MID-TERM PERFORMANCE EVALUATION OF USAID/NEPAL'S KNOWLEDGE-BASED INTEGRATED SUSTAINABLE AGRICULTURE AND NUTRITION (KISAN) PROJECT

January 20, 2016

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The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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ABBREVIATIONS AND ACRONYMS

AFSP	Agriculture Food Security Program
BOP	Business Opportunity Program
COP	Chief of Party
CSISA	Cereal Systems Initiative for South Asia
DADO	District Agriculture Development Office
DAG	Disadvantaged Groups
DBMC	Dev Bhar Milling Company
FGD	Focus Group Discussion
FINGOs	Financial Intermediary Non-Governmental Organizations
FTF	Feed the Future
FTFMS	Feed the Future Monitoring System
GESI	Gender Equality and Social Inclusion
GoN	Government of Nepal
Ha	Hectare
JTA	Junior Technical Assistants
KII	Key Informant Interviews
KISAN	Knowledge-Based Integrated Sustainable Agriculture and Nutrition
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation and Learning
MOAD	Ministry of Agricultural Development
MPC	Market Planning Committees
NGO	Non-governmental Organization
NIC	NIMBUS International Company
USC	Unique Seed Company
USAID	United States Agency for International Development
VDC	Village Development Committee
VFI	VIVEK Feed Industries
ZOI	Zone of Influence

EXECUTIVE SUMMARY

EVALUATION PURPOSE AND EVALUATION QUESTIONS

USAID/Nepal requested CAMRIS International to carry out this mid-term evaluation of the Knowledge-based Integrated Sustainable Agriculture and Nutrition (KISAN) project to determine whether the project is on track to accomplish its goals and objectives, provide recommendations on mid-course corrections and detail lessons relevant to possible future assistance in the sector. A summary of the evaluation questions used to guide the evaluation process is below. The full set of evaluation questions used to guide the evaluation is presented in the body of the report.

PROJECT BACKGROUND

The KISAN project, supported by USAID, is implemented in coordination with the Ministry of Agricultural Development and executed by Winrock International. Over the course of 55 months, this project seeks to sustainably improve food security and increase incomes of more than 80,000 farm households located in 20 Terai and lower hill districts in the West, Mid-West and Far West Regions of Nepal.

Guiding Questions for the Evaluation

1. How is the project performing in terms of contributing to the four pillars of food security?
2. What evidence exists to suggest that the project will lead to systemic changes?
3. What challenges has the project faced, and have the management level course corrections undertaken by the project so far addressed those challenges?
4. How is KISAN performing in the lentil sub-sector in terms of increasing productivity and cost effectiveness?

KISAN's Results Framework that appears in Annex A specifies five major outcomes that contribute directly to the food security pillars of Availability and Access and indirectly to Stability and Utilization:

- Improved access to increased-quality inputs for farmers;
- Improved capacity of agriculture extension workers, service providers and farmers;
- Improved sustainable agriculture production and post-harvest practices and technologies adopted at the farm level;
- Improved market efficiency;
- Increased capacity of Government of Nepal and Nepali organizations.

METHODOLOGY

Two three-member teams of agriculture scientists, supported by an evaluation team leader, carried out Focus Group Discussions (FGDs) with 26 farmer groups and interviewed 72 Key Informants, including KISAN staff, District Agriculture Development Offices (DADOs), agro-vets, input suppliers, cooperatives, agribusiness firms, Market Planning Committees (MPCs) and traders. Three districts in the Terai and three in the hill districts were selected to reflect the project's two distinct agro-ecological zones. In each district, two Village Development Committees (VDCs) were selected based on accessibility and duration of project assistance. Two farmer groups were randomly selected for FGDs in each VDC, taking care to select one group comprising all women or people of disadvantaged castes to explore Gender Equality and Social Inclusion issues more thoroughly. As many Key Informant Interviews as possible were conducted in each VDC within the two-week period that the evaluation team spent in the field, starting in late October.

FINDINGS AND CONCLUSIONS

Over the first three years, KISAN worked with 83,286 farm families and positively impacted household food security of more than 4,000 groups of farmers with whom the project works, making significant contributions to Availability but lesser contributions to Access, Stability, and Utilization, as discussed in the Findings section (page 14). Beneficiaries attribute KISAN's assistance to improvements in their families' welfare.

This evaluation concluded that assistance provided by KISAN has enabled farmers, irrespective of caste or gender, to achieve increases in vegetable production, productivity, sales and gross margins due to the project's effective technology transfer methodology and farmers' successful adoption of cultural practices and technologies. KISAN offered assistance for 16 vegetable crops but focused most heavily on tomatoes, cauliflower, cabbage, cucumber and bitter gourd.

KISAN also provided assistance for rice, maize and lentils that was less impactful in addressing income and food security objectives. Farmers generally attributed only modest gains averaging 300 kg/hectare (ha) in production of rice to KISAN and reported few gains in maize production, while none of the 26 farmer groups interviewed reported any assistance on lentils. However, KISAN's Year Three Progress Report noted sizable numbers of farmers with significant area under these crops who realized incremental production and sales due to project assistance.

KISAN demonstrated plastic house technology that extends the growing season, especially for tomatoes, in both the hill districts and the Terai, enabling farmers to produce and market off-season vegetables for local and domestic markets. The project also seeks to rapidly expand assistance for irrigation, responding to farmers' most-identified need—a secure water source. Although these technologies are somewhat less accessible to the very poor and those with little land, their adoption affords innovators the opportunity to realize substantial gains in productivity and household income.

Due to KISAN's work with farmers and agro-vets, (shops that sell crop inputs and veterinary supplies), farmers reported access to better-performing, quality vegetable seed. Scale-neutral technology for vegetable production, including quality seeds, fungicides, pesticides and micronutrients, has made remunerative vegetable production accessible and feasible for all project beneficiaries except those with the very smallest land holdings.

Notwithstanding its successes to date, KISAN has yet to demonstrate that the gains it has achieved are sustainable over time. Private sector value chain actors are envisioned to play a lead role as change agents in transmitting technology—knowledge and physical inputs—to farmers. Agro-vets are the primary source of inputs and represent the leading edge in shifting the technology transfer paradigm to private sector actors. Most agro-vets have little technical knowledge and have a shop-based business model that affords few incentives for them to become technically more competent or more mobile to serve farmers on site. They are ill prepared and lack incentives to serve as dynamic, mobile change agents capable of advising farmers on matters of seeds, pests, disease, soil fertility and more.

Although KISAN works on financial mediation and marketing, it appears the project has had little impact on these functions for project beneficiaries. Most farmer groups are served by cooperatives, and many farmers are members of one or more cooperative. Some also have bank accounts. F4armers report access to short-term production credit with annual interest rates ranging from 12 percent to 24 percent. Medium-term credit is more limited, may require collateral and be limited to two years, potentially constraining farmers' investments in plastic houses, irrigation systems and farm equipment.

KISAN's work on marketing appears not to be grounded in a clear definition of marketing problems. Project efforts to build capacity of MPCs and utilize Collection Centers to aggregate vegetables for traders appear to have had little impact. Nevertheless, farmers have responded to effective demand expressed by the markets they utilize to sell their vegetables. Thus, markets are incentivizing the rapid growth in vegetable production. In the absence of empirical evidence on marketing margins and efficiency, it remains for KISAN to get a better grip on the nature and significance of market problems going forward.

KISAN's Business Opportunities Initiative represents the project's most promising approach to engaging the private sector as change agents. This program, involving firms engaged in the seed industry, poultry and livestock feed, cereal grains, franchised input supply dealers and more, bears careful scrutiny for assessing the scope, parameters and sustainability of agribusinesses assuming a growing role in driving development opportunities for small farmers.

RECOMMENDATIONS

KISAN should continue to prioritize assistance on vegetables, while attending to the constraints limiting adoption of plastic houses and irrigation technology, as the surest path to improving food security and contributing to poverty reduction for all but those with the smallest land holdings.

KISAN should continue to aggressively prioritize leveraging DADO and VDC resources for plastic house and irrigation schemes while offering farmers technical assistance and training to take full advantage of this technology.

Institutional arrangements for collective borrowing and management of irrigation schemes are key to scaling up irrigation. These and other issues relating to long-term operation and maintenance of small- scale irrigation schemes merit careful attention, given the impact that secure and well-managed irrigation systems can have on productivity and ultimately on farm income.

KISAN's experience with its recently created Business Opportunities Program, which seeks to create development opportunities for small farmers, should be monitored carefully and evaluated for lessons learned in scaling up the model in the cereals sector and exploring opportunities for agribusinesses to serve vegetable farmers' interests.

KISAN's work on marketing, financial mediation and organizational development needs to be better grounded through a careful analysis of problems and constraints in order to lay the basis for more focused and effective assistance in these areas.

In accordance with the statement of work for this evaluation, this report addresses the four evaluation questions that were posed and provides findings followed by conclusions and recommendations.

INTRODUCTION

EVALUATION PURPOSE AND USE

The purpose of this KISAN Project Mid-term Evaluation is to determine whether the activity is on track to accomplish its intended goals and objectives and to recommend course corrections as warranted. The evaluation assesses the degree to which there is evidence of sustainability of the project results and whether the approach advances the Mission's Gender Equity and Social Inclusion (GESI) policy. This evaluation assesses the effectiveness of the project's approaches in both Terai and low hill districts among various populations.

This evaluation is intended primarily for the use of USAID and the KISAN Implementing Partner in identifying best practices and lessons learned to guide project implementation. USAID also intends to use the findings of this evaluation to inform future programming decisions

EVALUATION QUESTIONS

The statement of work developed by USAID/Nepal set forth four questions that guided this evaluation. In addressing these questions, the evaluation team analyzed how the project impacted women and vulnerable groups.

1) How is the project performing in terms of contributing to the four pillars of food security (Availability, Access, Utilization and Stability) and meeting the following objectives?
   a) Increasing value of incremental sales of selected value chains
   b) Increasing gross margin per crop
   c) Contributing to KISAN's higher-level goal of reducing poverty
2) What evidence exists to suggest that the project will lead to systemic changes (sustainable results) in the following areas?
   a) Adoption of agricultural technology and practices
   b) Market linkages
   c) Private sector investment
   d) Public sector dialogue
3) What challenges has the project faced, and have the management-level course corrections undertaken by the project so far addressed those challenges?
4) Assess the feasibility as well as cost effectiveness of lentils and examine if KISAN should continue this subsector.

PROJECT BACKGROUND

The KISAN project works with the Government of Nepal (GoN), the private sector and other actors to sustainably improve food security and increase incomes through an approach that initially integrated agriculture, nutrition and sanitation activities. In year two of the project, the contract

with the Implementing Partner was amended to focus on agriculture; responsibility for nutrition and sanitation was transferred to another USAID project, Suaahara (good nutrition).

Agriculture plays a crucial role in Nepal's economy. It is the main source of employment for the majority of the population and contributes to 34 percent of the gross domestic product. Nepal has competitive advantages in a number of high-value agriculture areas, yet remains the poorest country in South Asia and the 16th poorest country in the world.[1] Due to increasing population and slow rates of agricultural growth, Nepal is considered a structurally food deficit country. Likewise, almost 41 percent of Nepali children under 5 are chronically undernourished. The Mid-West and Far Western Regions typically have the highest rates of food insecurity, hunger and nutrition deficiency.

KISAN is part of the five-year Feed the Future (FTF) Global Hunger Presidential Initiative in Nepal, which represents the U.S. Government's global efforts to advance food security and nutrition objectives. Nepal was one of 19 focus countries chosen for the initiative in 2010.

The overall goal of FTF in Nepal is to reduce hunger and poverty while improving nutrition. FTF Nepal's geographic zone of influence (ZOI) is centered on 20 Terai and lower hill districts in the Far Western, Mid-Western, and Western Regions. Focus value chains include vegetables, rice, maize and lentils.

KISAN is one of the main projects under the Mission's FTF Multi-Year Strategy. KISAN aims to reduce poverty and hunger sustainably in Nepal by achieving inclusive growth in the agriculture sector, increasing income of farm families and improving the participation of the private sector in promoting agriculture growth.

KISAN'S THEORY OF CHANGE

KISAN helps subsistence smallholder-farmers graduate to commercial agriculture by improving on-farm production and facilitating market development. KISAN focuses on target commodities that are important for food security (rice, maize and lentils), are high-value (off-season vegetables) and are nutrient-rich.

Market opportunities vary across KISAN's target area. In areas with access to markets, such as the Terai and lower hills, KISAN focuses on building the capacities of private sector and community-based service providers to improve the supply of quality inputs, credit and other services such as land preparation and equipment rental. In parallel, the project facilitates market linkages to improve farmers' access to service providers and buyers. Opportunities to attract buyers and to engage private sector service providers are fewer in more remote regions. Here, KISAN project staff work directly with farmers to achieve higher yields and increase household consumption of vegetables.

***Source**: KISAN Project, Revised Annual Workplan, August 2015*

KISAN works in close coordination with the GoN's Ministry of Agricultural Development (MOAD). Moreover, KISAN engages with a wide range of public, private and civil society stakeholders,

[1] Current USD, GDP per capita. Source: WB WDI, data from 2014.

including farmers, non-governmental organizations (NGOs), academic and research institutions, businesses, training centers and media partners.

KISAN is also closely aligned with the other FTF projects in Nepal: the various Innovation Lab programs, Cereal Systems Initiative for South Asia (CSISA), Business Literacy Program and Policy Reform Initiative. KISAN also collaborates with Peace Corps and the GoN's World Bank-managed Agriculture Food Security Program (AFSP).

KISAN's Results Framework FY15-17 is found in Annex A, page 2.

METHODS AND LIMITATIONS

In accordance with the statement of work, the evaluation team employed Focus Group Discussions (FGD) and Key Informant Interviews (KII) as the basic tools used to gather information from project beneficiaries, value chain actors, MOAD counterparts and others.

KISAN works in more than 300 Village Development Committees (VDCs) spread over 20 districts located in the West, Mid-West and Far West Regions. The project attends to more than 4,000 groups of farmers, typically numbering about 20 households, and is currently assisting 83,286 farm families.

A methodology for identifying sites to be visited was devised to capture the agro-ecological diversity of KISAN's ZOI and the diversity of cropping and marketing systems, transportation networks and cultural distinctions relevant to the project's goals, focus and methodology. Accordingly, three districts in the Terai and three in the hill districts were selected, pairing hill and Terai districts to reflect established trade corridors that impact vegetable and other commodity markets. Within each of these six districts, two VDCs were selected, for a total of 12, and divided into two groups based on how long KISAN had worked with them. Accessibility to the VDCs was also taken into account using distance from the nearest market town and estimated travel time. In the course of carrying out the field work, an additional VDC was added to capture the impact on project outcomes of limited access to market towns, bringing the total to 13 VDCs.

