UNEP GEF PIR Fiscal Year 17
(1 July 2017 to 30 June 2018)

1. PROJECT GENERAL INFORMATION

Project Title:	Mainstreaming agricultural biodiversity conservation and utilization in agricultural sector to ensure ecosystem services and reduce vulnerability

Executing Agency:	Bioversity International; Indian Council of Agricultural Research (ICAR), New Delhi, India

Project partners:	Indian Council of Agricultural Research (ICAR) & its institutes, Protection of Plant Varieties and Farmers' Right Authority (PPV&FRA), Action for Social advancement(ASA), Gramin Vikas Viyan Samiti (GRAVIS), Lok Chetna Manch (LCM), Mount Valley Development Association(MVDA), Himalayan Research Group (HRG)

Geographical Scope:	National: India

Participating Countries:	India

GEF project ID:	5137	**IMIS number*[1]:**	GLF-11207-14AC0003-SB-006538
Focal Area(s):	Biodiversity	**GEF OP #:**	BD
GEF Strategic Priority/Objective:	BD-2	**GEF approval date*:**	20 January 2016
UNEP approval date:		**Date of first disbursement*:**	17 January 2017
Actual start date[1]:	30 November 2016	**Planned duration:**	60 months
Intended completion date*:	31 December 2022	**Actual or Expected completion date:**	31 December 2022
Project Type:	FSP	**GEF Allocation*:**	US$ 3,046,347
PPG GEF cost*:	US$ 150,000	**PPG co-financing*:**	US$ 442,051
Expected MSP/FSP Co-financing*:	10,294,750	**Total Cost*:**	US$ 13,341,097
Mid-term review/eval. (planned date):		**Terminal Evaluation (actual date):**	TBD
Mid-term review/eval. (actual date):	TBD	**No. of revisions*:**	NA

[1] Fields with an * sign (in yellow) should be filled by the Fund Management Officer
[1] Only if different from first disbursement date, e.g., in cases were a long time elapsed between first disbursement and recruitment of project manager.

Date of last Steering Committee meeting:	21 July 2017	**Date of last Revision*:**	NA
Disbursement as of 30 June 2016*:	US$ 500,000	**Date of financial closure*:**	NA
Date of Completion[2]*:	NA	**Actual expenditures reported as of 30 June 2016[4]:**	US$ 474,180
Total co-financing realized as of 30 June 2016[3]:		**Actual expenditures entered in IMIS as of 30 June 2016*:**	US$ 474,180
Leveraged financing:[4]			

Project summary	The project objective is to mainstream agricultural biodiversity conservation and utilization in agricultural sector to support ecosystem services and reduce vulnerability. More specifically it plans to ensure that crop diversity (both inter- and intra-specific) in India is effectively conserved and used to improve rural livelihoods meeting the challenges of climate change. India, which is a recognized mega-diversity centre, possesses unique crop diversity, including a number of crops that have long been naturalized here. This diversity remains under threat from the continuing adoption of modern high yielding varieties (HYVs), changes in land use and agricultural practices, social trends, national policy to promote HYVs, weak seed system and climate change. Nevertheless, this crop diversity that exists in several pockets around India continues to be a major natural asset and represents an essential element in the livelihood strategies of the rural population. Traditional crops and varieties conserved by the Indian farmers over generations have been utilized in crop improvement programmes, the value of which has increased further in the context of the challenge of climate change. Understandably, while the progressive farmers with medium to large farm holdings opt more readily for modern and improved high yielding open pollinated varieties and hybrids, it is the small and marginal farmers, many of them located in far flung and tribal belts in the country, which continue to grow landraces and conserve biodiversity in agricultural crops. The crop diversity available with Indian farmers now constitutes an essential resource to deal with the challenges of adapting to climate change with continuing rise in temperature, changes in rainfall patterns and an increasing frequency of extreme events. Thus, the Project will develop local community-based approaches, together with the necessary national framework that will enable the conservation and use of crop diversity to be mainstreamed into India's agricultural production and environmental management strategies. This will be achieved by three inter-linked components that address:

[2] If there was a "Completion Revision" please use the date of the revision.
[4] Information to be provided by Executing Agency/Project Manager
[3] Projects which completed mid-term reviews/evaluations or terminal evaluations during FY16 should attach the completed co-financing table as per GEF format. See Annex 1
[4] See above note on co-financing

	• Adaptive management of crop diversity for resilient agriculture and improved livelihoods • Strategies and policies for sustainable conservation and use of crop diversity including access and benefit sharing, and • Improved agricultural support systems, institutional frameworks and partnerships that support crop diversity on farm Work with farmers and communities will be undertaken in four internationally recognized agro-ecoregions of India: Western Himalayas including the cold arid tract; North-eastern region and the Eastern Himalayas; Western arid/semi-arid region, and Central tribal region. The work will primarily focus on 19 important crops traditionally grown in these regions viz. Rice, amaranth, barley, buckwheat, kidney bean, moth bean, rice bean, black gram, green gram, finger millet, pearl millet, pigeon pea, mustard and sesame. The project is proposed to be carried out in a fully participatory and integrated interdisciplinary approach. The expectation is that the farmers (25,000) across four agro-ecoregions covering 120,000 ha in India will maintain and use an increased diversity of 19 crops through improved availability of traditional local varieties, many of which were lost or degenerated due to non-cultivation and poor maintenance, and enhanced access to new adapted and resilient diversity. An enabling environment that has various measures (policies and guidelines) for the sustainable use and conservation of crop diversity are integrated into national (one) and regional (four) plans for agriculture. Farmer communities and other stakeholders in four agro-ecoregions in India will benefit from the access and benefit sharing provisions under Biological Diversity Act, 2002 and Protection of Plant Varieties and Farmers' Rights Act, 2001. The project will also put in place improved institutional frameworks at national (1), regional (4) and local levels to ensure improved agricultural biodiversity conservation and use providing better adaptability and resilience to changing climate and farmer livelihoods. It will also work on improving agricultural support systems (research, outreach, extension and market links) for mainstreaming agricultural biodiversity and development in the capacity of national extension and research agencies to undertake work that secures the role of agricultural biodiversity in improving livelihoods and adapting to climate change. The methodologies and experiences of the Project will be valuable internationally and the diversity secured of global significance.

Project status FY 2017	**Project launch and inception workshop** The project launching, inception workshop and NPSC meeting were held from July 18-21, 2017 and was attended by all the project partners including from ICAR, Bioversity International and UNEP-GEF. The focus of discussion was on the delivery of various project components to ensure sustainable livelihoods, improved ecosystems services and better institutional support system including project activities, partners' network, objectives, expected outputs and outcomes. The members of the NPSC appreciated the overall structure of the project and its align with SDGs. Ms. Marieta Saklian appraised on the UN Environment expectations from project implementing country and Term of Reference of NPSC. The NPSC Chair Trilochan Mohapatra raised hope that through this project we shall be able to strengthen and promote community-based seed systems and ensure their long-term

	sustainability, exploring added value options, enhancing the use of germplasm through discovery of novel traits. We also deliberated on the project implementation arrangements, reporting systems, management procedures, plan of action, monitoring, evaluation requirements, risk tracking system and technical and financial reporting requirements. All the working sites and villages within each site were finalized and communities were divided in to three categories as (i) Core, (ii) Buffer and (3) control. Household baseline survey will be undertaken in all the villages in the proportion of 50 (control):30 (buffer):20 (control). It was decided that all the project intervention will be executed in the core villages. While in buffer villages few activities such as biodiversity fairs, awareness trainings, participation of farmers in the PVS trials and field level demonstrations, conducting baby trials, etc., will be undertaken. Except baseline survey, no activity will be undertaken in the control village as they will be used to measure the impact or project interventions at completion of project. The sites at Nagaland have been selected only for baseline data collection but project interventions have not been started yet. The details of the sites, villages, communities, number of households and village types are given in **Annex 1.** **Workshop for finalizing of baseline survey and nutrition questionnaire** Donors, the public and implementing agencies do increasingly request clear information on the effectiveness and success of projects and its interventions. Concepts like impact assessments and baseline surveys are developed to fulfil these needs in a comprehensive way. A baseline survey informs about prevailing conditions in a project area prior to the intervention. It helps to identify the needs of the target community and provides the reference data to be used in evaluation and impact assessment studies. Without such data it is difficult to measure whether the project made an impact or not and helps implementing agencies to improve project design and performance along the way. In this workshop, 43 participants from 18 project partners were invited. We discussed and designed the methods and tools required for the baseline survey of the project. The focus of the baseline survey was to understand the status and interlinkages between agricultural biodiversity, farm livelihoods, household nutrition, climate change impacts and related eco-system services in the project sites. Use of digital data collection formats (using tablets) based on Open Data Kit (www.opendatakit.org) format will be used for all data collection during baseline and other project related field activities. This workshop introduced the participants to the concepts, methods and tools used for the implementation of the baseline survey. The specific objectives of this workshop were: • To develop a common understanding of the project's impact rationale and refined set of impact or outcome indicators and research questions. • To share, refine and align practical skills and knowledge about sampling strategy, data collection and data management methods to ensure uniformity and comparability across sites. • To have developed tailor-made focus group discussion formats, baseline survey questionnaire and implementation plan. • Enable baseline focal points to train a team of surveyors on implementing the baseline survey in their respective project site.

	Rural Household Multiple Indicator Survey (RHoMIS) GEF India baselines questionnaire having >200 questions was designed after conducting baselines workshop to understand the farm systems and livelihood situation of the household at each project site. Another questionnaire to understand the consumption and nutrition patterns in general and consumption of target crops in specific by male and female household was also designed. Focused Group Discussion (FGDs) were held in each site to discuss the trends in diversity of the targeted crops, their status and threats; varieties having unique character, attributes and use; annual climate and annual weather & environment cycle; annual agricultural activity cycle and climate change for providing feedback and questions for designing the final survey formats. **Identification of champion farmers:** After having farmers' interaction meeting and FGDs, 6-10 Champion Farmers (who have extensive experience in farming and mastered the knowledge and skills and diffused them to other farmers) based on HH number were identified in each site. We have ensured good participation of women champion farmers to undertake the activities. **Identification of varieties for seed multiplication:** State and crops wise list of farmers' varieties and *ex situ* collections selected for seed multiplication and condcuting mother and baby trials was compleetd. Around 650 traditional varieties as listed above have been identified and collected from farmers and seed banks as well. Seed multiplication of these varieties have been initiated and will be continued subsequently**.** The details are provided in **Annex 1.** **Constitution of various committees:** Technical Advisory Committee, Regional Coordination Committees and Site Coordination Committees have been constituted. Project implementation unit of ICAR is being established at ICAR-NBPGR. Self Help Groups and Farmers Producer organisations have been identified

Planned contribution to strategic priorities/targets	We envisage that the project will also contribute to GEF Biodiversity Strategic Objective 2 **(SO2)** -to mainstream biodiversity in production landscapes/seascapes and sectors and **SO4-** build capacity on access to genetic resources and benefit-sharing. To support GEF Strategic Programme 1 - strengthen the policy and regulatory framework for mainstreaming biodiversity, the project will incorporate biodiversity conservation, sustainable use, and benefit-sharing into broader policy, legal, and regulatory instruments available in India. Mainstreaming of agrobiodiversity through farmers' participatory Plant Breeding will enhance crops yield and capacity of farmers to produce quality goods in the form of nutritionally rich and locally adopted varieties. This will enhance substantial social and economic benefits to public or private actors. Project also envisage more effective use of national biodiversity strategies and action plans to foster mainstreaming of biodiversity into national development strategies and programs in India.

	The project also supports the SP5 *Fostering markets for biodiversity goods and services:* The project supports this focal area strategies programme by mainstreaming knowledge, practices, genetic and crop diversity into the national markets. The project will implement a set of specific, targeted activities aimed at improving the sustainable marketing of the products of rich agricultural biodiversity production systems. This will be done through the development of entrepreneurship at local youth level and then linking those youths to market value chain.

2. PROJECT OBJECTIVE

Global environmental objective(s) of the project

The objective of this project is to mainstream the conservation and use of agricultural biodiversity for resilience in agriculture and sustainable production to improve livelihoods and access and benefit sharing capacity of farmer communities across four agro-ecoregions of India.

