary resources and low land ownership, which makes commercial borrowing difficult, if not impossible. In the future, GENEX and other CDP IPs should plan out the financial support component more systematically and include a grant or concessionary loan component near the beginning. To avoid encouraging hand-out mentality, certain requirements could be stipulated to ensure that the POs are serious and committed (submitting an application with a detailed business plan, raising partial cost-share, etc.). GENEX and other CDP IPs can also do more on the enabling environment side to build up financial services, like working with local banks or FIs to develop loan products suitable for small farmer POs, for example loans which do not depend on land as collateral.

4. **An organized MEL system is crucial, and stakeholders should agree from the beginning on importance and uses of quality data.** Because GENEX's MEL system was not well structured it weakened the ability of the team to extract key learnings both for on-going adaptive management during project implementation and to share with other stakeholders in the broader cooperative development community. The problem was a general lack of experience at GENEX with quality data management, as well as a disconnect between USAID, GENEX HQ staff, and staff in the different country teams about what data was important to collect, why, and how it could be used to enhance the project. GENEX staff to a large extent perceived data collection and reporting as “busy work”, and because they didn’t understand how to make it valuable it essentially *became* busy work, collected in an inefficient format that made it nearly unusable. In the future, GENEX development projects should always have a clear MEL plan which all stakeholders understand and agree with, which is centered around tracking project impacts on an on-going basis to enable agile adaptive management, and which is more efficient. To improve efficiency, GENEX should in future always use electronic data capture (EDC, i.e. on a platform like KoboToolbox, CommCare, etc.) for both regular monitoring data (of interventions and people served) and for annual impact data on POs and farmer members. EDC will reduce time wasted on data entry, help improve accuracy and uniformity of data and put it quickly in a format that can actually be used to extract learnings. At HQ level, and in each

country, there should be at least 1 MEL specialist with data collection and analysis experience in charge of overseeing the process, ensuring that uniform indicator definitions and survey forms are well understood and used, that collected data is accurate and supported by adequate evidence, and that data is analyzed, shared and utilized regularly for adaptive management.

APPENDICES

Appendix 1: List & Details of Peru POs

Management Area	Producer Organization	PO type at Baseline	PO type at Final	Main products sold	# Registered members	ET verified # farmers GENEX served	In ET sample?
Huánuco	Codo de Pozuzo	Association		Beef cattle	58	42	
	Huanuco Viejo	Association		Milk, cheese	34	34	Yes
	Jarara	Association		Milk, milk products	28	20	
	Montevideo	Communal Enterprise	Cooperative	fresh milk, milk products	60	60	Yes
	Nuevo Progreso**	Association		Beef cattle	33	24	
	Pozuzo*	Association		Live cattle	55	40	Yes
	Uchiza**	Association		Fresh milk	20	22	Yes
Pasco	Andachaca	Rural Commune		Cheese, beef cattle, bull services	90	30	Yes
	Chontabamba	Association		Milk, live cattle	45	32	
	Huallay	Communal Cooperative		Milk, milk products	489	45	
	Huancabamba	Association		Milk, live cattle	16	12	
	Oxapampa	Association	Cooperative	Milk, live cattle	25	19	Yes
	Sacra Familia	Communal Cooperative		Milk, cheese, live cattle	229	21	
	San Antonio de Rancas	Communal Cooperative		Milk, live cattle	343	30	Yes
San Martin	El Dorado	Association	Cooperative	Fresh milk	31	17	Yes
	Gran Pajaten	Committee	Cooperative	Fresh milk	16	12	
	Holandeza Perla Mayo	Association	Cooperative	Fresh milk	11	8	
	Huallaga Central	Association	Cooperative	Fresh milk	18	13	
	La Fortaleza	Association	Cooperative	Fresh milk	33	24	Yes
	Nuevo Egipto	Association	Cooperative	Fresh milk	10	8	
	San Pablo	Association	Cooperative	Fresh milk	27	20	
TOTAL					**1,671**	**533**	

*Is geographically in Pasco, but was put under the GENEX Regional Manager for Huanuco
**Is geographically in San Martin, but was put under the GENEX Regional Manager for Huanuco