Farmer groups constitute the basic unit with which KISAN engages and average 20 families per group. Training, demonstration plots, technology transfer, marketing, financial mediation services and even collaboration with MOAD counterparts occur at this level. To reflect how farmers and their communities are organized and how KISAN engages them, the evaluation defined farmer groups as the basic unit of investigation. Two farmer groups were randomly selected by the evaluation team in each of the original 12 VDCs, for a total of 24 farmer groups. Two additional farmer groups were then added to provide additional GESI and market access balance, thus bringing the total to 26 farmer groups with whom the evaluation team carried out FGDs. Notwithstanding farmers' heavy workload due to the rice harvest, the FGDs were well attended. The two evaluation teams interviewed a total of 464 farmers—294 women and 170 men. In the hill districts, 43 out of 226 households were from disadvantaged groups (DAGs) (36 Dalit, 7

Janajati). In the Terai, 140 out of 238 households were from DAGs (43 Dalit, 97 Janajati, 25 Muslim).

KISAN's large field staff engages not only with farmers and farmer groups but also with the MOAD (DADO); a variety of value chain actors, including agro-vets, seed companies and other input suppliers; cooperatives; Market Planning Committees (MPCs) and Collection Centers; traders, agribusinesses and others. In each district and, as appropriate, in each VDC, KIIs were carried out with these actors inquiring about their experience with and views of KISAN, the project's impact on their business or program and their recommendations for KISAN. Between 27 October to 9 November 2015, 72 KIIs were conducted.

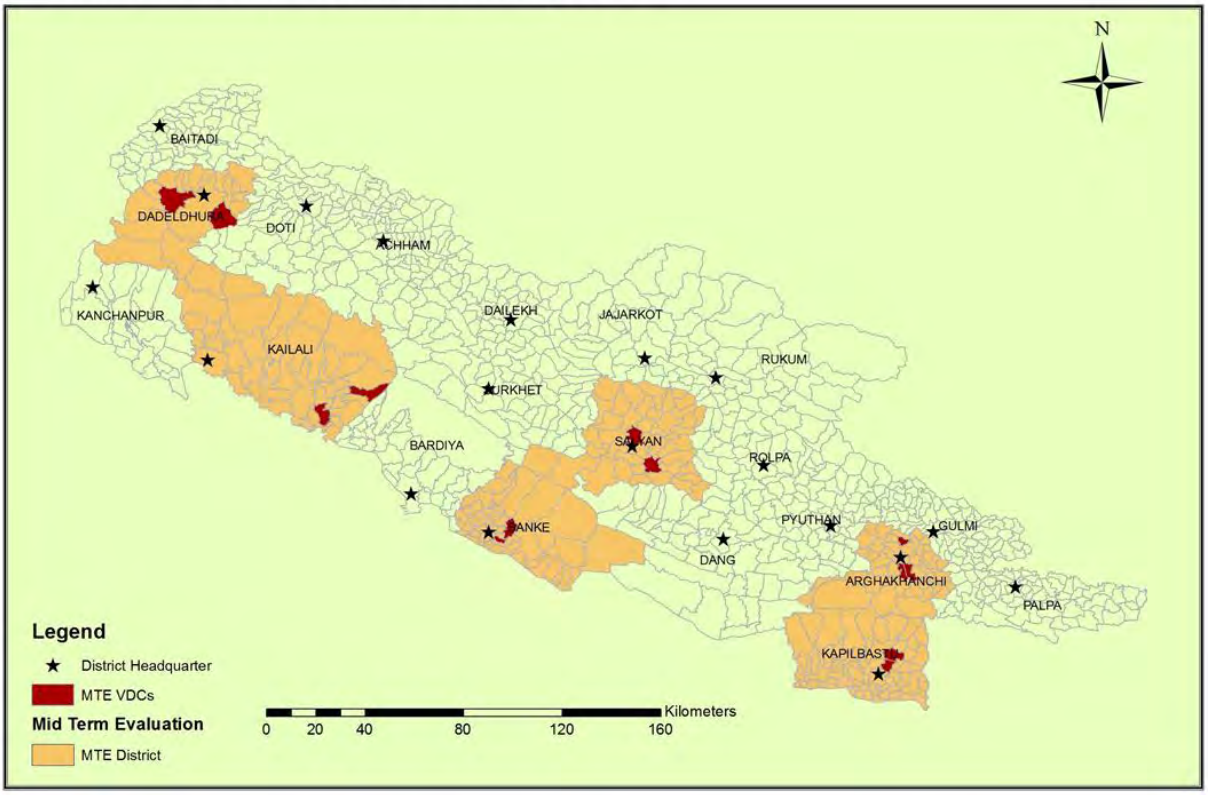
At the end of every day, information gathered from FGDs and KIIs was reviewed, discussed and synthesized in a standard format to capture the distilled findings of the day's work.

The table below summarizes where the field work was conducted, and the map illustrates where the districts and VDCs are located.

Table 1: Districts, Regions and Agro-Ecological Zones Surveyed

Regions	Terai Districts	Hill Districts
West	Kapilbastu	Arghakhanchi
Mid-West	Banke	Salyan
Far West	Kailali	Dadeldhura

Figure 1: Mid-term Evaluation VDCs within KISAN Project Area



Several instruments were developed to conduct FGDs with farmer groups. These instruments relied on open-ended questions intended to invite discussion and were structured around the logic of the KISAN's methodology and assistance, bearing in mind the evaluation questions.

The first instrument is a registry of the farmers interviewed. The registry listed the members of the farmer group and was completed in advance of the FGD, drawing on KISAN's database. In addition to gender and caste, each member's position in the group was noted (lead farmer, etc.), whether the family received remittances, how many other groups they belonged to and the date when they received their first training from KISAN.

The FGD discussion proceeded using a FGD Simplified Guideline that employed open-ended questions to engage farmers in discussions that were animated and reflected the convergence and divergence of farmers' experience and views. Farmers were asked about changes they attributed to KISAN's assistance in crop production practices, results, use of technology, marketing, consumption and savings and borrowing.

Respondents typically offered a rough estimate of the increase in production and sales of vegetable and cereal crops for which they received KISAN assistance. This was recorded in a separate matrix designed to capture the range of participants' responses. A separate guide was developed to explore how well KISAN served DAGs consisting of marginalized castes and women.

Similarly, a guide containing open-ended questions for KIIs was employed. The respondents were value chain actors, and this instrument explored the role they played as change agents and KISAN's impact on their business and business practices. KISAN field staff, DADO officials, agribusiness managers and others were also interviewed.

Finally, instruments were developed to capture and summarize the day's findings for both FGDs and KIIs. These were employed to foster discussions and reflect on patterns and issues that emerged and to synthesize take-away at the end of the day while still fresh.

All of these guides are found in Annex D; Data Collection Instruments.

The evaluation survey and data collection methodology was designed to generate qualitative responses to the evaluation questions. These responses are triangulated against the findings reported in the KISAN Project Annual Report July 1, 2014 – September 30, 2015, that provides quantitative estimates of the project's outcomes and impact generated by a representative sample survey of the project universe.

The evaluation team consisted of seven members: Wayne Nilsestuen served as Team Leader. Dr. Brahmaram Bhakta Mathema was Deputy Team Leader, Jagat Devi Ranjit and Nirakar Acharya constituted one field team, M.L. Jayaswal served as Field Coordinator and Buddhi P. Sharma and Meena Sitaula constituted the other field team. Bal Krishna Sharma advised on issues and research methodology related to the evaluation's GESI mandate.

FINDINGS

Findings are organized to respond sequentially to each of the four evaluation questions. Where possible, these qualitative findings are triangulated against results reported by KISAN for Year Three, July 1, 2014 – September 30, 2015.

Question 1: How is the project contributing to the four pillars of food security (Availability, Access, Utilization and Stability) and meeting the objectives of increasing the value of incremental sales of selected value chains, increasing gross margin per crop and contributing to the higher-level goal of reducing poverty?

KISAN's Results Framework FY15 – FY17 provides the construct for assessing KISAN's contribution to the four food security pillars. While the evaluation statement of work (Annex A) provides for assessing **Availability** using FTF indicators "gross margin per hectare" and "total value of incremental sales," **Access** is measured by the "value of new private sector investment in the ag sector leveraged," and only agribusiness firms noted investments as defined by FTF. The Results Framework provides no indicators for **Stability** and **Utilization**, nor does the statement of work address them specifically.

Food Security Pillar: Availability

Incremental sales and gross margins are the highest-level indicators for assessing Availability. Evaluation findings corroborate results reported by KISAN at the end of Year Three: KISAN has had a significant impact in improving Availability, measured by total value of incremental sales and gross margin per hectare as specified by the statement of work for this evaluation.

Incremental Sales

In both the hill districts and the Terai, vegetables accounted for the bulk of farmers' incremental sales attributable to KISAN's assistance. Although the area dedicated to vegetable production is very small, it is important in generating a remunerative cash crop for sale (see Table 2 below). With KISAN technology, farmers produced various vegetable crops year-round in the hills, including tomatoes with plastic house technology and open field cultivation of cauliflower and cabbage. In the Terai, farmers are able to hit the off-season market for tomatoes employing plastic house technology.

Tomatoes, cauliflower and cabbage were the three most important vegetable crops, reflecting not only attractive returns but also accessible markets and good demand. Sales for these three vegetable crops varied widely, reflecting seasonality of production, number of crops per year, area cultivated, management practices and use of plastic houses and irrigation. Table 3 below summarizes the range of sales from marginal producers to commercial farmers and an average value of annual sales per household. KISAN provides assistance for a total of 16 vegetable crops; farmers responding to market opportunities determine which ones to prioritize. In the Terai, 60 farmers reported sales of chili peppers and onions that generated between Rs. 20,000 to Rs. 60,000 over the past year.

Table 2: Area Under Vegetable Cultivation (Hectares)

Area	Hill Districts	Terai Districts
Average Area	0.05	0.66
Range	0.125 – 0.15	0.00825 – 0.165

Table 3: Amount of Vegetable Sales Per Year

Type of Vegetable	Average Sales	Range of Sales
Tomatoes	Rs. 20,000	Rs. 2,000 – Rs. 100,000
Cauliflower	Rs. 15,000	Rs. 4,000 – Rs. 100,000
Cabbage	Rs. 18,000	Rs. 2,000 – Rs. 100,000

Farmers reported that in most cases, KISAN had only a modest impact on incremental sales of rice. In one farmer group, a large farmer who cultivated three hectares of rice noted that he sold Rs. 100,000 of paddy, while other members of the group said that KISAN's assistance had helped them to produce an additional 500kg (1,100 pounds), sufficient to meet about four months of household consumption requirements and reach self-sufficiency in rice. In both the Terai and the hill districts, farmers attributed an increase of about 300kg (660 pounds) in paddy production, sufficient to reduce their dependence on the market for purchases, but in many cases not enough to make them self-sufficient.

For maize, farmers reported they realized poor production responses in employing KISAN's technology, and consequently the impact on sales was marginal at best. None of the 26 farmer groups interviewed reported any project assistance for lentils, although 90 percent of all farmers reported growing lentils. It is not known specifically why this occurred.

KISAN's Year Three results corroborated the evaluation's findings regarding the project's impact on vegetable sales but diverge in the impact on incremental sales of the rice, maize and lentils value chains. KISAN reports that vegetables accounted for almost 75 percent of total incremental sales, estimated at $71.8 million.

Table 4: Incremental Sales

Produce	Incremental Sales
Vegetables	$53.0 million
Rice	$14.2 million
Maize	$2.5 million
Lentils	$2.2 million

Gross Margins

Estimates of KISAN's impact on farmers' gross income were derived by inference from the project's reported impact on physical quantities of production and sales (see Table 5 below). Vegetables offered far and away the best returns compared to cereals, and lentils and tomatoes produced under plastic houses were0 the big winners. With plastic houses, tomatoes could be double cropped or even cropped continuously over the course of the year in the hill districts. In the Terai, off-season production of tomatoes with plastic houses was feasible and remunerative. Tomato production in open fields offered good returns during the winter season. Cauliflower and cabbage production thrive in the hill districts, reflecting strong gross margins and good markets. Where irrigation services are available, area cultivated, production and returns are enhanced.

KISAN also provides assistance for bitter gourd and cucumber production and calculates gross margins for these crops as well (Table 5). The scale and frequency of cucumber and bitter gourd production was limited in the hill districts, which may be explained by the cost of plastic houses required to produce these two vegetables and limited off-season access to the larger markets needed to stimulate demand.

The modest increases in rice production reflect increased productivity due to improved nursery bed management and transplanting techniques attributed to KISAN training. One hundred percent of farmers in the Terai, and 80 percent in the hill districts, reported growing paddy. Because few farmers reported increases in rice projection sufficient to move from subsistence to sales, there is no basis for estimating gross margins for paddy. With only nominal sales in maize and farmers reporting no assistance on lentils, it appears that the project had virtually no impact on gross margins for these value chains among farmers surveyed in this evaluation.

These findings merit scrutiny when compared to gross margins reported by KISAN for the five principal vegetable crops, rice, maize and lentils for Year Three of the project based on data collected in a stratified representative survey of beneficiary farmers.

Table 5: Gross Margins $/Ha Reported by KISAN – Year Three

Produce	Gross Margins
Tomatoes	$10,363
Bitter Gourd	$ 5,892
Cauliflower	$ 5,883
Cucumber	$ 5,534
Cabbage	$ 5,055
Maize	$ 796
Lentils	$ 781
Rice	$ 700

The evaluation findings broadly corroborate KISAN's estimates of gross margins for vegetables. With gross margins for tomatoes nearly twice that for the four other vegetable crops, it is clear that farmers are making informed choices as they prioritize investments in plastic houses, irrigation and land allocation for tomato production. KISAN calculates that the gross margin for vegetables is a multiple of seven or eight of the gross margin for cereals and notes that farmers' responses to these incentives has been to double the land dedicated to vegetable cultivation.

Evaluation findings for cereals diverge from those reported by KISAN. Most farmers reported modest rice production gains that reduced their dependence on market purchases but afforded no surplus for sales. Farmers were dissatisfied with the assistance they received for maize, realizing only negligible sales at best. Although no farmers reported receiving assistance for lentils, 90 percent reported they grow local varieties of lentils, either as a mono crop or in mixed cropping systems with canola. Notwithstanding these divergent findings, the difference in methodologies used to generate these estimates precludes any direct comparison. The most plausible explanation for these differences is likely attributable to the evaluations' distinctive methodologies. The evaluation used open-ended questions inviting qualitative responses by farmers of their rough estimates of increases in production and sales. This approach produced a range of farmers' responses generated in the FGDs. Furthermore, there was no intention in drawing the evaluation sample to be representative of the KISAN farmer universe, as was the case for KISAN's Year Three Progress Report.

