

FAO-GEF Project Implementation Review

2019 – Revised Template

Period covered: 1 July 2018 to 30 June 2019



1. Basic Project Data

General Information

Region:	Asia and the Pacific					
Country (ies):	Nepal					
Project Title:	Reducing vulnerability and increasing adaptive capacity to respond to impacts of climate change and variability for sustainable livelihoods in agriculture sector in Nepal					
FAO Project Symbol:	GCP/NEP/070/LDF					
GEF ID:	5111					
GEF Focal Area(s):	LDCF					
Project Executing Partners:	Ministry of Agriculture and Livestock Development, Department of Agriculture (DOA), Department of Livestock Services (DLS), Nepal Agricultural Research Council (NARC) and Department of Hydrology and Meteorology (DHM)					
Project Duration:	48 months					

Milestone Dates:

GEF CEO Endorsement Date:	03/18/2015
Project Implementation Start	10/01/2015
Date/EOD:	
Proposed Project	09/30/2019
Implementation End Date/NTE¹:	
Revised project implementation	N/A
end date (if applicable) ²	
Actual Implementation End	N/A
Date ³ :	

Funding

GEF Grant Amount (USD):	2 689 498
Total Co-financing amount as	12 990 000
included in GEF CEO	
Endorsement Request/ProDoc4:	
Total GEF grant disbursement as	2 524 884

¹ as per FPMIS

² In case of a project extension.

³ Actual date at which project implementation ends/closes operationally -- only for projects that have ended.

⁴ This is the total amount of co-financing as included in the CEO document/Project Document.

of June 30, 2019 (USD m):	
Total estimated co-financing	USD 13 583 933
materialized as of June 30, 2019 ⁵	

Review and Evaluation

Date of Most Recent Project	12 June 2019
Steering Committee:	
Mid-term Review or Evaluation	December 2017
Date planned (if applicable):	
Mid-term review/evaluation	March-May 2018
actual:	
Mid-term review or evaluation	No
due in coming fiscal year (July	
2019 – June 2020).	
Terminal evaluation due in	No
coming fiscal year (July 2019 –	
June 2020).	
Terminal Evaluation Date Actual:	June 15 to September 15, 2019
Tracking tools/ Core indicators	Yes
required ⁶	

Ratings

Overall rating of progress	HS	
towards achieving objectives/		
outcomes (cumulative):		
Overall implementation	HS	
progress rating:		
Overall risk rating:	L	

Status

Implementation Status	3 rd or Final PIR
(1 st PIR, 2 nd PIR, etc. Final PIR):	

⁵ Please see last section of this report where you are asked to provide updated co-financing estimates. Use the total from this Section and insert here.

⁶ Please note that the Tracking Tools are required at mid-term and closure for all GEF-4 and GEF-5 projects. Tracking tools are not mandatory for Medium Sized projects = < 2M USD at mid-term, but only at project completion. The new GEF-7 results indicators (core and sub-indicators) will be applied to all projects and programs approved on or after July 1, 2018. Also projects and programs approved from July 1, 2014 to June 30, 2018 (GEF-6) must apply core indicators and sub-indicators at mid-term and/or completion

Project Contacts

Contact	Name, Title, Division/Affiliation	E-mail
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Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9			
Objective(s): To stren	Objective(s): To strengthen institutional and technical capacities for reducing vulnerability and promoting climate-resilient practices, strategies and plans for								
effectively responding	g to the impacts of clima	te change and varial	bility in agricul	ture sector.					
Outcome 1.1: Strengthened technical capacity in Ministry of Agricultural Development (MOAD), Department of Agriculture (DOA), Department of Livestock Services (DLS) and Nepal Agriculture Research Council (NARC) and local stakeholders on climate change adaptation	MOAD, DOA, DLS, NARC and local stakeholders be able to incorporate climate change adaptation priorities into decision making at all levels	Capacity of the government agencies and local stakeholders is inadequate to respond to impacts of climate variability and change in agriculture sector	Capacity developed	Technical capacity of government institutions and local stakeholders strengthened in climate change adaptation	Nine training programmes implemented (1 at national and 8 at district level) and enhanced technical capacity of government staff on climate change adaptation. Four trainings on climate change adaptation in agriculture completed, two in each district and 234 persons trained (49 females and 185 males). One training was organized at the national level on CCA, and 21 government staffs (7 females and 14 males) trained. Technical capacity of staff of MOALD, DOA, DLS, NARC, DHM, province agriculture ministry, Agriculture Knowledge Centre, Veterinary Hospital and Livestock Service Expert Centres, and agriculture and livestock staffs working in Municipalities and Gaunpalikas (also called Rural Municipality) strengthened through training and participation in other programmes. They are now able to incorporate climate change adaptation priorities into their decision making at national to municipality levels. The trained government staffs at districts and municipality/Gaunpalika levels are involved in project implementation	HS			

⁷ This is taken from the approved results framework of the project. Please add cells when required in order to use one cell for each indicator and one rating for each indicator.

⁸ Some indicators may not identify mid-term targets at the design stage (refer to approved results framework) therefore this column should only be filled when relevant.

⁹ Use GEF Secretariat required six-point scale system: **Highly Satisfactory** (HS), **Satisfactory** (S), **Marginally Satisfactory** (MS), **Marginally Unsatisfactory** (MU), **Unsatisfactory** (U), and **Highly Unsatisfactory** (HU).

Project objective	Description of		Mid-term	End-of-project		Progress
and Outcomes	indicator(s) ⁷	Baseline level	target ⁸	target	Level at 30 June 2019	rating ⁹
					activities that has increased institutional capacities at their levels on climate change adaptation.	
Outcome 1.2: Climate change adaptation mainstreamed into national agriculture and livestock policies, plans and programmes	Number of policies, plans and programs in agriculture and incorporated with climate change concerns Type and No. of relevant policies and in agriculture and food security with climate elements	Some recent policies, plans and strategies such as climate change policy, approach paper of three-year plan and ADS has some mentions of NAPA and climate adaption	Facilitation and strategy revisions conducted at the national level	Climate change adaptation mainstreamed into selected national policies, programmes and plans	Policy documents relevant to climate change adaptation in agriculture are reviewed and possible revisions necessary for climate change mainstreaming are identified. At national level, a report Mainstreaming Climate Change Adaptation in Agriculture Sector through Policy Reform is produced for policy mainstreaming and this was shared with policy level government staff through a training. A national level training was organized to 24 government staff (8 females, 16 males) for mainstreaming of climate change into national policies and strategies. This has improved capacity of the government staff to better mainstream climate change concerns in policy making. The policy document is helpful for climate change adaptation mainstreaming in national level policies and strategies such as Agriculture Development Strategy and National Agriculture Policy. This project also assisted NAP-Ag project in training, workshops and report development for closing. By this the government staff have become capable to mainstream climate change adaptation in policies, plans and programs in agriculture as they develop them in agriculture and food security with climate elements.	S

Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9
Outcome 2.1: Improved vulnerability and risk assessment tools, FAOs crop situation and yield assessment methods introduced and implemented at the local level	Type and Number of methods introduced and implemented Proportion of farmer groups implementing adequate risk reduction measures, disaggregated by gender Per cent population covered by adequate risk information disaggregated by gender Number of farmers reacting or acting according to early warning system.	No use of vulnerability and risk assessment tools reported. Farmers spontaneously using risk reduction measures such as choice of crop varieties, planting time, irrigation and pesticide applications. But, not based on customized agroclimatic risk information Less than 5% of the target population receive some form of risk information. No early warning system is available to the farmers in the project locations.	Tools and methods implemented at national level (NARC & MOAD)	Tools and methods adopted by the government and vulnerable communities in 24 VDCs receive timely risk information	Government staff and Municipality level leaders were trained in Vulnerability and Capacity Analysis (VCA) tools for vulnerability and risk assessment. A risk and vulnerability database has been developed for eight municipalities. Climate change risks and vulnerability assessments (VRA) were prepared for eight municipalities by a service provider and draft reports with risks and vulnerability maps have been produced. Training needs for each municipality were also assessed. VRA training was provided to local leaders and staff in eight municipalities in four districts for 3 days each. A total of 108 persons (21 females and 87 males) were trained. They are now some how able to understand those tools and methods for the benefits of vulnerable communities. But they may still need some expert supports for the use of the tools. Decision-Support System for Agro-technology Transfer (DSSAT) model is used for crop yield forecasting. Government staffs at federal level were trained in DSSAT ver 4.7 model for crop yield forecast methods. Twenty-five government staff (2 females and 23 males) were trained from agencies including MOALD, NARC, DHM, CBS, Crop Development & Agro Biodiversity Centre and Department of Agriculture. The training was provided to nine junior and mid-career staff at NARC. The training was also provided to MoALD staff working in agribusiness promotion, statistics and environment. MOALD was assisted to form a Crop Yield Forecasting Committee in the chairmanship of Joint Secretary, Planning and Development Assistance Coordination Division, MOALD. The Committee members were trained in crop yield forecast and they can now better understand the importance of the tools for crop yield forecasting.	HS

Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9
Outcome 2.2: Improved agrometeorological forecast disseminated in 4 districts in close coordination with similar initiatives at the national level	Number of the farmers and farmers' groups using at least one improved agrometeorological forecast products	Daily weather forecasts is available through radio, but most farmers do not listen and those listen do not get confidence or time for action	FFS farmers trained to receive and understand the forecast	Usable forecast information relevant to local context is available in 4 districts	Improved agrometeorological forecast products were developed with support from the Department of Hydrology and Meteorology (DHM). Specifically, 55 weather-based agroadvisory weekly bulletins were developed yearround by the Nepal Agriculture Research Council (NARC) using the agro-meteorological forecasts from DHM and crop-livestock status reports from project areas. The bulletins (in Nepali language) were shared through an android-based mobile app - "FAO-CCA" - to the farmers and technical staff, short message services (SMS) as well as through printed materials. All the 120 farmers groups have been trained to interpret and use improved agrometeorological forecast products and apply agro-advisory products through the FFS. The Agro-advisory bulletins were used by 3484 farmers in 120 farmers groups. They reacted or acted according to early warning system. Agro-meteorological devices (rain gauge, and max/min temperature thermometer and hygrometer) were provided to each FFS. District level and Municipal level government staff and project staff (District Technical Coordinator, Social Mobilisers and FFS Facilitators) have been trained on the use of agro-meteorological devices like maximum/minimum thermometer, hygrometer and rain gauge along with the use of improved agro-meteorological forecast products and agro-advisory products. District level government and project staff were also trained on the use of improved agro-meteorological forecast products and agro-advisory products. Cell phone-based SMS products have been developed using improved agro-meteorological forecast products and disseminated to the 120 farmers' groups. Agro-meteorological observatories at the project districts have been assessed and three of	HS

Project objective	Description of	Baseline level	Mid-term	End-of-project	Level at 30 June 2019	Progress
and Outcomes	indicator(s) ⁷	Baseline level	target ⁸	target	them are upgraded to Agro-meteorological Automatic Weather Stations to strengthen capacity of the Department of Hydrology and Meteorology (DHM) to cater to the needs of the farmers. These stations were integrated into the national weather observation network of DHM. The three weather stations upgraded are namely Neypane (N 27°53.098', E083°08.379', altitude 1603m) in Arghakhanchi, Pattharkot (N 27°45.385', E083°02.907', altitude 170m) in Kapilvastu, and Gaighat in Udayapur (N 26°48.075', E086°41.943', altitude 172m). Three methods (VCA, DSSAT and Agroadvisory) were introduced and implemented. All the project households (3484 in number) organized in 120 farmer groups implemented risk reduction measures. Among them 74% households were represented by women. Eight local government units are covered by adequate risk information through VRA.	rating ⁹
Outcome 3.1 Awareness raising, knowledge management and communication strategy drawn, agreed and implementation plan prepared.	Awareness raising, knowledge management and communication strategy formulated Target population awareness of predicted adverse impacts of climate change and appropriate responses, disaggregated by gender (Score) Proportion of population affirming ownership of adaptation processes, disaggregated by	No such strategy available now No such predicted product is available in the villages No planned adaptation processes was found at the district and village levels	Strategies endorsed at the national level	Awareness raising, knowledge management and communication strategy formulated, implemented and monitored	Draft Awareness Raising, Knowledge Management and Communication Strategy has been developed. Consultation workshops were organized in four districts on the draft Strategy and outcomes of the workshops have been incorporated. The Strategy is not merely for the project, but for the entire system right from the Ministry of Agriculture and Livestock to the bottom at farmers level with different information flow and knowledge management among the national, provincial, municipal and local level stakeholders involved in agriculture policy, planning, implementation and monitoring. Awareness raising was undertaken with 3484 farmers (74% females) as direct beneficiary in 120 farmers groups about climate change related hazards, exposure of farmers, sensitivity	S

Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9
	gender (% of population)	No improved	Laggang	Wnowledge and	of agriculture. Community based adaptation plans prepared (in Nepali language) in all 120 groups covering climate hazards, their effects on crop and livestock and options for adaptation. 3484 farmers in 120 groups got awareness of predicted adverse impacts of climate change and identified appropriate responses measures through testing and validation in FFS. All the project households affirmed ownership of adaptation processes, among them 74% are participated by female.	
Outcome 3.2: Knowledge and awareness on climate change increased and improved adaptation practices and livelihood strategies disseminated for location specific context	Number of climate change adaptation practices adopted Number of farmers adopted improved livelihood strategies	No improved practices are found to match the needs of the climate change impacts	Lessons learned documented	Knowledge and lessons learned updated, compiled and published for wider replication and upscaling	127 FFS Facilitators (68 females and 59 males) (34 in Arghakhanchi, 33 in Udayapur and 30 each in Kapilbastu and Siraha) trained on climate change impacts, adaptation in agriculture and procedure for running FFS. 120 FFS implemented in four districts for one year. The FFS selected, tested and validated climate change adaptation practices for crops, livestock, poultry and fodder. Project related good practices have been compiled. Climate adaptation good practices for agriculture have been identified, elaborated and tested by Farmers Field Schools. The good practices include: 1. Drought tolerant varieties of wheat (Banganga, Tilottama, Aaditya, Bijaya, Gautam, Chyakhura, Munal, Dhaulagiri, and Sworgadwari) potato (Janakdev, Cardinal, Khumal Seto, Desire, Kufrijyoti, TPS-1, Khumal Ujjwal, Khumal Ujjwal PBS, Janakdev PBS), mustard (Unnati, Pragati, Preeti, Bikash and Morang), lentil (Shishir, Sindur, Simrik, Simal, and Shikhar) oat (Netra, Kamdhenu, Ganesh, Parvati, Amritdhara and Nandini), berseem (trifolium spp for fodder) and vetch were tested in FFS during the winter season 2. Drought tolerant varieties of maize	HS

Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9
					(Manakamana-3, Manakamana-5, Ganesh-2 and Rampur Composite) were tested by FFS during summer season 3. Stress tolerant variety of rice (drought and submergence tolerant varieties namely Hardinath-1, Sukha dhan-2, Sukha dhan-3, Sukha dhan-5, Sukha dhan-6, DRR 44, Radha 11, Sworna sub 1, Bahuguni-1, Bahuguni-2) and fodder crops (teosinte, stylo) during rainy season 4. Adaptation practices in rice, maize, wheat, mustard, potato, lentil, ginger (seed selection, seed rate, land preparation, spacing, irrigation, weed control, maturity and harvesting) 5. Furrow irrigation in maize 6. Legume crop integration in maize 7. Legumes integration in cropping pattern (like peas) to increase cropping intensity 8. Strip cropping with ginger and turmeric in maize to protect soil from runoff in upland 9. Sloping agriculture land technology 10. Green manuring in rice (Sesbania spp) 11. Direct seeded rice (wet method and dry method) manual and with drum seeder and zero till seed cum fertilizer drill 12. Dapog method of rice nursery raising 13. Mulching incorporated in potato and garlic 14. Introduced disease free PBS (prebasic seeds) and TPS (true potato seeds) technology in potato 15. Plastic mulching for vegetables 16. Improved seeds and technology for vegetable farming and kitchen gardening 17. Introduction of vegetables with wide adaptability (like chayote) 18. Zero tillage in garlic (manually) 19. Zero tillage in garlic (manually) 19. Zero tillage in wheat (manual and by using 15 Zero Till seed cum fertilizer drills). 20. Use of hermatic bag for protecting seed from climatic stress 21. Riverbed farming for landless farmers	

Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9
					23. Shallow tubewells for irrigation 24. Plastic ponds for rain water harvesting 25. Introduction of improved breeds of breeding boer goat males and landrace pigs 26. Nutritional management in livestock introduced such as concentrate formulation and feeding, urea molasses mineral block (UMMB) feeding, addition of probiotics in feed 27. Animal Feed formulation based on locally available raw materials 28. Urea Molasses Mineral Blocks (UMMB) manufacturing (8 blocker machines) 29. Vaccination of animals, drenching, and dipping done for goats for ecto and endo parasite control. 30. Introduced specifications for improved sheds (goat, pig, poultry, buffalo/ cattle) 31. Insurance of improved livestock provided 32. Male buffalo calf fattening for meat 33. Fodder cultivation (eg., comfrey) and tree fodders 34. Multipurpose tree plantation (Bay leaf, moringa, lime, mango, litchi) 35. Multispecies fish stocking 36. Mushroom farming 3484 farmers adopted improved livelihood strategies such as field crop production, vegetable production, livestock production, poultry production, beekeeping, fruit plantation and fodder cultivation . Success stories of the good practices are compiled and they will be disseminated through the MOALD website www.moald.gov.np as well as though printing materials.	
Outcome 4.1: Livelihood alternatives and climate-resilient	Number of climate resilient physical measures adopted by the farmer groups	No LAPA developed in the pilot VDCs FAO pilot project	FFS supported through physical measures	24 LAPAs developed covering all selected VDCs and endorsed by the VDC council	Livelihood alternatives and small-scale climate- resilient physical measures were identified through community-based adaptation (CBA) planning in each of the 120 groups.	HS

Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9		
physical measures prioritized and implemented by promoting Community Based Adaptation (CBA) to climate change.	Number of farmers groups adopting climate resilient physical measures Type and No. resilient infrastructure measures introduced Households and communities have more secure access to livelihood assets (Score)	implemented adaptation and livelihood measures in 4 districts. Some farmers are having tubewells and irrigation facilities Farmers have land and livestock as livelihood assets, but some lands are highly degraded			Vulnerability and risk assessments completed in four Gaunpalikas and four Municipalities in four districts based on VCA tools. These assessments are used to prepare climate adaptation/risk reduction plans for the same Municipalities. The adaptation measures were implemented through the FFS: Drought resistant varieties, submerged varieties, intercropping, strip cropping, animal feeding, disease and pest control in crop and livestock are tested in FFS and supported farmers for upscaling. Livelihood strategies developed for enhancing climate resilience based on the options and aspiration of the farmers in the 120 groups and their potential for increasing resilience and enhancing adaptive capacity. Income generation trainings were provided to 120 farmers groups. Vegetable kitchen gardening was carried out by 3484 farmers. Riverbed farming of vegetables was implemented in 8 groups in three districts, Siraha (8 ha by 104 members), Udayapur (2.9 ha by 55 members) and Kapilvastu (2 ha by 28 members). Multipurpose trees Moringa olifera (4 500), Tejpat (Cinnamomum tamala) (7 000), fodder trees (25 185), mango (570), litchi (150) and lime citrus (13 600) were introduced in the four project districts. Two season Chayote (Sechium edule) was introduced in Udayapur. Boer bucks (61) were provided to the goat rearing farmers for cross breeding of local goats (out of them 3 died in Siraha district due to PPR and bloating). Stress tolerant breeds of piglets (49) and poultry (chicks 7 100 and ducklings 2 170) were provided to the farmers. Improved animal rearing technics with buffalo male calves (27) were provided for fattening for meat purpose. Fish fingerlings (110 706) were provided to inland fish growing farmers. In additions, seeds of vegetables, wheat, rice,			

Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9
					maize, mustard and fodder were provided to the farmers as per the varieties identified and verified by the FFS.	
					Transect walks were done with farmers and field observations done by a team of Social Mobilizers and Agricultural Engineers to identify needs for small scale physical measures. Consultation workshop was conducted with farmers groups to identify and design location specific small-scale physical measures such as ground water irrigation, water conservation and water harvesting. Small scale physical measures were designed such as 19 blocker machines for preparation of Urea Molasses mineral blocks (UMMB) for livestock feeding; 15 Zero till seed cum fertilizer drill and 3 drum seeders for rice sowing. Likewise, water pumps and tubewells were installed and water harvesting plastic ponds constructed. They include Shallow Tube Wells (95 in number), Pump sets 5HP (141), Electric motors 5HP (2), Electric motors 2HP (106), Delivery pipe (4100 kg), Plastic ponds (27), Plastic tank (181), Watering can (393), Section Pipe 4" (662 ft), Garden Pipe (320 m), Sprayer tanks (142), Plastic mulching (4), Plastic tunnels (202), Plastic crates (350) and Hermetic bags (1700). These are the type and number of resilient infrastructure measures introduced. From this, the project households and communities have more secure access to livelihood assets.	
					120 farmers groups adopted climate resilient physical measures.	

Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9
4.2. Adaptation technology relevant to agriculture implemented and new stress tolerant varieties introduced to reduce climate risks	Proportion of the farmers adopting transferred adaptation technologies by technology type, disaggregated by gender Yield of major crops (rice, wheat, maize) Food sufficiency from own production (months in a year) Type and No. of climate resilient agricultural practices introduced to promote food security Number of farmers adopting stress tolerant and high yielding seed varieties and other adaptive technologies	Farmers in the project VDCs have less access to the technologies and crop yields are low ¹⁰ No such practices are introduced, most of the farmers are using local varieties which are adapted to the local situations but give low yield	Identification and evaluation of stress tolerant varieties Establishment and conduct of field demonstrations	Improved agriculture and livestock management technologies implemented to reduce climate risks in at least 24 VDCs of 4 selected districts New stress tolerant crop varieties of rice, wheat, maize and fodder (at least 10 varieties) introduced by Nepal Agriculture Research Council (NARC) in 4 districts and tested and validated involving farmer groups using FFS approach.	District level consultation workshops were organized to identify and define suitable agriculture and livestock management practices in the project areas in 4 districts. Needs assessments were undertaken in consultation with FFS farmers in 120 FFS through community-based adaptation planning. Skill trainings were provided to 120 farmers groups. Technologies were identified and demonstrated in 120 groups of the farmers. Farmers' visits to the demonstration sites of other groups and other sites in the district were organized. Success of the demonstrations was assessed and compilation of lessons learned is in progress. Technology to reduce women's drudgery was identified, demonstrated, and adopted by the farmers' groups. Crop and livestock management technologies and improved seeds/breeds have been incorporated. Foundation/certified seeds of recommended stress tolerant crop varieties were assessed and accessed from Nepal Agriculture Research Council (NARC). Stress tolerant varieties of crops and fodder were demonstrated though the FFS. New stress tolerant crop varieties were introduced in 118 FFS (wheat, mustard, potato, fodder, maize with beans and ginger/turmeric, rice and millet). Assessment of the success of the varieties was demonstrated and compilation of lessons learned are in progress. Type and No. of climate resilient agricultural crop varieties introduced to promote food security are presented here. Stress tolerant	HS

¹⁰ Rice yield per ha is 3.75 tons in Udayapur, 1.72 tons in Siraha, 2.93 tons in Argakhanchi and 2.89 tons in Kapilbastu. The wheat yield is 3.18 tons, 1.90 tons, 1.87 tons and 2.98 tons respectively.

Maize yield is 2.45 tons, 1.80 tons, 2.92 tons and 2.39 tons respectively.

Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9
					varieties identified, introduced and validated through FFS (6 drought tolerant and 1 submerged variety of rice; 9 drought and disease tolerant varieties of maize; 9 drought tolerant varieties of wheat; 7 stress tolerant varieties of potato including PBS and TPS technology; 5 drought tolerant varieties of mustard; and 5 drought tolerant and disease resistant varieties of lentil). One variety of ginger and turmeric each and species of vegetable were disseminated through FFS. Varieties of fodder (Berseem, oats, teosinte, stylo) and millet were also disseminated. The names of the varieties tested were: • Wheat (Banganga, Tilottama, Aaditya, Bijaya, Gautam, Chyakhura, Munal, Dhaulagiri, and Sworgadwari) • Potato (Janakdev, Cardinal, Khumal Seto, Desire, Kufrijyoti, TPS-1, Khumal Ujjwal, Khumal Ujjwal PBS, Janakdev PBS), • Mustard (Unnati, Pragati, Preeti, Bikash and Morang), • Lentil (Shishir, Sindur, Simrik, Simal, and Shikhar), • Oat (Netra, Kamdhenu, Ganesh, Parvati, Amritdhara and Nandini), • Mize (Manakamana-3, Manakamana-5, Ganesh-2 and Rampur Composite) • Rice (Hardinath-1, Sukha dhan-2, Sukha dhan-3, Sukha dhan-5, Sukha dhan-6, DRR 44, Radha 11, Sworna sub 1, Bahuguni-1, Bahuguni-2) Improved agriculture and livestock management technologies tested and validated in FFS are adopted to reduce climate risks in 120 farmers groups. All the project participant farmers (3484) adopted one or other transferred adaptation	

Project objective and Outcomes	Description of indicator(s) ⁷	Baseline level	Mid-term target ⁸	End-of-project target	Level at 30 June 2019	Progress rating 9
					technologies by technology type as mentioned above. 74% of the households were represented by female farmers.	
					As per the results of midterm review, the yield of major crops (rice, wheat, maize, mustard) have increased. Similarly, the review report shows an improvement in food sufficiency from own production.	
					3484 farmers adopted stress tolerant and high yielding seed varieties and other adaptive technologies recommended by NARC.	

Action plan to address MS, MU, U and HU rating $^{\rm 11}$

Outcome	Action(s) to be taken	By whom?	By when?
Nil			

¹¹ To be completed by Budget Holder and the Lead Technical Officer

2. Progress in Generating Project Outputs

Outputs ¹²	Expecte d complet ion date		Achievements at each PIR ¹⁴					
		1 st PIR	2 nd PIR	3 rd PIR	4 th PIR	_		
Output 1.1.1: Capacity development programme implemented at national and district level to enhance technical capacity on climate change adaptation	Q4 Y4 (fourth quarter of the last year of the project, i.e. Septemb er 2019)	Reviewed completed and ongoing training programmes at the national and district levels and prepared training needs assessment and agreed on list of trainees. Training needs assessed and training resources developed. Prepared draft training manual based on the need assessment and review before the training programme. Conducted training events in the first phase (one	Second phase of four training organized at district level for Government staffs working in Municipality level in project districts namely Arghakhanchi (46 persons, 5 females and 41 males), Kapilvastu (28 persons, 3 females and 25 males), Siraha (31 persons, 4 females and 27 males) and Udayapur (34 persons, 7 females and 27 males). Major objectives of the training were to impart basic concepts and principles of climate change, and raise	An interaction programme was organized with the government agencies at the national level to integrate the curricula and training manuals into the regular training programmes of the government. The Training Manual for Climate Change Adaptation Training at District Level and National Level Training Manual on Climate Change Adaptation in Agriculture were shared with the government agricultural training centre, livestock training centre, Nepal Agriculture Research Council, Department of Agriculture and Department of Livestock Services and Ministry of Agriculture and			90%	

¹² Outputs as described in the project logframe or in any updated project revision. In case of project revision resulted from a mid-term review please modify the output accordingly or leave the cells in blank and add the new outputs in the table explaining the variance in the comments section.