Progress made towards meeting the project objective(s). Describe any significant environmental or other changes (results) attributable to project implementation. *Also, please discuss any major challenges to meet the* ***objectives*** *or specific project* ***outcomes*** *(not more than 300 words)*

Progress was made under all the components towards meeting the project objectives under all the components. The project launching, inception workshop, and NBPSC meeting were held from July 18-21, 2017. A total of 23 project sites and 19 crops were finalized to undertake project activities. In all the sites, communities were divided in to three categories as (i) Core, (ii) Buffer and (3) control. Household baseline survey will be undertaken in all the villages in the proportion of 50 (control):30 (buffer):20 (control). Focused Group Discussions were organized at each sites and feedback provided to design baseline and nutrition questionnaire. A baseline workshop was organized to all the project partners and attended by 43 participants from 18 institutes. We discussed and designed the methods and tools required for the baseline survey of the project. The focus of the baseline survey is to understand the status and interlinkages between agricultural biodiversity, farm livelihoods, household nutrition, climate change impacts and related eco-system services in the project sites. Use of digital data collection formats (using tablets) based on Open Data Kit (www.opendatakit.org) format will be used for all data collection during baseline and other project related field activities. This workshop introduced the participants to the concepts, methods and tools used for the implementation of the baseline survey. Champion farmers were identified in each site particularly in core village to help in coordination of project activities and also providing fields to conduct mother trials. Crops wise list of farmers' varieties and *ex situ* collections selected for seed multiplication and condcuting mother and baby trials was compleetd. Around 650 traditional varieties were identified for multiplication. Technical Advisory Committee, Regional Coordination Committees and Site Coordination Committees have been constituted to monitor and regulate the project work.

Progress towards the stated GEF Strategic Priorities and Targets if identified in project document [5](not more than 200 words)

GEF Biodiversity Strategic Objective 2 **(SO2)** - to mainstream biodiversity in production landscapes/seascapes and sectors and **SO4** - build capacity on access to genetic resources and benefit-sharing. The project engaged in the mainstreaming of agrobiodiversity through adaptive management by enhancing varietal diversity at farmers' field. A total of 650 farmers' varieties in 19 crops have been identified seed multiplication and to conduct mother trials at 23 project sites in 09 states. Project also envisage more effective use of national biodiversity strategies and action plans to foster mainstreaming of biodiversity into national development strategies and programs in India. The project also works on fostering markets for biodiversity goods and services by mainstreaming knowledge, practices, genetic and crop diversity into the national markets. The project will identify few selected products primarily popular Farmers' varieties, undertake nutritional profiling and then promote those to market value chain. It also identified a number of actions and inputs that are needed to enhance value of the farmers' products and mechanism to provide market link through the development of entrepreneurship at local youth level. In India, many market outlets are selling traditional biodiversity products such as leafy vegetables, un polished brown rice, millets and its flour, etc.

[5] Projects that did not include these in original design are encouraged to the extent possible to retrofit specific targets.

3. RATING PROJECT PERFORMANCE AND RISK

3.1 Progress towards achieving the project objective (s)

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
Objective **To mainstream the conservation and use of agricultural biodiversity for resilient agriculture and sustainable production to improve livelihoods and access and benefit sharing**	1. By the end of the project adaptive gender-sensitive management practices using crop diversity are validated and mainstreamed in relevant national public policies and strategies and other instruments (NBAP, NMSA, Agricultural Plans/Strategies) and widely promoted by agricultural support and research systems	At baseline, relevant national public policies, strategies and instruments demonstrate limited inclusion of the benefit and value of crop diversity	Project has drafted recommendations for the revision of relevant national public policies, strategies and instruments	At least two politically significant national documents drawing attention to the importance of conservation, use and access and benefit sharing of crop diversity are endorsed by the end of the project	Baseline survey is being conducted and data will be analysed to have clear over view of the public policies in place. The policy documents will be prepared towards the end of project	S

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
	2. By the end of the project the area under sustainable practices and conserving crop diversity is increased	At baseline, unsustainable agricultural practices using limited crop diversity are in place in in most farms in all four agro-ecoregions, with certain varieties and landraces threatened	Sustainable and adaptive practices which include opportunities to improve richness of crop (species and varietal) diversity are being tested	An increase of 20% in varietal diversity across project sites as measured by richness and evenness	Seed multiplication of existing varieties have been initiated and will be continued subsequently. Apart from available varieties *ex-situ* collections conserved in the gene bank will be used to enhance varietal diversity.	S

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
	3. Farmers (female and male) and local communities are actively using crop diversity for improved adaptation and livelihoods through enhanced support from improved and inclusive agricultural support systems and research programmes which are more responsive to their needs	At baseline, capacity of agricultural support systems and research programmes to promote crop diversity and community biodiversity management approaches is limited	Institutional capacity strengthened and increased resource allocation to better support research and programmes to promote crop diversity and community biodiversity management is in progress	Fully functional agricultural support systems and research programmes which are gender sensitive and more responsive to farmer and local community needs to better deploy crop diversity and community biodiversity management approaches are in place across four agro-ecoregions	Local seed system including establishment of community seed banks will be put in place. Efforts will be made to develop a self-sustainable model.	S

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
	4. By the end of the project, farmers' and local communities, NGOs, local institutions, outreach and research staff and senior officials from relevant ministries have increased knowledge and awareness relating to conservation and use of crop diversity for climate change adaptation and access and benefit sharing mechanisms for improved livelihoods	Awareness of relevant actors and stakeholders of the need to conserve and use crop diversity to improve livelihoods and help manage recent changes in climate is limited including awareness of farmers' rights and access and benefit sharing (ABS) mechanisms across all project sites	Awareness raising initiatives of relevant actors and stakeholders and awareness raising campaigns to highlight the benefits of crop diversity and community biodiversity management in progress at all project sites	At least one local inclusive institution in each project site fully operational and self-sustaining for conducting awareness campaigns promoting crop diversity and community biodiversity management	Farmers interaction meeting have been organised and farmers including local institutions have been identified for capacity building and running the system under post project period.	S

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
	5. Inclusive non-governmental agencies (NGOs) and community-based organizations (CBOs) work in close partnership with government research and extension agencies that operate in or near the sites and include use of crop diversity for livelihoods and climate change adaptation in their approaches and strategies	At baseline, very limited interaction between NGOs and CBOs with research and extension agencies across project sites, with majority of CBOs and NGOs having limited understanding of the potential of crop diversity to improve adaptation and livelihoods	Capacity development and partnership building involving NGOs, CBOs and government extension staff in progress at all project sites	NGOs, CBOs and extension service partnerships established in all project sites with capacity and resources to better deploy and mobilise crop diversity for improved adaptation and livelihoods using community biodiversity management	A regional coordination network in Public – Private partner sip mode has been framed to carry forward the project activities and manage the post project portfolio.	S

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
	6. New crop diversity rich products available in local and national markets	At baseline, most marketed agricultural products are based on a limited diversity of crops, landraces and varieties with no mechanisms in place to adequately reward farmers for conserving and using greater crop diversity	Market chain analysis has identified potential crop diversity rich products from each project site	At least one crop diversity-rich product providing increased benefits to local farmers, especially female farmers, and communities at least 15 project sites	The whole set of varietal diversity will be subjected to nutritional profiling and unique variety will be promoted as product. The varieties available locally have been documented and seed is being multiplied for use.	HS

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
	7. National agricultural biodiversity information system Including information on climate smart collections of varieties and landraces accessible to users	At baseline, no national agricultural biodiversity information system is available to cater for the needs of all stakeholders in order to enhance the conservation, use and benefit sharing of crop diversity	A user-friendly national agricultural biodiversity information system is under design and information gathering in progress	A model user friendly national agricultural biodiversity information system that allows knowledge access to various stakeholders and an easy monitoring of the status of crop diversity is widely accessible and being utilised by relevant actors and stakeholders	Information system will be generated towards the end of project.	S

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
Outcome 1: Farmers (at least 10,000) across four agro- ecoregions covering 50,000 ha in India maintain and use an increased availability to diversity of 14 crops which enhances adaptation, resilience and improves income generation opportunities	Strengthened seed systems in terms of numbers and types of exchanges of relevant crop diversity within and between project sites and other areas Areas adapting crop biodiversity practices identified as sustainable and resilient Income levels of farmers (female and male) in project sites based on increased returns, reduced input costs or improved efficiencies in production	Although informal local seed networks exist, these function poorly and rarely ensure that crop diversity available across all project sites is sufficient to meet challenges posed by climate uncertainty or potential market opportunities	At least 3 local seed networks linked to 5-6 community seed banks to improve farmers access to crop diversity in the 4 agro-ecoregions to traditional and other varieties of 14 target crops At least 10% increase in number of varieties used by at least 20% of households across 10 project sites New markets identified for targeted crop diversity	At least 5 local seed networks linked to 10-12 community seed banks to improve farmers access to crop diversity in the 4 agro-ecoregions to traditional and other varieties of 14 target crops Improved local seed systems in all the project sites that provide farmer desired seed of quality and quantity for 14 crops across 4 agro-ecoregions At least 10% more crop diversity in all project sites made available as measured by richness and evenness 10,000 farmers (female and male) across four agro-ecoregions use an increased number of varieties of 14 targeted crops	In each site, one community seed bank will be established. Technical backstopping will be given by the ICAR and Agricultural university scientists especially from KVKs to produce quality seeds use best conservation practices. New varieties will be spread through crowed sourcing approach using her and baby trials.	S

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
				Farms in about 50,000 ha are sown crops At least 10% of farmers in project sites show a 10 to 15% increase in income derived from targeted crop diversity with diverse varieties of 19 targeted crops		

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
Outcome 2: Mechanisms for improved coordination and implementation to promote better mainstreaming of conservation, use and sharing of crop diversity developed and supported by relevant policy instruments, regulations, strategies and plans including access and benefit sharing	National Biodiversity Action Plan (NBAP) and Farmer's Rights legislation clearly reflects the need for increased use of crop diversity to enhance ecosystem services and benefits and livelihoods and incomes of farmers	National Biodiversity Action Plan (NBAP) and Farmer's Rights legislation does not fully recognize the potential of crop diversity in income generation and in providing ecosystem benefits	Review of National Biodiversity Action Plan (NBAP) and Farmers' Rights legislation in collaboration with PPV&FRA in progress at the national level and linked to project finds in pilot sites	Updated and revised National Biodiversity Recommendations made to NBA and PPV&FRA for making appropriate revisions in the National Biodiversity Action Plan (NBAP) clearly articulates the benefits and need for increased use of crop diversity to enhance ecosystem services and benefits and livelihoods and incomes of farmers with a focus on women	A suitable mechanism involving NBA and PPV & FRA regulations on ABS will be developed at the end of the project.	S

Project objective and Outcomes	Description of indicator	Baseline level	Mid-term target	End-of-project target	Level at 30 June 2017	Progress rating
Outcome 3: Improved Agricultural Support Systems (Research, Outreach and Extension), Institutional Frameworks and Partnerships at national, regional and local levels to ensure improved agricultural biodiversity conservation, adaptability, resilience and farmer livelihoods	National, regional and local level agricultural support systems, institutional frameworks and partnerships, that are gender sensitive, improve crop diversity conservation and use	Limited agricultural support systems, institutional frameworks and partnerships to ensure improved crop diversity conservation, use for adaptability, resilience and farmer livelihoods in marginal areas	Major elements for strategy guidelines for improved national, regional and local agricultural support systems and institutional frameworks, that are gender sensitive, to support the mainstreaming of crop diversity are identified and policies relevant to the maintenance and use of crop diversity reviewed	Strategy guidelines for improved national, regional and local agricultural support systems and institutional frameworks, that are gender sensitive, to support the mainstreaming of crop diversity for improved conservation, adaptability, resilience and farmer livelihoods are developed and implemented Drafts of appropriate policy recommendations targeting incentives and disincentives are available	Strategy guidelines for improved agricultural support systems and institutional frameworks to support the mainstreaming of crop diversity for improved conservation, adaptability, resilience and farmer livelihoods will be developed and implemented at the end of project	S

Overall rating of project progress towards meeting project objective(s)

FY2018 rating	Comments/narrative justifying the current FY rating and explaining reasons for change (positive or negative) since previous reporting periods
	The overall progress pf the project and performance is satisfactory and activities are implemented in a timely manner

Action plan to address MS, MU, U and HU rating

Action(s) to be taken	By whom?	By when?
NA		

This section should be completed if project progress towards meeting **objectives** was rated MS, MU, U or HU during the previous Project Implementation Review (PIR) or by the Mid-term Review/Evaluation

3.2 Project implementation progress

Output 1.1: Extent and distribution of genetic diversity of 14 crops in 4 agro-ecoregions determined and factors that shape farmer decisions on diversity maintenance, including challenges presented by climate change documented				
1.1.1: Undertake literature survey to document crop diversity being maintained by farmers	December 2018	50	Ongoing	S
1.1.2: Prepare inventory of traditional varieties conserved *ex situ* across project sites and in similar agro-climatic conditions	December 2018	70	Ongoing	S