DAGs consisting of farmers in marginalized castes and women reported equal opportunity to participate in the project, unconstrained by social barriers to training or other project assistance. Although Dalit and Janajatifarmers did well in heterogeneous groups, these were often not available; in these cases they tended to thrive in homogenous groups as well, shifting from subsistence to commercial vegetable production. In some instances, women of disadvantaged castes reported greater success in increasing production and sales in all-women, mixed-caste farmer groups than their higher-caste group members.

Size of land holding, rather than caste or gender, seemed to be the only significant barrier to adoption of KISAN-promoted vegetable production technology and the opportunity to increase household income. In the hill districts, farmers reported holdings ranging from .05 to .5 hectares and averaged .25 hectares. In the Terai, most farms fell in the range of .033 to .75 hectares and

averaged .4 hectares. Although many factors bear upon these small farmers' capacity to engage in commercial vegetable production, it seems that .05 hectares is the threshold below which it is difficult to grow vegetables on a scale sufficient to produce a marketable surplus.

Poverty Reduction

Although the evaluation methodology does not permit any direct estimates of poverty levels among project beneficiaries—much less changes in poverty levels—farmers did comment about changes brought about by KISAN's assistance. They said:

- They were now better able to pay school expenses for their children, even affording some the opportunity to send their children to a better school.
- They are now able to save more than previously.
- Some women said they now had more "pocket money," i.e., a little more cash around the house to meet day-to-day occasional expenses.
- Six women in one farmer group reported they had saved enough to purchase gold ornaments and had made bank savings deposits.

Food Security Pillar: Access

As defined and measured by KISAN, the project has made only modest contributions to Access. KISAN's Results Framework links Access to the project's intermediate result, "Small enterprise opportunities expanded" and measures this intermediate result in terms of "Expanding markets" and "Increased investment in ag and nutritional activities." These depend on KISAN Outcome 4, improved market efficiency, with the indicator, "Value of new private sector investments in the ag sector leveraged by FTF implementation (USD)." The evaluation found that vegetable farmers have direct access to markets or indirect access via traders, and these marketing arrangements have resulted in a steady demand that has stimulated increased production and farmer sales. But KISAN has had little observable impact on improving marketing functions and efficiency. The evaluation also found that KISAN's Business Opportunity Program (BOP) is the principal project activity that is leveraging and stimulating private sector investment. KISAN's work on marketing linkages is addressed below in response to evaluation question 2, as is the project's work on private sector investment.

Food Security Pillar: Utilization

Although contract amendments relieved KISAN of most responsibilities for the Utilization pillar of food security, the evaluation did inquire about what farmers did with increased production. Virtually all households reported that as a result of increases in vegetable production, they now consumed more vegetables. They also reported increases in rice production, reducing their deficit for this staple food, and presumably increasing their access to rice. Reducing the need to purchase this household staple food would result in a net increase in real income, because the poor spend a relatively high portion of their income on food.

In its Year Three Progress Report, KISAN concludes, "Regardless, it is clear that production of nutrient-rich vegetables is increasing in the [project] Zone of Influence (with the exception of

carrots) and that these vegetables are either consumed by the producer, shared with neighbors or sold in the market for consumption by other households."

Food Security Pillar: Stability

KISAN has increased beneficiaries' resilience to shocks that threaten their food security. First, it has significantly diversified household income, shifting from lower-value to higher-value crops. Second, increased irrigation and introduction of drought-resistant rice helps to reduce the risk of drought-induced crop losses. Finally, and significantly, the broad pattern of increasing vegetable production, and with it household income, contributes to families' ability to share food with less fortunate families in their community, a consistent cultural practice that increases the community's resilience to shocks.

Question 2: What evidence exists to suggest that the project will lead to systemic changes (sustainable results) in the adoption of agricultural technologies and practices, market linkages, private sector investments and public/private sector dialogue?

Agriculture Technologies and Practices

Vegetable production technology promoted by KISAN has been rapidly assimilated and successfully adopted, resulting in broad and significant increases in production, productivity, sales, consumption and income. Key elements of this successful program have been the focus of applying significant staff and budget resources to a well-conceived six-unit training program consisting of both fixed content and trouble-shooting sessions that have helped to address farmers' problems in the field. Farmer field days that employed "learning by doing" extended this technology to farmers in a way that was readily accessible and rapidly internalized.

This technology involved raised-bed nurseries, line planting, calibrated seeding rates and transplanting to ridges or raised beds with appropriate plant-spacing density. Seed varieties were recommended, and in some cases small quantities of seed were made available for demonstration purposes. Soil fertility practices and a recipe for a concoction that served as both a fertilizer and a pesticide (jhol-mol) was also part of the package.

Where these production practices were introduced to farmers for the first time, adoption was successful, rapid and enthusiastic. Farmers noted the results and credited KISAN for the assistance that made these gains possible. Where farmers were already familiar with these production practices due to earlier projects, they found less utility in KISAN's technical assistance but valued the limited financial assistance provided for plastic houses and irrigation technology as the next technological package that held promise for a significant increase in productivity. Only six instances of spontaneous replication of plastic house technology by non-project beneficiaries were encountered, suggesting that scaling up this technology may continue to require some subsidies for at least part of the cost of plastic sheeting. No instances of spontaneous replication of irrigation technology were encountered. Replication by non-project beneficiaries of cultural and management practices promoted by KISAN—including raised bed seedling nurseries, transplanting vegetable seedlings in rows, raised bed onion production, seedling transplanting of

rice and the use of jhol-mol—were fairly widely reported, suggesting that this divisible, scale-neutral technology is more accessible and sustainable without assistance.

In the case of rice, farmers recognized the benefits of line sowing in their nursery and reduced plant density in transplanting, resulting in savings in seed required and increased production. KISAN also promoted brine water seed testing and use of hybrid and improved rice varieties. They also recommended fertilizer application rates. Availability of recommended varieties and fertilizer constrained adoption of the full technological package, and consequently the reported production response was modest.

Farmers in the hill districts reported disappointing results with the open pollenated varieties of maize promoted by KISAN, noting that the recommended varieties were as tall as their own varieties and equally subject to lodging, were not drought tolerant, were vulnerable to pests and showed no yield advantage. They hoped to get assistance from KISAN demonstrating non-lodging, short maturation hybrid varieties. In the Terai, maize production is for food, not animal feed. Some farmers reported growing hybrid maize varieties under irrigation, but KISAN had not demonstrated hybrid varieties.

In the absence of any assistance for lentils reported by farmers, there is no finding for lentils.

Plastic (green) house technology is widely demonstrated by KISAN, but adoption depends on significant expenditures by farmers. KISAN subsidizes only 50 percent of the cost of plastic sheeting, or between Rs. 2,500 and Rs. 3,500. The farmer bears the remaining cost of plastic sheeting, building materials and skilled labor, if necessary. KISAN's practice is to demonstrate a single plastic house in a farmer group and then leave it to the other farmers in the group to find the means to replicate the technology at an average cost of Rs 15,000 per plastic house. The response has been varied and should be put in context: All of the farmer groups surveyed have worked with KISAN for less than two years, and some for just over one year, to assess, adopt and replicate KISAN-demonstrated technology. Some farmer groups engaged in aggressive replication of the technology—one has added 28 more plastic houses—while other groups did not replicate the technology at all. As noted above, plastic house technology affords year-round production of tomatoes in the hill districts and off-season cultivation in the Terai—an attractive investment for those who can afford it, given the profitability and volume of tomato production that is possible with the technology. DADOs and VDCs also promote plastic house technology, offering various terms depending upon the pot of funding they draw upon. This subsidized assistance for plastic houses accounted for a large portion of the replication of this technology.

KISAN also promotes irrigation technology—drip irrigation for plastic house production of tomatoes; sprinkler irrigation for vegetable cultivation on sloping land, particularly in the hill districts; and flood irrigation utilizing shallow tube wells in the Terai. KISAN's assistance is at the level of flood and sprinkler irrigation systems that may serve some or all members of a farmer group, depending on the scale and configuration of the system. KISAN subsidizes part of a system's cost; farmers bear the remaining cost. Thus, KISAN may finance the cement for the water tank while the farmers may provide the labor and pipe and sprinkler heads. KISAN may pay for a shallow tube well pump while the farmers pay for sinking additional wells and materials to maximize the reach and benefits of the system. As these examples illustrate, replication of

irrigation schemes may require technical expertise, a significant capital investment, and the means for collective financing and management of the scheme. No examples were encountered of farmer groups undertaking the development of irrigation systems on their own.

Recognizing the barriers to spontaneous replication of irrigation schemes, KISAN has set a target of 500 schemes for Year Four and doubled the ceiling from Rs. 20,000 to Rs. 40,000 to finance part of the cost. DADOs and others also subsidize irrigation schemes, but financing from them and others will fall far short of meeting farmers' demands for irrigation and from realizing the attendant benefits of irrigated agriculture. For irrigation technology, it is important to distinguish sustainability from replication. Sustainability of individual irrigation systems depends on the capacity to profitably operate and maintain the systems in the long run. Spontaneous replication of drip and flood irrigation technology requires collective investment and management actions to create new systems or rehabilitate old ones. This constitutes the path to widespread scale up of the technology.

KISAN collaborates with CSISA to promote mechanization, including seeders and small-scale land preparation equipment such as mini-tillers. This evaluation encountered a single example of collaboration with CSISA—a seed drill financed equally by the farmer and CSISA with technical assistance from KISAN. Out-migration by male members of some households has left some farmers challenged to carry out land preparation and other heavy labor tasks traditionally performed by men. Some women reported that they would expand their modest area dedicated to vegetable production but were constrained by the labor requirements of doing so.

As technology adoption is a strategic driver of project objectives, it is worth noting the divergence in patterns KISAN reported for Year Three and the evaluation findings.

Table 6 maps Year Three results against targets for technology adoption and production of vegetables, rice, maize and lentils.

Table 6: Number of Farmers Who Applied Improved Technologies or Management Practices[2]

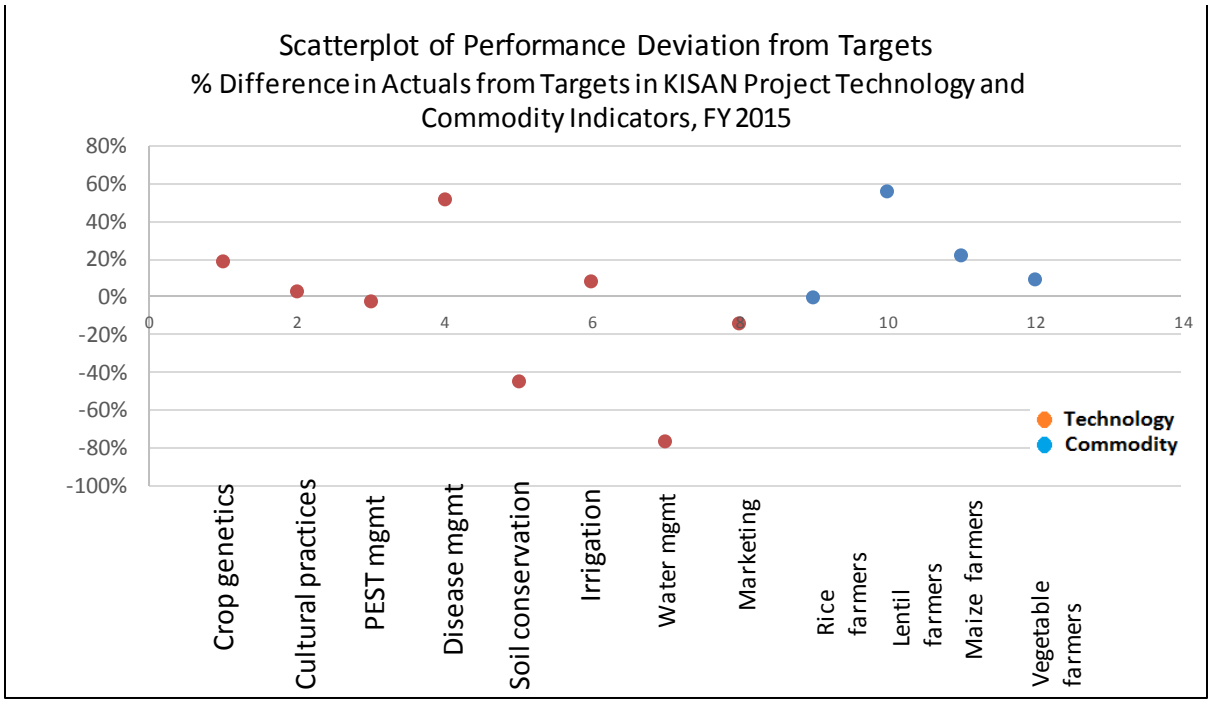
Selected Disaggregates	Baseline	FY15 Target	FY15 Actual	% of Target
Commodity				
Rice farmers	26,871	66,318	65,826	99%
Lentil farmers	6,880	20,434	31,839	156%
Maize farmers	19,273	43,232	52,553	122%
Vegetable farmers	21,698	68,906	75,286	109%

[2] The Feed the Future Monitoring System (FTFMS) does not have a gender disaggregation for "joint" application. KISAN therefore divides the result for "joint" equally between the "male" and "female" disaggregates in FTFMS. In this table we present the three disaggregates in accordance with the FTF Annual Portfolio Review Table (Annex K of KISAN's M&E Plan).

Table 6: Number of Farmers Who Applied Improved Technologies or Management Practices[3] -- Continued

Selected Disaggregates	Baseline	FY15 Target	FY15 Actual	% of Target
Gender				
Male farmers	18,733	33,411	9,420	n/a
Female farmers	13,864	41,435	10,514	n/a
Joint farmers 14	n/a	n/a	63,352	n/a
Technology				
Crop genetics	20,334	70,146	83,286	119%
Cultural practices	29,629	74,483	76,539	103%
Pest management	20,334	59,229	57,850	98%
Disease management	5,206	34,895	52,723	151%
Soil conservation	3,247	72,124	39,314	55%
Irrigation	27,853	55,171	59,291	107%
Water management	18,701	5,107	1,154	23%
Climate mitigation	1,424	8,749	46,867	536%
Marketing	1,432	34,168	29,253	86%

Figure 2: Scatterplot of Results Deviation from Targets



[3] The Feed the Future Monitoring System (FTFMS) does not have a gender disaggregation for "joint" application. KISAN therefore divides the result for "joint" equally between the "male" and "female" disaggregates in FTFMS. In this table we present the three disaggregates in accordance with the FTF Annual Portfolio Review Table (Annex K of KISAN's M&E Plan).

Market Linkages

Agro-Vets

KISAN seeks to enable agro-vets (small shopkeepers who sell veterinary and crop input supplies) to serve as primary change agents, advising farmers on inputs and supplying them with seed, agro-chemicals, nutrients and other needed inputs. For agro-vets interested in working with the project, KISAN provided three days of training focusing on basic business practices, technical knowledge pertaining to the inputs they supply to farmers and safe agro-chemical use practices. Agro-vets must be licensed and registered with MOAD. To meet these requirements, agro-vets take a course given by MOAD on safe and proper agro-chemical use and handling. In some instances, KISAN has supported the cost of such training and certification to expand the network of agro-vets available to serve farmers assisted by the project.

