

Quarterly Progress Report cum PO's ReportQuarter: (Tick) 1/ **2**/ 3/ 4

Project: India High Range Mountain Landscape

Date: 15.07.2021

1. Project Progress

Expected Project Outputs and Indicators including Annual Targets	Planned Activities (List all activities including M&E during the year)	Activity Progress in Quarter – Comments by PO	Quarter X (Highlight the completed quarter)				Comments by PO on the activity progress	Targeted Expenditure for the year	Actual Expenditure in Quarter 1	Reasons for Under Expenditure in Quarter X, if any
			Q 1	Q 2	Q 3	Q 4				
Outcome 1: Strengthened capacities for community based sustainable use and management of natural resources										
Outcome 1: Outputs <i>1.1 Capacities of Local Self Governments and community organizations developed to plan for sustainable resource use</i>	<i>1.1.1 Workshops/meetings and consultations/discussions with relevant stakeholders on project related activities – (Government officials, Panchayath functionaries, elected representatives and community members)</i>	Traditional agricultural practices and seed conservation Objective of this assignment is the promotion of traditional agricultural practices suitable for landscape characteristics. The project converged with the Subiksha Keralam Scheme of Government of Kerala to sow traditional millet and rice varieties in over 345 acres of land and reached out to 1160 farmers in 2020. In this quarter awareness sessions were conducted at tribal settlements of Adimali, Devikulam, Vattavada, Marayoor Grama Panchayaths in Idukki District and Kuttampuzha Grama Panchayath in Ernakulam District on conservation-based agriculture practices, which included conservation of indigenous seeds, reviving traditional millet cultivation, and sensitizing the communities on the significance of staple food crop cultivation. Based on the awareness sessions, cultivation activities have been initiated across Grama Panchayths					Due to the 2 nd wave of Covid-19, the Kerala State went on a lockdown from 8 th May to 16 th June 2021. Even before the state-wide lockdown, few of the Panchayaths in the project area were already under lockdown because of high covid incidences. Since this lockdown period falls under the Q2 reporting period, some of the scheduled workshops/ meetings had to be canceled or had to be shifted online. The elections to the legislative assembly at the State level were held during the Q2 reporting period on 6 th April 2021. The Model Code of Conduct on account of the elections continued till 30 th April 2021. Few public consultations had to be cancelled on account of the Model Code of Conduct.			