 $^{^{13}}$ As per latest work plan (latest project revision); for example: Quarter 1, Year 3 (Q1 y3)

¹⁴ Please use the same unity of measures of the project indicators, as much as possible. Please be extremely synthetic (max one or two short sentence with main achievements)

¹⁵ Variance refers to the difference between the expected and actual progress at the time of reporting.

					, ,		
		training) at the national	awareness of government	Livestock Development.			
		level (21 government	officials at district and				
		staffs, 7 females and 14	municipality levels on				
		males, trained).	impacts of climate change				
		Conducted training events	and the need for adaptation				
		in the first phase (4	options into development				
		trainings) at district level	planning through their own				
		(95 government and	organizations.				
		project staffs, 18 females					
		and 77 males, trained).					
		The district wise					
		distribution of the trainees					
		was Arghakhanchi 25,					
		Kapilvastu 25 and Siraha					
		24 and Udaiyapur-21.					
		Organized consultations to					
		integrate training curricula					
		into the MOAD's (DOA,					
		DLS, NARC) regular					
		training programmes.					
Output 1.2.1:	Q4Y4	Established mechanism	National level policies and	The Technical Coordination		100%	
Technical		(Technical Coordination	institutions are analysed and	Committee discussed about			
capacity and cross-sectoral		Committee) for	concerned agencies that	integrating all three such technical			
coordination		information exchange,	require coordination are	committee (this project, NAP-Ag and			
mechanism		collaboration and	identified. Measures for	NAP) into one committee of			
strengthened to		coordination. The	improving coordination are	permanent nature to look after all			
facilitate integration of		Committee is formed	being developed.	the climate change related projects			
climate change		comprising all government		in future. The technical committee			
adaptation into		agencies at the national	Training needs assessed and	was chaired by Joint Secretary, Food			
agricultural		level concerning with	training resources	Security and Food Technology			
plans and		climate change adaption in	development	Division (Ministry of Agriculture and			
programmes		agriculture. Periodic		Livestock Development, MALD)			
		meeting of this Committee		under which Agro-biodiversity and			
		is held to discuss about		Environment Section is placed, as			
		possible coordination		the Chairperson. The committee is			
		mechanisms.		represented by Joint Secretary			
		Monitoring of climate		Livestock and Fisheries Development			
		change related activities at		Division (MALD), Director General,			

the national level is on	Department of Irrigation, Joint
	Secretary, Municipality and
going	Environment Management Division
	(Ministry of Federal Affairs and
	General Administration MOFAGA),
	Agriculture Environment
	Management Division (Nepal
	Agriculture Research Council), DG,
	Department of Agriculture, DG,
	Department of Livestock Services,
	National Livestock Feed and
	Livestock Quality Management
	Laboratory, DG, Department of
	Hydrology and Meteorology (DHM).
	Monitoring of climate change
	related activities at the national level
	is ongoing. National level policies
	and institutions are analysed and
	engaged by the project where
	relevant. Measures for improving
	coordination are also being
	developed. Training needs were
	assessed and training resources are
	being developed. A Training
	Workshop was organized for
	Practitioners in federal level
	governments on Mainstreaming
	Climate Change Adaptation in
	Agriculture Related Policies and
	theory and practices of Coordination
	at the national level to promote
	coordination for climate change
	adaptation related activities. The
	participants were 24 government
	staff (9 females and 15 males) from
	central level including MoALD, Plant
	<u> </u>
	Protection & Pesticide Management
	Centre, Agriculture Information and

				Technology Centre (AITC), Seed Quality Control Centre, Department of Hydrology and Meteorology (DHM), Department of Agriculture, Nepal Agriculture Research Centre (NARC), Crop Development and Agrobiodiversity Centre, Ministry of Forests and Environment, and Department of Irrigation Management.			
Output 1.2.2: Updated national agriculture strategies and district adaptation/risk reduction plans available with climate change adaptation priorities of NAPA, investment plans and budget (at least 5 strategies/ plans with budget allocation for adaptation actions prepared and endorsed by the Government).	Q3Y4	Conducted of consultation/planning workshops for community based adaptation planning and organized multistakeholder dialogue process at district level to support cross-sectoral coordination for the community based adaptation plan in each of the project district.	Current policies, strategies and plans are reviewed to identify the elements that needs integration of climate change related concerns Community based adaptation plans developed in 120 farmers groups. Technical working group on agriculture and food security was supported towards contribution to the preparation of NAP-Ag to complement Global NAP support programme.	Policies, strategies and plans have been reviewed to identify the elements that require integration of climate change related concerns. A report has been developed on Mainstreaming Climate Change Adaptation in Agriculture Sector through Policy Reform (Review and policy feedback for enhancing adaptive capacity of the Agriculture Sector in Nepal). A national level training was organized to 24 government staff (8 females, 16 males) for mainstreaming of climate change into national policies and strategies. Four Communication based Adaptation plans (one for each district) is developed based on the CBA plans of the farmers group level.		90%	
Output 2.1.1: Improved tools and methods for assessment of climate change risks and vulnerability	Q1Y4	Vacancy announcement was made for national consultants.	Nutrient experts' software is being calibrated in Arghakhanchi and Udayapur in maize crop. Crop Monitoring and Yield forecasting models are being developed	Crop Monitoring and Yield forecasting models have been developed. The Decision-Support System for Agro-technology Transfer (DSSAT) model is used for crop yield forecasting. Nutrient expert software is used for nutrient based		100%	

and crop yield assessment models introduced at the national level and core staff trained (>25 staff at MOAD, DOA, DLS and NARC trained) and linked with at least 4 districts.			yield forecast which was calibrated in project areas on rice and maize crops for forecast of yield based on plant nutrients. A training for government staff was organized at national level on Crop Monitoring and Yield Forecasting. Twenty-five government staff (2 females and 23 males) from MOALD, NARC, DHM, Centre Bureau of Statistics, Crop Development & Agro Biodiversity Centre and Department of Agriculture were trained. Nine junior and mid-career staff working in NARC were included in the training. The trainees were also from MOALD among those staff working in agribusiness promotion, statistics and environment. A crop monitoring and yield forecasting committee has been formed in MOALD and a half day session was delivered to the members of the committee on yield forecasting. Crop Monitoring and Yield Forecasting, approaches including the use of DSSAT ver 4.7 crop models has been used for yield forecasting. In addition, agroclimatic models based on growing degree days (GDD), crop cut surveys and Nutrient Expert for Rice, Maize and Wheat are included.		
Output 2.1.2: Improved risk and vulnerability assessment methods (from	Q2Y4	Service provider recruited for improvement of database, methods for vulnerability and risk assessment and hotspots of	A risk and vulnerability database has been developed for eight municipalities. Climate change risks and vulnerability assessments (VRA) were prepared for eight	100%	

output 2.1.1)	1	T	1 1 1 1 1 1 1 1 1 1			1	
used to develop			vulnerability in agriculture	municipalities by a service provider			
spatial risk and			sector. The SP will assess	and draft reports with risks and			
impact			training needs, conduct of	vulnerability maps have been			
information on			training programmes, on	produced. Training needs for each			
agriculture for			tools and methods for	municipality were also assessed. VRA			
24 Village Development			assessment of vulnerability	training was provided to local			
Committees			and risks, and also analysis	leaders and staff in eight			
(VDCs) in 4			and development of risks	municipalities in four districts for 3			
districts.			and vulnerability maps for	days each. A total of 108 persons (21			
			eight municipalities in four	females and 87 males) were trained.			
			districts				
Output 2.2.1:	Q2Y4	Trained district level	Improved	Fifty-five weather-based agro-		100%	
Improved		government staff and	agrometeorological forecast	advisory weekly bulletin developed			
agrometeorolog ical forecast		project staff (District	products are acquired from	for one year by the Nepal Agriculture			
products from		Technical Coordinator,	Department of Hydrology	Research Council (NARC) using the			
the Department		VDC Level Mobilisers and	and Meteorology. Weather	agro-meteorological forecasts from			
of Hydrology		FFS Facilitators) on the use	based Agro-advisory weekly	DHM and crop-livestock status			
and Metheorology		of agro-meteorological	bulletin developed by Nepal	reports from project areas. The			
(DHM) planned		devices like	Agriculture Research Council	bulletin is shared through an			
under the		maximum/minimum	using the	android-based mobile app - "FAO-			
Climate		thermometer, hygrometer	agrometeorological	CCA" - to the farmers and technical			
Investment		and rain gauge. 120 FFS	forecasts from DHM and	staff.			
Fund's PPCR project		farmers groups formed, 5	crop-livestock status from				
disseminated to		each in 24 VDCs in 4	project areas to suit to the	District level government and project			
120 farmer		districts. All together 3484	target districts.	staff were also trained on the use of			
groups (at least		farmers (74% female and	Agro-meteorological	improved agro-meteorological			
3000 men and		26% male) are enrolled in	observatories at the project	forecast products and agro-advisory			
women farmers) and		the FFS.	districts assessed and three	products. Cell phone-based SMS			
wider rural			of them are in the process of	products have been developed using			
communities in			upgradation to Automatic	improved agro-meteorological			
24 VDCs of 4			Weather Stations to cater	forecast products and disseminated			
districts and			the needs of the farmers.	to 120 farmers' groups through			
end-users trained using			The three weather stations,	mobile phone. 120 farmers groups			
Farmer Field			namely Sitapur-	have been trained to interpret and			
School (FFS)			Arghakhanchi, Pattharkot-	use improved agro-meteorological			
approach (new			Kapilvastu, Gaighat-	forecast products and apply agro-			
products introduced at			Udayapur are under	advisory products through the FFS.			
the local level			upgradation.	Agro-meteorological observatories			
the local level			upgrauation.	Agro-meteorological observatories			