1.1.3: Undertake baseline survey at HH level to document patterns of genetic diversity maintenance on-farm, associated genetic erosion and threats due to climate change for each target crop using participatory tools	October 2018	40	Baseline survey questionnaire and 24 hrs recall nutrition format finalised at the end of June and activity will be finished by October 31, 2018.	S
1.1.4: Analyse baseline data to develop diversity distribution maps	June 2019	0	Baseline data will be analysed after collection	
1.1.5: Synthesize climate (current and future) data sets and identify suitable General Circulation Models (GCMs) for developing crop suitability maps of the target crops across project sites	December 2019	10	Data is being collected and crops diversity maps will be prepared after baseline survey is over.	S
1.1.6: Develop database of crop genetic diversity, their distribution and associated traditional knowledge for resilience in agriculture	December 2020	30	Ongoing	S
1.1.7: Identify new genetic adaptive diversity needed for resilient agriculture to address climate change threats for target crops and multiply seeds for field trails	October 2021	25	Ongoing	S
Output 1.2: Identification of new and traditional crop genetic diversity that meets farmers' needs and is able to enhance ecosystem function, resilience and adaptation to climate change				
1.2.1: Develop crop specific set of descriptors that also include farmers descriptors to judge the performance of varieties by the farmers and communities	June 2019	30	Ongoing	S
1.2.2 Identify potential landraces and Farmers' varieties for developing new crop varieties for adaptation to climate change and sustainable agriculture	December 2020	30	Ongoing	S
1.2.3 Conduct Mother and Baby trials for target crops by champion farmers	December 2022	10	Ongoing - Mother trials have been planted for rainy season crops at two place (i) farmers' field and (ii) experimental farms of	S

			public institutions	
1.2.4 Establish farmers' feedback information sharing mechanism to identify best performing varieties through farmers' participation	June 2021	10	Ongoing - A small questionnaire for recording farmers' response has been prepared and distributed to champion farmers	S
1.2.5 Develop database of varietal choices for each crop across project site through Baby trials and farmers' feedback	December 2021	15	Ongoing	S
1.2.6 Organise crop diversity fairs and farmers' field days across project sites to document farmers' needs to adapt to climate change	December 2022	10	Ongoing – Crops diversity fairs and farmers' field days will be started from September 2018 onwards. Varieties have been planted for this activity.	S
1.2.7 Organise Farmers' exchange visits across project sites for cross learning	November 2021	0	Will be initiated towards the end of 2018	
Output 1.3: Farmer identification, improvement and use of adaptive crop diversity through field experimental networks				
1.3.1: Undertake seed multiplication of new and traditional crop varieties identified by farmers	September 2022	20	Ongoing - Seed multiplication of new and traditional crop varieties identified by farmers during FGDs have been initiated.	S
1.3.2: Test and Conduct crowdsourcing trials across project sites to promote adaptive crop diversity	December 2022	10	Ongoing - Mother trials have been planted for rainy season crops at two place (i) farmers' field and (ii) experimental farms of public institutions	S

1.3.3: Organise farmers' field days and farmers' exchange visits and cross-learning	November 2022	0	Will be initiated towards the end of 2018	
1.3.4: Initiate at least 1 Participatory Plant Breeding (PPB) programme for climate resilient variety development in one crop per site	November 2022	0	Will be initiated from this rainy season crops. Trials have already been planted.	
1.3.5: Establish Farmers' Field Schools and Village Climate Risk Management Committees to promote use of crop diversity and resilience agriculture	December 2022	0	Will be initiated in 2020	
Output 1.4: Improved farmers' access to genetic materials in all project sites through establishment of community biodiversity registers (CBRs), community seed banks (CSBs) and diversity fairs				
1.4.1: Determine the existing sources of seed to farmers, level of accessibility and types of seed systems	December 2019	25	Ongoing – Being documented through baseline survey	S
1.4.2: Establish at least one Community Biodiversity Register (CBRs) across project sites following standard guidelines and in association with State Biodiversity Board (SBB)	December 2019	0	Ongoing – Documentation of diversity for preparing CBRs as per NBA format will be initiated after baseline survey	
1.4.3: Establish at least one Community Seed Bank (CSBs) across each project site following standard scientific guidelines	December 2021	20	Ongoing – Activities such as finalisation of community land/ space, etc. to establish CSB has been initiated	HS
1.4.4: Develop a self-learning training manual for establishment and management of CBRs and CSBs	June 2020	0	This will be initiated after documenting existing information.	
1.4.5: Develop guidelines for seed regeneration, multiplication and distribution for CSBs	December 2019	10	Ongoing – Draft is being prepared by NBPGR. A meeting has been organised and responsibility has been	S

			assigned to scientists.	
1.4.6: Develop guidelines for the m anagement by communities of CSBs and seed exchange network at site, district, state and national level	December 2021	0	Will be started after establishment of CSBs and local seed systems	
1.4.7: Organise diversity fairs to promoter broadening of crop genetic base across project sites	October 2022	10	Ongoing – One diversity fair has been planned in each site in September – October 2018 and will continue through the project period	S
Output 1.5: Identification of production and non-market benefits/incentives from management and sustainable use of crop genetic diversity of 14 crops in four agro-ecoregions and relevant intervention strategies for capturing and enhancing such benefits				
1.5.1: Identify and analyze current disincentives/ incentives for the conservation and use of crop diversity at national level	June 2019	20	Ongoing - Analysis of data will be completed after baseline survey which is being conducted at all sites.	S
1.5.2: Analyze current production and non-market values and benefits arising from the maintenance of crop diversity by farmers across project sites	June 2020	10	Ongoing - Analysis of data will be completed after baseline survey which is being conducted at all sites.	S
1.5.3: Identify, design and test possible mechanisms to support the realization of selected production and non-market benefits across project sites	December 2022	10	Ongoing - Analysis of data will be completed after baseline survey which is being conducted at all sites.	S
1.5.4: Formulation and promotion of recommendations for the identification, capture and enhancement of such production and non-market benefits	June 2022	0	Will be done after interventions	
Output 1.6: Identification of local, regional and national markets and market chains development for 14 crops to provide improved				

benefits to farmers and communities in all project sites for sustainably produced agricultural biodiversity products				
1.6.1: Develop database of health and nutritional value of the target crops	October 2019	30	Ongoing –Presently available information is being documented through 24 hours recall nutrition and baseline survey	HS
1.6.2: Prepare list of local products that are biodiverse (food and non-food) and have market potential	June 2020	20	Ongoing –Presently available information is being documented through 24 hours recall nutrition and baseline survey	HS
1.6.3; Conduct market studies to assess the market value of the selected products and identify the value chain actors required to facilitate upgrading strategies and market development	June 2022	0	Will be done after conducting nutritional profiling of the diversity	
Activity 1.6.4: Promote and popularise identified products and establish market links	December 2022	0	Will be done after conducting nutritional profiling of the diversity	
1.6.5: Establish and strengthen self-help groups (SHGs) involving women's participation and link with local as well as distinct markets through Farmer-Public-Private-Partnership (FPPP)	June 2022	10	Ongoing – Identification and formation of SHGs and farmer producer groups has been initiated and will continue	S
1.6.6: Develop entrepreneurial capacity of small scale local producers and processors	January 2022	5	Local youth and site coordinators are being identified for skill development. Public institution MANGE has agreed to provide training	S

			on entrepreneurship development to our project partners.	
Output 2.1: Establish national and regional policy platforms including involvement of ministries, local communities, indigenous organizations, farmers, private sector to promote leadership and mainstreaming of agricultural biodiversity conservation, use and benefit sharing				
Activity 2.1.1: Analyse existing policy platforms at national and regional levels to identify gaps for sustainable conservation and use of crop diversity and sharing benefits thereof	December 2019	05	Ongoing- will be analysed after baseline survey	S
Activity 2.1.2: Prepare draft recommendations for policy and regulatory amendments to enhance conservation and use of crop diversity to support food security, sustainability and adaptation to climate change	June 2021	0		
Activity 2.1.3: Propose appropriate mechanism for mainstreaming crop diversity through conservation, use and benefit sharing	December 2021	0		
Activity 2.1.4: Organise policy learning events to disseminate best practices and strengthen platforms to share lessons of experiences on promotion of crop diversity conservation and utilization to address the challenges of climate change and food security	December 2022	0		
Output 2.2 Analyse public policies, relevant instruments and regulations for identifying gaps and proposing incentives for sustainable use and conservation of crop diversity				
Activity 2.2.1: Undertake analysis of existing policies and regulations to identify gaps for mainstreaming and promoting crop diversity conservation and utilization for food security	December 2019	10	Ongoing – The activity is being undertaken by Policy and Planning Division of NBPGR	S
Activity 2.2.2: Propose appropriate incentives and benefit sharing mechanisms for promoting conservation and use of crop diversity	June 2020	0		
Activity 2.2.3: Facilitate registration of identified landraces and farmers varieties under Protection of Plant Varieties	December 2020	10	Ongoing- Framers' varieties have been	HS

and Farmers' Rights Act of India			identified and process of registration will be initiated from 2019 onwards.	
Activity 2.2.4: Develop guidelines to recognize and reward 'Custodian Farmers' to promote conservation and use of crop diversity	June 2020	0		
Activity 2.2.5: Mobilize social capital to create locally-driven financial assets to establish community biodiversity management (CBM) fund to support Custodian Farmers and their communities and procedures for managing CBM fund at each site	December 2022	0		
Activity 2.2.6: Organize awareness campaign to promote identification and registration of unique farmers varieties	December 2022	20	Protection of Plant Variety and Farmer's Right Authority has organised four training and awareness programs. Around 10-15 such programs have been planned for each year at different sites.	HS
Output 2.3 Develop and propose model agreements that regulate access and benefit sharing with farmers' communities and recognise the core principles of Access and Benefit Sharing (ABS)				
Activity 2.3.1: Organise National (at least two) and regional (at least one in each region) level meetings of the stakeholders to identify the crucial issues for developing an ABS mechanism	December 2021	0	Will be started from 2019 onwards	
Activity 2.3.2: Conduct advocacy campaign that promote leadership capacity of farmers' enabling them to participate in local and national decision-making forum	December 2022	0	Will be started from 2019 onwards	
Activity 2.3.3: Develop model agreements for sharing	December 2022	0	Will be started from 2019	

indigenous plant genetic resources and traditional knowledge maintained by farmers			onwards	
Activity 2.3.4: Develop and implement access and benefit sharing agreements that incorporate Free, Prior Informed Consent (FPIC) on mutually agreed terms with farmer communities across the project sites	December 2022	0	Will be started from 2019 onwards	
Output 2.4 National and regional strategies and plans on integrated sustainable agricultural improvement, use and benefit sharing of agricultural biodiversity developed and supported by implementation programmes of work				
Activity 2.4.1: Organize National and Regional level consultations on mainstreaming crop diversity conservation and use into agriculture, food security and climate change adaptation	December 2021	0	Will be started from 2019 onwards	
Activity 2.4.2: Develop national (at least one) and regional (at least four) action plans for sustainable agriculture using crop genetic diversity and defining benefit sharing mechanisms	December 2021	0	Will be started from 2019 onwards	
Activity 2.4.3: Develop simple to operate ABS mechanism which protects national interest and is in tune with the international conventions and submitted to relevant authorities	June 2022	0	Will be started from 2020 onwards	
Activity 2.4.4: The action plan developed for use of crop genetic diversity and access and benefit sharing submitted to relevant national and regional authorities for implementation	December 2022	0	Will be started from 2020 onwards	
Output 3.1 Organize one national and eight regional level awareness raising campaigns on the value of agricultural biodiversity ; its maintenance and use for resilient agriculture for different stakeholder groups including farmers, government ministries and agencies, policy makers, researchers, extension workers, teachers and consumers				
Activity 3.1.1: Identify ministries, departments/ other government and non-governmental organizations at national and state level contributing directly or indirectly towards conservation and use of agricultural biodiversity	June 2019	80	Ongoing – This is being done and will be finished by the end of 2018	S
Activity 3.1.2: Review actions plans of the concerned ministries/ departments/ and other government/ non-	June 2019	20	Ongoing	S

governmental organizations for conservation and use of crop diversity for climate change adaptation				
Activity 3.1.3: Organise national (one) and regional (eight) awareness campaign on the value of agricultural biodiversity; its maintenance and use for resilient agriculture	December 2019	30	Three regional level campaigns have been completed and remaining will be done in the subsequent years	S
Activity 3.1.4: Establish interdisciplinary national working groups with core mandate to identify possible policies and strategies that promote the maintenance and utilization of agricultural biodiversity to address the challenges of climate change and food security	June 2020	10	Core working groups are being identified at different agro-ecological regions	S
Activity 3.1.5: Develop awareness raising strategy and action plan, including training programmes to build capacity and awareness of strategy and policy options and mainstreaming tools and disseminate relevant information	June 2021	0		
Output 3.2 Enhance capacities of researchers, extension and outreach staff, farming communities and local institutions in selecting and deploying adapted crop diversity through participatory approaches				
Activity 3.2.1: Identify training needs for researchers, extension and outreach staff and farmers at different levels to enhance using participatory tools and participatory research methods, including PVS and PPB	June 2019	20	Training needs are being discussed in the each regional committee meeting and will be completed by 2019	S
Activity 3.2.2: Identify training needs for researchers at different levels in partner institutions in handling agro-meteorological data and climate modelling	June 2019	40	List of scientists have been prepared and training will be initiated from 2018 winter session	S
Activity 3.2.3: Identify institutes where such trainings can be provided and develop training modules	June 2019	20	Ongoing – Preliminary list of institutes has been prepared and being refined.	S
Activity 3.2.4: Organise trainings for different	December 2022	0		