		<p>Sustainable Sugarcane Initiative</p> <p>The primary objective of this assignment is the improvement of value chain of Sugarcane with focus on production side intervention for small and marginal farmers in Marayoor and Kanthalloor Panchayaths</p> <p>It is expected that cultivation practice through SSI will help in the following:</p> <ul style="list-style-type: none"> - Reduction in the costs of cultivation by 20-30 percent - Reduction in seed material by as much as 95 percent - Water efficiency increases with savings up to 40-70 percent (depending on the irrigation methods applied) - Reduction in the use of labour by 20-30 percent - Yield improvement of 20-50 percent (depending on how effectively the SSI practices are implemented) - Weed reduction by 40-60 percent (in the first three months) by raising intercrops - Additional income from intercrops <p>In order to promote the sustainable sugar cane cultivation practices among farmers, an awareness programme was conducted in April 2021. As a follow up of this initiative, another round of stakeholder consultation & Free, Prior & Informed Consent (FPIC) has also been carried out in June at Marayoor to sensitize the farming community in scaling up of sustainable sugarcane farming initiatives and to check the convergence possibilities with GP and agriculture department.</p> <p>Developing Medicinal plant-based home gardens</p> <p>The primary objective of the assignment is to map and assess the extent of medicinal plants cultivation in the home gardens in the selected Grama Panchayaths. It is aimed at expanding the cultivation of indigenous medicinal plant species which can be utilized by the households for remedial purpose along with contributing towards biodiversity conservation. The non-</p>							
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		<p>commercial aspect of nurturing and using medicinal plants along with equipping the community members with relevant traditional knowledge in this regard is given focus here.</p> <p>An orientation & FPIC workshop has been conducted at Marayoor (Idukki District) and Athirappilly Grama Panchayath (Thrissur District) during April 2021. Based on the outcome of the inception workshop, homestead gardens have been set up by the communities in the project landscape in May 2021.</p> <p>Bamboo & reed Through this intervention the objective is to provide complete support to the local communities dependent upon bamboo and reed-based livelihoods primarily in Adimali, Mankulam, Athirappilly and Kuttampuzha with required skilling, training, capacity building, equipping them with marketing strategies, enhancing the product quality and product lines, building institutional mechanisms and facilitating strong market linkages. The target group can include tribal community members, women, members from the SC community, low-income groups etc.</p> <p>As part of promoting traditional craft weaving using Bamboo & Reeds by indigenous community of Kuttampuzha Panchayath, an orientation & FPIC meeting has been conducted in April 2021. Based on the outcome of this meeting, series of capacity building trainings and skill mapping has been planned in the next quarter.</p> <p>An online meeting was held to explore the possibility of Geographical Indication tag for 'Kannadipaya'(Mirror mats), a unique traditional craft of weaving mats using the innermost layers of the stems of a certain species of bamboo collected from deep inside the forest. This is made by the tribal communities in Idukki District in the project landscape.</p> <p>Green Innovation Fund Green Innovation Fund (GIF) is a fund created to support the innovative efforts to respond to the challenge of climate change in the project landscape through entrepreneurship effort. GIF</p>							
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		<p>will be strategically positioned as a Start-up risk capital for entrepreneur. This will enable entrepreneurs to test innovative ideas in the market. GIF will also support innovators at all stages of their life cycle, from start-up and pilot-testing through to larger scale implementation. Apart from providing the Start-up risk capital, GIF would be accompanied by supporting the entrepreneur through mechanisms that help enhance the probability of success. The key areas of support provided are strategy, planning, marketing, and mentoring.</p> <p>A knowledge track series has been conducted for the startups under the Green Innovation Fund. First Cohort was conducted during May – June in the following areas</p> <ul style="list-style-type: none"> • Financial Capabilities series – three-part series <ul style="list-style-type: none"> ○ Business Acumen – Thinking Through business numbers ○ Understanding Financial Projections for Start-ups- An Introduction ○ Navigating Financial Challenges & Business Health for Impact Oriented Startups • Legal series two-part series <ul style="list-style-type: none"> ○ Basic legal considerations – 1 ○ Basic legal considerations - 2 • Accounting basic series two-part series <ul style="list-style-type: none"> ○ Accounting and Compliances basics -1 ○ Accounting and Compliances basics -1 <p>Vegetable value chain</p> <p>For restoring the degraded land affected by invasive and alien species at Vattavada GP of Idukki district, series of consultation meetings were carried out with Grama Panchayath officials. This initiative is aimed at converting the degraded land into organic vegetable gardens for enhancing the income of farmers with the support from local self-government and the local community. A project implementation strategy for this activity</p>							
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		<p>has been finalized and the implementation would be taken up in the next quarter.</p> <p>Disaster Management As part of developing an Information and Communication Tool for Disaster Management of Munnar Panchayath on a pilot mode, discussions were held with the various stakeholders in the state & district. The pilot demonstration of this tool is currently undergoing.</p> <p>Waste Management May 2021 – Discussions were held with Mankulam, Chinnakanal and Vattavada Grama Panchayaths in Idukki District to develop an action plan for establishing decentralized Solid Waste Management system in the respective Grama Panchayaths. Project suggestions to be included in the Panchayath annual plan were also provided.</p> <p>May 2021 – In the meeting with Munnar Grama Panchayath, Idukki District, setting up a Material Recovery Facility and Bio Composting Facility in the Kallar dump yard was discussed. It was decided by the Grama Panchayath to proceed with the technology proposed through the UNDP IHRML Project</p> <p>June 2021 – As part of discussing convergence/co-finance industry partnership activities in Munnar Waste Management, meeting with Recity (CSR partner with Nestle) was held. Scope of work under the IHRML Project and potential areas of collaboration were the key points discussed.</p> <p>Visual Media Course for underprivileged youth A visual media course for the underprivileged youths in the landscape is currently ongoing as part of the skill development programme in the project landscape. Due to the increasing cases of covid and subsequent restrictions, various discussions were held with Registrar, Center for Digital Imaging Technology (C-DIT), Haritha Keralam Mission officials and C-DIT officials and decided to change the course from contact classes to online classes.</p>						
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		<p>Consultation meetings with Elected members and officials, June 2021</p> <p>Presented project details including the timelines, key project activities and progress so far in the following panchayath's. Discussed the concerns of the panchayath members & clarified the project objectives. Sought suggestions from panchayath members and incorporated into activity plan.</p> <p>Panchayaths where discussion was held - Adimali, Devikulam, Munnar, Kanthalloor, Marayoor, Mankulam Grama Panchayaths in Idukki District</p> <p>Online meeting with Ministry of Environment, Forest, and Climate Change</p> <p>Presentation was done about the project activities to Inspector General (Wildlife) and Deputy Inspector General (Wildlife) along with the actions taken based on the Mid Term Review recommendations. Inspector General appreciated the progress achieved on the project and the action taken towards Mid Term Review recommendations.</p>							
	<p><i>1.1.2 Develop IEC products on project related activities</i></p>	<ul style="list-style-type: none"> o Environment day contest – The Project had organized an online competition in association with Haritha Keralam Mission to spread the message about World Environment Day 2021. The competition was open to children aged between 10-15 years and was limited to children from the project landscape. The competition was themed – Uyir – Waste to Craft. Uyir means life in Malayalam and Tamil. The event encourages children to learn that discarded items can be given a new life by developing craft items out of them. 156 children from the project landscape had participated in the contest and had shared the works depicting their creativity. All the participants were given a participation certificate. Anna Mathew from Adimali Grama Panchayat has won the first prize. Adithya Kalesh from Mankulam Grama Panchayat and Rohith S from Marayoor has shared the second prize. Ann Milana Deepu from Adimali Grama 				<p>The Environment day contest was able to create some buzz in the landscape with atleast 2 local tv channels covering the news alongwith interviews of the first prize winner.</p> <p>One of the videos taken as part of Covid awareness, features a tribal community member – Laya. Laya is the coordinator of a partner agency working on waste management as part of the project. The video was produced by Arjun Murali, another tribal community youth in the project landscape who is also a student of the Visual media course that has been launched in July 2021. The course supports 25 youth, like Arjun, from underprivileged communities (Scheduled Caste and Scheduled Tribes) from the landscape on visual media.</p> <p>On the Environment Day, a state news channel featured a video story</p>			