Appendix 2: List & Details of South Africa POs

Management Area		PO	PO Type (at Baseline & Final)	Main products sold	# Registered members	ET verified # farmers GENEX served	In ET sample?
Eastern Cape		Bilatye + Mkhonjana	Communal Cooperative, Secondary	Beef, sheep, pigs, crops	255	99	
		Birha Beef	Primary Cooperative	Beef, goats	12	12	
		Border Rural	Primary Cooperative	Beef, goats	24	24	Yes
		Ikhephu	Secondary Cooperative	Beef, sheep, goats, feedlotting, crops	166	163	
		Mayime	Communal Cooperative, Primary	Dairy, beef, sheep, winery	369	44	Yes
		Zulukama	Communal Cooperative, Secondary	Beef, sheep, goats, crops	1,207	148	Yes
High Veld Region	Free State	BEMIFA	Primary Cooperative	Beef, crops	43	42	Yes
	Limpopo	Immerpan	Primary Cooperative	Beef, crops	42	41	Yes
	Mpumalanga	Vuka Landbou	Primary Cooperative	Beef, crops	30	30	
KwaZulu Natal		Isibonelo Eishle	Secondary Cooperative	Beef, sheep, goats, crops	13	13	Yes
		Makhoba	Communal Cooperative, Secondary	Dairy, beef, sheep, crops	47	6	
		Owathathe	Secondary Cooperative	Beef, sheep, goats, crops	12	12	
TOTAL					**2,220**	**634**	

Appendix 3: Details of Applied Research Work

Title	Description	Partner(s)	Scope
SOUTH AFRICA PILOT PROJECTS			
Pregnancy Scanner Pilot	Pregnancy scanner device (probe put into the animal, can detect pregnancy even if embryo is very tiny) donated and farmers trained on its use; is good for helping plan animal management as pregnant cows have different nutritional needs and cannot be safely vaccinated. The idea was for the co-op to provide pregnancy detection to own members and outside farmers as a paid service.	GENEX, Inc.	Vukalandbou Cooperative
Findings: There was high interest in the use of pregnancy scanners for more accurate pregnancy detection, and it clearly has benefits in enabling quick identification of pregnancy and thus earlier application of best practices for pregnant cows. But so far it has not become a major money maker for Vukalandbou, which remains one of the weakest-performing POs.			
Backgrounding initiative	Backgrounding is a beef production system that involves maximal use of pasture and forages from the time calves are weaned until they are placed in a feedlot. This pilot project focused on improving health and growth of young cattle through proper diet, housing, health interventions. The idea was a to test whether doing intensive backgrounding before selling to a feedlot could be a lucrative business for individuals and/or for a PO as a whole.	Karan Beef, Ltd.	Immerpan Cooperative
	Findings: Co-op members raised young cattle collectively though the initiative and saw benefits of such collaboration. The potential for profits was demonstrated, but there were also some challenges getting legal approval and pharmaceutical materials support. GENEX support to get such external support was crucial for success, so it might not be a successful business initiative without such support.		
Affordable medicines pilot project	Private company (Special purpose vehicle) formed to offer in-kind inputs (especially vaccines) on credit to farmers; the idea was to buy in bulk and get discounted inputs, and to use farmer repayment with interest to continue expanding the program in the future. Was also a pilot to prove the credit-worthiness of smallholder farmers, as FIs were reluctant to lend to them.	FarmMark	All 12 CDP-support Pos
	Findings: Farmer repayment was high, with no defaults among those who bought medicines. This proves the concept that it could be a lucrative investment for financial institutions to help provide in-kind loans of medicines or other inputs to these small farmers. Unfortunately, though there was high interest in some POs and among some members, generally the scale of adoption was too small to secure bulk discounts, and the initiative was not self-sustaining.		