Notwithstanding this training and certification process, agro-vets interviewed in this evaluation generally displayed little technical knowledge of the products they sold and were ill prepared to play a larger role in advising farmers on inputs and how to deal with pests, diseases and other production problems. KISAN has sought to link agro-vets more directly to farmers by underwriting the cost of field visits. Last year, KISAN provided per diem like funding to agro-vets to make up to three field trips to farmers and see their crops. This program generated little enthusiasm among most agro-vets as they have little expertise to offer in the field and time away from the shop represents lost opportunities to sell product unless someone covers for them.

KISAN generally has been successful in linking farmers to trained agro-vets, particularly for vegetable crops. Increasingly, farmers are specifying the vegetable varieties they want based on their experience rather than relying on the agro-vet for recommendations or just accepting whatever they are selling. Some farmers have become even more proactive, ordering the seed varieties in advance to ensure that the agro-vet has them in stock when they need them. Nepal's regulation of fertilizer marketing channels precludes agro-vets from legally selling fertilizer—a significant barrier to increasing productivity of cereals and also a drag on vegetable productivity. Nevertheless, some agro-vets discreetly stock and sell some fertilizer.

KISAN has been good for business for agro-vets. On average, they attribute a 25 percent increase in sales and a 50 percent increase in customers to KISAN's impact on farmers' demand for inputs. This increase in the volume of inputs utilized by a broader client base signals increasing intensification of production practices—a desirable trend irrespective of whether clients are KISAN beneficiaries. Some agro-vets also sell plastic sheeting for plastic houses, super bags for cereal grain storage and sprinkler and drip irrigation equipment—all technologies promoted by KISAN.

Marketing

KISAN has had little observable impact on improving marketing functions and efficiency. Many MPCs assisted by KISAN and interviewed for this evaluation are moribund or irrelevant. Most Collection Centers are small, underutilized or non-functional. Observed marketing interventions were constructive but modest. In one instance, KISAN subsidized the cost of twice-daily reporting of vegetable prices in haat-bazaars (markets selling produce on a regular schedule one or more

times a week). KISAN also provided technical assistance to an MPC to help with developing a proposal for infrastructure improvements in a municipal market.

Notwithstanding KISAN's minimal impact on marketing functions, markets have functioned reasonably well, stimulating demand for vegetable production and providing incentives that have driven significant increases in vegetable production made possible by increases in resource allocation of land, labor and inputs. Petty traders frequent villages buying small quantities of vegetable. Where farmers have reasonable access to local and haat-bazars, they prefer to retail their vegetables themselves, cutting out the middlemen and selling to larger traders only if they are unable to sell directly to consumers. Market access has been a key determinate of farmers' production response. Where farmer groups had limited access to markets, their adoption of KISAN promoted technology was much less robust.

Financial Services

The evaluation found that financial mediation services are available to project beneficiaries. Most farmers do not report access to credit as a constraint to financing their farming costs. About 60 percent of farmers reported access to institutional credit, and 30 percent received remittances. On average, about one-third of farmers reported that they are members of one or more cooperative, some have bank accounts and others have access to financing from Micro-Finance Development Banks or Financial Intermediary Non-Governmental Organizations (FINGOs). Annual interest rates from cooperatives range from 12 percent to 24 percent, and most credit is short term—less than a year. Some institutions offer long-term credit of up to two years, but these terms are not widely available, possibly limiting financing for capital investments in plastic houses and irrigation systems.

KISAN promotes an informal model of Farmer Savings and Credit as an essential element of its work with all farmer groups. In this model, members establish a quota to which they contribute that may range from Rs. 10 to Rs. 100 or more per month. Members take turns borrowing from these funds. Farmers generally report satisfaction with this model as it provides them with quick and easy access to modest amounts of capital with nominal interest charges. Across the 4,000-plus groups with whom the project works, some have mature, well-functioning arrangements that predate KISAN; some had arrangements that had not been sustained and have been reactivated by the project; and in still other cases, KISAN has set up new Farmer Savings and Credit groups where none existed. All farmer groups reported they have a functional Savings and Credit group. There were no reports of dissatisfaction or serious problems with this arrangement.

During Year Three, KISAN reported that more than half of all farmers in the program borrowed a total of $6.66 million, exceeding the target for the year by almost 400 percent and marking a rapid increase in borrowing to finance agriculture-related expenditures.

Private Sector Investment

The project uses the FTF definition of private sector investment that excludes all capital investments by farmers and consequently does not capture investments in plastic house technology, irrigation infrastructure, farm equipment and machinery, etc., thus muting the power

of this indicator to tell a story about how private sector investment is contributing to project objectives and outcomes. KISAN reported private sector capital investments of $1.6 million for Year Three.

The BOP that KISAN launched midway through Year Three constitutes the project's most creative initiative by engaging the private sector to align commercial and development interests. KISAN grant funding sometimes leverages agribusiness' investments in plant, equipment, land and other capital costs and always seeks to influence firms' business model to create more opportunities for small farmers to produce, market and benefit. These partnerships illustrate the approach, principles and kinds of outcomes the BOP seeks to support.

The BOP engages agribusiness firms who supply inputs and equipment and create markets for value chains. The terms of the cost-sharing grant agreement are negotiated with each partner and are calibrated to underwrite the firm's costs of reaching and serving small farmers and providing a market for their production. The grants may not specifically leverage private sector capital investments, but they bias the benefits of the firm's investments toward the inclusion of small farmers in ways that would not otherwise occur in their business expansion plans. The evaluation team interviewed five firms that are working with KISAN's BOP. Below is a brief summary of the logic of KISAN's strategy, the expected benefits and the underlying commercial interests that will promote long-term sustainability as revealed by interviews with four firms in the field. Senior management of a fifth agri-business firm, NIMBUS International, was interviewed in Kathmandu.

Dev Bhar Milling Company (DBMC), Banke: KISAN committed US$43,000 in grant funding, paired with US$11,000 from DBMC, to support the firm's expansion into the medium fine rice market. DBMC will engage 700 farmers in contract farming, hiring a team of three extension staff to train farmers on production and post-harvest practices and arranging for credit to finance seed purchases. This 22-month agreement will benefit the contract farmers by helping them to shift into a higher-value commodity; provide them with the technology, training and inputs to increase their productivity; assume for them a fair and stable market price set forth in their contract with DBMC; and enable them to double crop their paddy fields, sowing lentils following the rice harvest.

Unique Seed Company (USC): With US$55,000 from KISAN and US$23,000 of its own, USC will expand its base of contract farmers from 380 to 500 to produce certified rice, maize, lentil and vegetable seed with technical assistance and training provided by three new technical staff and one seed processor. USC will also offer credit to its contract farmers to purchase the foundation seed that they will grow out to certified seed, as well as tools and labor-saving farm equipment. This grant supports USC's business development plan, enabling them to capitalize on their recent investments in seed processing equipment, machinery and expanded facilities to accommodate equipment and grain storage needs. Contract farmers will benefit from increased seed production skills, access to credit and quality inputs and assurances of a buyer and market prices for their production. USC plans to expand its certified seed production—rice, wheat, maize, lentils and vegetables—increasing the supply of quality certified seed in the market and benefiting the farmers who buy them.

NIMBUS International Company (NIC): With US$37,000 from KISAN, NIC has pledged US$16,600 to establish a network of 60 franchised agro-vets in three western districts in the Terai. NIMBUS will offer franchises to existing agro-vets and franchise opportunities to those who want to go into the business. The business will be owned by the agro-vets, but the products, shop format and business model will be standardized. NIC intends to monitor shops for quality control of products and service and asserts that franchised agro-vets will benefit farmers by selling better-quality inputs at lower prices by cutting out numerous middlemen who supply agro-vets. NIC plans to employ 12 Junior Technical Assistants (JTAs) to work with agro-vets and the target of 5,500 farmers they will serve. These JTAs will spend half of their time in agro-vet shops providing assistance to clients and training to the agro-vets, and will spend the rest of their time in the field, providing extension-like services to farmers in diagnosing and addressing their production problems. Participating farmers will have access to 12 percent financing from the Bank of Kathmandu to buy products from NIC-franchised agro-vets using an NIC-endorsed credit card-like instrument. NIC's interest is in expanding cereal production for its feed, poultry and other industries, reducing its reliance on imports from India.

VIVEK Feed Industries (VFI): KISAN and VFI are in discussion regarding a US$130,000 program (KISAN US$75,000, VFI US$55,000) to support contract farming with 1,500 farmers to grow maize with technical assistance and training. VFI will provide a reliable market for the maize it plans to buy for its poultry feed business. This program is contingent on VFI acquiring a feed mill at a price that makes this business venture viable. This is an instance where KISAN financing is directly linked to capital investments, and business plans dependent on KISAN financing.

Public-Private Sector Dialogue

While the evaluation encountered no examples of "classic" public-private sector dialogue, it is nevertheless worth commenting on KISAN's public sector engagement. DADOs in all six districts commented favorably on their working relationship with KISAN and district-based KISAN staff. DADOs reported that KISAN regularly and systematically shared information with them; that they discussed project plans before moving to execution; and that KISAN and DADOs shared objectives and the means of pursuing them, including promoting the adoption of plastic houses and the extension of irrigation systems and facilities. They commented favorably on KISAN's technical expertise in these areas and valued collaborating with KISAN on extending these technologies to more farmers. The only notable critique registered by some DADOs was that KISAN's budget limited the project's capacity to promote and scale up more rapidly in plastic houses and irrigation systems. DADOs also commented favorably that KISAN participated in Agriculture Development Alliance meetings that bring together other donor-finance projects, VDC representatives, NGOs and others engaged in supporting agriculture development.

MOAD Joint Secretary, Planning Division, Yogendra Kumar Karki, credited KISAN for aligning with national development priorities and working collaboratively with the Ministry at both the national and local levels. His comments reflected favorably on KISAN, with the exception of financing arrangements. He said that it was unfortunate that USAID financing for KISAN is not through the "red book" (i.e., on budget), and noted the importance that the GoN attaches to this policy issue with respect to future USAID project funding.

Question 3: What challenges has the project faced and have the management-level course corrections undertaken by the project so far addressed those challenges?

Winrock acknowledged, and subcontractors validated, that initially KISAN's management was fragmented along institutional lines. Roles, responsibilities and a common vision of the project were problematic, resulting in implementation challenges. Subcontractors and field staff now agree that these problems have been fully addressed; the management structure is coherent; and roles, responsibilities and authorities are well defined. A common view of the project now underpins a shared value of teamwork. The only exception to this favorable view of management is that district-level staff feel they lack the authority to made management decisions to adjust resource allocations, targets and the means to achieve them at the margin. This staff chafes at the need to seek approval from KISAN senior staff in Kathmandu on matters for which they believe they are best positioned to make informed decisions.

From Winrock's account, and substantiated by a review of contract amendments, it is clear that KISAN suffered from major deficiencies in the original baseline that created problems in setting targets and establishing a reliable data base to support a credible monitoring and evaluation system. These problems have been satisfactorily addressed. WIKISAN has an impressive data base that has captured a wealth of intake information on KISAN's 83,286 farmer beneficiaries and hundreds of value chain actors. The stratified sample surveys conducted to assess project implementation progress for Years Two and Three provide a detailed snapshot of progress disaggregated by gender, value chain, type of technology, etc. and affords a close-up view of technology adoption, production, marketing and more.

The evaluation team encountered a sizable number of KISAN staff who were new to the project or new to their current functional and locational assignment. Consequently, they lacked perspective on how the project had gotten to where it is today and a context for judging how to respond to emerging issues. KISAN management acknowledged the problem of high staff turnover but asserted that it had effectively resolved the problem by raising its salary scale, greatly improving staff retention rates.

Current social and political unrest has resulted in blockades of most transit routes between India and Nepal that has cut off imports of fuel, food, medicine and much of everything else required in the economy. The evaluation team experienced the consequence of this unrest directly. They were advised to abandon plans to visit the DADO in district headquarters in Kapilbastu and reached farmer groups with whom they held FGDs by being ferried in on motorcycles. The team also learned from traders that the fuel shortages caused by the blockade had raised the cost of transporting and marketing produce.

Question 4: Assess the feasibility as well as cost effectiveness of lentils, and examine if KISAN should continue this subsector.

KISAN reported that 32,000 farmers produced 2.2 million metric tons of lentils on 8,000 hectares, averaging a gross margin of US$781 per hectare. Notwithstanding this level of assistance, this evaluation encountered no farmers who reported assistance from KISAN on lentil production.

KISAN management acknowledged that many lentil farmers suffered significant losses for two consecutive years due to weather-induced problems of water logging caused by heavy rains.

Some agricultural scientists argue that changing rice production technology is a significant factor contributing to lentil crop failures in the last two years. Farmers are planting early-maturing rice varieties, harvesting them earlier and then, in accordance with their normal crop cycle, sowing lentils. Much of the lentil crop was subjected to waterlogging caused by late monsoon rains.

This evaluation recommends that KISAN discontinue its work on lentils. The project does not have a technology with a proven track record to mitigate the risk of water logging and other late monsoon-related problems. Now in Year Four, and with the 2015/16 lentil crop already planted, it is too late in the project to have a significant impact on lentil production. Project resources would best be redirected to higher priorities.

CONCLUSIONS

Viewed through the lens of its Results Framework, KISAN has successfully contributed to the four pillars of food security. It has improved Availability as measured by incremental sales and gross margins for vegetables. It has had a lesser but positive impact on Access, Stability, and Utilization. Farmers attribute improvements in family welfare to KISAN.

KISAN has contributed to Stability by enabling households to increase and diversify their income and reduce the risk of crop failure through the adoption of drought-resistant varieties of rice, thus increasing household resilience to shocks. Improvements in Utilization are reflected by increased consumption of nutrient-rich vegetables and improvements in families meeting their staple food requirements through increases in rice production. KISAN's impact on Access, measured in terms of expanded opportunities for small enterprises, is evident in the growth of agro-vets served by the project in terms of growth in both sales and clients.

KISAN's sustained six-part training program for vegetables—based on "learning-by-doing" methodology—and its approach of working with lead farmers to demonstrate improved cultural practices and high- impact technologies has contributed to widespread and successful adoption of improved vegetable production technology.

Crop production technology for vegetables and other crops is divisible and scale-neutral and therefore accessible to all farmers except those with the smallest land holdings. Consequently, most farmers adopted vegetable cultivation practices, responding to the opportunity to increase their income from sales afforded by their access to markets. These cultural practices were most impactful where farmers were not previously acquainted these practices. Where previous projects had already introduced these cultural practices, farmers ascribed the highest priority to good-quality seed and high-performing varieties.