		<p>Panchayat won the third prize. The winners were awarded with certificates and environment related books and other goodies.</p> <ul style="list-style-type: none"> ○ The project landscape is home to 4 hornbill species. A detailed study on the hornbills in the landscape including their nesting habitats and foraging tree species was conducted. The report suggests several recommendations including planting of trees like the ficus in degraded spaces outside protected areas; It was also suggested to increase awareness amongst local communities on preserving the habitats of hornbills; Based on these recommendations, a draft content for the illustrated booklet on Hornbills of the project landscape based on study findings was prepared & shared for expert review ○ Through the initiatives of the project, over 137 women community members are engaged in the process of waste collection, processing and disposal across the project landscape. These women are working under the banner of the Haritha Karma Sena or Green Entrepreneurs. This workforce is emerging to be a major contributor in maintaining the cleanliness in the project area and hence contributing to maintain a healthy ecosystem for the local biodiversity as well as human beings. Video documentation of Haritha Karma Sena and waste management efforts at Athirappilly Panchayath in Thrissur District was completed. Editing is being done based on the suggestions from the Project Management Unit ○ Two major approaches to tackle covid are – 1. Covid appropriate behaviour and 2. Vaccination; The project team works with 2 vulnerable groups – the sanitation workers and tribal communities; The Project aimed at targeting these 2 vulnerable groups through videos (3) & posters (9) which were shared through whatsapp and other social media platforms 			<p>on the eco-restoration work done in Anaimudi National Park.</p>			
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		<ul style="list-style-type: none"> ○ Corporate gifts: Deigning and production of Bamboo pens, cloth sleeve bags and Notepad with traditional bamboo weaving (Mirror Mat design) done by artisans in the landscape was initiated ○ Content for “Did You Know” posters developed on flora and fauna present in the landscape and 12 posters were designed as inserts in the notepad ○ Tweets as part of the Environment Day, Desertification Day and Tropics Day were done and circulated ○ Branding of Chilla market as an institution is initiated for creating an online identity for the market - logo design and automation completed ○ Developed contents for four flyers (Biodiversity conservation outside protected area network- Biodiversity Heritage Site, Other effective area-based conservation measures' (OECMs), People’s Biodiversity Register, ePBR and Access and Benefit Sharing); ○ One Brochure on National Biodiversity Targets (NBT) and one Poster on Biodiversity Act for research professionals in June 2021 for knowledge dissemination were developed ○ Location visit completed for video documentation of project activities at Adimali and Mankulam Panchayaths in Idukki district 						
	<p><i>1.1.3 Training relevant stakeholders for mainstreaming BD considerations – (for Government officials, Panchayat functionaries elected representatives and community members)</i></p>	<p>A major intervention under the project is to mainstream biodiversity conservation in the local self-government institutions in the landscape. Local Self Government Institutions (LSGI) are mandated to develop annual plans, in consultation with the community members, which forms the basis for the activities of the LSGI for the entire year. The project aims to convert the LSGI plans into green plans through a series of</p>			<p>Due to the 2nd wave of Covid-19, the Kerala State went on a lockdown from 8th May to 16th June 2021. Even before the state-wide lockdown, few of the Panchayaths in the project area were already under lockdown because of high covid incidences. Since this lockdown period falls under the Q2 reporting period, many of the</p>			