Improved fodder trials	Supplied seeds of various forage grass cultivars for trial projects, aiming to enhance the quality and availability of fodder for cooperative members' livestock, particularly during the challenging winter months.	Barenburg South Africa Seeds, Ltd.	8 of the CDP cooperatives (the more commercially-oriented ones)
PERU APPLIED RESEARCH			
DairyComp-Go	Development and beta-testing of mobile app to help dairy producers with record keeping.	VAS	All 21 CDP-supported PO's, All Peru
	Findings: Adoption was low, because of resistance among older farmers, lack of technology and networks. Digital record-keeping could still be impactful but needs improved design, targeting, and promotion that is responsive to the local context.		
Soil sampling & Forage fertilizer demo	Collection and analysis of 300 soil samples to create soil GIS maps and personalized pasture fertilization programs and to improve fertilizer efficiency through the production of compost enriched with efficient microorganisms. Fertilizers later were distributed to members of supported POs for 210 demo plots.	AgSource laboratories + UNC	All 21 CDP-supported PO's
	Findings: With use of fertilizers and improved compost, pasture production doubled, and forage nutritional quality improved. The use of these improved inputs was cost-effective because the value of the boost in production outweighed the cost.		
Silvopastural trainings & demo paddocks	Implemention of Silvopastoral Systems on demonstrative paddocks	INIA, PEAM, PEBM, DETECT (NGO)	All 16 jungle CDP-supported PO's
	Findings: Adoption of silvopastural systems alone is estimated to have the potential to reduce CO_2 emissions by 0.29kg CO_2 per 1kg of milk produced.		
Forest Plantation project	Development of large-scale forest plant production processes, distribution of tree seedlings.	PEAM	7 associations in San Martín and Huánuco
	Findings: Over 59,000 seedlings were distributed with 60% vitality projected after 2 years. This is expected to have a major impact on sustainability through soil improvement, increased access to forage, and diversification of farmer incomes.		
TAPE Tool study	Case Study on the Sustainability of the GENEX Cooperative Program in Peru, under the Tool for Agroecology Performance Evaluation (TAPE) Approach, which helped to quantify and map 10 areas of capacity improvement in the 21 supported cooperatives.	AgSource & Dairyland laboratories	All 21 CDP-supported PO's
	Findings: The domains with highest average scores near the end of the project were: Governance (87%), Culture & Traditions (83%) and Synergies & Emissions (81%), while other dimensions had average scores from 62-68%. Regions had similar performance, except Pasco scored higher		

	(around 83%) in Co-Creation and Exchange. Montevideo Cooperative scored the highest on average, while La Fortaleza and Oxapampa also had relatively high scores. These results show that all 21 supported POs were fairly strong and mature by the end, with a high commitment to environmental good practices and cooperative principles. Those that performed best had developed a high level of trust among members.		
Carbon Footprint Assessment	Quantified CO_2 emissions by the 21 supported POs and made recommendations on how to reduce emissions in the future.	AgSource & Dairyland laboratories	All 21 CDP-supported PO's
	Findings: Across all POs, there were average emissions of 3.84kg CO_2 per 1kg milk and 116.81kg CO_2 per 1 kg of milk protein produced(similar to South America averages, but higher than in other developing country regions). However, variability in results showed the adoption of improved practices – including genetic improvement, increasing protein in feeds, silvo-pastural systems, and improving digestibility of forages – can reduce greenhouse gas emission intensity.		
Montevideo AI Case Study	Case Study which quantified the impact of introducing more Holstein cows though AI. Led to Report: "Cooperativa Agropecuaria Montevideo: Model of Sustainable Livestock Farming in the Altimontane and Basimontane Yunga Forest of Huánuco in Peru"	AgSource & Dairyland laboratories	Montevideo Cooperative
	Findings: Adoption of improved genetics and other practices increased milk yields from 5.92kg to 12 kg per day and dropped CO_2 emissions from 4.46kg to 1.95kg CO_2 per 1kg of milk produced. Introducing further improvements including more optimal grazing systems, higher-protein forages, and silvo-pastural systems could further increase milk yields to 19kg per day and reduce yields to 1.03 kg CO_2 per 1kg of milk.		
Brown Swiss genetics study	Development of a Brown Swiss genetics reference database in the high Andes of Pasco and Huanuco using genomic tools	UNALM	High Andes of Pasco and Huanuco
	Findings: Efforts to build Brown Swiss genealogy reference are still underway; data has been partially collected but analysis is not complete. Early findings did conclude that the 3% of the population in Huanuco and 0.8% in Pasco with milk yields of 14.7 kg per day or higher are almost exclusively from Brown Swiss cows introduced through a genetic improvement program and AI.		
BTV Prevalence study	Short prevalence study and genetic identification of BTV in the Peruvian jungle	UNMSM	San Martin
Milk composition evaluation	Milk sampling for evaluation of milk composition	GENEX CDP Peru team, no external partners	All 21 CDP-supported PO's
Disease surveillance system	Preventive disease surveillance systems developed, with mentors were certified as authorized sanitary agents and vaccinators.	SENASA	All 16 jungle CDP-supported PO's