stakeholders in collaboration with the academic institutions and introduce regular training programmes				
Activity 3.2.5: Organise training of farmers and communities to establish farmer biodiversity federation/associations and their management	December 2022	0		
Output 3.3 Strengthen research programmes that support mainstreaming of agricultural biodiversity and its improved use for ecosystem function, resilience and adaptability activities				
Activity 3.3.1: Analyse and assess the role, responsibilities and competencies of stakeholders for agricultural biodiversity maintenance, utilization and introduction of new materials	October 2019	20	Role, responsibilities and competencies of stakeholders for agricultural biodiversity maintenance, utilization and introduction of new materials is being assessed by conducting interaction meetings and FGDs	S
Activity 3.3.2: Review key steps necessary in supporting research programme on maintenance and use of agricultural biodiversity for ecosystem function, resilience and adaptability to climate change using participatory approaches	June 2019	10	Key steps supporting research programme on maintenance and use of agricultural biodiversity are being assessed and documented using participatory approaches	S
Activity 3.3.3: Conduct training in participatory and community-based approaches to maintenance and use of agricultural biodiversity, including diversity assessment, monitoring knowledge management, selection and improvement and	October 2022	0		

marketing				
3.3.4: Establish integrated R&D working group to develop innovative research proposals on agricultural biodiversity management and climate change adaptations at national and regional levels	December 2022	0		
3.3.5: Develop integrated agricultural biodiversity management courses at certificate and diploma levels	December 2022	0		
3.3.6: Organise and hold biennial national agricultural biodiversity symposium to showcase relevant research and review outline programme of work	December 2021	0		
Output 4. Monitoring and Evaluation				
4.1 Finalise and disseminate project Monitoring and Evaluation Framework	December 2018	80	National Project Steering Committee, Technical Advisory Committee, Regional Coordination Committees and Site Coordination Committees have been constituted. Project implementation unit is being established at ICAR-NBPGR	HS
4.2 Implement participatory Monitoring and Evaluation plan, tools, and methods with targeted communities, including necessary training	December 2022	0		
4.3 Establish reporting plan and requirements	June 2019	50	Reporting plan have been established for some partners and will be completed by 2018	S
4.4 Organise and implement project Mid-Term Evaluation	June 2020	0		
4.5 Organise and implement project Final Evaluation	December 2022	0		

4.6 Submit project technical and financial reports to GEF	December 2022	0		
4.7 Establish and update project website to share experiences and information dissemination	December 2020	10	Draft of website has been designed and final website will be completed in next three months	s
4.8 Publish project related best-practices and lesson learned and develop plan for up-scaling and out-scaling of project outcomes	December 2022	0		
5.1 Establish arrangements for overall national project administration and implementation infrastructure including national coordination unit	December 2018	80	National Project Steering Committee, Technical Advisory Committee, Regional Coordination Committees and Site Coordination Committees have been constituted. Project implementation unit for overall coordination has been established at Bioversity International India office while another unit for technical coordination is being established at ICAR-NBPGR	
5.2 Establish project National Steering Committee and conduct regular meetings	December 2022	100	National Project Steering Committee has been established and notified. One meeting has been organized	HS
5.3 Establish other relevant committees, including Site Committees and working groups and conduct regular meetings	December 2022	80	Technical Advisory Committee, Regional Coordination Committees	HS

			and Site Coordination Committees have been constituted. Some site coordination committees will be established in remaining sites	
5.4 Establish and operate project budgeting and accounting system	December 2022	100	This is in operation and working well	HS
5.5 Plan and organise project inception meeting to address capacity building related to relevant project methodologies, approaches and general technical guidance as well as project management and administration needs	January 2018	100	Completed	HS
5.6 Finalise and disseminate project Communication strategy	June 2019	10	Data is being shared through ODK server and other tools such as website and database designing for data sharing will be developed by 2018	S
Output 5.7 Review and refine annual work plan with national project coordinator and national partners based on better understanding of local context in pilot sites and in-depth baseline	December 2022	30	Work plan till October 2018 has been finalised while new work plan for next three years will be initiated from September 2018 onwards	S

Overall project implementation progress

FY2017 rating	Comments/narrative justifying the rating for this FY and any changes (positive or negative) in the rating since the previous reporting period
S	All the activities of project have been undertaken and completed well in time except baseline survey which will be however completed by October 31, 2018. No cost extension has been granted to LOAs to complete the

	baseline survey. Overall project is running well.

Action plan to address MS, MU, U and HU rating. *(To be completed by Project Manager in consultation with Project Manager[6])*

Action(s) to be taken	By whom?	By when?
NA		

3.3. Risks

RISK FACTOR TABLE

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	Indicator of Low Risk	Indicator of Medium Risk	Indicator of High Risk	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
INTERNAL RISK																
Project management																

[6] UNEP Fund Management Officer should also be consulted as appropriate.

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	**Indicator of Low Risk**	**Indicator of Medium Risk**	**Indicator of High Risk**	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
INTERNAL RISK																
Project management																
Management structure	Stable with roles and responsibilities clearly defined and understood	Individuals understand their own role but are unsure of responsibilities of others	Unclear responsibilities or overlapping functions which lead to management problems	X						PM/ TM: Management structure is well defined and role and duty of each partner is clearly defined and understood						
Governance structure	Steering Committee and/or other project bodies meet periodically and provide effective direction/inputs	Body(ies) meets periodically but guidance/input provided to project is inadequate. TOR unclear	Members lack commitment Committee/body does not fulfil its TOR	X						PM/TM: All the committees are meeting regularly and providing effective and useful inputs.						

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	**Indicator of Low Risk**	**Indicator of Medium Risk**	**Indicator of High Risk**	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
INTERNAL RISK																
Project management																
Internal com-munications	Fluid and cordial	Communicatio n process deficient although relationships between team members are good	Lack of adequate communicatio n between team members leading to deterioration of relationships and resentment	X						PM/TM: Internal commination is fluid and cordial among PIU and partners						
Work flow	Project progressing according to work plan	Some changes in project work plan but without major effect on overall timetable	Major delays or changes in work plan or method of implementatio n	X						PM/ TM: Activities if the project progressing according to work plan described in the project document						

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	**Indicator of Low Risk**	**Indicator of Medium Risk**	**Indicator of High Risk**	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
INTERNAL RISK																
Project management																
Co-financing	Co-financing is secured and payments are received on time	Is secured but payments are slow and bureaucratic	A substantial part of pledged co-financing may not materialize		X					PM/ TM: Co-financing is secured but accounting receipt from public funded institution is received late						
Budget	Activities are progressing within planned budget	Minor budget reallocation needed	Reallocation between budget lines exceeding 30% of original budget	X						PM/TM: Minor budget reallocation needed to achieve the activities						
Financial management	Funds are correctly managed and transparently accounted for	Financial reporting slow or deficient	Serious financial reporting problems or indication of mismanagement of funds	X						PM/TM: The project funds are correctly managed and transparently accounted for each activity.						

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	**Indicator of Low Risk**	**Indicator of Medium Risk**	**Indicator of High Risk**	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
INTERNAL RISK																
Project management																
Reporting	Substantive reports are presented in a timely manner and are complete and accurate with a good analysis of project progress and implementation issues	Reports are complete and accurate but often delayed or lack critical analysis of progress and implementation issues	Serious concerns about quality and timeliness of project reporting	X						PM/TM: The project reports are presented in a timely manner and are complete and accurate with a good analysis of project progress and implementation issues. Partners are also submitting reports within defined timeline						
Stakeholder involvement	Stakeholder analysis done and positive feedback from critical stakeholders and partners	Consultation and participation process seems strong but misses some groups or relevant partners	Symptoms of conflict with critical stakeholders or evidence of apathy and lack of interest from partners or other stakeholders	X						PM/TM: The stakeholders are adequately informed and involved. Their views and concerns are critically reviewed and resolved.						

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	**Indicator of Low Risk**	**Indicator of Medium Risk**	**Indicator of High Risk**	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
INTERNAL RISK																
Project management																
External com-munications	Evidence that stakeholders, practitioners and/or the general public understand project and are regularly updated on progress	Communicatio ns efforts are taking place but not yet evidence that message is successfully transmitted	Project existence is not known beyond implementatio n partners or misunderstand ings concerning objectives and activities evident	X						PM/TM: The project activities are adequately communicated to farmers in each site and the visits of mother trials and participation in awareness programme is open to general public as well.						

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	**Indicator of Low Risk**	**Indicator of Medium Risk**	**Indicator of High Risk**	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
INTERNAL RISK																
Project management																
Short term/long term balance	Project is addressing short term needs and achieving results with a long term perspective, particularly sustainability and replicability	Project is interested in the short term with little understanding of or interest in the long term	Longer term issues are deliberately ignored or neglected	X						PM/TM: In some cases, where things are much clearer, short term action are being taken such as submission of Farmers' verities for registration. Although it is long-term perspective of the project.						
Science and technological issues	Project based on sound science and well established technologies	Project testing approaches, methods or technologies but based on sound analysis of options and risks	Many scientific and /or technological uncertainties	X						PM/TM: The project team is scientifically and technically qualified and competent and all activities are being undertaken on scientific basis.						

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	**Indicator of Low Risk**	**Indicator of Medium Risk**	**Indicator of High Risk**	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
INTERNAL RISK																
Project management																
Political influences	Project decisions and choices are not particularly politically driven	Signs that some project decisions are politically motivated	Project is subject to a variety of political influences that may jeopardize project objectives	X						PM/TM: All the project decisions and choices are not taken independently by the project team. None is politically driven						
Other, please specify. Add rows as necessary	NIL									PM/TM:						

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	**Indicator of Low Risk**	**Indicator of Medium Risk**	**Indicator of High Risk**	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
EXTERNAL RISK																
Project context																
Political stability	Political context is stable and safe	Political context is unstable but predictable and not a threat to project implementation	Very disruptive and volatile	X						PM/TM: Political context is stable and safe.						
Environmental conditions	Project area is not affected by severe weather events or major environmental stress factors	Project area is subject to more or less predictable disasters or changes	Project area has very harsh environmental conditions		X					PM/TM: By and large project sites are not affected by severe weather events or major environmental stress factors. However, few sites in Leh and Rajasthan (arid region) are prone to severe weather stress especially drought, heat and cold.						

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	**Indicator of Low Risk**	**Indicator of Medium Risk**	**Indicator of High Risk**	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
EXTERNAL RISK																
Project context																
Social, cultural and economic factors	There are no evident social, cultural and/or economic issues that may affect project performance and results	Social or economic issues or changes pose challenges to project implementation but mitigation strategies have been developed	Project is highly sensitive to economic fluctuations, to social issues or cultural barriers	X						PM/TM: There are no evident social, cultural and/or economic issues that may affect project performance and results						
Capacity issues	Sound technical and managerial capacity of institutions and other project partners	Weaknesses exist but have been identified and actions is taken to build the necessary capacity	Capacity is very low at all levels and partners require constant support and technical assistance	X						PM/TM: All the project partners have sound technical and managerial capacity.						
Others,	NIL															

				Project Manager Rating						Notes	Task Manager Rating					
Risk Factor	**Indicator of Low Risk**	**Indicator of Medium Risk**	**Indicator of High Risk**	Low	Medium	Substantial	High	Not Applicable	To be determined		Low	Medium	Substantial	High	Not Applicable	To be determined
EXTERNAL RISK																
Project context																
please specify																

If there is a significant (over 50% of risk factors) discrepancy between Project Manager and Task Manager rating, an explanation by the Task Manager should be provided below

NIL

TOP RISK MITIGATION PLAN
Rank – importance of risk Risk Statement – potential problem (condition and consequence) Action to take – action planned/taken to handle the risk Who – person(s) responsible for the action Date – date by which action needs to be or was completed

Rank	**Risk Statement**		**Action to Take**	**Who**	**Date**
	Condition	**Consequence**			
NA					

Rank	Risk Statement		Action to Take	Who	Date
	Condition	Consequence			
NA					

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

FY2017 rating	Comments/narrative justifying the current FY rating and any changes (positive or negative) in the rating since the previous reporting period
L	The project is running very well. All the partners are cooperative and have good understanding and coordination among them. Partners communication and response to the Coordinating unit is very good. There are no evident social, cultural and/or economic issues that may affect project performance rather communities have taken the project part of their cultural heritage. Policy maker and planner are also aware about the project and have all appreciation as this project is likely to give better livelihoods' options and climate resilience varietal production system.
If a risk mitigation plan had been presented for a previous period or as a result of the Mid-Term Review/Evaluation please report on progress or results of its implementation	
NA	

4. RATING MONITORING AND EVALUATION

4.1. Does the project M&E plan contain the following:

- Baseline information for each outcome-level indicator **Yes X**
  No □
- SMART indicators to track project outcomes **Yes** □
  No □
- A clear distribution of responsibilities for monitoring project progress. **Yes** □
  No □

4.2. Has the project budgeted for the following M&E activities:

- Mid-term review/evaluation **Yes** □
  No □
- Terminal evaluation **Yes** □
  No □
- Any costs associated with collecting and analysing indicators' related information **Yes** □
  No □

Please rate the **quality** of the project M&E plan (use HS, S, MS, MU, U, HU): **S**

4.3 Has the project:

- Utilized the indicators identified in the M&E plan to track progress in meeting the project objectives; **Yes** □
  No □
- Fulfilled the specified reporting requirements (financial, including on co-financing and auditing, and substantive reports) **Yes** □
  No □
- Completed any scheduled MTR or MTE before or at project implementation mid-point; **No** □
- Applied adaptive management in response to M&E activities **No** □
- Implemented any existing risk mitigation plan (see previous section) **No** □

Please rate the performance in **implementing** the M&E plan (use HS, S, MS, MU, U, HU): **S**

4.4. Please describe activities for monitoring and evaluation carried out during the reporting period[7]

1. National Project Steering Committee meeting has been organised to assess the overall performance and relevance of the project 2. Baseline survey questionnaire has been completed and uploaded for all the project sites 3. 24 hours recall nutrition survey has been designed and implemented

[7] Do not include routine project reporting. Examples of M&E activities include stakeholder surveys, field surveys, steering committee meetings to assess project progress, peer review of documentation to ensure quality, etc.