and sustainable mechanisms to interpret the forecasts established in 4 districts).		District level government staff and project staff are trained on the use of improved agrometeorological forecast products and agro-advisory products. Cell phone-based SMS products are developed using improved agrometeorological forecast products and disseminated to 120 groups through mobile phone. 120 farmers groups are trained to interpret and use improved agrometeorological forecast products and agro-advisory products through the FFS.	at the project districts have been assessed and three of them are being upgraded to Automatic Weather Stations to strengthen capacity of the Department of Hydrology and Meteorology (DHM) to cater to the needs of the farmers. These stations will be integrated into the national weather observation network of DHM. The three weather stations, namely Neypane (N 27°53.098′, E083°08.379′, altitude 1603m) in Arghakhanchi, Pattharkot (N 27°45.385′, E083°02.907′, altitude 170m) in Kapilvastu, and Gaighat in Udayapur (N 26°48.075′, E086°41.943′, altitude 172m) are being upgraded in close collaboration with DHM into Automatic Weather Stations.			
			developed and smart phones provided for collection of weather observation data from other four			
Output 3.1.1: Comprehensive and multistakeholder awareness raising, knowledge management and communication strategy formulated and agreed with the Government	Q4Y4	Knowledge Management and Communication Expert Recruited An annotated TOC developed. Drafting of the strategy is in progress.	manual stations. A comprehensive and multistakeholder awareness raising, knowledge management and communication strategy has been drafted and four district level consultation workshops to share the strategy have been completed. The suggestions generated from these workshops are incorporated to revise the draft strategy. A national level consultation workshop is planned for finalization of the		80%	

and non- governmental organizations at national, district and local levels and applied to fostering implementation of new and				strategy.			
currently available adaptation practices outlined in Nepal's NAPA							
Output 3.2.1: At least 120 Farmer Field School (FFS) facilitators in 4 districts trained on climate change impacts and adaptation in agriculture as outlined in NAPA.	Q4Y2	Identified FFS facilitators already trained by FAO pilot project and other programs and selection of 24 of them (from the project VDCs or nearby area). Prepared training curricula for the training and refresher training for FFS Facilitators. Organized refresher training to 24 FFS facilitators in the first phase. Identified additional 103 FFS facilitators from project VDCs. Trained 127 FFS Facilitators on climate change impacts, adaptation in agriculture and running FFS (34 in Arghakhanchi, 33 in Udayapur and 30 each in Kapilbastu and Siraha) (68 females and 59 males).	Refresher training was provided to the 120 FFS Facilitators.			100%	
Output 3.2.2: At least 120 farmer groups involving a total of over 3000 farmers	Q1Y3	Identified and formed one farmers' group of 25 to 30 farmers in each of the 24 VDCs in the first phase. Developed crop livestock	FFS modules were developed for climate change adaptation. 120 FFS were implemented in four districts.	All together 3484 farmers one per household from 120 farmers groups completed the FFS (900 in Arghakhanchi, 895 in Kapilbastu, 832 in Siraha and 857 in Udayapur).		100%	

aware of climate change impacts, adaptation measures and alternative livelihood strategies by implementing Farmer Field Scool (FFS) by trained facilitators in 4 districts of Nepal.		integrated FFS module for climate change adaptation. Implemented 20 FFS in the first phase during 2016-17 winter season. Identified, reconstituted and formed 4 additional farmers' groups, each of 25 to 30 farmers each in the 24 VDCs. 120 FFS farmers' groups formed with 3484 farmers (900 in Arghakhanchi, 895 in Kapilbastu, 832 in Siraha and 857 in Udayapur). Implemented 118 FFS (5 in each of the 23 VDCs and 3 in one VDC) in four districts-Arghakhanchi, Kapilbastu, Siraha and Udayapur (19 wheat based CCA FFS conducted in 2016; 60 maize based FFS conducted during the summer season 2017)	75 Rice+livestock based FFS conducted rainy season 2017; 105 Wheat+livestock based FFS conducted in winter 2017-18; Practical training on CCA FFS conducted 10 times (on climate change adaptation on Wheat -2, Maize-2, Rice -3, wheat-3, goat-1, pig-2 in addition to the FFS.				
Output 3.2.3: Project-related good-practices (at least 25) elaborated and lessons-learned disseminated via publications, project website and others to facilitate upscaling and integration into policies and plans by the Government and replication in similar situations by	Q4Y3	Identified, elaborated and being tested nine climate adaptation good practices for agriculture. Good practices are being screened through testing and validation by Farmers Field Schools. 1) Drought tolerant varieties of wheat, potato, mustard, oat, berseem and vetch were tested during the winter season. 2) Zero till technology was tested in wheat and garlic crops.	Climate adaptation good practices identified and tested. • Adaptation practices in rice, maize, wheat, mustard, potato, lentil, ginger (seed selection, seed rate, land preparation, spacing, irrigation, weed control, maturity and harvesting) • Strip cropping with ginger and turmeric in maize to protect soil from runoff in upland.	Climate adaptation good practices for agriculture identified, elaborated and tested by Farmers Field Schools are compiled. 36 good practices were identified and document. All best practices have been adapted by farmers to the local context. Final survey will determine the number of farmers adopting the technologies.		100%	

non-government organizations.	3) Mulching incorporated in potato and garlic. 4) Nutritional management in goat such as concentrate formulation and feeding, urea molasses mineral block (UMMB) feeding, addition of probiotics in feed are tested 5) Drenching and dipping done for goats for ecto and endo parasite control. 6) Drought tolerant varieties of maize are being tested by FFS. 7) Legume intercropping in maize is being tested. 8) Ginger and turmeric strip cropping and intercropping are being tested with maize. 9. Green manuring with Dhaicha for rice crop.	Dapog method of rice nursery. Zero tillage in garlic (manual). Zero tillage in wheat (by 15 ZT seed cum fertilizer drill). Direct seeded rice (wet method and dry method) Legume crop integration in maize. Stress tolerant variety of maize, wheat, rice, potato, mustard and lentil Green manuring in rice (Sesbania spp) Mulching in potato Plastic mulching for vegetables Use of hermatic bag for protecting seed from climatic stress Urea Molasses Mineral Blocks manufacturing (8 blocker machines); Animal Feed formulation based on locally available raw materials; Developed specifications of improved sheds (goat, pig, poultry, buffalo/ cattle). Improved sheds for
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		goat, pig and buffalo. Male buffalo calf fattening for meat Vaccination, drenching and dipping of animals Introduction of improved breeds of goat and pig Insurance of improved livestock provided. Sloping agriculture land
		technology Fodder cultivation and tree fodders Multipurpose tree plantation Riverbed farming for landless farmers Plastic tunnels for vegetable farming Shallow tubewells for irrigation Plastic ponds for rain
Output 4.1.1: Investment to strengthen livelihood alternatives and small-scale climate- resilient physical measures prioritized through Local Adaptation Plans of Action (LAPAs) by involving the	Q1Y4	Service provider recruitment for Risk and vulnerability assessment and climate adaptation planning Completed in 120 farmers groups. Water harvesting Service provider recruitment for Risk and Service provider recruitment (VRA) completed in eight (VRA) completed in eight municipalities (four Gaunpalikas and four Municipalities). These assessment reports are finalized and climate adaptation/risk reduction plans (in Nepali language) are prepared for the same eight municipalities in the four districts. The VRA and adaptation planning completed in 120 farmers groups. Wulnerability and Risk assessments (VRA) completed in eight planned for 24 voncs and planned for 24

community and		and adaptation plan prepared are	Municipality.
farmer groups (at least 24		Chhatradev Gaaunpalika and	The initial
LAPAs		Sandhikharka municipality in	project areas of
prepared and		Arghakhanchi, Suddodhan	24 VDCs are now
endorsed).		Gaunpalika and Buddhabhumi	falling under 38
		Municipality in Kapilvastu, Aurahi	wards in 7
		Gaunpalika and Lahan Municipality	Gaupalika and
		in Siraha and Rautamai Gaunpalika	12 Municipality.
		and Katari Municipality in Udayapur.	Government has
			not yet decided
			whether the
			LAPA should be
			formulated for
			Gaupalika/Munic
			ipality or their
			wards level.
			Project Steering
			Committee
			meeting on 19
			March 2018
			decided to
			formulate
			climate
			adaptation/risk
			reduction plan in
			agriculture in
			one Gaunpalika
			and one
			Municipality in
			each district
			instead of the
			previously
			planned LAPA
			formulation in
			24 VDCs.