Appendix 4: Key Informant Interview Participant Details

Peru KIIs				
Category	**Organization**	**Position**	**Format**	**Who Conducted?**
GENEX Staff	GENEX	Peru Chief of Party	Virtual	Kaitlyn Smoot
GENEX Staff	GENEX	Regional Manager for Huanuco	Phone	Clara Martinez
GENEX Staff	GENEX	Regional Manager for San Martin	Phone	Clara Martinez
GENEX Staff	GENEX	Regional Manager for Pasco	Phone	Clara Martinez
Mentor	GENEX	Mentor for Montevideo & Huánuco Viejo	Phone	Clara Martinez
Mentor	GENEX	Mentor for Pozuzo	Phone	Clara Martinez
Mentor	GENEX	Mentor for San Antonio De Rancas & Andachaca	Phone	Clara Martinez
Mentor	GENEX	Mentor for Oxapampa	Phone	Clara Martinez
Mentor	GENEX	Mentor for La Fortaleza	Phone	Clara Martinez
Mentor	GENEX	Mentor for El Dorado	Phone	Clara Martinez
Mentor	GENEX	Mentor for Uchiza	Phone	Clara Martinez
PO Leader	Montevideo Cooperative	Vice President	In Person	IMUTATIS team
PO Leader	Huánuco Viejo Committee	President	In Person	IMUTATIS team
PO Leader	Pozuzo Association	Vice President	In Person	IMUTATIS team
PO Leader	San Antonio de Rancas Cooperative	Farmer Leader	In Person	IMUTATIS team
PO Leader	Andachaca Peasant Community	Board Member (Fiscal)	In Person	IMUTATIS team
PO Leader	Oxapampa Association	President	In Person	IMUTATIS team
PO Leader	La Fortaleza Association	President	In Person	IMUTATIS team
PO Leader	El Dorado Association	Vice President	In Person	IMUTATIS team
PO Leader	Uchiza Association	President	In Person	IMUTATIS team
AI Technician	Montevideo Cooperative	Member	In Person	IMUTATIS team
AI Technician	Huánuco Viejo Committee	Member	In Person	IMUTATIS team
AI Technician	Pozuzo Association	Member	In Person	IMUTATIS team
AI Technician	San Antonio de Rancas Cooperative	Member	In Person	IMUTATIS team
AI Technician	Andachaca Peasant Community	Member	In Person	IMUTATIS team
AI Technician	Oxapampa Association	Member	In Person	IMUTATIS team
AI Technician	La Fortaleza Association	Member	In Person	IMUTATIS team

AI Technician	Uchiza Association	Member	In Person	IMUTATIS team
External Stakeholder	National Agrarian University La Molina - UNALM	Head Of The Genetic Improvement Program	Virtual	Clara Martinez
External Stakeholder	Tingo María Agrarian Agency	Livestock Manager	Phone	Clara Martinez
External Stakeholder	National Agrarian University Of The Jungle - UNAS	Teacher-Animal Husbandry	Virtual	Clara Martinez
External Stakeholder	DEVIDA	Cooperative Manager	Virtual	Clara Martinez
External Stakeholder	Avance Rural Project - Agro Rural	Rural Advance Project	Phone	Clara Martinez
External Stakeholder	Alto Mayo Special Project - PEAM	PEAM Coordinator	Phone	Clara Martinez
External Stakeholder	National Institute Of Agrarian Innovation - INIA	Forage Pasture Program Coordinator	Virtual	Clara Martinez
External Stakeholder	USAID/Peru	Project Management Assistant, Sustainable Development Program	Virtual	Kaitlyn Smoot