4. Guidelines for these surveys have been developed and given to partners
5. Varietal seed multiplication trials have been planted at two place (i) Framers' fields and experimental farms of partner institutions
6. Field surveys has been undertaken at all the sites to take stock of progress and coordination among partners at sites

4.5. Provide information on the quality of baseline information and any effects (positive or negative) on the selection of indicators and the design of other project monitoring activities

Collection of baseline information and 24 recall nutrition survey are now at an advanced stage, and some data have been shared with Paul at ODK server. Dr Paul has been hired as an expert to upload the data structure and manage the incoming data. Till now, no effects on the selection of indicators/design of project monitoring activities to be reported.

4.6. Provide comments on the usefulness and relevance of selected indicators and experiences in the application of the same.

The current indicators provide a useful body of quantitative and qualitative information to measure the success in implementing activities in the work plan.

4.7. Describe any challenges in obtaining data relevant to the selected indicators; has the project experienced problems to cover costs associated with the tracking of indicators?

Up till now, there have been no major problems in covering costs associated with the tracking of indicators which fall within the current timeframe

4.8. Describe any changes in the indicators or in the project intervention logic, including an explanation of whether key assumptions[8] are still valid

Project indicators and key assumptions of the project are valid, and no revision of the project intervention logic is envisaged so far.

4.9. Describe how potential social or environmental negative effects are monitored

Mainstreaming of agrobiodiversity that is well adapted to local conditions have been targeted. The project is also monitoring seed supply system function and developing a robust local seed system. Choice based varietal selection and broadening will help farming communities to adapt to climate change. Nutrition profiling will help farmers in prompting few products to the market. This will ensure their suitable livelihoods. Concerning social effects, improving farmer livelihoods is a core objective of the project and monitoring of effects on these is ongoing. If necessary, mitigation measures will include introduction of alternative income generating high value products and new genetic material from seed banks and similar agroecology.

4.10. Please provide any other experiences or lessons relevant to the design and implementation of project monitoring and evaluation plans.

So far nil.

[8] Assumptions refer to elements of the "theory of change" or "intervention logic" (*i.e, the problem is a result of A, therefore, if we change B, this will lead to C*) and not to pre-conditions for project implementation. It is a common mistake to include statements such as "political will" as an assumption. This is rather a necessary condition to implement the project.

5. PROJECT IMPLEMENTATION EXPERIENCES AND LESSONS

5.1. Summary of any experiences and/or lessons related to project design. Please select relevant areas from the list below:

- Institutional arrangements, including project governance;
  The project established an interdisciplinary national working group with core mandate to promote the maintenance and utilization of agrobiodiversity to address the challenges of climate change and food security. This project has not only a unique network of Public-Private partnership but also central and state funded institutions e.g. NGO, ICAR (central) and State Agricultural University (state). The project has a gender balance and involve at least one Self Help Group of women farmers.
- Engagement of the private sector;
  Project involve private partnership not only as implementing partners but also in providing market linkage and technical advisory.
- Scientific and technological issues;
  The project has a team of scientists across the disciplines to provide technical backstopping at capacity building both to farmers and NGO partners in the field.

5.2. major achievements resulting so far from the project implementation, including but not limited to:

- **Concrete results, both on-the-ground and normative**

  The project has been implemented at 23 sites in four different agroecosystems. Baseline Survey Workshop was organized and 43 participants from 18 project partners were attended to discuss and design the methods and tools required for the baseline survey of the project. Four different impact pathways viz. improved crop diversity and seed systems, crop income and market linkages, nutrition and health from target crops, resilience and eco-system for climate change have been identified. Accordingly, Rural Household Multiple Indicator Survey (RHoMIS) GEF India baselines questionnaire having > questions and 24-hour recall - target crop frequency - nutrition knowledge Other activities such as Farmers' interaction meeting and Focussed Group Discussions (FGDs) at each site, identification of Champion farmers, identification of varieties (around 650) for seed multiplication to conduct adaptive trials using crowed sourcing approach have been undertaken. State and crops wise list of farmers' varieties and *ex situ* collections selected for seed multiplication and conducting mother and baby trials have been prepared. Seed multipliaction trials have been planted at the sites both at farmers' field and experimental farms of public institutions. Local youth and site coordinators are being identified for skill development. Public institution MANGE has agreed to provide training on entrepreneurship development to our project partners.

- **Gender and indigenous peoples' issues**
  The project has a gender balance and involve at least one Self Help Group of women farmers in each site. Under institutional arrangements also the participation of women scientists have been ensured. The farming communities involve in the project are indigenous and locally based.

- **Private Sector**

Project involve private partnership not only as implementing partners but also in providing market linkage and technical advisory. Representative from Adani group of industries and Patanjli have been kept as member of TAC.

- **Sustainability**
  Post project sustainability will be ensured through entrepreneurship and skill development at local level. Village youth have been / and are being identified for this purpose.

6. STORIES & CONTRIBUTIONS TO UN ENVIRONMENT'S GEF COMMUNICATIONS WORK

6.1 Are there any especially interesting and impactful project results that you would like to bring to the attention of our GEF Corporate Communications efforts? Please provide a very brief summary.

In India, traditional farmers' varieties are not in public / private seed chain system and therefore seed availability is a major issue. This project is addressing this issue more critically at village and community level. Also, there is huge demand of traditional varieties owing to their nutritional richness and taste. The project discussion with various agencies such as State Bank of India, IFFD, FAO, and National Rainfed Authority have shown to co-finance the project. This is the first project in India where a link has been provided between *ex situ* and *in situ* conservation and repatriating germplasm again to farmers' fields. There are many landraces which farmers have lost but would like to grow if seeds are made available to them. One landrace of Pearl Millet was successfully restored and being tested now under the project. ICAR has also come forward to adopt the project villages and communities for more comprehensive growth and upscaling of activities confining not only to crops but animal and fish sectors also.

Annexure - 1

1. Project Launch

The project launch ceremony was held on 18 July 2017. It was attended by the project partners and ICAR staff. Bioversity International India office presented an overview of the various project components and how these components will ensure sustainable livelihoods, improved ecosystems services and better institutional support system including project activities, partners network, objectives, expected outputs and outcomes.

ICAR-NBPGR, highlighted the importance of genetic resources in today's context and how NBPGR is managing the entire spectrum of country's genetic resources. Ms. Marieta Saklian, Senior Programme Management Officer, UN Environment Programme representative appreciated the role of India in the GEF programmes and appraised the house that India is a major partner in many areas of UN Environment Programmes. Stephan Weise, Deputy-Director General – Research, from Bioversity International elaborated on the role and involvement of Bioversity International in implementing various programmes on mainstreaming agrobiodiversity in different countries.

Secretary of ICAR, Shri Chhabilendra Roul, strongly advocated that farmer and communities involved in the traditional agrobiodiversity conservation and ensuring ecosystems should be appropriately rewarded and compensated for the loss they are incurring by compromising modern systems. He emphasized the need for appropriate policy support and mechanism for this.

Trilochan Mohapatra, Secretary (DARE) & Director General (ICAR) appreciated the objective of the project and assured ICAR's full cooperation in its implementation in India. He raised his concern on how best the project will be able to strengthen and promote community-based seed systems and ensure their long-term sustainability, exploring added value options, enhancing the use of germplasm through discovery of novel traits, and hoped that these will be addressed through this project.

2. Inception workshop

The Inception Workshop was held on 18-21 July 2017, attended by all the National Project Partners, UNEP-GEF representative, resource persons and staff of Bioversity International HQ and India office. The purpose of the meeting was to orient national project partners and finalize the technical programme. The focus was on implementation arrangements, reporting systems and management procedures, plan of action and monitoring, evaluation requirements, risk tracking system and technical and financial reporting requirements.

3. National Project Steering Committee Meeting

As per the project document there must be National Project Steering Committee for monitoring the overall progress and other activities of the project with the Terms of Reference described below in the text. The meeting for this purpose was held on 21 July 2017 and NPSC was constituted.

4. Induction Programme for Project staff

A five-day Induction Progamme was organized for the National Project Coordinator (NPC), Dr JC Rana and Programme Assistant (PA) Ms. Sonal Dsouza at Bioversity International Headquarters in Rome from 23-27 October 2018. It was very intensive induction where the NPC and NPA had interactive meetings/sessions with staff from finance, grants administration, human resources, IT and communications departments. Orientation sessions were also held with other staff at Bioversity handling UNEP-GEF grants. The project team was provided with an orientation to various procedures related to GEF, especially in terms of budget, financial planning, reporting requirements and contract processes. Moreover, a meeting was also held with Ms. Marieta Saklian, Senior Programme Management Officer, UN Environment Programme.

5. Finalization of sites and communties

Site visits and farmer interaction meetings were conducted in each site to finalize the project sites and communities. In all the sites communities were divided in to three categories as (i) Core, (ii) Buffer and (3)

control. Household baseline survey will be undertaken in all the villages in the proportion of 50 (control):30 (buffer) :20 (control). All the project intervention will be executed in the core villages. While in buffer villages few activities such as biodiversity fairs, awareness trainings, participation of farmers in the PVS trials and field level demonstrations, conducting baby trials, etc., will be undertaken. Except baseline survey, no activity will be undertaken in the control village as they will be used to measure the impact or project interventions at completion of project. The sites at Nagaland have been selected only for baseline data collection but project interventions have not been started yet. The details of the sites, villages, communities, number of households and village types are given below.

State	District	Project sites	Village names	Number of HH	Village Type
Uttarakhand	Tehri Garhwal	Bhilangna valley	Dubri	65	buffer
Uttarakhand	Tehri Garhwal	Bhilangna valley	Pakh	145	core
Uttarakhand	Tehri Garhwal	Bhilangna valley	Gavni	22	core
Uttarakhand	Tehri Garhwal	Bhilangna valley	Falenda	135	core
Uttarakhand	Tehri Garhwal	Bhilangna valley	Dakhwan Gaon	95	control
Uttarakhand	Almora	Ramana Nyay	Galli Basseura	150	core
Uttarakhand	Almora	Ramana Nyay	Chinauna	135	core
Uttarakhand	Almora	Ramana Nyay	Odla	55	core
Uttarakhand	Almora	Ramana Nyay	Rankhilla	102	core
Uttarakhand	Almora	Ramana Nyay	Pankot	75	core
Uttarakhand	Almora	Ramana Nyay	Ujgal	87	buffer
Uttarakhand	Almora	Ramana Nyay	Pathura	80	buffer
Uttarakhand	Almora	Ramana Nyay	Dangikhola	85	buffer
Uttarakhand	Almora	Ramana Nyay	Titarmukhi	65	buffer
Uttarakhand	Almora	Ramana Nyay	Mujholi	195	control
Uttarakhand	Almora	Ramana Nyay	Aina	145	control
Uttarakhand	Almora	Ramana Nyay	Dhankholi	53	control
Uttarakhand	Almora	Tarikhet	Suri	165	core
Uttarakhand	Almora	Tarikhet	Garsyari	85	core
Uttarakhand	Almora	Tarikhet	Suniakote	66	buffer
Uttarakhand	Almora	Tarikhet	Matila	100	buffer
Uttarakhand	Almora	Tarikhet	Inan	59	buffer
Uttarakhand	Almora	Tarikhet	Diholi	54	control
Uttarakhand	Almora	Tarikhet	Harare	167	control
Uttarakhand	Almora	Tarikhet	Siwali	55	control
Uttarakhand	Almora	Someshwar	Chanoli	69	core
Uttarakhand	Almora	Someshwar	Kwarali	63	core
Uttarakhand	Almora	Someshwar	Mave	97	core
Uttarakhand	Almora	Someshwar	Dugari Auliya	50	buffer
Uttarakhand	Almora	Someshwar	Naag	40	buffer
Uttarakhand	Almora	Someshwar	Malonj	55	buffer
Uttarakhand	Almora	Someshwar	Utraura	90	control