		<p>capacity building programmes with the LSGI members and officials.</p> <p>The District Planning Committee (DPC) approved annual plans of the 11 Grama Panchayaths in the landscape were collected for identifying the approved green plans and adding green components in the implementation. 50 projects were identified from 3 Grama Panchayaths for adding green components. Mahatma Gandhi National Rural Employment Guarantee Scheme Annual labour plan and budget were collected for analyzing the convergence opportunities of the respective Grama Panchayath plans. Modules on write shop for implementing officials regarding the incorporation of green components in the implementation plans was being prepared.</p> <p>Two online workshops conducted with experts for developing modules on Role of Community Based Organization (CBO's) in Green Plans in May and June 2021. The draft module includes the role of CBO's in Green Plans – Possibilities of intervention, Partnership in green plans and Models based on various sectors.</p> <p>10 Community Based Organizations in 7 Grama Panchayaths were identified as primary stakeholders for training.</p>				<p>trainings had to be conducted online.</p> <p>Also, the availability of the Panchayath members was an issue since the focus was on containment of Covid wave as well arranging treatment facilities for Covid affected.</p>			
	<i>1.1.4 Exposure visit of select stakeholders to other landscape approach-based conservation models</i>	<p>This could not be done due to the statewide Covid lockdown and restrictions.</p>							
	<i>1.1.5 Technical studies to establish baseline, assess impacts of current resource use practices in the landscape</i>	<p>Draft Final Report of the following Technical Studies conducted by Kerala State Biodiversity Board were submitted:</p> <p>(1) Documentation and compilation of existing information on various taxa (flora and fauna), and identification of critical gaps in knowledge in the GEF-Munnar landscape project area</p> <p>(2) April 2021: Revision of the study titled "Review of ecological and development history of various sectors and changes in selected ecological units in GEF-Munnar landscape project area by Kerala State Biodiversity Board" was done</p>				<p>The draft final reports are being scrutinized and are being edited to submit in final form.</p>			

		IEC materials: Developed contents for four Flyers (Biodiversity conservation outside protected area network- Biodiversity Heritage Site, Other effective area-based conservation measures' (OECMs), People's Biodiversity Register, ePBR and Access and Benefit Sharing); One Brochure on National Biodiversity Targets (NBT) and one Poster on Biodiversity Act for research professionals in June 2021 for knowledge dissemination were developed							
<p>Output 1.2: Sustainable resource use practices demonstrated for improved quality of life</p>	<p>Waste Management outside forest areas 1.2.1 Implementation of "Green Munnar" Project for (Dumpsite clearance, treatment of bio & non-bio waste, campaigns for waste reduction, Septage treatment and Nallathanni river rejuvenation)</p>	<p>Munnar Munnar is a popular tourism destination in South India attracting tourists because of the unique biodiversity in the area like the Nilgiri Tahr, the Neelarkurunji, shola-based ecosystem etc and because of the rivers and streams in the region. However, the Munnar destination faces several challenges related to Waste Management including uncontrolled dumping of waste (over 40 dumping points have been identified across the landscape), large dumpyards polluting the river streams and with high volumes of waste generated per day. One of the major interventions under the UNDP project is to put in place scientific solutions to address these challenges. As part of these, the following activities were undertaken in this quarter:</p> <ul style="list-style-type: none"> ○ Action based research study on processing of bio waste was completed by Integrated Rural Technology Center (technical agency supported through UNDP IHRML Project) by setting up an experimental facility in Munnar (Idukki District) near the dump site at Kallar. Windrow composting technology was used. This experimentation was done to check composting at low temperature regions. ○ The Munnar Grama Panchayath decided to proceed with the proposed technology based on the presentation of study findings to the Grama Panchayath and Local Self Government Department Officials. ○ Detailed Project Report (DPR) for comprehensive waste management in Munnar was developed by Integrated 				<p>Since waste collection is a field level activity, Covid-19 affected carrying out field work under this activity.</p> <p>Since sanitation workers are perceived to carry infection and on account of the safety of the workers, the Grama Panchayaths had decided to suspend household collections from the panchayaths. However, the project team tried to ensure vaccination coverage amongst the sanitation workers through local authorities. IEC posters & videos encouraging vaccination was done and circulated with the help of Grama Panchayaths.</p>			