South Africa KIIs				
Category	**Organization**	**Position**	**Format**	**Who Conducted?**
GENEX Staff	GENEX	South Africa Chief of Party	Virtual	Kaitlyn Smoot
GENEX Staff	GENEX	Regional Manager for Eastern Cape	Virtual	Miriam Chikwanda
GENEX Staff	GENEX	Regional Manager for KwaZulu Natal	Virtual	Miriam Chikwanda
GENEX Staff	GENEX	Regional Manager for High Veld	Virtual	Miriam Chikwanda
Mentor	GENEX	Mentor for Zulukama	Virtual	Miriam Chikwanda
Mentor	GENEX	Mentor for Border Rural	Virtual	Miriam Chikwanda
Mentor	GENEX	Mentor for Mayime	Virtual	Miriam Chikwanda
Mentor	GENEX	Mentor for Isibonelo	Virtual	Miriam Chikwanda
Mentor	GENEX	Mentor for BEMIFA	Virtual	Miriam Chikwanda
Mentor	GENEX	Mentor for Vukalandbou	Virtual	Miriam Chikwanda
Mentor	GENEX	Mentor for Immerpan	Virtual	Miriam Chikwanda
PO leader	Zulukama Cooperative	Chairperson	In person	Bongani Manzini
PO leader	Mayime Cooperative	Chairperson	In person	Bongani Manzini
PO leader	Border Rural Cooperative	Chairperson	In person	Bongani Manzini
PO leader	Immerpan Cooperative	Deputy Chairperson	In person	Daniel Nengovhela
PO leader	BEMIFA Cooperative	Chairperson	In person	Daniel Nengovhela
PO leader	Isibonelo Cooperative	Chairperson	In person	Onismo Muzah
Intern	GENEX	Intern for Zulukama	In Person	Bongani Manzini
Intern	GENEX	Intern for Border Rural	In Person	Bongani Manzini
Intern	GENEX	Intern for Mayime	In Person	Bongani Manzini
Intern	GENEX	Intern for BEMIFA	In Person	Daniel Nengovhela
Intern	GENEX	Intern for Immerpan	In Person	Daniel Nengovhela
Intern	GENEX	Intern 1 for Isibonelo	In Person	Onismo Muzah

Intern	GENEX	Intern 2 for Isibonelo	Phone	Onismo Muzah
External Stakeholder	Skills for All	Senior Trainer	Virtual	Miriam Chikwanda
External Stakeholder	Red Meat Institute for Transformation and Enterprise Development (RMI TED)	Chief Executive Officer	Virtual	Miriam Chikwanda
External Stakeholder	Gauteng Dept of Agriculture (GDARD)	State Veterinarian	Virtual	Miriam Chikwanda
External Stakeholder	Makhoba Dairy Farm	General Manager of Dairy Farm	Virtual	Miriam Chikwanda
External Stakeholder	Limpopo Department of Agriculture	Agricultural Manager	Virtual	Miriam Chikwanda

High-Level KIIs				
Category	**Organization**	**Position**	**Format**	**Who Conducted?**
GENEX Staff	GENEX/URUS	URUS Director of Global Development, Temporary GENEX CDP Manager	Virtual	Kaitlyn Smoot
GENEX Staff	GENEX/URUS	Former COO of URUS & CEO of GENEX	Virtual	Kaitlyn Smoot
GENEX Staff	GENEX/URUS	Former Associate VP of Global Development & VP of International Marketing, Current Consultant	Virtual	Kaitlyn Smoot
GENEX Staff	GENEX/URUS	Current MEL Consultant on GENEX CDP	Virtual	Kaitlyn Smoot
GENEX Staff	GENEX/URUS	Former MEL Consultant on GENEX CDP	Virtual	Kaitlyn Smoot
GENEX Staff	GENEX/URUS	Former GENEX CDP Manager (2012-2021)	Virtual	Kaitlyn Smoot
GENEX Staff	GENEX/URUS	Former GENEX CDP Manager (June 2022-Feb 2024)	Virtual	Kaitlyn Smoot

Appendix 5: Project Key Indicators- LOP Targets vs. Actuals[1]

Indicator Number	Indicator Name	Baseline	LOP Target	LOP Actual for Eval	% LOP Target Achieved for Eval
CDP Purpose #1	Dollar ($) Value of Income and/or Services Delivered To Members by Cooperatives and Credit Unions	$5,696,748	$35,035,835	$32,607,054	93%
	Value of income			$26,010,077	
	Value of services			$900,229	

[1] The numbers in this table come from ET review and analysis of available project data, not PPR data officially prepared, submitted and approved by USAID. While most still align with those in the official PPR table, the totals here are for LOP instead of specific years, so that leads to some differences, and in the case of a few indicators where the ET data contradicted the official numbers the ET included different results (CDP IR2, GNDR-2, EG.5-15).

CDP Purpose #3	Dollar ($) Value of Member Equity in a Cooperative or Credit Union	$0	$0	$861,140	n/a
CBLD-9	Percent of Cooperatives and Credit Unions with Improved Governance (CBLD-9 wording in DIS: Percent of USG-assisted organizations with improved performance)	-	100%	91%	91%
CDP IR2	Number of Cooperative Members Benefiting from Services and Resources Delivered through cooperatives and Credit Unions	-	2,335	1,167	50%
	Gender: Male	-	1,238	677	55%
	Gender: Female	-	1,098	490	45%
	Age: 18-35	-		82	
	Age: over 35 years of age	-		1,085	
CDP IR3	Number of Organizations Using CDP-Developed Tools and Resources To Benefit Cooperatives and Cooperative Systems	-	33	33	100%
GNDR-2	Percentage of Female Participants in USG-Assisted Programs Designed To Increase Access To Productive Economic Resources	-	47%	42%	89%
CBLD-10	Dollar ($) value of non-donor resources mobilized for locally led development priorities	-	$2,574,252	$4,945,587	192%
EG.3.2-27	Value of Agriculture-Related Financing Accessed as a Result of USG Assistance	-	$486,727	$2,165,781	445%
EG.5.2-1	Number of Firms Receiving USG-Funded Technical Assistance for Improving Business Performance	-	33	33	100%