Uttarakhand	Almora	Someshwar	Khari	115	control
Uttarakhand	Chamoli	Niti valley	Malari	150	core
Uttarakhand	Chamoli	Niti valley	Tolma	120	core
Uttarakhand	Chamoli	Niti valley	Suki-Bhalgaon	90	buffer
Uttarakhand	Chamoli	Niti valley	Lata	80	buffer
Uttarakhand	Chamoli	Niti valley	Subhai	140	buffer
Uttarakhand	Chamoli	Niti valley	Mahergaon	70	control
Uttarakhand	Chamoli	Niti valley	Kailashpur	70	control
Uttarakhand	Chamoli	Niti valley	Farkya	70	control
Himachal Pradesh	Mandi	Gohar valley	Samnos	88	core
Himachal Pradesh	Mandi	Gohar valley	Kandhi	107	core
Himachal Pradesh	Mandi	Gohar valley	Jahal	47	core
Himachal Pradesh	Mandi	Gohar valley	Mathiana	105	core
Himachal Pradesh	Mandi	Gohar valley	Chhen Maigal	126	core
Himachal Pradesh	Mandi	Gohar valley	Ruhal	98	control
Himachal Pradesh	Mandi	Gohar valley	Port	281	control
Himachal Pradesh	Mandi	Gohar valley	Bukhras	124	buffer
Himachal Pradesh	Mandi	Gohar valley	Thunagla	144	buffer
Himachal Pradesh	Mandi	Gohar valley	Tokhar	159	buffer
Rajasthan	Jodhpur	Govinpura	Govindpura	175	core
Rajasthan	Jodhpur	Govinpura	Mansagar	225	core
Rajasthan	Jodhpur	Govinpura	Baran Kalan	200	buffer
Rajasthan	Jodhpur	Govinpura	Begadiya	235	buffer
Rajasthan	Jodhpur	Govinpura	Bhabhuo ki Dhani	200	control
Rajasthan	Jodhpur	Govinpura	Raikoriya	230	control
Rajasthan	Barmer	Derasar	Dhirasar	325	core
Rajasthan	Barmer	Derasar	Dhok	216	core
Rajasthan	Barmer	Derasar	Dhoniya	250	buffer
Rajasthan	Barmer	Derasar	Medhsing ki Dhani	220	buffer
Rajasthan	Barmer	Derasar	Artiya	225	control
Rajasthan	Barmer	Derasar	Kothekatala	250	control
Rajasthan	Jaisalmer	Dedha	Dedha	226	core
Rajasthan	Jaisalmer	Dedha	Damodra	150	core
Rajasthan	Jaisalmer	Dedha	Didhu	263	core
Rajasthan	Jaisalmer	Dedha	Askandra	372	buffer
Rajasthan	Jaisalmer	Dedha	Bhaddiya	163	control
Jammu & Kashmir	Leh	Stagmo, Sakti	Sakti	375	core
Jammu & Kashmir	Leh	Stagmo, Sakti	Stakmo	42	core
Jammu & Kashmir	Leh	Stagmo, Sakti	Nang	66	buffer
Jammu & Kashmir	Leh	Stagmo, Sakti	Umla	21	control
Jammu & Kashmir	Kargil	Sankoo	Suru Valley	45	core
Jammu & Kashmir	Kargil	Sankoo	Shargol	67	buffer
Jammu & Kashmir	Kargil	Sankoo	Mulbek	200	control
Madya Pradesh	Umaria	Karkeli	Bijaura	101	buffer
Madya Pradesh	Umaria	Karkeli	Koudia	232	core
Madya Pradesh	Umaria	Karkeli	Mahuri	276	core
Madya Pradesh	Umaria	Karkeli	Dulhari	247	core

Madya Pradesh	Umaria	Karkeli	Semariha	89	buffer
Madya Pradesh	Umaria	Karkeli	Kaneri	175	core
Madya Pradesh	Umaria	Karkeli	Kurriha	218	buffer
Madya Pradesh	Umaria	Karkeli	Amadongri	414	control
Madya Pradesh	Umaria	Karkeli	Singpur	125	core
Madya Pradesh	Umaria	Karkeli	Chiruhala	196	control
Madya Pradesh	Jhabua	Thandla	Panchkheriya	417	core
Madya Pradesh	Jhabua	Thandla	Parnali	182	core
Madya Pradesh	Jhabua	Thandla	Joshli	229	core
Madya Pradesh	Jhabua	Thandla	Kaknvani	743	buffer
Madya Pradesh	Jhabua	Thandla	Kundya	96	buffer
Madya Pradesh	Jhabua	Thandla	Sajli malgisath	269	control
Madya Pradesh	Satna	Majhgawan	Pagarkhurd	75	core
Madya Pradesh	Satna	Majhgawan	Amirity	75	core
Madya Pradesh	Satna	Majhgawan	Devra	52	core
Madya Pradesh	Satna	Majhgawan	Sonvarsha	65	buffer
Madya Pradesh	Satna	Majhgawan	Pagarkala	50	buffer
Madya Pradesh	Satna	Majhgawan	Bari amrai	40	buffer
Madya Pradesh	Satna	Majhgawan	Pipri tola	70	control
Madya Pradesh	Satna	Majhgawan	Gujhuwa	72	control
Uttar Pradesh	Chitrakoot	Ganiwan	Bacharan	100	buffer
Uttar Pradesh	Chitrakoot	Ganiwan	Basila	50	core
Uttar Pradesh	Chitrakoot	Ganiwan	Ganiwan	50	core
Uttar Pradesh	Chitrakoot	Ganiwan	Rampurwa	50	control
Chattisgarh	Koriya	Sonhat	Ghughra	319	core
Chattisgarh	Koriya	Sonhat	Odari	181	core
Chattisgarh	Koriya	Sonhat	Kailashpur	171	buffer
Chattisgarh	Koriya	Sonhat	Vikrampur	92	buffer
Chattisgarh	Koriya	Sonhat	Orgai	95	buffer
Chattisgarh	Koriya	Sonhat	Katgodi	439	control
Chattisgarh	Sarguja	Ambikapur	Nakna	310	core
Chattisgarh	Sarguja	Ambikapur	Dhekidoli	191	core
Chattisgarh	Sarguja	Ambikapur	Lalati	205	buffer
Chattisgarh	Sarguja	Ambikapur	Taragi	203	buffer
Chattisgarh	Sarguja	Ambikapur	Bataikela	423	control
Assam	Jorhat	Dangdhora	Dangdhora	126	core
Assam	Jorhat	Dangdhora	Chekuria	106	core
Assam	Jorhat	Dangdhora	Borguri	35	buffer
Assam	Jorhat	Dangdhora	Madhapur	61	buffer
Assam	Jorhat	Dangdhora	Borpasi	205	control
Assam	Jorhat	Dangdhora	Sadiyal	132	buffer
Assam	Jorhat	Dangdhora	Lohong Kachari	94	buffer
Assam	Jorhat	Alengmora	Neulgaon	313	core
Assam	Jorhat	Alengmora	Kolia	287	buffer
Assam	Jorhat)	Alengmora	Loliti	298	control
Assam	Golaghat	Alami Chapori	Laklongia	72	core
Assam	Golaghat	Alami Chapori	Pathori Selek	173	core
Assam	Golaghat	Alami Chapori	Tikirai Chapori	42	core
Assam	Golaghat	Alami Chapori	Majgaon	54	core
Assam	Golaghat	Alami Chapori	Ragdia	92	core

Assam	Golaghat	Alami Chapori	Dusutimukh	72	buffer
Assam	Golaghat	Alami Chapori	Bhakat Chapori	55	buffer
Assam	Golaghat	Alami Chapori	Medok Gaon	83	buffer
Assam	Golaghat	Alami Chapori	Amoraguri	21	buffer
Assam	Golaghat	Alami Chapori	Pathori Selek	61	buffer
Assam	Golaghat	Alami Chapori	Baligaon	40	buffer
Assam	Golaghat	Alami Chapori	Missimiati	57	buffer
Assam	Golaghat	Alami Chapori	Gulung Dotial	60	control
Assam	Golaghat	Alami Chapori	Namtemera Noigaon	283	control
Assam	Golaghat	Alami Chapori	Jolongabheti	50	control
Nagaland	Phek	Sekruzu	Sekruzu	45	core
Nagaland	Phek	Sekruzu	Suthozu	109	buffer
Nagaland	Phek	Sekruzu	Phuhgi	150	buffer
Nagaland	Phek	Sekruzu	Ruzazho	337	core
Nagaland	Phek	Sekruzu	Dzulha	325	control
Nagaland	Phek	Sekruzu	Thurutsuswu	102	buffer
Nagaland	Phek	Sekruzu	Khutsa	78	buffer
Nagaland	Mokokchung	Changki valley	Changki	600	core
Nagaland	Mokokchung	Changki valley	Chungliyimsen	100	core
Nagaland	Mokokchung	Changki valley	Mungsen	120	control
Nagaland	Mokokchung	Changki valley	Merayim	35	buffer
Nagaland	Mokokchung	Changki valley	Satsuk	30	buffer
Nagaland	Mokokchung	Changki valley	Saupumi	20	buffer
Nagaland	Mokokchung	Changki valley	Xukshi	20	buffer

6. Baseline Survey Workshop: Donors, the public and implementing agencies do increasingly request clear information on the effectiveness and success of projects and its interventions. Concepts like impact assessments and baseline surveys are developed to fulfil these needs in a comprehensive way. A baseline survey informs about prevailing conditions in a project area prior to the intervention. It helps to identify the needs of the target community and provides the reference data to be used in evaluation and impact assessment studies. Without such data it is impossible to measure whether the project made an impact or not and helps implementing agencies to improve project design and performance along the way.

In this workshop 43 participants from 18 project partners were invited. We discussed and designed the methods and tools required for the baseline survey of the project. The focus of the baseline survey is to understand the status and interlinkages between agricultural biodiversity, farm livelihoods, household nutrition, climate change impacts and related eco-system services in the project sites. Use of digital data collection formats (using tablets) based on Open Data Kit (www.opendatakit.org) format will be used for all data collection during baseline and other project related field activities.

This workshop introduced the participants to the concepts, methods and tools used for the implementation of the baseline survey. The specific objectives of this workshop were:

- To develop a common understanding of the project's impact rationale and refined set of impact or outcome indicators and research questions.
- To share, refine and align practical skills and knowledge about sampling strategy, data collection and data management methods to ensure uniformity and comparability across sites.
- To have developed tailor-made focus group discussion formats, baseline survey questionnaire and implementation plan.
- Enable baseline focal points to train a team of surveyors on implementing the baseline survey in their

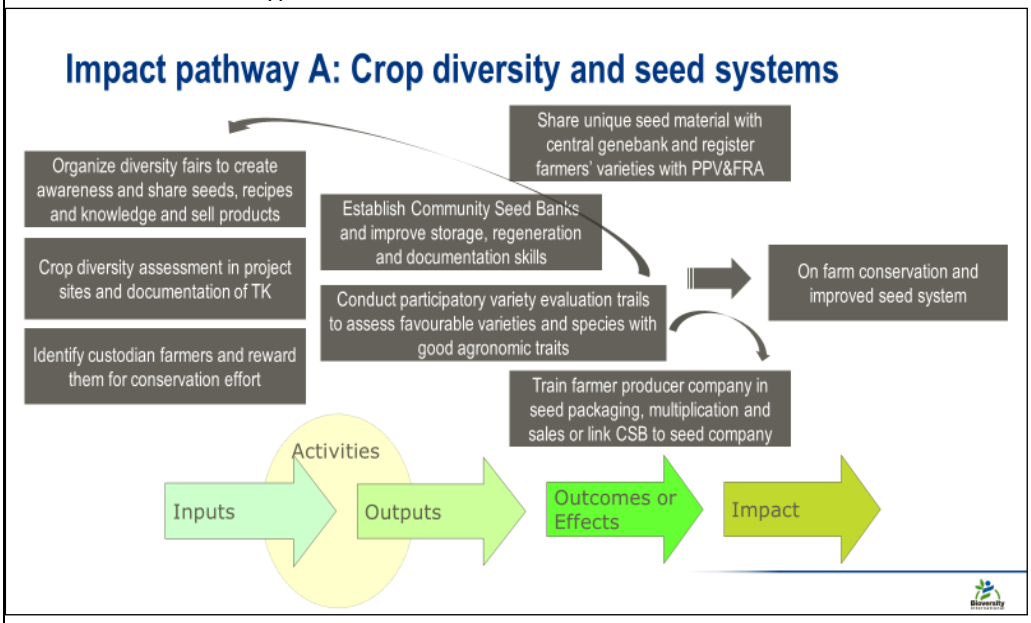
respective project site.