		<p>Rural Technology Center (IRTC); Detailed estimates on the construction and machinery to be installed in the bio composting unit were prepared and approved by the Munnar Grama Panchayath.</p> <p>Devikulam</p> <ul style="list-style-type: none"> ○ Shortlisting of locations suitable for setting up of Material Collection Facility in Devikulam Panchayath was done in May 2021 ○ Discussed with Panchayath representatives to set up a decentralized waste management facility in the Panchayath and the Panchayath has decided to proceed with the same. 								
	<p><i>1.2.2 Waste Management interventions in Athirapilly and other GPs in the landscape</i></p>	<p>Vattavada</p> <ul style="list-style-type: none"> ○ Shortlisting of locations suitable for setting up of Material Collection Facility in Devikulam Panchayath was done in May 2021 ○ Discussed with Panchayath representatives to set up a decentralized waste management facility in the Panchayath and the Panchayath has decided to proceed with the same. <p>Marayoor</p> <ul style="list-style-type: none"> ○ Discussion was held with Panchayath representatives to restart the activities of the Haritha Karma Sena (Sanitation workers) post covid lockdown ○ Decision was taken to convert old dump yard into a biodiversity park <p>Kanthalloor</p> <ul style="list-style-type: none"> ○ Discussion was held with Panchayath representatives to restart the activities of the Haritha Karma Sena (Sanitation workers) post covid lockdown ○ Decision was taken to convert old dump yard into a biodiversity park 								

	<i>Water Resource Management</i> <i>1.2.3 Demonstration of measures for better water harvesting in the landscape based on the Integrated Watershed Management Plans prepared for 11 Gram Panchayats in consultation with all relevant stakeholders</i>	A Request for Proposal was developed for 'Comprehensive planning for water quality improvement of Nallathanni, Munnar with pilot demonstrations' in May 2021.						
	<i>Carbon-neutral Panchayat</i> <i>1.2.4 Action based project to make Mankulam a carbon neutral Panchayat</i>	Through the project, a unique attempt is being made to develop Mankulam Grama Panchayath as a Carbon neutral panchayath. Mankulam Panchayath has over 1000 farmers practicing organic agriculture and is very rich in forest cover. The first stage of this effort is to understand the quantum of carbon emissions and carbon sinks in the panchayath. Field visits in Mankulam Grama Panchayath for soil data collection as part of soil health monitoring were completed in June 2021. 90 soil samples from 13 wards were collected for testing physical and chemical parameters. Online and physical meetings with functionaries of Mankulam Grama Panchayath were conducted in June 2021 and decided to carry out household data collection survey by July 2021. It was also decided to do a presentation of survey results and soil health test results to Grama Panchayath by August 2021 for further actions. Draft content for a flyer on Carbon Neutral Mankulam was developed.				There were many apprehensions about this project amongst some sections of the people in the panchayath. This was raised in social media platforms like Whatsapp. The project team conducted a series of discussion both online and offline to assuage these concerns. The project team also took the Grama Panchayath members into confidence regarding the execution of this project.		
Output 1.3: <i>Enhanced products/services value chains developed for providing ecologically sustainable</i>	<i>1.3.1 Sustainable livelihood practices for Tribal communities</i> <i>NTFP (including branding & marketing of Vamasree shops & products), Bamboo & Reed Agri and allied sectors</i> <input type="checkbox"/> <i>Enhancement of reservoir fish production and creation of livelihood opportunities for</i>	NTFP (including branding & marketing of Vanasree shops & products) A detailed estimate and drawings are being prepared based on the model Ecoshop design concept along with the 3D design. The concept and design frameworks were previously discussed with the forest officials under Malayattoor division. The current plan is to develop the model Ecoshop as a community institution.				The quarter has been important period for agriculture related activities as land preparation and planting of various crops happens during the onset of Monsoon. Even though Covid restriction was in place, team was able to undertake several livelihood activities for improving the livelihood possibilities for tribal communities.		