EG.5.2-2	Number of Private Sector Firms that have Improved Management Practices or Technologies as a Result of USG Assistance	-	33	33	100%
EG.5-1	USD Sales of Firms Receiving USG-Funded Assistance	$5,696,748	$8,273,130	$7,763,597	94%
EG.5-15	Percentage change in sales of firms receiving USG-funded assistance[2]		45%	36%	80%

Appendix 6: Key Results Tables Broken Down by Region or Province

Selected Governance & Management Metrics

Country & Region	From GENEX Data					From ET Farmer survey			
	Change in Gov. score	POs with higher Gov. score	POs with more staff	Change in Female Board representation	Change in Youth Board representation	% say governance improved	% say management capacity improved	% say female inclusion improved	% say youth inclusion improved
Peru	**255%**	**100%**	**43%**	**62%**	**48%**	**72%**	**72%**	**47%**	**50%**
Huanuco	633%	100%	86%	57%	86%	100%	85%	50%	45%
Pasco	92%	100%	29%	57%	29%	65%	68%	50%	68%
San Martin	39%	100%	14%	71%	29%	63%	70%	40%	30%
South Africa	**45%**	**65%**	**25%**	**17%**	**25%**	**56%**	**41%**	**55%**	**40%**
EC	6%	33%	17%	0%	33%	64%	50%	60%	49%
HV	93%	100%	67%	33%	33%	21%	8%	38%	6%
KZN	73%	100%	0%	33%	0%	70%	50%	60%	50%
TOTAL	**150%**	**83%**	**34%**	**40%**	**37%**	**64%**	**57%**	**51%**	**45%**

[2] Note that in yearly targets and actuals this is reported on a year-to-year basis, and the indicator was only added in 2023, with a target of +8% sales for 2022-2023 and +5% sales for 2023-2024. However, we chose to show this table in LOP format, so the change is baseline vs. endline percent change. Since no formal LOP target was set for this indicator in advance the ET extrapolated it from the EG.5-1 baseline level versus 2024 target.

Selected Member Level & Commitment Metrics

Country & Region	From GENEX Data					From ET Farmer survey			
	Change in # members	% POs with increased members	% POs with increased youth	% POs with increased women	% POs with increased member equity	% say portion active members up	% say meeting attendance up	% say member numbers up	% say member monetary contributions up
Peru	**36%**	**19%**	**24%**	**33%**	**62%**	**37%**	**62%**	**52%**	**20%**
Huanuco	75%	29%	43%	57%	100%	40%	80%	75%	30%
Pasco	-8%	0%	0%	0%	71%	33%	58%	40%	10%
San Martin	40%	29%	29%	43%	14%	40%	57%	53%	27%
South Africa	**49%**	**58%**	**33%**	**58%**	**50%**	**47%**	**42%**	**32%**	**19%**
EC	4%	50%	50%	33%	0%	60%	53%	47%	21%
EHV	111%	67%	33%	100%	100%	6%	19%	6%	19%
KZN	76%	67%	0%	67%	100%	50%	30%	0%	10%
TOTAL	**43%**	**39%**	**29%**	**46%**	**56%**	**42%**	**52%**	**42%**	**20%**