Four different impact pathways were identified including impact indicators:

Figure 1: Impact pathway for improved target crop diversity and seed systems

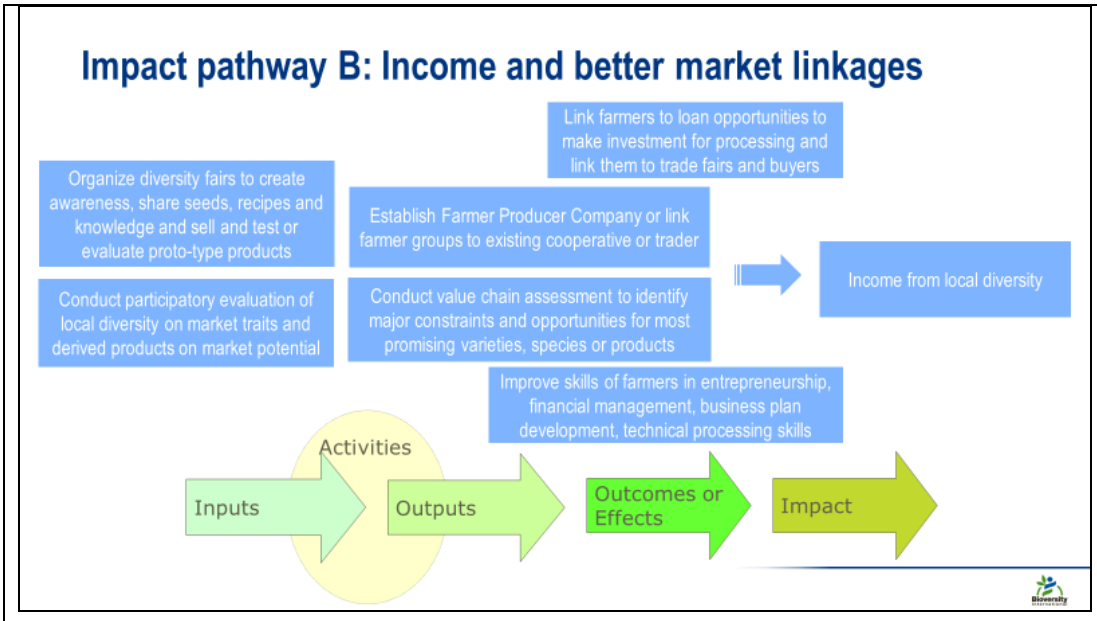
Indicators to measure change in target crop diversity and seed systems

- Farm level crop richness (all spp. vegetable spp., fruit spp., fodder spp.)
- Farm level target crop richness (inter spp.)
- Farm level target crop evenness (proportion, richness)
- Farm level target crop varietal richness (intra spp.)
- Farm level target crop varietal evenness (proportion, richness)
- Number and type of sources used to obtain seeds



- Number of community seedbanks at landscape level
- Number of custodian farmers at landscape level

Figure 2: Impact pathway for improved target crop income and market linkages



Household indicators to measure change in income and market linkages:

- Increased yield obtained from target crops (per household and per acre)
- Increased revenue earned from target crops (per household and per acre)
- Increased revenue earned from sales of products derived from target crops
- Share of target crop revenue in total household revenue (increase in share)
- Number of target crops or products sold (increase in crops and products)
- Number and type of market channels used (increase in market linkages)

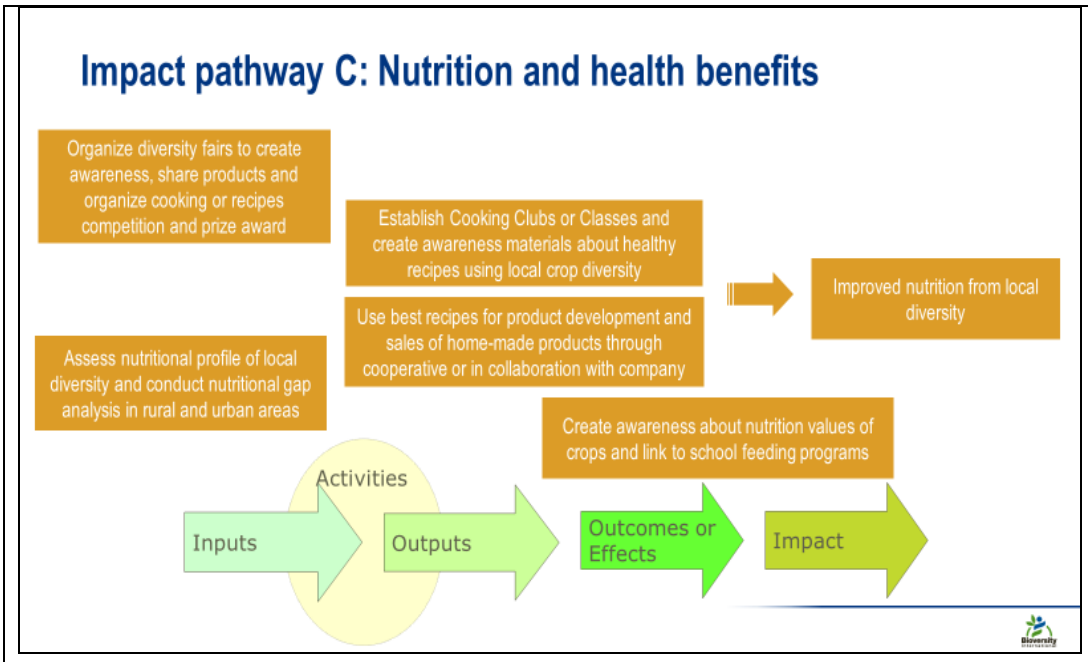
Landscape indicators to measure change in income and profits from target crops:

- Number of novel or improved products/packaging developed by enterprises
- Revenue earned from target crops and derived products by enterprises

Household indicators to measure change for other livelihood aspects:

- Skill level related to agronomics or value chain development (self-evaluation)
- Training received on agronomics or value chain development

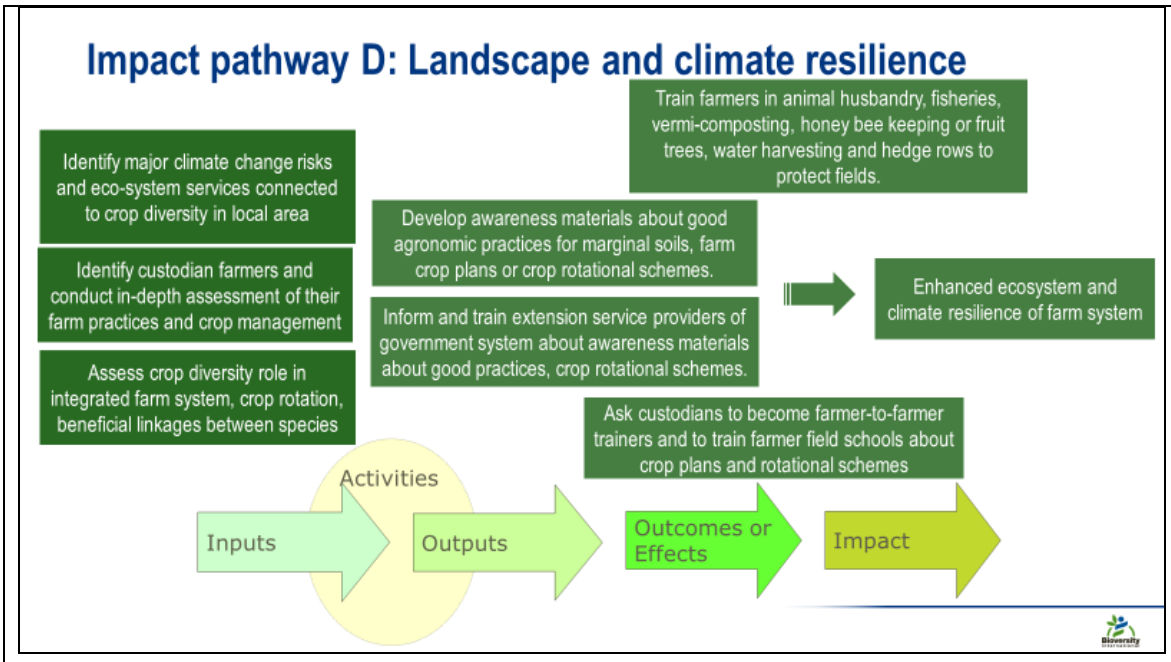
Figure 3: Impact pathway for improved nutrition and health from target crops



Indicators to measure change in consumption and nutrition

- Increase number of species consumed from Stapes and Legumes food groups
  - ❖ Intra-food group species richness
  - ❖ Dietary species richness
- Increased consumption of the target crops (Food Frequency Questionnaire)
  - ❖ % of individuals who consumed target crops
  - ❖ % of individuals who increased frequency of consumption of target crops
- Increased consumption of (new) recipes that promote whole-of-diet
- Improved diet diversity (Diet Diversity Score)
- Increased % of individuals who reach Minimum Dietary Diversity (MDD)
- Improved micronutrient content of the diet (Quantitative Recall method)[9]
- Increased knowledge about nutritional facts related to target crops
- Improved attitudes towards the use of nutritional food items in general

Figure 4: Impact pathway for improved resilience and eco-system for climate change



Indicators to measure change in resilience of households to cope with erratic or changing weather patterns:

- Chance of experiencing erratic or changing weather patterns (self-perceived or objectively determined risk category of the household)

- Productivity (food and income safety when enduring shocks)
  - ❖ Increased number of food crops grown (food crop diversity)
  - ❖ Increased number of cash crops grown (cash crop diversity)
  - ❖ Increased number of distinct income sources (income source diversity)

- Stability (adoption of steady performer over the longer term)
  - ❖ Increased adoption of sturdy or adapted varieties or crops that can cope with extreme weather patterns
  - ❖ Increased storage capacity to overcome lean periods
  - ❖ Increased assets and savings to re-invest after external shocks
  - ❖ Increased use of insurance to compensate loss due external shocks

- Sustainability (integrated farm system)
  - ❖ Number of animal species kept on farm (animal species richness)
  - ❖ Increased area of land dedicated to multi-cropping systems (and thus less land dedicated to mono-cropping)
  - ❖ Quantity of organic compost or farmyard manure produced and used
  - ❖ Involvement in fisheries or access to tank silt
  - ❖ Number of fruit tree species grown on farm
  - ❖ Increased use of hedge rows or field borders to avoid soil erosion.
  - ❖ Increased use of water harvesting techniques on farm

Indicators to measure change in the farm eco-system to cope with erratic or changing weather patterns:

- Opinion of farmer on resilience or climate change
- Soil sample (organic matter, earthworms availability)
- Increased number of observations of indicator species (bird or pollinator) by farmers

7. Finalization of baseline survey and nutrition questionnaire

a. Rural Household Multiple Indicator Survey (RHoMIS) GEF India baselines questionnaire having 211 questions was designed after conducting baselines workshop.

Focus: To understand the farm system and livelihood situation of the household in the project sites with specific focus on the use of target crop diversity and the impact of climate change.
Method: Questionnaire for which data is collected using tablet with ODK format or by pen and paper to be entered thereafter into tablet with ODK format.
Respondent: Random selection of households based on agreed sampling strategy will be adopted. Do not specific target and interview farmers with a lot of diversity, it is important to get a representative picture of the whole farming community. The respondent must be the person most capable of answering these questions. It may be the household head, the spouse or another adult household member.

b. 24-hour recall - target crop frequency - nutrition knowledge

Focus: To understand consumption and nutrition patterns in general and consumption of target crops in specific by male and female household heads in the project sites
Method: Questionnaire including three parts a) qualitative 24-hour recall, b) target crop food frequency and c) knowledge on diet diversity, vitamin A and iron intake. Data is collected using tablet with ODK format or by pen and paper to be entered thereafter into tablet with ODK format.
Respondent: Semi-random selection of households based on agreed sampling strategy. From each selected household both the male and female head (or female of reproductive age) are asked to answer questions. If male or female head is not available, return later.

8. Focused Group Discussion (FGD): In each site FGDs were organized to give feedback and answer of basic questions finalization of baseline survey format. FGDs using 4 Cell Analysis on crop diversity status, vulnerability to Climate Change, etc. were conducted at all the sites.

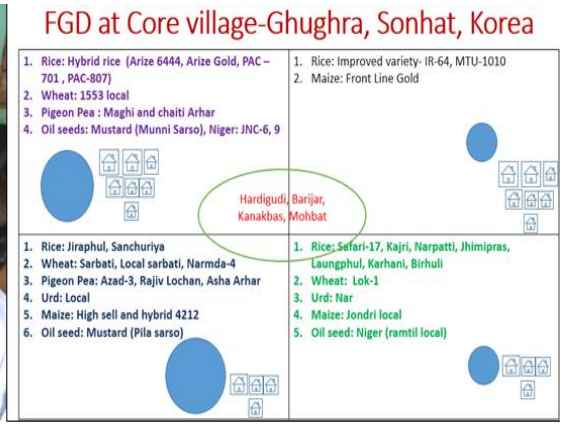


Fig 5. FGDs were conducted using 4 cell analysis approach

The information generated was- trends in diversity of the targeted crops, their status and threats; varieties having unique character, attributes and use; annual climate and annual weather & environment cycle; annual agricultural activity cycle and climate change data. In each site tri-monthly interaction meeting between farmers, scientists, NGO partners and officials from line departments especially from agriculture extension were organised.