Output 4.1.2:	Q2Y4	Supported the farmers	Farmers group level	Livelihood strategy for enhancing	100%	
Diversified	`	groups for kitchen	consultation meetings	climate resilience were developed in		
livelihood		gardening and vegetable	organized in 120 groups to	consultation with farmers in the 120		
strategies and alternate		production for winter and	identify alternative	groups and their potential for		
sources of		summer vegetables for all	livelihood strategies.	increasing resilience and enhancing		
income (eg.		the farmers in 120 groups.	Livelihood strategies	adaptive capacity.		
Off-season			developed based on the	In four districts 833 households		
vegetable cultivation,			options and aspiration of the	adopted commercial vegetable		
multi-purpose			farmers in the 120 groups.	farming, 208 households did		
tree species,			Income generation training	riverbed vegetable farming, 269		
tree-crop alley			implemented in 120 farmers	households did off season vegetable		
farming, livestock			groups.	farming under plastic tunnels, 32		
enterprises			Vegetable gardening in 3484	households did fish farming, 59		
etc.,)			farmers;	households did beekeeping and 3		
implemented in			Riverbed farming of	households opted for vegetable		
24 Village Development			vegetables in 8 groups in	marketing. Similarly, 1060		
Committees			three districts, Siraha (8 ha	households opted for improvement		
(VDCs) of 4			by 104 members), Udayapur	in goat farming such as goat shed		
selected			(2.9 ha by 55 members) and	improvement, boer goat breed buck		
districts.			Kapilvastu (2 ha by 28	in sharing basis, feed formulation		
			members).	and fodder cultivation. Likewise, 27		
				households did buffalo calf		
			Multipurpose trees Moringa	fattening, 622 households did		
			olifera (4 500), Tejpat	feeding and shed improvement in		
			(Cinnamomum tamala)	cattle rearing, 155 household did		
			(7 000), fodder trees	chicken farming, 62 households did		
			(25 185), mango (570), litchi	duck farming, 62 households did pig		
			(150) and lime citrus	farming and 25 households opted for		
			(13 600) were introduced in	supports in milk collection and		
			the four project districts.	selling.		
			Two season chow-chow or			
			Chayote (Sechium edule)	Income generation trainings were		
	1		seeds (300 kg) was	provided to 120 farmers groups.	1	
			introduced in Udayapur.in			
			Udayapur.	Boer bucks (61) were provided to the		
				goat rearing farmers for cross		
				breeding of local goats (Note: out of		
				them 3 died in Siraha district due to		

				PPR and bloating). Stress tolerant breed piglets (33) and poultry (chicks 6400 and duckling 2170) were			
				provided to the farmers. Improved			
				animal rearing technics with buffalo			
				male calves (27) were provided for			
				fattening for meat purpose. Fish			
				fingerlings (110 706) were provided to 35 inland fish growing farmers. In			
				1			
				additions, seeds of vegetables,			
				wheat, rice, maize, mustard and			
				fodder were provided to the farmers			
				as per the varieties identified and verified from the FFS.			
Output 4.1.3:	0374	Describilità de efecuell seels	Towns of the University of the Control			4.000/	
Small-scale	Q3Y4	Possibilities of small-scale	Transect walks were done	Small scale physical measures were		100%	
physical		physical measures are	with farmers and field	delivered to the farmers groups.			
measures		assessed in one of the	observations done by a team	They include 19 manually operated			
implemented to		project district Kapilbastu.	of SMS and Agri Engineer to	blocker machines for preparation of			
conserve and protect			identify needs for small scale	Urea Molasses Mineral Blocks			
livelihood			physical measures.	(UMMB) for livestock feeding; 15			
assets at the			Consultation workshop	Zero till seed cum fertilizer drill for			
community			conducted with farmers	wheat sowing, also used for dry			
level (eg. water			groups to identify and	seeded rice, and 3 drum seeders for			
conservation and harvesting,			design location specific	rice sowing. They also include			
management of			small-scale physical	Shallow Tube Wells (120 in number),			
degraded			measures such as ground	Pump sets 5HP (145), Electric			
community			water irrigation, water	motors 5HP (2), Electric motors 2HP			
resources, bio-			conservation and water	(106), Electric motors 1HP (47),			
engineering for erosion control			harvesting.	Delivery pipe (4100 kg), Plastic			
etc.,) in 24			Small scale physical	ponds (30), Plastic tank (181),			
VDCs of 4			measures designed.	Watering can (393), Section Pipe 4"			
districts			8 blocker machines for	(662 ft), Garden Pipe (320 m),			
			preparation of Urea	Sprayer tanks (142), Plastic			
			Molasses mineral blocks	mulching (4), Plastic tunnels (298),			
			(UMMB) for livestock	Plastic crates (560), chaff cutter (41)			
			feeding, 15 Zero till seed	and Hermetic bags (1700).			
			cum fertilizer drill, water				
			pumps, tubewells installed.	Similarly, traditional animal sheds			

Output 4.2.1: Improved agriculture and livestock management technologies (eg. Improved cropping systems, improved seed storage, sloping land agriculture technology, crop and livestock management practices etc.) implemented to reduce climate risks in at least 24 VDCs of 4 selected districts Output 4.2.2:	Q3Y4	Organized district level consultation workshop to identify and define suitable agriculture and livestock management practices in the project areas in 4 districts. Need assessed in consultation with FFS farmers in 120 FFS through community-based adaptation planning. Identified technology on winter crops for demonstration in 20 farmers groups. Improved agriculture and livestock technologies are incorporated in 118 FFS.	Skill training were provided to 120 farmers groups. Technology identified for demonstration in the farmers groups. Technology demonstrated in 120 groups of the farmers. Organized farmers visits to the demonstration sites of other groups and other VDCs in the district Success of the demonstrations assessed and compilation of lessons learned is in progress.	were improved for making more comfortable to the animals during stress period. They include cattle/buffalo sheds (602), goat sheds (1031), pig sheds (21), poultry sheds (111), and duck sheds (62). For this purpose, 108.2 tons of cement, 5 976 CGI sheets and 2 770 Sqm of wire-mesh were provided along with technical specifications and skill labour. Sloping Agriculture Land Technology (SALT) is demonstrated in Udayapur. Success of the technology demonstrations was assessed and lessons learnt compiled. Women drudgery reduction technology was identified, demonstrated, and adopted by the farmers' groups. Crop and livestock management technologies and improved seeds/breeds have been incorporated.	100%	
New stress tolerant crop varieties of rice, wheat, maize and fodder (at least 10 varieties) introduced by Nepal	Q3Y3	Assessed and accessed foundation/ certified seeds of recommended stress tolerant crop varieties (from NARC). Demonstrated stress tolerant varieties of crops and fodder though FFS.	Demonstrated stress tolerant varieties of crops and fodder through FFS Assessment of the success of the varieties demonstrated and compilation of lessons learned are in progress. Stress tolerant varieties	Foundation seeds of varieties of wheat, rice and mustard selected by the FFS are provided to the farmers and they are assisted for seed multiplications for these varieties.	100%	

Agriculture	New	stress tolerant crop	identified, introduced and		
Research Council	varie	eties introduced in 118	validated through farmers		
(NARC) in 4	FFS ((wheat, mustard,	fled schools through FFS (6		
districts and	pota	ato and fodder in 20	drought tolerant and 1		
tested and	FFS (during winter season;	submerged variety of rice; 9		
validated	maiz	ze with beans and	drought and disease tolerant		
involving farmer groups	ging	er/turmeric and	varieties of maize; 9 drought		
using FFS	fodd	der in 60 FFS in spring	tolerant varieties of wheat; 7		
approach.	seas	son; and rice and	stress tolerant varieties of		
	fodd	der in 76 FFS and millet	potato including PBS and		
	in 20	0 FFS during rainy	TPS technology; 5 drought		
	seas	son).	tolerant varieties of		
			mustard; 5 drought tolerant		
			and disease resistant		
			varieties of lentil).		
			One variety of ginger and		
			turmeric each and species of		
			vegetable disseminated		
			through FFS.		
			Varieties of fodder		
			(Berseem, oats, teosinte,		
			stylo) and millet		
			disseminated.		

Information on Progress, Outcomes and Challenges on project implementation.

Please briefly summarize main progress achieving the outcomes (cumulative) and outputs (during this fiscal year):

Max 200 words:

Capacity of 304 government staffs on climate change adaptation actions, planning and policy making strengthened through 11 trainings. At municipality level 108 municipality leaders and staff trained for vulnerability and risk assessment and adaptation planning. Agrometeorological forecasts and 55 weather-based agro-advisory weekly bulletins developed and disseminated in 120 FFS for 3484 farmers. Farmers are trained for awareness on climate change hazards and community-based adaptation plans prepared. Project related good practices (33) tested in FFS and success stories compiled. Vulnerability and risk assessments done in eight Municipalities in four districts. Livelihood strategies developed for enhancing climate resilience based on the options identified in consultation with farmers and their potential for increasing resilience and enhancing adaptive capacity. Income generation trainings, input supports and small-scale physical measures provided to the farming communities. New stress tolerant crop varieties introduced.