Select GENEX-Provided Metrics on Marketing & Business Performance

Country & Region	From GENEX Coop Data									
	% Change in Sales	% POs had revenue increase	% Change in Profits	% POs had profit increase	% Change in member pay-outs	% POs with member pay-outs up	% POs received grant(s)	% POs received external loan(s)	# POs with collective sales 2019	# POs with collective sales 2024
Peru	**82%**	**90%**	**334%**	**62%**	**81%**	**90%**	**29%**	**10%**	**6**	**11**
Huanuco	161%	100%	922%	100%	143%	100%	57%	14%	2	3
Pasco	64%	100%	14%	57%	80%	100%	0%	0%	3	5
San Martin	22%	71%	66%	29%	20%	71%	29%	14%	1	3
South Africa	**239%**	**42%**	**731%**	**42%**	**97%**	**33%**	**92%**	**33%**	**2**	**12**
EC	-9%	17%	-38%	17%	200%	67%	83%	33%	2	6
HV	67%	67%	104%	67%	0%	0%	100%	0%	0	3
KZN	909%	67%	2897%	67%	-10%	0%	100%	67%	0	3
TOTAL	**161%**	**66%**	**533%**	**52%**	**89%**	**62%**	**61%**	**22%**	**8**	**33**

Select Evaluation Team-Generated Metrics on Marketing & Business Performance

Country & Region	From ET farmer survey				From ET PO Leader survey					
	% farmers said PO marketing improved	% farmers said bulk purchases lowered costs	% farmers said # buyers up	% farmers make any collective sales	% said business perform-ance up	% attribute to GENEX	% said revenue up	% did bulk purchases to cut costs	% improved value-addition	% improved collective market
Peru	**64%**	**19%**	**42%**	**49%**	**100%**	**73%**	**89%**	**33%**	**44%**	**22%**
Huanuco	80%	30%	60%	75%	100%	80%	50%	100%	100%	50%
Pasco	58%	28%	28%	25%	100%	73%	100%	25%	25%	25%
San Martin	63%	0%	50%	63%	100%	70%	100%	0%	33%	0%
South Africa	**47%**	**63%**	**14%**	**26%**	**80%**	**35%**	**33%**	**59%**	**50%**	**50%**
EC	43%	72%	17%	28%	67%	53%	67%	67%	100%	67%
HV	33%	38%	0%	0%	0%	0%	0%	50%	0%	0%
KZN	80%	60%	20%	60%	100%	50%	0%	0%	0%	100%
TOTAL	**56%**	**41%**	**28%**	**38%**	**75%**	**54%**	**61%**	**42%**	**47%**	**36%**

Select GENEX-Provided Farmer Livelihood Metrics

Country & Region	From GENEX Annual Farmer survey							
	% change in production*	% with increased production*	% change in sales	% with increased sales	% change in profits	% with increase in profits	% with decrease in expenses	% adopted AI
Peru	**144%**	**76%**	**117%**	**81%**	**150%**	**72%**	**17%**	**75%**
Huanuco	108%	86%	211%	93%	289%	90%	14%	96%
Pasco	87%	64%	34%	68%	36%	45%	23%	68%
San Martin	221%	75%	73%	77%	76%	70%	17%	58%
South Africa	**321%**	**77%**	**402%**	**77%**	**115%**	**47%**	**28%**	**3%**
EC	386%	90%	626%	90%	196%	54%	8%	8%
HV	173%	80%	269%	80%	161%	52%	32%	0%
KZN	346%	43%	58%	43%	-97%	26%	65%	0%
TOTAL	**233%**	**77%**	**260%**	**79%**	**134%**	**60%**	**23%**	**40%**

*Yields were not clearly and consistently reported for most farmers, so this shows average farmer production, not productivity. For Peru production was measured in liters of milk and kg of animals produced (not necessarily sold) each year, while for South Africa it was based on number of animals sold and kg of wool sold per year.

Select Evaluation Team-Generated Farmer Livelihood Metrics

Country & Region	From Evaluation Team Farmer survey									
	% with yield up	% say yield up due to GENEX	% with sales up	% say sales up due to GENEX	% with costs down	% adopted any new practice	% say adopted due to GENEX	% received GENEX disease support	% adopted improved health practices	% adopted AI
Peru	**87%**	**70%**	**79%**	**64%**	**9%**	**82%**	**73%**	**49%**	**66%**	**84%**
Huanuco	100%	70%	93%	66%	13%	80%	69%	60%	69%	100%
Pasco	86%	74%	76%	68%	14%	93%	76%	45%	54%	83%
San Martin	80%	65%	73%	56%	0%	69%	70%	47%	85%	77%
South Africa	**65%**	**86%**	**56%**	**76%**	**33%**	**93%**	**98%**	**88%**	**84%**	**4%**
EC	67%	91%	66%	78%	39%	96%	98%	94%	89%	4%
HV	65%	68%	41%	64%	35%	88%	96%	89%	71%	6%
KZN	57%	83%	30%	75%	13%	90%	100%	60%	78%	0%
TOTAL	**76%**	**78%**	**68%**	**70%**	**21%**	**88%**	**86%**	**69%**	**75%**	**44%**