Plastic houses and irrigation systems are "lumpy" technologies, and their cost may pose a barrier to the poor and those who are risk averse. In the case of sprinkler and flood irrigation, acquisition of this technology is further complicated by the need to invest and manage systems collectively. KISAN's practice of providing a modest subsidy for a single plastic house for a farmer group means that replication by others requires farmers to assume the full cost of about Rs. 15,000, unless DADO, the VDC or some other project subsidizes part of the cost. Replication patterns vary greatly, from 0 to 28 in a farmer group. Access to medium-term credit may prove to be an important determinant of the rate and extent of investments in, and adoption of, plastic house technology and irrigation systems.

Farmers have responded to opportunities to increase farm income by expanding the area dedicated to vegetable cultivation and allocating more labor and other resources to vegetables. In hill districts with relatively high levels of out-migration by men in search of employment, some women report land preparation as a constraint to expanding vegetable cultivation in the absence of male labor.

Spontaneous replication of vegetable cultivation practices by neighbors and others suggest that adoption of, and investment in, these technologies may continue beyond the life of KISAN, a notable indicator of sustainability. However, minimal replication of plastic house technology by non-project beneficiaries indicates that KISAN is still in need of a viable sustainability strategy for this important technology.

Cultural practices and technologies for rice were less impactful, although nursery seed and plant population density reduced cultivation costs and increased productivity. Improved and hybrid seed, when available, also yielded good results. Reliable access to quality seed, recommended varieties and fertilizer offers the best opportunity to increase productivity and contributions to household food security.

Farmers were dissatisfied with maize varieties that offered no discernible benefits over traditional varieties and practices. This contrasts with KISAN's findings and merits closer scrutiny.

KISAN successfully linked farmers to agro-vets, providing them with access to inputs required to adopt production practices and technologies for value chains supported by the project. Nevertheless, agro-vets show little promise of serving as effective change agents to sustain technological advancements over time. Most agro-vets lack the technical background required to advise farmers on inputs and practices to increase productivity and address pest, disease and other production problems that will surely present themselves, particularly in the case of vegetables. Furthermore, their business model is shop-based, and they have little incentive to go to farmers' fields to assess and advise on input use and cultural practices.

The BOP that aligns agribusiness firms' commercial interests with KISAN's development interests shows promise as a sustainable model to serve small farmers as producers, clients and sources of production. Most partnerships to date are based on the firms' interest in cereals—seed production, import substitution in the production of rice and wheat, feed for poultry and livestock, etc. The BOP shows promise as a durable change agent model for cereals; its potential as a model for viable and sustainable support for the vegetable sector remains to be demonstrated.

Financial mediation is not a problem for most farmers and KISAN has not had a significant impact on the incidence of loans taken by farmers from formal financial institutions.

Market access is not a problem for most farmers. KISAN's work with MPCs and Collection Centers has had a negligible effect on fresh produce marketing. KISAN lacks a relevant marketing strategy.

KISAN's work on organizational strengthening of MPCs, Collection Centers, cooperatives and other community and collective entities lacks a clear definition of methodology, objectives, results or strategy.

KISAN has built a healthy, productive relationship with DADOs, with whom they share common objectives and a complementary relationship. DADOs have significant resources and provide subsidies to promote the adoption of plastic houses and the extension of irrigation systems; they value KISAN's technical expertise in helping farmers to install and utilize these technologies.

KISAN has overcome the difficulties that plagued it in start-up. It now operates with project-wide, district-level plans and a monitoring and evaluation (M&E) system that provides detailed, disaggregated information that appears to serve management's interests well.

RECOMMENDATIONS

KISAN should continue to prioritize assistance for vegetable production. The project has earned the trust of farmers, has a competent and experienced field staff capable of facilitating technology transfer and a package of proven technologies. Continued work on vegetables charts the surest path to improving food security and contributing to poverty reduction.

KISAN can increase its impact on rice production by addressing problems farmers have in accessing recommended seed varieties and fertilizer.

Notwithstanding KISAN's own positive findings regarding the impact of its assistance on maize production, KISAN should closely monitor effectiveness of assistance provided by its field staff to farmers and the performance of recommended varieties so as to validate its cultural and technology recommendations for farmers.

KISAN should discontinue its work on lentils that shows little promise of reducing the risk of crop failure, achieving a technological breakthrough or having a significant impact on this value chain during the remaining life of the project.

KISAN should continue to aggressively prioritize leveraging DADO and VDC budget resources for irrigation schemes and plastic houses while complementing these investments by providing farmers with the technical assistance needed to take full advantage of this technology.

Scaling up irrigation is only possible if farmers themselves finance investments in irrigation. KISAN is cognizant of issues impacting farmer groups' collectively financing and managing irrigation schemes as reflected in its current learning agenda. USAID should follow this research closely and prioritize promising options for collective borrowing and management of irrigation schemes—sprinkler and flood.

Given the challenges of operating and maintaining irrigation schemes in the medium to long term, USAID should review the experience of other donors in this area and consider an assessment of the efficacy of various arrangements for performing these functions. Infrastructure and hardware are relatively easy to install; long-term successful maintenance and operation of irrigation systems are more challenging.

Drawing upon the work of CSISA, KISAN should intensify its efforts to demonstrate the utility of mechanization and its power to reduce costs, improve productivity and overcome labor constraints—a growing problem especially for communities experiencing high rates of out-migration of male family members.

USAID should carefully monitor lessons learned from the BOP and the feasibility of this model to sustainably support development opportunities for small farmers over time. It is especially

important to determine whether firms can be found whose business models lends themselves to supporting the requirements for sustained growth in the vegetable sector.

Assess the potential for agro-vets to serve as effective change agents beyond the life of the project, and identify options, if any, for increasing their capacity to play such a role. KISAN's plans to survey and analyze agro-vets merit close attention.

KISAN should carry out a study of the structure, performance and efficiency of vegetable marketing to identify issues and, if findings warrant continuing marketing assistance, this study should inform the design of marketing strategy. Review KISAN's plans for a marketing study in light of this recommendation.

Reassess the objectives, goals and strategy of KISAN's organizational strengthening work with MPCs, Collection Centers, cooperatives and other community and collective action entities.

ANNEX A: STATEMENT OF WORK

1) BACKGROUND

USAID's Knowledge-based Integrated Sustainable Agriculture and Nutrition (KISAN) project works with the Government of Nepal (GoN), the private sector, and other actors to sustainably improve food security and increase incomes through integrated agriculture, nutrition, and sanitation activities.

Agriculture plays a crucial role in Nepal's economy. It is the main source of employment for the majority of the population and contributes to 38 percent of the gross domestic product. Nepal has competitive advantages in a number of high-value agriculture areas, yet remains the poorest country in South Asia and the 13th poorest country in the world. Due to increasing population and slow rates of agricultural growth, Nepal is considered a structurally food deficit country. Likewise, almost 41 percent of Nepali children under 5 are chronically undernourished. The Mid-West and Far-West Regions typically have the highest rates of food insecurity, hunger, and nutrition deficiency.

KISAN is a program that is part of the five-year Feed the Future (FTF) Global Hunger Presidential Initiative in Nepal, which represents the U.S. Government's global efforts to advance food security and nutrition objectives. Nepal was one of 19 focus countries chosen for the initiative in 2010.

The overall goal of FTF in Nepal is to reduce hunger and poverty while improving nutrition. FTF Nepal's geographic zone of influence (ZOI) is centered on 20 Terai and lower hill districts in the Far-West, Mid-West, and West Regions. Focus value chains include vegetables, rice, maize, lentils, and livestock.

KISAN is one of the main projects under the Mission's FTF Multi-Year Strategy. KISAN aims to reduce poverty and hunger sustainably in Nepal by achieving inclusive growth in the agriculture sector, increasing income of farm families, and improving the participation of the private sector in promoting agriculture growth.

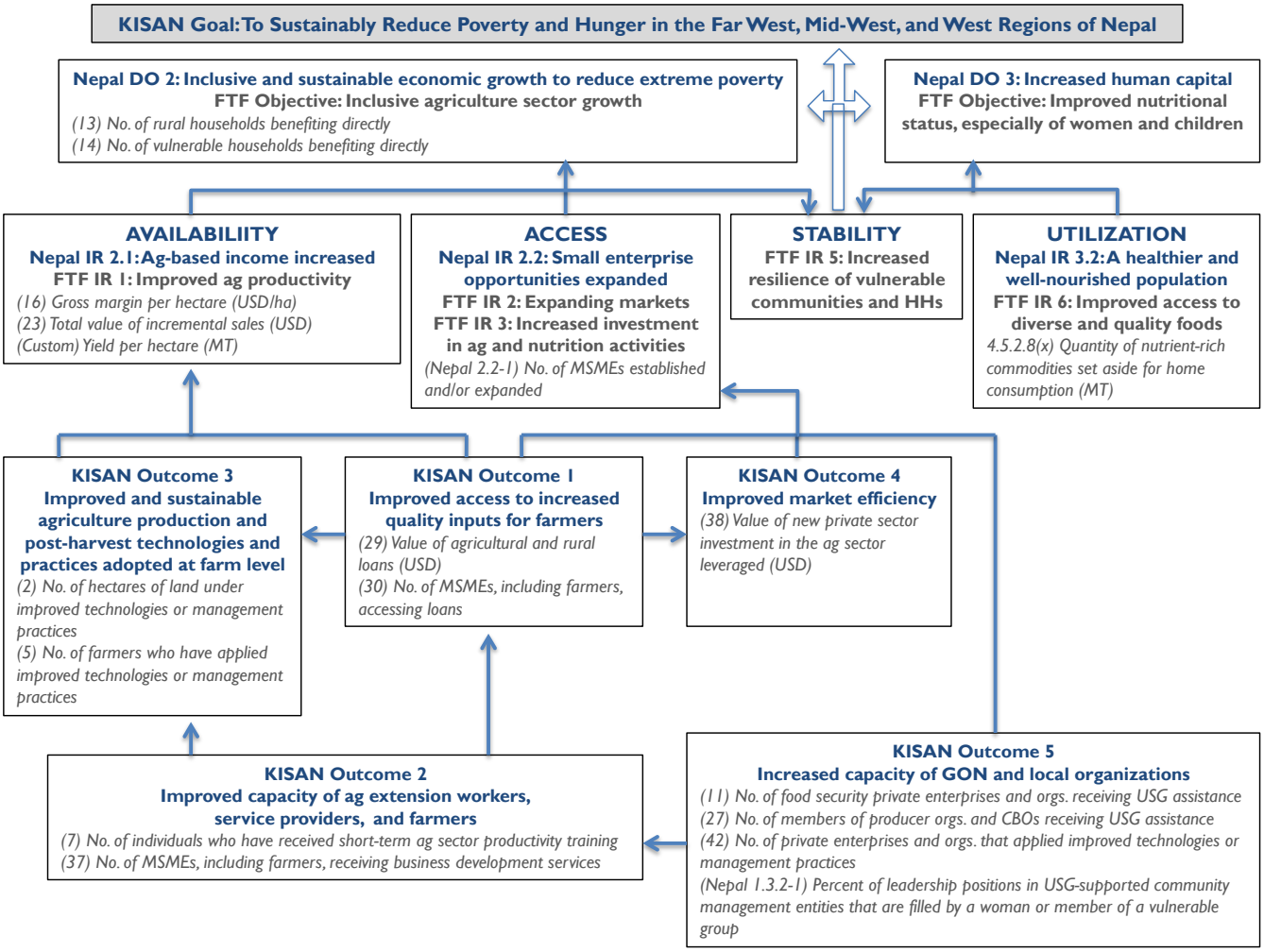
KISAN works in close coordination with the GoN's Ministry of Agricultural Development (MOAD). Moreover, KISAN engages with a wide-range of public, private and civil society stakeholders, including farmers, non-governmental organizations (NGOs), academic and research institutions, businesses, training centers, and media partners.

KISAN is also closely aligned with the other FTF projects in Nepal: the various Innovation Lab programs, Cereal Systems Initiative for South Asia (CSISA), Business Literacy Program, and Policy Reform Initiative. KISAN also collaborates with Peace Corps and the GoN's World Bank-managed Agriculture Food Security Program (AFSP).

KISAN PROJECT OUTCOMES

1. Improved access to increased quality inputs for farmers.
2. Improved capacity of agriculture extension workers, service providers, and farmers.
3. Improved sustainable agriculture production and post-harvest practices and technologies adopted at the farm level.
4. Improved market efficiency.
5. Increased capacity of GoN and Nepali organizations.

KISAN Results Framework FY15 – FY17



2) EVALUATION PURPOSE AND USE

The purpose of this mid-term evaluation of the KISAN project is to determine whether the activity is on track to accomplish its intended goals and objectives and to recommend course corrections if this is not the case. The evaluation will also assess the degree to which there is evidence of sustainability of project results and whether the approach appears to be advancing the Mission's Gender Equity and Social Inclusion (GESI) policy. This evaluation will examine the effectiveness of approaches in Terai and hill areas and among various population subsets.

The mid-term evaluation is primarily for the use of USAID and the KISAN Implementing Partner in identifying best practices and lessons learned to guide project implementation. USAID will also use evaluation findings and recommendations to inform future programming decisions.

3) EVALUATION QUESTIONS

The following evaluation questions will guide the midterm evaluation team. In answering these questions, the evaluation team must analyze how the project has impacted women and other vulnerable groups.

1. How is the project performing in terms of contributing to the four pillars of food security (Availability, Access, Utilization, and Stability) and meeting the following objectives?
   a) Increasing value of incremental sales of selected value chains
   b) Increasing gross margin per crop
   c) Contributing to its higher level goal of reducing poverty

2. What evidence exists to suggest that the project will lead to systemic changes (sustainable results) in the following areas?
   a) Adoption of agricultural technologies and practices
   b) Market linkages
   c) Private sector investment
   d) Public/private sector dialogue

3. What challenges has the project faced, and have the management-level course corrections undertaken by the project so far addressed those challenges?

4. Assess the feasibility as well as cost effectiveness of lentils and examine if KISAN should continue this subsector.

4) EVALUATION DESIGN AND METHODOLOGY

The following "Getting to Answers" matrix may guide development of evaluation design and methodology.