The major outputs achieved during the 3rd PIR are vulnerability and risk Assessment and adaptation/risk reduction plan formulation in eight municipalities completed. A sector adaptation policy mainstreaming document has also been prepared. Government staff have been trained in mainstreaming approaches using the draft document. DSSAT modelling has been developed and used for yield forecast. Sloping Agriculture Land Technology (SALT) has been demonstrated in one site in Hardeni Udayapur district. Three precipitation stations were upgraded into Agrometeorological Automatic Weather Stations and connected to the national system. Livelihood adaptation support and small-scale physical measures were provided to all the 3484 participant farmers in 120 groups.

What are the major challenges the project has experienced during this reporting period?

Max 200 words:

No major challenge faced in project implementation during this period.

Development Objective Ratings, Implementation Progress Ratings and Overall Assessment

	FY2019 Development Objective rating ¹⁶	FY2019 Implementation Progress rating ¹⁷	Comments/reasons justifying the ratings for FY2019 and any changes (positive or negative) in the ratings since the previous reporting period
Project Manager / Coordinator	HS	HS	We are achieving all the outputs by the end of the project. One exception is that LAPA formulation was not possible under the changed government structure and the Project Steering Committee modified the output into climate adaptation/risk reduction planning in agriculture at municipality level. By the time of this reporting, nine outputs are fully achieved, six outputs are well progressed and on right track.
Budget Holder	HS	HS	The project is progressing well. Most of the outputs are already achieved, and the remaining outputs are on right track.
Lead Technical Officer ¹⁸	HS	HS	Generally, the project is on track to achieve the majority of its development and operational targets at a high level.

¹⁶ **Development/Global Environment Objectives Rating** – Assess how well the project is meeting its development objective/s or the global environment objective/s it set out to meet. Ratings can be Highly Satisfactory (HS), Satisfactory (S), Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U) or Highly Unsatisfactory (HU). For more information on ratings, definitions please refer to Annex 1.

¹⁷ **Implementation Progress Rating** – Assess the progress of project implementation. For more information on ratings definitions please refer to Annex 1.

¹⁸ The LTO will consult the HQ technical officer and all other supporting technical Units.

	S	HS	The project has mostly achieved its Outcomes satisfactorily. The project is undergoing final evaluation and the project team should prepare and finalize		
GEF Funding Liaison			the final AMAT scores as well as prepare the terminal report. It would be good for the project to plan a final dissemination workshop prior to project end, if not already planned. In addition to project terminal report, the project team		
Officer			should also prepare key lessons learnt and recommendations from their perspective, which would be useful for FAO Nepal and wider FAO improve project design and implementation strategies.		

3. Risks

Environmental and Social Safeguards (Under the responsibility of the LTO)

Overall Project Risk classification	Please indicate if the Environmental and Social Risk classification is still valid ¹⁹ .
(at project submission)	If not, what is the new classification and explain.
Project Category C	Yes. The risk level of the project remains unchanged.

Please make sure that the below risk table include also Environmental and Social Management Risks captured by the Environmental and social Management Risk Mitigations plans.

¹⁹ **Important**: please note that if the Environmental and Social Risk classification is changing, the ESM Unit should be contacted and an updated Social and Environmental Management Plan addressing new risks should be prepared.

Risk ratings

RISK TABLE

The following table summarizes risks identified in the **Project Document** and reflects also **any new risks** identified in the course of project implementation. The <u>Notes</u> column should be used to provide additional details concerning manifestation of the risk in your specific project, **as relevant**.

	Risk	Risk rating ²⁰	Mitigation Action	Progress on mitigation actions ²¹	Notes from the Project Task Force
1	Civil unrest in the project districts, particularly in the <i>Terai</i> region	L	Broader stakeholder consultations conducted to agree on the selection of village development committees. Local field monitors will be employed to oversee and assist the District Agriculture Development Office (DADO) and facilitate field work at the local level. The risk is low now compared to the past and FAO has the experience to manage this risk by employing local staff. The risk could be substantially reduced by strengthening the interministerial steering committee and also multi-sectoral task team at the district level. FAO has facilitated creation of the above institutional mechanisms in the four selected districts of this LDCF project.	Stakeholder consultations were prepared involving local political leaders. Social mobilizers are recruited locally from the project villages and District Technical Coordinators are deployed to fit the local cultural situations.	
2	Low level of participation of the most vulnerable communities and farmer groups in the project	M	A guided learning-by-doing strategy is built into the project to strengthen community mobilization and participation.	Project raised awareness of adaptation issues using a bottom up approach. This allowed project interventions to fit to local contexts. Learning by doing approach as followed by Farmers Field Schools	
3	Delay in procurement and delivery of inputs for demonstration of improved adaptation practices.	L	An effective mechanism for procurement of inputs is agreed upon and will follow FAO's standard procedures relevant to identification of sources of inputs and efficient planning with suppliers.	FAO's standard procedures were followed in procurement. Measures were required to plan and ensure timely procurement.	
4	Area is again affected by climate extremes during project implementation	L/M	Project activities are planned taking into consideration anticipated needs of the rainy season; crop calendars inform the planning and implementation of adaptation measures	Local implementation plans are revised considering the changed context.	

²⁰ GEF Risk ratings: Low, Medium, Substantial or High

²¹ If a risk mitigation plan had been presented as part of the Environmental and Social management Plan or in previous PIR please report here on progress or results of its implementation. For moderate and high risk projects, please Include a description of the ESMP monitoring activities undertaken in the relevant period".

	Risk	Risk rating ²⁰	Mitigation Action	Progress on mitigation actions ²¹	Notes from the Project Task Force
5	Risk of policy recommendations not adopted by policy makers	L	Engaging stakeholders including policy makers in update of policies and strategies. Providing the project steering committee with suitable information about the importance of policy integration.	Project Steering Committee and Technical Coordination Committee are formed at national level right from the beginning.	
6	Non-synchronization of co- financing projects with this LDCF project	L	In-depth analysis of co-financing projects and its baseline interventions was done during the project preparation. Strong commitment was ensured from development partners and government agencies.	The co-financing was synchronized by the government as per Nepal's fiscal year.	
7	Risk of low quality of input supply (seed, breed, chemicals)	L	All the farm inputs including seeds, breeds, and chemicals will be procured only after obtaining acceptable quality certification or quality test.	Quality certifications are obtained from respective government offices for procurements. Suppliers are made liable for any defects. Smart phone sets distributed to the farmers faced some defects and the supplier replaced the entire lot with non-defective ones.	
8	Delay in recruitment of project staff	L	Schedule for recruitment of the project staff will be adhered to based on the agreed work plan.	A delay happened in case of agro- meteorologist. Repeated vacancy announcements were done to fill the post.	
9	Project staff may leave the project in between	L	Staff selection criteria will be developed to identify staffs that are unlikely to drop in between. The facilities provided to the staff will be commensurate with their qualification and experience. In case somebody drops, immediate steps will be followed to recruit new ones.	None of the four District Technical Coordinators initially deployed could complete their term. New vacancies were announced and a roster was maintained for timely placement	
10	Transfer of government staff counterparts	L	The government will be requested not to transfer the counterpart staff in between the project as far as possible. At least two staffs will be involved in project implementation from each counterpart office. The issue was discussed with DOA and DLS during the PPG final workshop.	New counterparts were consulted and trained. Training was conducted in phases.	
11	Changes in political structure of local governments (likely to go to federal structure)	M	New political structure will be briefed soon after it comes into power to get their commitment.	Governance structure changed from a unitary system to federal system. Training programmes were organized for the newly elected leaders of newly formed municipalities and Gaunpalika.	

Project overall risk rating (Low, Medium, Substantial or High):

FY2018 rating	FY2019 rating	Comments/reason for the rating for FY2019 and any changes (positive or negative) in the rating since the previous reporting period
L	L	Local government restructuring has delayed some of the activities and modified LAPA formulation into climate adaptation/risk reduction planning in agriculture.

4. Adjustments to Project Strategy

Please report any adjustments made to the project strategy, as reflected in the results matrix, in the past 12 months²²

Change Made to	Yes/No	Describe the Change and Reason for Change
Project Outcomes	No	
Project Outputs	Yes	Output 4.1.1: Investment to strengthen livelihood alternatives and small-scale climate- resilient physical measures prioritized through Local Adaptation Plans of Action (LAPAs) by involving the community and farmer groups (at least 24 LAPAs prepared and endorsed). Modified into: Output 4.1.1: Investment to strengthen livelihood alternatives and small-scale climate- resilient physical measures prioritized
		through Adaptation/Risk Reduction plan in agriculture by involving the community and farmer groups in eight municipalities. The modification of the output was discussed with the FLO and endorsed by the Project Steering Committee.

Adjustments to Project Time Frame

If the duration of the project, the project work schedule, or the timing of any key events such as project start up, evaluations or closing date, have been adjusted since project approval, please explain the changes and the reasons for these changes. The Budget Holder may decide, in consultation with the PTF, to request the adjustment of the EOD-NTE in FPMIS to the actual start of operations providing a sound justification.

No adjustment to the project time frame.

Change	Describe the Change and Reason for Change
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²² Minor adjustments to project outputs can be made during project inception. Significant adjustments can be made only after a mid-term review/evaluation or supervision missions. The changes need to be discussed with the FAO-GEF Coordination Unit, then approved by the whole Project Task Force and endorsed by the Project Steering Committee.