Evaluation Team Farmer Survey Metrics on Cooperative Awareness & Attitudes

Country & Region	% aware of cooperative model	% with positive attitude on coops	% with better coop attitude	% better attitude due to training on coops	% better attitude due to services received	% with high trust in their own PO	% with increased trust in PO	% with portion sold through PO up
Peru	**67%**	**76%**	**83%**	**54%**	**17%**	**61%**	**69%**	**40%**
Huanuco	75%	80%	95%	32%	5%	70%	85%	60%
Pasco	70%	70%	75%	60%	27%	53%	60%	25%
San Martin	57%	83%	87%	65%	15%	67%	70%	47%
South Africa	**49%**	**56%**	**53%**	**46%**	**64%**	**56%**	**55%**	**18%**
EC	47%	68%	68%	50%	72%	62%	68%	23%
HV	44%	38%	19%	33%	0%	31%	13%	0%
KZN	70%	30%	40%	25%	50%	70%	60%	20%
TOTAL	**58%**	**66%**	**68%**	**50%**	**41%**	**59%**	**62%**	**29%**

Selected Member Service Metrics

Country & Region	From GENEX Farmer Data		From GENEX Coop Data			From Evaluation team Farmer survey			
	# PO services farmers got at Final	% change in # services	# Services PO provides at Final	% members accessing services at Final	POs with increase in % members accessing services	% farmers said PO services improved	% farmers said PO offered improved TA	% farmers say PO has services beyond TA & marketing	Average # of service improvements mentioned
Peru	**2.0**	**89%**	**2.3**	**66%**	**52%**	**72%**	**60%**	**53%**	**3.7**
Huanuco	2.4	38%	2.1	77%	71%	95%	60%	70%	4.8
Pasco	2.8	261%	2.9	21%	43%	65%	70%	35%	3.2
San Martin	1.0	25%	1.9	100%	43%	67%	47%	67%	3.7
South Africa	**1.6**	**402%**	**5.2**	**74%**	**50%**	**52%**	**67%**	**48%**	**4.0**
EC	2.2	626%	6.0	67%	33%	61%	72%	70%	5.1
HV	0.9	269%	5.0	78%	67%	23%	63%	0%	1.5
KZN	1.2	58%	3.7	82%	67%	50%	50%	20%	2.5
TOTAL	**1.8**	**246%**	**3.8**	**70%**	**51%**	**62%**	**64%**	**51%**	**3.9**

ET Farmer Survey Results on Key Strengths & Weaknesses of GENEX

Country & Region	% Farmers who said the most helpful GENEX services included:					% Farmers lists ways GENEX could have improved as:					
	Training	Mentor visits	AI Service	Disease treat & prevent support	Bulk purchase to lower input costs	Continue the project for longer	Do more to strengthen POs, collective marketing	Cover different topics in TA	Make services more widely accessible	Increase frequency of services	Use more skilled TA providers
Peru	**10%**	**53%**	**72%**	**47%**	**13%**	**28%**	**15%**	**20%**	**15%**	**25%**	**22%**
Huanuco	0%	45%	85%	50%	15%	29%	18%	12%	41%	12%	29%
Pasco	18%	53%	70%	45%	13%	23%	13%	17%	10%	30%	13%
San Martin	7%	60%	67%	47%	13%	33%	17%	33%	0%	28%	28%
South Africa	**68%**	**69%**	**4%**	**77%**	**49%**	**70%**	**64%**	**57%**	**49%**	**34%**	**20%**
EC	77%	70%	4%	87%	70%	95%	86%	73%	57%	30%	9%
HV	63%	50%	6%	81%	13%	31%	25%	50%	50%	69%	44%
KZN	40%	30%	0%	20%	10%	20%	30%	0%	10%	0%	30%

TOTAL	**39%**	**61%**	**38%**	**62%**	**31%**	**49%**	**40%**	**39%**	**32%**	**30%**	**21%**

LIST OF ANNEXES

1. Evaluation Matrix
2. Full GENEX CDP PPR Table
3. GENEX annual survey tools
4. GENEX annual databases with analysis
5. Evaluation Team tools (qualitative and quantitative)
6. Evaluation Team databases with analysis (qualitative and quantitative)
7. Local evaluator field work and initial results reports
8. Key reviewed GENEX reports and documents