"Getting- to-Answers" Matrix – KISAN Mid-term Evaluation

Evaluation questions	Type of answer needed (e.g., descriptive, comparative, normative, cause & effect, etc.)	Data sources/ collection methods	Sampling or selection criteria	Data analysis method(s)/limitations
1. How is the project performing in terms of meeting its results targets, e.g.: a. Increasing value of incremental sales of selected value chains? b. Increasing gross margin per crop? c. Use of financial and business services? d. Other, e.g., related to nutrition?	Descriptive	M&E data KIIs with key stakeholders	Review of IR and sub-IR results against targets Target districts to be selected by USAID to represent both strong and weak activity performance	Targets may show program performance or may have been unrealistic at project inception M&E data results can be cross-checked through KIIs
2. What challenges has the project faced, and were any course corrections undertaken to mitigate them? If so, what were they, and do they appear to have addressed the challenges?	Normative	KIIs with key stakeholders		Qualitative data may provide useful information to guide programmatic decisions but may not be independently verifiable
3. What evidence exists to suggest that project approaches	Normative			

will lead to sustainable results, e.g.: a. Adoption of agricultural technologies and practices? b. Market linkages? c. Private sector investment? d. Public/private sector dialogue? 4. Assess the feasibility as well as cost effectiveness of lentils, and examine if KISAN should continue this subsector	Normative Normative	KIIs with key stakeholders FGDs with value chain associations or groups FGDs with women's groups or value chain association members		FGD results can help define successes and lessons learned but are small sample and/or qualitative in nature

5) EVALUATION TEAM

The evaluation team should be composed of experts comprising a range of skills directly relevant to the purpose of the KISAN mid-term evaluation:

Team Leader/M&E Expert (1): The Team Leader must have extensive experience working on or implementing FTF activities. S/he should have a postgraduate degree in agribusiness, agricultural economics, agronomy, or a related field with at least 10 years of experience leading and/or evaluating value chain development activities for USAID or other donor agencies, preferably in Asia. S/he should have experience leading evaluations and assessments for USAID and be familiar with current USAID evaluation policy and guidance, and have experience with both quantitative and qualitative research methodologies. This experience should include development of research questions and critically examining the validity of Results Frameworks and theories of change within the context that projects are operating. Experience in systems and sustainability analysis and assessing the development of agricultural producer groups, trade associations and forward and backward value chain linkages is required. The ideal candidate will have excellent oral and written communication skills in English, writing samples from recent evaluations or reports, and three professional references.

Agriculture Sector Specialist (1): The Agriculture Sector Specialist is a senior expert on promoting agribusiness and the agriculture sector in Nepal and should have extensive experience working with USAID or other donor agencies. A Nepali citizen, the Agriculture Sector Specialist should have a postgraduate degree in agribusiness, agricultural economics, agronomy, or a related field from a recognized national or international university and at least 10 years of experience working as a senior officer or researcher in agriculture and agribusiness, including on matters relating to agricultural finance in Nepal. Experience leading, or serving as senior technical expert, in agriculture sector evaluations and assessments for USAID or other donor entities is preferred. The ideal candidate will have excellent oral and written communication skills in English; writing samples, and three professional references.

Gender Equity and Social Inclusion Expert (1): The GESI Expert must have a minimum of a master's degree in social science or relevant subject area and at least five years of experience as a member of an evaluation team. S/he must have extensive knowledge about the GESI issues in Nepal and will work with the evaluation team to develop an evaluation methodology to assess the how the project has affected women and other vulnerable groups.

Enumerators/Social Science Researchers (3-5): The team will include three Nepali Social Science Researchers with master's degrees or the equivalent in social sciences, including women's studies/development studies, from a recognized national or international university. They must have at least three years of experience working in the development sector with a focus on agriculture, experience working with international organizations and stakeholders, excellent oral and written communication skills in English, and demonstrable skills utilizing software applications such as MS Excel, Word, PowerPoint, etc.

6) KEY DOCUMENTS FOR REVIEW

- Annual Work Plan
- Project M&E plan
- Progress reports (annual, quarterly)
- FTF Multi-Year Strategy

- Other studies, reports

7) KEY STAKEHOLDERS TO BE CONSULTED

- Project beneficiaries
- GoN officials (MOAD, Department of Agriculture, District Agriculture Development Offices [DADOs], etc.)
- Implementing Partners, sub-partners, and USAID-funded projects in the region
- Other relevant donors
- Relevant NGOs and international NGOs
- USAID/Nepal staff
- Market players/actors (retailers, agro-vets, wholesalers, traders and processors)

8) TIMELINE FOR EVALUATION

The total level of effort for the evaluation will be approximately 2.5 months spread over a three-month period. The following is a tentative timeline for the evaluation tasks; the detailed timeline will be developed during a team planning meeting and as part of finalizing the evaluation plan. The evaluation is **expected to start in late September 2015 and be completed by January 2016.**

SN	Tasks	Week											
		1	2	3	4	5	6	7	8	9	10	11	TBD
1	Sign Consulting Agreements	X											
2	Desk review and TL travel to Nepal	X	X										
3	USAID in-brief, KISAN project briefing, and team planning meetings		X										
5	Submit evaluation plan		X										
4	Develop evaluation instruments		X										
6	KIIs with USAID staff, KISAN staff, and key stakeholders in Kathmandu			X									
7	Field testing/adjustment of evaluation instruments with entire team at selected project site				X								
8	Roll out of evaluation KIIs and FGDs utilizing evaluation sub-teams led by TL and DTL in six (6) districts					X	X	X					
8	Analyze data; prepare and deliver a presentation of preliminary findings and conclusions to USAID and KISAN								X				
9	Submit draft evaluation report to USAID for review									X	X		

10	Finalize report within 10 working days of receipt of written comments from USAID												X

9) DELIVERABLES

The following is a set of evaluation deliverables, with the expected timing of each adhering to the above evaluation timeline.

1. An in-briefing with USAID/Nepal upon the Team Leader's arrival in Nepal.

2. An evaluation plan containing the proposed evaluation outline; the evaluation methodology, including draft data collection instruments; and an implementation schedule, to be delivered within one week of the Team Leader's arrival in Nepal.

3. A PowerPoint presentation to USAID (and another to senior KISAN management) of the preliminary findings, conclusions, and recommendations of the evaluation, for correction of errors of fact or interpretation, to be delivered within seven weeks of the Team Leader's arrival in Nepal.

4. A draft evaluation report of not more than 25 pages in length, single-spaced in TNR 12-point font, excluding annexes, with an executive summary of not more than three pages in length, within nine weeks of the Team Leader's arrival in Nepal.

5. A final evaluation report of not more than 25 pages in length, single-spaced in TNR 12-point font, excluding annexes, with an executive summary of not more than three pages in length, within 10 working days of receipt of consolidated comments in electronic format from USAID. All the quantitative data collected as part of this evaluation must be submitted as CSV files to the Data Development Library with personal identifying information removed as required by ADS 579. The Final approved evaluation report must be submitted to the Development Experience Clearing House.

10) EVALUATION REPORT OUTLINE

I. Executive Summary (max 2 pages)
II. Evaluation Purpose and Questions (max 1 page)
III. Project Background (max 1 page)
IV. Evaluation Methods and Limitations (3 pages)
V. Findings by each evaluation questions (20 pages)
VI. Conclusions (max 2 pages)
VII. Recommendations (3 pages)
Annexes:

A. Statement of Work
B. Documents Reviewed
C. Persons and Organizations Met
D. Data Collection Instruments (e.g., Questionnaires, Surveys)
E. Data Utilized in the Evaluation
F. Unresolved Issues from Evaluation Review

ANNEX B: DOCUMENTS REVIEWED

- Agriculture and Food Security Project, Appraisal Document, World Bank, December 10, 2012
- Agriculture and Food Security Project, Fourth Implementation Review and Support Mission, Aide Memoire, June 19, 2015
- Cereal Systems Initiative for South Asia in Nepal (CSISA-NP) Annual Report 2014, November 15, 2014, USAID, CIMMYT, November 15, 2014
- KISAN Baseline and 2014 Results Survey, Final Report (Draft), Winrock International, June 29, 2015
- KISAN Mid-term Evaluation Work Plan, MEL Project, CAMRIS International, October 8, 2015
- KISAN Year Two Annual Report, July 1, 2013 – June 30, 2014, Winrock International, July 31, 2014
- KISAN Project Annual Report July 1, 2014 – September 30, 2015, Winrock International, October 30, 2015
- KISAN Project Annual Work Plan Year 3, July 1, 2014 – June 30, 2015, September 18, 2014
- KISAN Project Annual Work Plan Year 4, October 1, 2015 – September 30, 2016, August 31, 2015
- KISAN Project Baseline Survey Results, PowerPoint Presentation, Winrock International, July 8, 2015
- KISAN Project, Monitoring and Evaluation Plan (2015 – 2017), USAID/Nepal, August 26, 2015
- KISAN Project Status Brief, PowerPoint Presentation, October 15, 2015
- Nepal FY2011 – 2015 Multi-Year Strategy, Feed the Future, USAID, May 26, 2011
- Progress Report AIM – Project KISAN, Winrock/USAID – NIMBUS, PowerPoint Presentation
- Project for Agriculture Commercialization and Trade (PACT), Project Appraisal Document, World Bank, May 5, 2009
- Strategic Review, Feed the Future, USAID/Nepal, January 21, 2011

ANNEX C: KISAN'S THEORY OF CHANGE

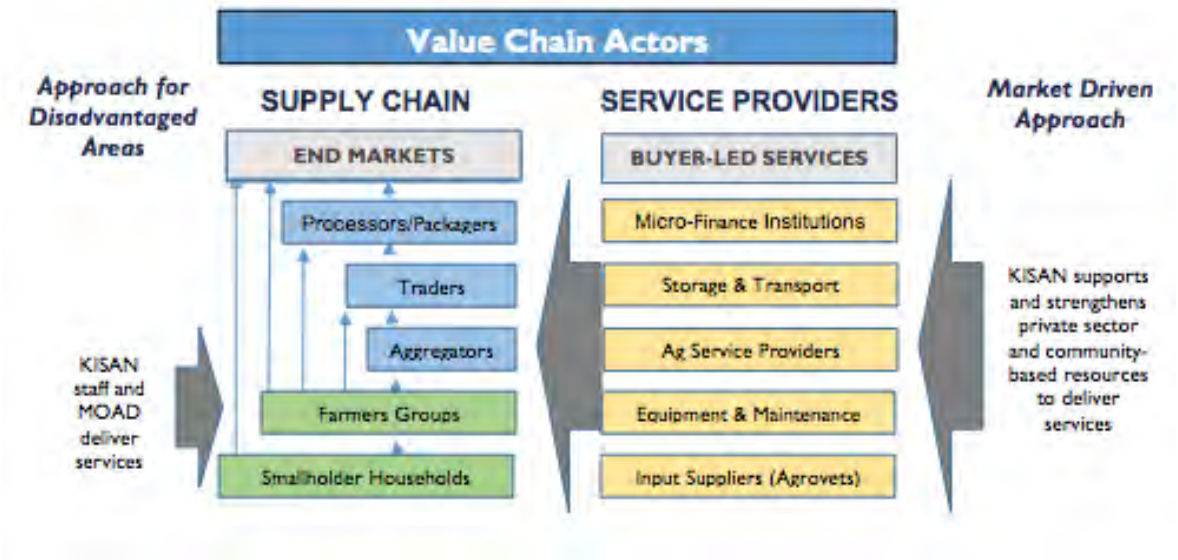
Project Description and Theory of Change

KISAN helps subsistence smallholder farmers graduate to commercial agriculture by improving on-farm production and facilitating market development. KISAN focuses on target commodities that are important for food security (rice, maize, and lentils), are high-value (off-season vegetables), and are nutrient-rich.

Market opportunities vary across KISAN's target area. In areas with access to markets, such as the Terai and low-lying hills, KISAN focuses on building the capacities of private sector and community-based service providers to improve the supply of quality inputs, credit, and other services such as land preparation and equipment rental. In parallel, the project facilitates market linkages to improve farmers' access to service providers and buyers. Opportunities to attract buyers and to engage private sector service providers are fewer in more remote regions. Here, KISAN project staff work directly with farmers to achieve higher yields and increase household consumption of vegetables. The chart below illustrates KISAN's approach to market development.

Coordination and collaboration with the GoN ensures unified messages on recommended agricultural inputs and techniques and helps coordinate investments in irrigation and Collection Center infrastructure.

KISAN's Implementation Model



KISAN's project design has evolved since start-up. During the first 2.5 years, KISAN formed more than 4,000 farmer groups of more than 80,000 farmers across 20 districts. Working with farmer groups allowed project staff to deliver training and market information efficiently, promote farmer-to-farmer learning using lead farmers and demonstration plots, and achieve sufficient scale to

attract buyers and input suppliers. Private sector service providers were integrated into project activities to build and maintain linkages between farmers and input and output markets. KISAN's current approach builds on this foundation and focuses on expanding private sector service delivery mechanisms that can be sustained beyond the life of the project.

Although KISAN works in selected value chains to help develop markets, KISAN is not a classic "value chain" project. This is a reflection of its focus on food-insecure areas and specific commodities. In the most remote and hard-to-reach districts, market failures preclude working through the private sector. In more accessible areas where farmers represent a substantial potential customer base, more options exist for working through private sector partners. However, the project's defined set of commodities, activities, and Village Development Committees (VDCs) may not align perfectly with private sector interests. KISAN therefore works with the private sector primarily where potential exists to deliver priority services and inputs on a profitable basis.

KISAN's Approach to Market Development

This section describes KISAN's phased approach to market development. Phase 1 covers the period 2013 – 2014. Phase II COVERS THE PERIOD 2015 – 2017 AND IS THE FOCUS OF THIS M&E PLAN. THE FOLLOWING THEMES ARE INTEGRATED THROUGHOUT:

Focused transformational change: A key feature of FTF's approach is to focus and concentrate government, private sector, and donor interventions in the zone of influence (ZOI) for greater impact and sustainability. Within this zone, KISAN focuses on VDCs selected in consultation with GoN.

Aggregation: This approach helps smallholders access market services and buyers by achieving economies of scale. KISAN organizes farmers into groups within production pockets (areas) so that they can sell in bulk through Collection Centers and attract local input suppliers and microfinance institutions (MFIs).

Sustainability: The FTF strategy emphasizes establishing sustainable service delivery mechanisms that will continue to function beyond the life of the project. Private sector firms that deliver inputs and advisory services on a profitable basis are a potential yet previously untapped source of farmer support.

Entrepreneurship: Transitioning subsistence farmers to commercial agriculture requires training to cultivate entrepreneurial skills and mindsets and to improve business literacy. In parallel, traders and service providers require business development services to identify and pursue business models that tap the market potential of Nepal's smallholder farmers.

Start small and build on success: Starting small and building on success is an effective strategy across a range of capacity building interventions. At the farm level, individual smallholder farmers instinctively adopt this approach. At the sector level, we have learned in some projects that providing more intensive support to a smaller number of farmers is more effective than providing less intensive training to a larger number of farmers. More intensely supported farmers are more likely to be successful and, in turn, generate a demonstration effect that ripples throughout their

communities. Similarly, efforts to establish new groups and firms or try new approaches and business models will start with the most promising and feasible opportunities rather than rolling out a new approach at a large scale with respect to the number of participants and geographic reach.

Gender and social inclusion: Engaging women and marginalized or disadvantaged populations in economic opportunities is a priority for USAID and FTF. By working with women and other vulnerable groups, KISAN can increase incomes and improve social status within communities.