Project extension	Original NTE:	Revised NTE:
	Justification:	

5. Gender Mainstreaming

Information on Progress on gender-responsive measures as documented at CEO Endorsement/Approval in the gender action plan or equivalent (when applicable)?

Was a gender analysis undertaken or an equivalent socio-economic assessment? Please briefly indicate the gender differences.

Gender analysis was undertaken by a Livelihood Support and Gender Expert.

Does the M&E system have gender-disaggregated data? How is the project tracking gender impacts and results? Does the project staff have gender expertise?

The M&E system has gender disaggregated data as far as possible. Gender impacts and results are assessed by mid term review and planned final survey has also incorporated this aspect. Livelihood Support and Gender Expert was involved.

If possible, indicate in which results area(s) the project is expected to contribute to gender equality:

- closing gender gaps in access to and control over natural resources;
- improving women's participation and decision making; and or
- generating socio-economic benefits or services for women.

Social inclusion and gender are considered in planning, implementation and monitoring to achieve desired impacts from climate risk management and adaptation interventions. Gender empowerment for effective integration is considered in the project. Women's involvement and participation were emphasized in the implementation.

Enhancing adaptive capacity of women was given a high priority. Women issues such as capacity development for income generation, decision making in local development, skills, knowledge to reduce impacts of climate change and disasters were considered in Community based Adaptation planning and plan implementation. Though the project did not make any specific effort to develop a separate gender mainstreaming strategy, 74% of the 3484 participant farmers in the 120 FFS are women farmers. Due to heavy rate of outmigration of male farmers, most of the project beneficiaries are women farmers. Policies and strategies to be formulation by the project have considered gender mainstreaming.

6. Indigenous Peoples Involvement

Are Indigenous Peoples involved in the project? How? Please briefly explain.

If applies, please describe the process and current status of on-going/completed, legitimate consultations to obtain Free, Prior and Informed Consent (FPIC) with the indigenous communities

A large part of the participant farmers (41.88%) is from indigenous communities. In total 1459 indigenous farmers (198 from Arghakhanchi, 448 from Kapilvastu, 397 from Siraha and 416 from Udayapur) were from the indigenous communities. The project site selection was based on vulnerable communities in hazard prone and underserved areas in the project districts which led the project in the settlements of mostly indigenous communities. Their participation in the project is encouraging. As the project implementation does not involve any activity harmful to the local communities and the FAO project is following no harm policy, FPIC was not explicitly obtained from the indigenous communities. At the time of the project commencement, the communities were informed of the project objectives and they were free to join the farmers groups to work as the project beneficiaries. Moreover, they were free to quit the project at any time.

7. Stakeholders Engagement

Please report on progress, challenges and outcomes on stakeholder engagement (based on the description of the Stakeholder engagement plan included at CEO Endorsement/Approval (when applicable)

If your project had a stakeholder engagement plan, specify whether any new stakeholders have been identified/engaged:

If a stakeholder engagement plan was not requested for your project at CEO endorsement stage, please

- list all stakeholders engaged in the project;
- briefly describe stakeholders' engagement events, specifying time, date stakeholders engaged, purpose (information, consultation, participation in decision making, etc.) and outcomes.

No any stakeholder engagement plan was developed. Following are the major stakeholders involved in the project implementation.

- 1. **Farmers groups** (120), Farmer Organizations: Established 120 farmers field schools (with 3484 farmers, 2573 females and 911 male farmers) which participate in decision making and implement the activities.
- 2. **District Agriculture Development Office,** now, Agriculture Knowledge Centre, Government: Implement the activities and provides technical inputs and monitor activities.
- 3. **District Livestock Service Office**, now Veterinary Hospital and Livestock Expert Service Centre, Government: Implement the activities and provides technical inputs and monitor activities.
- Nepal Agricultural Research Council, Government: Provides necessary technology, seeds, breeds, and expert services.
 Developed weather based Agro-advisory and conducted study on climate change impacts on major crops.
- 5. **Department of Agriculture,** Government: Provides technical inputs and coordination.
- 6. **Department of Livestock Services**, Government: Provides technical inputs and coordination.
- Department of Hydrology and Meteorology, Government: Provides hydro-meteorological data and forecasts for agroadvisory development and upgrade precipitation stations into Agro-meteorological Automatic Weather Stations.
- Ministry of Agriculture and Livestock Development, Government: Provides overall coordination services and monitor the
 activities.

8. Knowledge Management Activities

Knowledge activities / products (when applicable), as outlined in knowledge management approved at CEO Endorsement / Approval

- Please tell us the story of your project, focusing on how the project has helped to improve people's livelihood and how it is contributing to achieve the expected global environmental benefits

This is a LDCF funded project solely focussing on LAPA implementation. Knowledge and institutional capacity of farmers were strengthened through formation and operation of 120 farmers groups. Farmers capacity was enhanced on understanding climate related hazards and identifying adaptation options through community-based adaptation planning in each group. Critical mass of trainers in climate change adaptation in agriculture is developed through training and refresher training of 127 FFS facilitators. Climate adaptation technologies tested and validated in crop, livestock and poultry through year-round operation of 120 farmers field schools with the help of the trained facilitator. Stress tolerant plant varieties and animal breeds introduced in areas to reduce the risks of climate hazards. Farmers' adaptation planning capacity improved through weather forecast and agro-advisory information via mobile phones (SMS and mobile apps). Farmers' adaptation skills developed through skill training on adaptation technologies. Farmers' climate resilience capacity enhanced through livelihood support programmes in crops and livestock. Conservation agriculture technologies introduced for minimum till plantation of crops particularly wheat and garlic. Technical capacity of government staff enhanced through training on climate change adaptation in agriculture. Training manuals developed for climate change adaptation in crops, livestock and poultry. Participatory climate change risk and vulnerability assessment and adaptation/risk reduction planning are done in eight municipalities. A draft awareness raising, knowledge management and communication strategy is developed and stakeholder consultations are done in all the four project districts.

- Please provide the links to publications, video materials, etc.

Publications online

http://www.fao.org/fileadmin/user_upload/FAO-countries/Nepal/docs/Climate_Factsheet.pdf

Videos online:

1. Climate change adaptation in Nepal

https://www.youtube.com/watch?v=mY2QuJtpyAs

2. Laxmi Sunar's story

https://www.youtube.com/watch?v=U6kw7e1zubI

3. Coping with climate change and adaptation measures in Farmers Field Schools

http://www.fao.org/gender/resources/videos/video-detail-fr/fr/c/1071681/

https://www.youtube.com/watch?v=eNGXoqKUpG4&t=26s

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9. Co-Financing Table

Sources of Co- financing ²³	Name of Co- financer	Type of Co- financing	Amount Confirmed at CEO endorsement / approval	Actual Amount Materialized at 30 June 2019-	Actual Amount Materialized at Midterm or closure (confirmed by the review/evaluation team)	Expected total disbursement by the end of the project
Agriculture and food security project (2014 – 2018)	FAO/UTF	Grant	8 620 000	8 600 000		
Ginger Competitiveness Project (March 2012 – June 2015)	FAO/MTF	Grant	1 170 000	1 162 659		
Government of Nepal investment in selected districts (annual)	Government	Grant	3 200 000	3 821 274		
		TOTAL	12 990 000	13 583 933		

Please explain any significant changes in project co-financing since Project Document signature, or differences between the anticipated and actual rates of disbursement

No change in project financing.

²³ Sources of Co-financing may include: Bilateral Aid Agency(ies), Foundation, GEF Agency, Local Government, National Government, Civil Society Organization, Other Multi-lateral Agency(ies), Private Sector, Beneficiaries, Other.

Annex 1. – GEF Performance Ratings Definitions

Development/Global Environment Objectives Rating — Assess how well the project is meeting its development objective/s or the global environment objective/s it set out to meet. DO Ratings definitions: Highly Satisfactory (HS - Project is expected to achieve or exceed all its major global environmental objectives, and yield substantial global environmental benefits, without major shortcomings. The project can be presented as "good practice"); Satisfactory (S - Project is expected to achieve most of its major global environmental objectives, and yield satisfactory global environmental benefits, with only minor shortcomings); Moderately Satisfactory (MS - Project is expected to achieve most of its major relevant objectives but with either significant shortcomings or modest overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environment benefits); Moderately Unsatisfactory (MU - Project is expected to achieve of its major global environmental objectives); Unsatisfactory (U - Project is expected not to achieve most of its major global environment objectives or to yield any satisfactory global environmental benefits); Highly Unsatisfactory (HU - The project has failed to achieve, and is not expected to achieve, any of its major global environment objectives with no worthwhile benefits.)

Implementation Progress Rating — Assess the progress of project implementation. IP Ratings definitions: Highly Satisfactory (HS): Implementation of all components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be resented as "good practice". Satisfactory (S): Implementation of most components is in substantial compliance with the original/formally revised plan except for only a few that are subject to remedial action. Moderately Satisfactory (MS): Implementation of some components is in substantial compliance with the original/formally revised plan with some components requiring remedial action. Moderately Unsatisfactory (MU): Implementation of some components is not in substantial compliance with the original/formally revised plan. Highly Unsatisfactory (HU): Implementation of none of the components is in substantial compliance with the original/formally revised plan.