9. Identification of Champion farmers: After having farmers' interaction meeting and FGDs 6-10 Champion Farmers (who have extensive experience in farming and mastered the knowledge and skills and diffused them to other farmers) based on HH number were identified in each site. We have ensured good participation of women champion farmers to undertake the activities (Fig 7)

Fig 7 Selection of Champion farmers at Korea site in Chhattisgarh

10. Identification of varieties for seed multiplication: State and crops wise list of farmers' varieties and *ex situ* collections selected for seed multiplication and condcutign mother and baby trials is given belwo**.**

Assam	Rice	Thupi bora, Pokrkola Bora, Gomi bora, Boga betguti, Badam dhan, Budumoni, Kola joha, Biriabhanga, kon joha, PirmeAmpe, YakanAmpe, LuneiAmpe, BorJahingia, BankiSali, Edolia, KerkerSali, Motonga, RongaJoha, Ronga Bora, Sakowa Bora, SiyalLejia Bora, Jahingia, Suagmoni, BorSakowa, GhisiriSakowa, Kati Neuli (Doria), Aghoni bora, Ranjit sub-1, Keteki joha
Madhya Pradesh	Rice	Saraiya, Charki Saraiya, Jalkeshri, Baghmuch, Newari, Bhadosari, Lubia, Raibot, Galri, Lakhua, Tilshan (Scented), Salaiya (Scented)-Red Rice
	Pigeon Pea	Chaiti, Aaghani (Bada), Maghi
	Mustard	Desi Mustard, Jhumki Mustard
	Minor Millets	Black Kodo, Black Kutki, White Kutki, Kangul, Nizer (Ram Til)
Rajasthan	Moth Bean	RMO-225, CZM-2, GMO-2, GMO-1, RMO-40, RMO-257, Jhumka moth
	Sesame Seed	Kala Til, Safed Til, RT-346, RT -351
	Pearl Millet	Muchwali bajri, pili bajri, DR-1, DR-2, DR-3, Chanana bajri-1, Chanana Bajra-2, Chanana Bajra-3, MBC-2, Dodhsar Bajri, Surkhaniya Bajra, Sundaram verma Danta Local, Chadi Bajra, CZP16-923
	Green Gram	MG-5, MG-4, IPM02-03, MH-2-15, IPM205-7, SML-668, IPM-2-14, MH-421, IPM-2-3, RML-344, GAM-5, RMG-62.
Madhya Pradesh	Rice	Kardhana, Sonkharchi, Luchai, Indira sugandhit, Pant -10, Shabhagi Dhan, Pusa sugandh-5, Kranti Danteswari, Indira barani Dhan, MTU-1010, Pant basmati-1, IR-64, Pusa-1509, Jr-201, WGL-32100, Sonam, Person Badshah, Bijhari, Mahachinnavar Khutiya, Sharbati, Luchai, Baba Dhan, Ludkan Dhan, Pant -12, Pusa-1503, Pusa-1121, Narendra 59, Sabha mansuri, Saket -4, Pusa sughandha-6, DangarDhan, Lal Dhan, Safed Sal Dhan,

		LambiChopaiDhan, Dhanlambi, DhanDebri, Dhanmaal, RRF 127 (From IGKV), RRF 105(From IGKV)
	Black gram	Hari Urd, Deshi kala Urd, Ajad -1, Shekhar-2, IPU-94-1, Aghani Urd, Badaili Urd, BhuraUrd, BhuraUrd 2, TeliaUrd
	Pigeon Pea	Chigri Arhar, Baluodha Arhar, chaiti, Desi lal, Desi Safed, TT-401, TJT-501, Pusa-992, Narendra-1, PPKCG-3, Chotituar, Desi tuar -1, Desi tuar -2
	Sorghum	Deshi White, Deshi Red, UbaBhodia, Sorghum older, Desi Hundiya
	Mustard	Guchhedar, Pusa tarak, Varuna, RH-749, Deshi peela, Peetamberi, Urvashi, Varuna
	Sesame	Safed Til, Kali Til- 1(Pure black), Kali Til -2 (Black with white spots)
	Green gram	Moong Reli, Moong Bhadar, Moong -1, Moong -2, Moong Chamki
	Proso Millet	Seena 1, Seena 2
	Finger Millet	Ragi 1, Ragi 2, Ragi 3
	Kodo Millet	Kodo 1, Kodo 2, Deshi
	Pearl Millet	Jhabuabajra
	Kutki Millet	Kutki -1
	Finger Millet	Bavto -1, Bavto -2
Himachal Pradesh	Kidney bean	Sangla-1, Sangla -2, Sangla -3, Sangla 4, Sangla -5, Sangla -6, Sangla-7, Sangla 8, Sangla -9, Sangla -10, Sangla -11, Sangla -12, Sangla -13, Sangla -14, Sangla -15, Sangla – 16, Sangla -1, Sangla -18, Sangla -19, Sangla -20, Sangla -21, Sangla -22, Sangla- 23, Sangla -24, Sangla -25 IC278709, IC278714, IC278737, IC278740, IC278743, IC278754, IC278759, IC278760, IC321182, IC321188, IC326970, IC326979, IC328392, IC328920, IC329353, IC329359, IC329360, IC329361, IC329368, IC329369, IC329387, IC329388, IC361885, IC361902, IC361923, IC361926, IC372741, IC382189, IC382213, IC382231, IC382246, IC423416
	Barley	Barot local, HBL-276, BHS-380, RD-2787, DWR-73, HBL-723, RD-2824, RD-2819, BH-209, BH-962, HBL-719, RD2825, LOCAL BALI, DWRUB-64, RD-2833, HBL-757, HBL-391, RD-2825, HBL-113, HBL-722, BH-936, BH-419, 4PB-1031, BH-952, LB-118, DWR-91, BH-976, BHS-400
	Red Rice	Nagar Lal Dhan, HPR2720, Katheri Dhan, Sukarna Dhan, Chuhatu Dhan, Nagar Dhan, Anni
	Buckwheat	IC-341589, IC-339688, IC-13513, IC313140,IC-328692, IC-313140, IC-313139, IC-313136, VL-7,IC-318959, IC-328910, IC-412733, IC-329401, IC-329201, IC-329195, IC329191, IC-329197, IC-313134, SHIMLA B1, SANGLA B-1,HIMPRIYA, PRB-1(0), IC-323696, IC-729198, Kathu, Bharesa
	Amaranth	IC0447679, IC0467884, IC0467887, IC0467891, IC0467892, IC0467897, IC0467908, IC0547393, IC0363742, IC0363768,

		IC0363769, IC0415232, IC0415250, IC0415266, IC0095583, IC0095592, IC0095597, IC0095320, IC319816, IC313260, IC278919, IC258248, IC258251, IC423448, IC95570
Chhattisgarh	Rice	Jeeraful, Kalajeera, Bisni, Vishnubhog, Ganga Prasad, Chindmauri, Rudra Dhan, Alsenga Dhan, JenJale Dhan, Arend Kadam Phul, Arend Karahni, Godadani Dhan, Jhilli Dhan, Lalo Dhan, Raskadam, Gangai Phool, Sarya Dhan , Jhalsiki Dhan, Dhaniya Dhan, Goda Chira dhan, Kinnor, Kudrat, DRK, Dangar Badi Dhan, Chhattisgarh Dubraj Mutant-1, Barhasal Selection-1, Mutant Safri-17, Mutant Luchai, Chhattisgarh Zink Rice-1, Madhuraj 55, Chhattisgarh Zink Rice-2, Zinko, R-56, Indira Barani Dhan, RRF-105, RRF-127, Indira sona, CG. Hybrid rice-2, Sanchuriya, Lohandi Dhan, Virhuli, Kanak Bas, Jhunni Prasad, Jhimipras
	Pigeon Pea	Chaiti Arhar, Maghi Arhar, Chhattisgarh Arhar 1, Rajiv Lochan, PPKCG-3
	Millets	Kutki Local, Improved CG Kutki 2 (BL4)
	Black gram	Karni Urd, Nar Urd, Indira Urd Pratham
	Buckwheat	Tau-1, Tau-2
	Mustard	Lutni Sarso, Bhagi Sarso
	Amaranth	Rajgeera Local, CG Rajgira 1
	Pea	Sanwali matar
Jammu & Kashmir	Mustard	VARUNA, RAJAT, P.J. KISAN, PM 30, LAXMI, RH 30, IC49104, IC491349, IC73184, EC481007, IC491455, IC385657
	Barley	IC542194, IC533162, IC73604, IC73603, IC113057, IC393973, IC406570, IC406571, IC47346, EC578856, EC578863, EC578761, EC578691, EC578283, EC578444, Geetanjali, BHS 352
Uttarakhand	Rice	Barikh Bauna, Mota Bauna, China 4, Lal Dhan, Garudiya Dhan, Jatuliya Dhan, Unjin Dhan, Pacchu Dhan, Basmati, Indrasan, Dhan, Uttavali dhan, Jhalla dhan, Chwardhan, Gyarsu, Ratinia, Sitolia, Saloni, Athuria, Kushmati, Dansa, Chuar sathi, Ukhar dhan, Laldhan, Thapachini, Uskav, Laluri, Salani, Maisoo, Bakula, Kavthuni, Jhusiyao, Partoli, Bakuli dhan, Binduli, Aakari, Lambgudi, Dudh, Gita, Nandhani, Kavrai, Bamkua, Jaulia, Kavthani, Laldhan, Batesu, Ratua, Katyuri, Kaudhan / kal jariya, Chinni, Jolya chota, Kalthunia, Lamadiya, Parwati, Chinbhuri, Lal dhan, Piyolia, Gangola, Nandhini, Kurburiya, AMS 63, AMS 64, AMS 93, AMS 134, AMS 135, AMS 137, AMS 140, AMS 141, AMS 134, AMS 144, AMS 145, AMS 146, AMS 148, AMS 154, AMS 158A, AMS 176, AMS 178, AMS 188, AMS 194, RRA/M/B/H-09, IC 566798, IC 566800, IC 548375, IC 582484, IC 582495
	Kidney Beans	Lal Rajma, Safed Rajma, Chitkabri Rajma, Kali Rajma, Pili Rajma, Safed Choti Rajma, Harshil Rajma
	Barley	Mundariya Jau, Kiswala Jau
	Finger Millet	Manid Maduwa, Dudakhiya Maduwa, AMS 1, AMS 14, AMS 17, AMS 46, AMS 57, AMS 67, AMS 89, AMS 92, AMS 97, AMS 125, AMS 136, AMS 150, AMS 151, AMS 153, AMS 157, AMS 173, AMS 175, AMS 180, Chhitatua (green), Black , Red
	Amaranth	Lal Chaulai, Safed Chaulai, SK/RSM/MA-18, SK/RSM/MA-20, SK/RSM/MA-26, SK/RSM/MA-31, SK/RSM/MA-36, SK/RSM/MA-

		37, SK/RSM/MA-44, SK/RSM/MA-57, AMS 195, AMS 221
	French Bean	AMS 11, AMS 12, AMS 18, AMS 25, AMS 27, AMS 29, AMS 32, AMS 38, AMS 110, AMS 112, AMS 113, AMS 122, Vill Kandiyal, VIll Fagti-1, Vill Fagti-2, Vill Fagti-3, Vill Sankari, Niti vegetable, Niti egg bean, Niti white bold, Niti Black bean
	Proso Millet	Almora Local, Bhimtal, Pithoragarh, IC 340847, IC 340856, IC 340939, IC 341000, IC 341400, IC 362254, IC 383466, IC 383618, IC 444091, IC 444094, IC 444221, Cheena Long
	Buckwheat	Tolma Chamoli, Niti Local, Fagati, Long Tikri, SK/RSM/MA-23, SK/RSM/MA-45, SK/RSM/MA-53, SK/RSM/MA-59
	Soybean	AMS 26, AMS 75, AMS 138, AMS 162, AMS 164, AMS 169, AMS 174, AMS 186, AMS 192, Vill- Tikri (Red)
	Horsegram	AMS 23, AMS 24, AMS 139, AMS 165, AMS 172, AMS 81

11. Seed Multiplication for crowd sourcing trials: Around 650 traditional varieties as listed above have been identified and collected from farmers' and seed banks. Seed multiplication of these varieties have been initiated and will be continued subsequently. Apart from available varieties *ex-situ* collections conserved in the gene bank will be used to enhance varietal diversity.

Fig 8. Sowing of traditional varieties of targeted crops for seed multiplication to conduct crowed sourcing trials at different project sites