Helping Farmers Move from Subsistence to Commercial Agriculture

Phase I: Mobilizing Farmer Groups

Forming farmer groups is a critical first step that enables efficient delivery of training and market linkages, including access to finance, quality inputs, and buyers.

Training to improve on-farm practices: The project team organized farmers into groups of about 20 and trained them over the course of their first year on six modules. The first training for each group reflected where they were in the crop cycle. Groups that were mobilized before the start of the crop cycle received training on nursery management and planting techniques such as proper spacing. Those mobilized after the planting season started with training on weeding, integrated pest management, and reducing post-harvest losses. In addition, the initial courses focused on technologies and management practices specific to the target commodities for that season. Some improved technologies and practices taught for the initial crop cycle were transferrable to other crops (across vegetable varieties and between cereals and vegetables).

KISAN asked farmer groups to identify a lead farmer from their community. He or she was assisted to start a

Evolution of a KISAN Smallholder Farmer

Subsistence farmers are risk-averse and cash-strapped. KISAN helps farmers start small and build on success. The description below draws on the experience of Winrock International and project staff who have worked on other agriculture projects in Nepal.

1. Farmers typically start with a few improved technologies and management practices, focusing on those that are no-cost or low-cost, and apply them in a relatively small portion of their farm plot as a pilot test.
2. In parallel, KISAN engages farmers in market development activities, focusing on 1) helping farmers form savings groups to encourage savings and start them on the path to becoming credit-worthy, 2) establishing collection centers to aggregate production to attract buyers, and 3) linking farmers to suppliers of quality inputs.
3. Once the farmer achieves better yields and start to sell—all feasible within the first crop cycle—he/she will increase the area of their farm dedicated to KISAN-recommended vegetables and methods in subsequent cycles. Income earned from sales of high-value vegetables allows them to invest in quality inputs.
4. After a few successful crop cycles, farmers will qualify for and be willing to take out their first formal loan from a (MFI), to purchase plastic tunnels or other more expensive technologies that offer higher returns.

demonstration plot to show the benefits of improved production methods. KISAN's Agriculture Technicians invited farmers and local inputs suppliers (agro-vets) to farmer field days at the demo plots to talk about what was done differently to achieve better outcomes.

Smallholder microfinance: Much of the training was focused on helping farmers start to think like entrepreneurs. KISAN taught the importance of investing in better inputs to increase yields and sales and of growing crops that buyers want to achieve higher prices and/or sales volumes. KISAN's Microfinance Officers helped newly established farmer groups form savings groups and start saving. This put farmers on the path to becoming credit-worthy and helped provide small loans for those members who could not otherwise afford improved seed varieties.

Community funds: KISAN does not provide subsidies to all beneficiary farmers, which is a significant departure from prior donor policies and practices in the ZOI. Instead, KISAN helps farmer groups identify potential sources of GoN finance for priority community agriculture infrastructure, such as irrigation and Collection Centers. Funding sources include VDC block grant funds (15 percent of which must be allocated for agricultural purposes under current policy) and DADO support (grants and in-kind donations of plastic tunnels and other supplies). Farmer groups must be registered with DADO to qualify—another important reason for focusing on mobilization—which is something that the private sector is unlikely to do. KISAN does provide limited cost-sharing support to some farmer groups to demonstrate new technologies.

Phase II: Deepening Support

KISAN initially planned to "graduate" farmer groups after they complete a year of training so that the project team could focus on new farmer groups. Instead, KISAN will continue working with the 80,000+ farmers to deepen their understanding of improved methods and market opportunities. Helping farmers keep farm logbooks to plan production, track input costs and sales, and calculate gross margins is a strategic next step in the farmer's evolution as an entrepreneur. KISAN is coordinating with USAID's Business Literacy Project to prioritize KISAN farmers, since literacy and numeracy are essential for being able to transact in the market place. Some 48,000 of the most vulnerable KISAN farmers will be enrolled in a 12-month business literacy course conducted by DEPROSC. This training is essential for: 1) helping farmers improve record-keeping and production planning in farm logbooks, 2) following written instructions on agricultural inputs, and 3) calculating gross margins. These skills give farmers tools to make smart business decisions.

Mobilizing farmer groups in Phase I required considerable KISAN staff time. Working with established farmer groups allows KISAN staff to shift our focus to building the capacities of private sector service providers. KISAN's current assistance to farmers focuses on needs-based technical assistance and extension services (or "pings") rather than formal training courses. KISAN anticipates that some farmers will be able to "graduate" from project support, signified by being able to access private sector services successfully. The most successful will have earned the respect of their communities and will be well positioned to become a lead farmer who facilitates informal farmer-to-farmer learning and/or establish a small business as a Local Service Provider (LSP) or agro-vet.

Strengthening Value Chain Efficiencies and Relationships

Phase I: Linkages and Capacity Building

In Phase I, KISAN worked at several critical points throughout selected value chains to build capacities and market linkages.

Collection Centers and Market Planning Committees (MPCs): KISAN established new Collection Centers—or linked farmer groups to existing Centers—to aggregate vegetable production and attract buyers. KISAN then strengthened the Collection Centers as a conduit for market linkages and market intelligence. Working with MPCs and local radio stations, KISAN disseminated market price information through price boards and radio messages so that farmers knew wholesale prices and could negotiate more favorable terms with buyers. In addition, KISAN helped MPCs facilitate production planning meetings attended by wholesale traders, input suppliers, MOAD staff, and producers. These meetings helped MPCs and input suppliers gauge regional demand for vegetables and competition from Indian imports, coordinate the supply of critical inputs, and identify market opportunities for producers—thereby substantially reducing the risks of ad hoc cropping patterns.

Working through Change Agents

KISAN will reach 18,000 additional households through grants for facilitated services to commercial agribusinesses, like:

- Processors
- Agro-vets and mechanization suppliers
- Irrigation suppliers
- MPCs
- GoN extension staff
- Community-based local service providers
- Lead farmers

Buyers: KISAN worked to link farmers to buyers. Sales locations and types of buyers varied by commodity. Traders purchased vegetables at Collection Centers. Where local vegetable production reached a sufficient scale and road infrastructure allowed, some traders purchased at the farm-gate from farmers along key routes. Farmers typically sold cereals to feed mills, rice mills, poultry farms, and lentil packaging firms. With KISAN assistance, farmers also engaged in seed production contracts with seed firms and cooperatives, described below.

Input Supply Chain: Lack of access to quality rice and maize seeds is a critical constraint. KISAN brokered strategic partnerships with 15 seed cooperatives and companies that signed production contracts or established verbal agreements with farmers. Through these, farmers sold quality rice and maize seed back to the companies. To enhance access to a broad range of inputs for KISAN's target vegetables, KISAN also trained agro-vets to stock quality inputs. LSPs recruited from within target communities "shadowed" KISAN's Agriculture Technicians at all formal trainings and farmer field days to build their capacities to advise farmers. To maximize farmers' investments in irrigation, KISAN Irrigation Technicians trained farmers and a network of irrigation repair agents on maintenance to ensure sustainability.

Finance: KISAN's Microfinance Officers helped MFIs—savings and credit cooperatives and financial intermediary NGOs (FINGOS)—mobilize customers by promoting membership

campaigns that targeted KISAN's farmer groups. KISAN provided other business development services, including but not limited to helping link MFIs to regional development banks and other wholesale lenders to expand the scale of agriculture sector lending in the ZOI.

Phase II: Facilitated Services: KISAN will cultivate strategic partnerships with private sector actors interested in expanding services to farmers in target districts, particularly in areas with greatest market potential. KISAN's Grants under Contract will help leverage private sector investment and buy down some of our partners' risks associated with offering new products and services, doing business with new customers, or expanding into new territories. Follow-up assistance provided to KISAN farmers through grantees and other partners will deepen and reinforce the adoption of improved business and agricultural practices to further increase incomes.

One of the key challenges of KISAN's facilitated services approach is that farmers are far less likely to pay for advice than tangible inputs. KISAN will pilot ways to enhance the profitability of extension services, such as encouraging input suppliers and buyers to provide "embedded services." For example, KISAN may provide grants to:

- Rice and lentil processors and millers to hire KISAN Agriculture Technicians and LSPs;
- Input suppliers to improve marketing and provide embedded services through agro-vets; and
- Savings and Credit Cooperatives and agricultural cooperatives to hire Agriculture Technicians and LSPs to form new farmer groups.

In turn, KISAN will help grantees develop business plans to expand their customer base and provide new services on a profitable basis. KISAN will utilize our geographic information services (GIS) capacity to generate maps that highlight market opportunities. For example, we will equip our MFI partners with maps showing concentrations of farmer savings groups with substantial yields and access to markets. KISAN will also use GIS to help target investments in irrigation infrastructure for greatest impact.

It is important to note that "facilitated services" will not replicate KISAN's Phase I interventions, such as mobilizing farmer groups and providing extensive formal training. The project must be flexible as it engages potential private sector partners in a joint search for business models and opportunities that support project outcomes.

ANNEX D: PERSONS AND ORGANIZATIONS MET

1. In-brief with KISAN Staff, CAMRIS Project Office, Kathmandu

Date: October 1, 2015

S.No.	Name	Organization	Position
1	Scott Thomas	USAID/CAMRIS-MEL Project	COP
2	Manorama Adhikari	USAID/CAMRIS-MEL Project	Evaluation Specialist
3	Danielle Knueppel	USAID	Food Security Team Leader
4	Pravin Baidya	KISAN	Director, Operation and M&E
5	Lorene Flaming	KISAN	M&E Consultant
6	Prakash Gnyawali	USAID	M&E Specialist
7	Krishna Babu Joshi	USAID/CAMRIS-MEL Project	PMS
8	Shibesh Chandra Regmi	USAID/CAMRIS-MEL Project	Deputy COP
9	Navin Hada	USAID	COR/KISAN
10	Murari Adhikari	USAID	M&E Specialist
11	B.B. Mathema	MEL/New ERA	Dy. Team Leader/Evaluation Team
12	Bal Krishna Sharma	MEL/New ERA	GESI Coordinator
13	M.L. Jayaswal	MEL/New ERA	Field Coordinator/Evaluation Team
14	Wayne Nilsestuen	MEL/CAMRIS	Team Leader/Evaluation Team
15	Amy Prevatt	USAID	M&E Specialist, FTF
16	Phil Broughton	KISAN	COP

2. Presentation of Proposed Evaluation Plan to USAID/Nepal

Date: October 5, 2015

S.No.	Name	Organization	Position
1	Danielle Knueppel	USAID	Food Security Team Leader
2	Belay Mengistu	USAID	Team Leader, PMU, SEED
3	Murari Adhikari	USAID	M&E Specialist
4	Amy Prevatt	USAID	M&E Specialist, FTF
5	Scott Thomas	CAMRIS	COP
6	Wayne Nilsestuen	MEL/CAMRIS	Team Leader/Evaluation Team
7	B.B. Mathema	CAMRIS/New ERA	Dy. Team Leader/Evaluation Team
8	M.L. Jayaswal	CAMRIS/New ERA	Field Coordinator/Evaluation Team
9	Lorene Flaming	KISAN	M&E Consultant

3. Meeting with Ministry of Agriculture Development (MOAD), Kathmandu

Date: October 8, 2015

S.No.	Name	Organization	Position
1	Yogendra Kumar Karki	Joint Secretary	Planning Division, MOAD
2	Binod Kumar Bhattarai	Sr. Agri. Economist	Foreign Aid Division, MOAD
3	Wayne Nilsestuen	MEL/CAMRIS-New ERA	Team Leader/Evaluation Team
4	B.B. Mathema	MEL/CAMRIS-New ERA	Dy. Team Leader/Evaluation Team

4. Meeting with Development Project Service Center (DEPROSC) Management, Kathmandu

Date: October 8, 2015

S.No.	Name	Organization	Position
1	Pitamber Acharya	DEPROSC	Chairman
2	Ganesh KC	DEPROSC	Advisor
3	ToyaNath Pandey	DEPROSC	Project Coordinator for KISAN
4	Sabita Mainali	DEPROSC	Business Development Specialist
5	Wayne Nilsestuen	MEL/CAMRIS	Team Leader, Evaluation Team
6	B.B. Mathema	MEL/CAMRIS New ERA	Dy. Team Leader/Evaluation Team

5. Meeting with Cereal Systems Initiative for South Asia (CSISA) Project Staff, Kathmandu

Date: October 9, 2015

S.No.	Name	Organization	Position
1	Dr. Mina Devkota	CSISA	Agronomist
2	Wayne Nilsestuen	MEL/CAMRIS	Team Leader, Evaluation Team
3	B.B. Mathema	CAMRIS/New ERA	Dy. Team Leader/Evaluation Team

6. Meeting with CEAPRED Management, Kathmandu

Date: October 9, 2015

S.No.	Name	Organization	Position
1	Dr. Keshab Joshi	CEAPRED	KISAN Program Director
2	Wayne Nilsestuen	MEL/CAMRIS	Team Leader, Evaluation
3	Bharat Upadhyay	CEAPRED	Executive Director

7. Meeting with NIMBUS International, NIMBUS Office, Kathmandu

Date: November 16, 2015

S.No.	Name	Organization	Position
1	Pradip Kumar Agarwal	CEO,	NIMBUS International
2	Dr. Dinesh Gautam,	Deputy CEO	NIMBUS-KISAN Kendra (Center)
3	Kiran Dahal,	Head	NIMBUS-KISAN Kendra (Center)
4	Wayne Nilsestuen	MEL/CAMRIS	Team Leader, Evaluation

8. Meeting with KISAN Staff on Field Work Methodology and Instruments, KISAN's Office, Lalitpur, Kathmandu

Date: October 12, 2015

S.No.	Name	Organization	Position
1	Harish C. Devkota	KISAN	Agriculture Director
2	Phil Broughton	KISAN	COP
3	Wayne Nilsestuen	MEL/CAMRIS	Team Leader/Evaluation
4	B.B. Mathema	CAMRIS/New ERA	Dept. Team Leader/ Evaluation
5	M.L. Jayaswal	CAMRIS/New ERA	Field Coordinator
6	Dr. Jagat Devi Ranjit	CAMRIS/New ERA	Field Researcher
7	Nirakar Acharya	CAMRIS/New ERA	Field Researcher
8	Buddhi Prakash Adhikari	CAMRIS/New ERA	Field Researcher
9	Meena Sitaula	CAMRIS/New ERA	Field Researcher
10	Lorene Flaming	KISAN	M&E Consultant

9. Coordination with KISAN Field Staff – Focus Group Discussions and Key Informant Interviews at KISAN's Regional Office, Napalganj, Banke district

Date: October 26, 2015

S.No.	Name	Organization	Position
1	Wayne Nilsestuen	MEL/CAMRIS	Team Leader/Evaluation
2	B.B. Mathema	CAMRIS/New ERA	Dy. Team Leader/ Evaluation
3	M.L. Jayaswal	CAMRIS/New ERA	Field Coordinator
4	Dr. Jagat Devi Ranjit	CAMRIS/New ERA	Field Researcher
5	Nirakar Acharya	CAMRIS/New ERA	Field Researcher
6	Dr. Buddhi Prakash Adhikari	CAMRIS/New ERA	Field Researcher
7	Meena Sitaula	CAMRIS/New ERA	Field Researcher
8	Puspa Raj Tiwari	KISAN	Regional M&E Manager
9	Rajendra Shahu	KISAN	Sr. ROBM
10	Ashok Baral	KISAN	Irrigation Expert
11	Laxmi Prasad Sharma	KISAN	Sr. AMO
12	Amit Dawadi	KISAN	Regional M.F. Coordinator
13	Rabindra Patel	KISAN	Senior Regional Manager
14	Dr. Ram Lal Shrestha	KISAN	Cluster Manger
15	Khagendra Thapa	KISAN	AA/F Officer
16	Nava Raj Pandey	KISAN	CSC
17	Netra Kunwar	KISAN	Regional Manager
18	Scott Thomas	MEL/CAMRIS	COP

10. Preliminary Findings by Evaluation Team to KISAN Staff, KISAN Office

Date: November 17, 2015

S.No.	Name	Organization	Position
1	Phil Broughton	KISAN	COP
2	Harish C. Devkota	KISAN	Agriculture Director
3	Rabindra Patel	KISAN	Sr. Reg. Manager
4	Purushottam Mainali	KISAN	National Advisor
5	Lorene Flaming	KISAN	M &E Specialist
6	Evan Scott Thomas	MEL/CAMRIS	COP
7	Wayne Nilsestuen	MEL/CAMRIS	Team Leader/Evaluation
8	B.B. Mathema	CAMRIS/New ERA	Dep. Team Leader/ Evaluation
9	M.L. Jayaswal	CAMRIS/New ERA	Field Coordinator
10	Dr. Jagat Devi Ranjit	CAMRIS/New ERA	Field Researcher
11	Nirakar Acharya	CAMRIS/New ERA	Field Researcher
12	Dr. Buddhi Prakash Adhikari	CAMRIS/New ERA	Field Researcher
13	Meena Sitaula	CAMRIS/New ERA	Field Researcher
14	Bal Krishna Sharma	CAMRIS/New ERA	GESI Coordinator
15	Praveen Baidya	KISAN	OME Director

11. De-brief on Preliminary Findings of KISAN MEL at USAID, Kathmandu.

Date: November 19, 2015

S.No.	Name	Organization	Position
1	Amy Prevatt	USAID	M&E Specialist, FTF, SEED
2	Anita Mahat	USAID	Economist, SEED
3	Belay Mengistu	USAID	Team Leader, PMU, SEED
4	Bijaya Bajracharya	USAID	Food Security Specialist, FFP, SEED
5	Binita Rai	USAID	Program Asst., SEED
6	Danielle Knueppel	USAID	Food Security Team Leader, SEED
7	Gautam Bajracharya	USAID	M&E Specialist, SEED
8	Indra Sharan KC	USAID	GIS Specialist, PPD
9	Kishor KC	USAID	PPD
10	Kristin Ray	USAID	Program Office Director
11	Murari Adhikari	USAID	M&E Specialist PPD
12	Nadira Kabir	USAID	SEED
13	Navin Hada	USAID	COR KISAN Project
14	Netra Sharma	USAID	SEED
15	Prakash Gnyawali	USAID	M&E Specialist, PPD
16	Rajesh Dhungel	USAID	Food Security Specialist, FFP
17	Shanda Steimer	USAID	SEED Office Director
18	Wayne Nilsestuen	MEL /CAMRIS	Team Leader/Evaluation Team
19	Scott Thomas	MEL/CAMRIS	COP
20	B.B. Mathema	CAMRIS/New ERA	Dy. Team Leader/Evaluation Team
21	M.L. Jayaswal	CAMRIS/New ERA	Field Coordinator

12. Meeting with NIMBUS International, NIMBUS Office, Kathmandu

Date: November 16, 2015

S.No.	Name	Organization	Position
1	Pradip Kumar Agarwal	CEO	NIMBUS International
2	Dr. Dinesh Gautam,	Deputy CEO	NIMBUS-KISAN Kendra (Center)
3	KiranDahal,	Head	NIMBUS-KISAN Kendra (Center)
4	Wayne Nilsestuen	MEL/CAMRIS	Team Leader, Evaluation

13. Meeting with Vibek Feed Industry, Dhangadhi Municipality, Kailali district

Date: November 1, 2015

S.No.	Name	Organization	Position
1	Mr. Vibek Bhatta	Vibek Feed Industry	Proprietor
2	Mr. M. L. Jayaswal	New ERA	Field Coordinator
3	Dr. B.P. Sharma	New ERA	Field Researcher
4	Ms. Meena Sitaula	New ERA	Field Researcher
5	Wayne Nilsestuen	MEL/CAMRIS	Team Leader, Evaluation

14. Meeting with Unique Seed Company, Unique Seed office, Kailali district

Date: November 1, 2015

S.No.	Name	Organization	Position
1	Mr. Lok Raj Joshi	Unique Seed Company	MD
2	Mr. Darwin Joshi	Unique Seed Company	Ext. Team Leader/Plant Breeder
3	Mr. M. L. Jayaswal	New ERA	Field Coordinator
4	Dr. B.P. Sharma	New ERA	Field Researcher
5	Ms. Meena Sitaula	New ERA	Field Researcher
6	Wayne Nilsestuen	MEL/CAMRIS	Team Leader, Evaluation

15. Meeting with Devbhar Rice Mill, DhambojiChok, Khajura Road, Nepalganj, Banke district

Date: November 6, 2015

S.No.	Name	Organization	Position
1	Mr. Arbind Kumar Shah	Devbhar Rice Mill	Owner
2	Mr. M. L. Jayaswal	New ERA	Field Coordinator
3	Dr. B.P. Sharma	New ERA	Field Researcher
4	Ms. Meena Sitaula	New ERA	Field Researcher

16. Meeting with seed company Global Agritech (GATE)/Nepal, Pvt. Ltd., Bankatuwa, Khajhura, Banke district.

Date: November 8, 2015

S.No.	Name	Organization	Position
1	Mr. Tika Ram Upadhyay	GATE seed company office	Chairman
2	Mr. M. L. Jayaswal	New ERA	Field Coordinator
3	Dr. B.P. Sharma	New ERA	Field Researcher
4	Ms. Meena Sitaula	New ERA	Field Researcher

ANNEX E: DATA COLLECTION INSTRUMENTS

Focus Group Discussion (FGD) Guideline – Registry

FGD with Farmer Groups Simplified Guideline

Checklist for FGD (Women/Dalit/Janajati

Summary Matrix: Farmers' Adoption of Practices, Technology, and Outcomes

Key Informant Interview (KII) Simplified Guideline

Summary of Day's Findings: Focus Group Discussions

Summary of Days Findings: Key Informant Interviews

Focus Group Discussion (FGD) Guide – Registry:

Name of Farmer Group: _____

Rapport Building: [Greetings, introduction of team with the institutions they are working for i.e.; KISAN. Let participants also introduce themselves, explain the purpose of visit, tell them approximate time needed for discussion, let them know that snacks/tea will be served], take their consent to start the discussion.

PART A: General Information [Not to be asked except the table below, filled by note taker]

Name of Facilitator: _____

Name of Note Taker/Takers : (1) _____ (2)_____

Date: _____

District: _____ VDC: _____

Ward: ___ Venue of FGD: _____

Time of start:_____ Time of finish: _____

Total No. of participants: ____

Type of participant	Number
1. Male	
2. Female	
3. Dalit	
4. Janajati	
5. Non-dalit/ Janajati	
6. Women-headed household	

Note: FG denotes to Farmer Group

Names and address of participants [enter the information prior to going to the field]

S.N.	Name	Address	Gender [M/F]	Ethnicity/ Caste	1st training received [month & year]	Position in the group	Received remittance in last one year [Y/N]	No. of groups
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								

Focus Group Discussion with Farmer Groups Simplified Guideline

Guideline's Focus: Change? Why?

Name of Facilitator: Name of Note Taker:

Farmer Group Name or Number: District:

VDC Name: High/Low: DAG Group? Y/N

Name of KISAN Staff who works with your farmer group:

Q1. What has changed since you started working with KISAN? Do you feel confident in knowing how to make improvements in your farm? Do you feel that KISAN's recommendations are risky? Do you feel you can manage this risk?

Q2. What problems or obstacles did you face in participating in KISAN's training or learning? Was the training relevant to your needs and interests? Were you listened to? Were you respected by KISAN staff?

Q3. Do you trust the training and advice that you get from KISAN staff? From the private sector? From Government service providers?

Q4. Have you changed how you farm? Explain.

For questions 5, 6, 7 & 8 use Summary Tabulation Matrix for FGDs with FGs.

Q5. Are you producing more? What crops? What did you do to increase your production?

Q6. What are you doing with this increased production?

Q7. Does KISAN help you sell your crops? How? What is the result?

Q8. Has KISAN helped you to find and use quality seeds and pesticides? Fertilizer? Does the agro-vet or vendor give you advice or assistance on how to use these inputs to get the best results?

Q9. Are your neighbors who are **not** working with KISAN following your example, trying to improve their farming practices and production?

Q10. Has KISAN helped you and your farmer group to increase your savings? Has KISAN helped you or other members of the group to borrow money? What was the loan used for? Are you and the group satisfied with KISAN's assistance? Why?

Q11. **Irrigation**: Has KISAN helped you and/or your famer group with irrigation? Type of irrigation? Rehabilitated existing system? Installed new system? Helped you to better

manage the irrigation water and increase production? Provide information & training on how to operate and maintain the system?

Q12. **Mechanization**: Has KISAN helped you or your farmer group to buy, use, and/or maintain farm machinery and equipment? What equipment? Results?

Q13. What is the most important help that KISAN has provided to you? Explain.

Q14. What is the biggest problem with KISAN? Explain.

Q15. What are you most proud of as a farmer?

To encourage discussion, if necessary, one can follow up these questions with:

"Can you say more about that?"

Checklist for FGD (Women/Dalit/Janajati)

1. In your farmer group do women speak up? Are they listened to? Are their opinions considered in making group decisions?
2. In your farmer group do Dalit and Janajatimembers speak up? Are they listened to? Are their opinions considered in making group decisions?
3. What are the key barriers that women, Dalit and Janajatiface in fully participating in your group? Are they able to get assistance from KISAN in production and marketing?
4. Has KISAN improved the lives of women, Dalit, and Janajati? How? If not, why?
5. Who has a bank account? (Please mention the number out of total FGD participants.) Who helped you to get loan? From where did you get loan? What was the interest rate?
6. Please indicate the type of financial management practices in your family, selecting from the practices listed below. (Please select only one.) Which system do you prefer?
   A. Both the husband and wife have separate sources of income and keep this money separate from each other;
   B. Household income is shared between the husband and wife, and both have access to it and can make decisions about it;
   C. Husband controls all the income, giving the wife a fixed sum for household and personal expenses.
   D. Wife manages all the income, giving the husband an allowance for his personal expenses.
7. Do you have your own land in your name? (Note responses from men, women, disadvantaged groups [DAG])
8. How many of you have citizenship? (Note responses from men, women DAG.)
9. Would you share if there was any evidence (experienced, manifested, or heard) of discrimination/exclusion of poorest and marginalized in services from **value chain actors**? This question is for both victims and observers of discrimination.

   Comment: Let's test this Guideline with both non-DAG farmer groups and those groups whose members are predominantly DAG.

If there is a minority of DAG members in the focus group, let's try inviting them to talk separately with an evaluation team member regarding using the DAG checklist.

Summary Matrix: Farmers' Adoption of Practice and Technology and Outcomes

	Improved Seed	Other Inputs	Farming Practices	Irrigation & Water Mgt.	Farm Equipment	Savings & Borrowing	Yields	Sales	Home Consumption
Paddy									
Maize									
Lentils									
Tomato									
Cauliflower									
Cabbage									
Cucumber									
Bitter Gourd									

In each cell record changes farmers report since working with KISAN: More + Less - No Change NC

Key Informant Interview (KII) Simplified Guideline

Name of Facilitator: Name of Note Taker:

Name of Key Informant:

Name of Business or Position of Respondent:

Type of Business:

Name of KISAN staff who provided assistance:

District: VDC: Location:

- What kind of assistance did you receive from KISAN?
- Describe how this assistance was provided. Training (type and amount)? Materials? Information on sources of supplies, markets, or marketing, etc.
- Has this assistance helped you to sell more and better inputs or other products? Buy more produce? Helped farmers to gain access to credit and take loans? Acquire farm tools or machinery? Improve irrigation and water management?
- Are farmers happy/satisfied with the inputs or services they get from you as a result of the assistance that KISAN provides to you?
- Do your clients include socially disadvantaged groups (Dalit, Janajati, other) women, or women-headed households? Has KISAN helped you to better serve these kinds of clients?
- Since receiving assistance from KISAN, has your business improved? Are you selling more inputs or buying more produce? Serving more farmers? Enlarging the area that you serve?
- What assistance, if any, do you continue to receive from KISAN?
- Will you continue the business practices promoted by KISAN after KISAN ends?

Summary of Day's Findings: Focus Group Discussions

(To be typed up and shared daily with Wayne, other team and Balkrishna Sharma)

Team (BB's or Jayaswal's): Date:

Location:

District: VDC: Farmer Group:

Findings:

- Effectiveness of KISAN's training (demonstration plots, farmer field days, training sessions, materials, etc.):
- Farmers' adoption of technologies and practices promoted by KISAN:
- Changes in farmer's production, productivity, crop mix, cropping pattern:
- Changes in marketing linkages (with agro-vets, input suppliers, financial services/savings and/or loans, traders, and other buyers of crops):
- Changes in family wellbeing/income (inferred from FGDs)
- DAG experience with KISAN participation, access to training, services, inputs, and markets)

Summary of Day's Findings: Key Informant Interviews

(To be typed up and shared daily with Wayne, other team and Balkrishna Sharma)

Team (BB's or Jayaswal's): Date:

Location:

District: VDC: Town:

Type of KII (KISAN staff, GoN official, private sector input supplier, financial institution, trader, feed or rice mill, etc.)

Name of Informant: Firm or organization:

Findings:

- KISAN's impact on business practices:
- KISAN's impact on business plans, next year and beyond:
- GoN/DADO officials' collaboration with KISAN: How did these officials work with KISAN? Did they coordinate the availability of other resources for KISAN beneficiaries?
- KISAN collaboration with GoN officials: Type and effectiveness of collaboration:
- For KISAN staff:
- Staff's views of KISAN's main challenges—management, programmatic, technical—how effectively has KISAN addressed these challenges?