<p><i>livelihoods options</i></p>	<p><i>the tribal community in Munnar Landscape through development of aquaculture practices of native species,</i> ☒ <i>Lemongrass value chain intervention,</i> ☒ <i>Sustainable Farming, Value addition and Market linkage of Tribal community at Athirappilly</i> ☒ <i>Medicinal plant-based value chain approach</i></p>	<p>Chilla market (tribal community market) branding exercise were carried out and logo concept was shared with forest department officials. Pilot run of the automation of Chilla market was carried out during the quarter with successful results.</p> <p>Native fish species promotion As part of the activity on “Enhancing reservoir fish production and creation of livelihood opportunities for the local community through development of aquaculture practices of native fishes”, Kerala University of Fisheries and Ocean Studies (KUFOS) has developed the captive breeding technology for the mass scale seed production of endemic fish species in the Western Ghats, <i>Systemus Sarana</i>. Around 3500 juvenile seeds of <i>Systemus Sarana</i> were reared at Idamalayar reservoir during this quarter for enhancing reservoir fish production which will help in improving the livelihood of the tribal communities who are residing in the Idamalayar reservoir region, Ernakulam District.</p> <p>Bamboo & reed-based interventions: Market study for bamboo & reed products in convergence with Rajagiri School of Business Studies, Ernakulam is in progress. Market linkages for Bamboo artisans from the tribal communities in the project landscape were facilitated</p> <p>Athirappilly Tribal Valley Agricultural Project (ATVAP) Convergence is established with the Department of Agriculture as part of the Athirappilly Tribal Valley Agricultural Project (Rs 100 million project for a duration of three years) for the digital mapping of the farms. Training in digital mapping for the field team is completed. ATVAP envisages to improve the livelihood of tribal farmers through the adoption of better farming practices, better output from unit farm area, Organic and rainforest certified products, value addition of farm products and exploring the tribal farm tourism potential of the location.</p>			<p>Few of the activities like training of community members, digital mapping of individual plots were not carried out due to Covid restrictions.</p>			
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		<p>Homestead Medicinal Plant garden Orientation workshops on homestead medicinal plants were conducted in Marayoor and Athirappilly Grama Panchayaths during April 2021. It is aimed at expanding the cultivation of indigenous medicinal plant species which can be utilized by the households for remedial purpose along with contributing towards biodiversity conservation. In this quarter, setting of homestead medicinal gardens were initiated with 1899 families across four GPs.</p> <p>Lemongrass value chain The assignment aims to strengthen the Lemon grass value chain for conservation based and sustainable livelihood practices in the project landscape. The intervention will include the assessment of current cultivation practices, climatic conditions for suitability of variety and practices, evaluating the current processing techniques and scope for improvement, introduction of energy efficient model distillation units, developing marketing linkages, training for production of value-added products and exploring the possibility of cultivation of other medical and aromatic plants Baseline assessment on lemon grass cultivation was carried out in Marayoor GP completed during this quarter. Developing market linkages for community members in lemongrass is in progress.</p>						
	<p><i>1.3.2 Sustainable livelihood practices around biodiversity</i> ☑ <i>Revival, Conservation and propagation plan for traditional practices and seed varieties among communities</i> ☑ <i>Preparation of spatial crop plan based on the assessments of anomalous cropping practices, recommendations for sustainable cropping patterns and its pilot implementation</i> ☑ <i>Access and Benefit Sharing - Documentation and developing models</i></p>	<p>Propagation of traditional agriculture practices and seed conservation activities Objective of this assignment is the promotion of traditional agricultural practices suitable for landscape characteristics. Conducted awareness session in tribal settlements at Adimali, Devikulam, Vattavada, Marayoor GPs in Idukki District and Kuttampuzha in Ernakulam district on conservation-based agriculture methods, conservation of indigenous seeds, millets cultivation and importance of food crops cultivation. Based on the awareness sessions, cultivation activities were started during this quarter across GPs. Around 400 families were reached out across seven GPs in the landscape for the propagation of</p>			<p>The quarter has been important period for agriculture related activities as land preparation and planting of various crops happens during the onset of Monsoon. Even though Covid restriction was in place, team was able to undertake a number of livelihood activities for improving the livelihood possibilities for tribal communities. Few of the activities like training of community members, developing model plots was not carried out due to Covid restrictions.</p>			

	<p>☒ <i>Promotion of organic/ safe to eat agriculture practices</i></p> <p>☒ <i>Agroforestry, floriculture, beekeeping</i></p>	<p>traditional agriculture practices and seed conservation activities.</p> <p>A biodiversity plot managed by a group of tribal women was established in Adimali GP to revive and conserve the various varieties of tubers, millets, and vegetables.</p> <p>As part of the revival of fallow Paddy land (also considered as sanctuaries of biodiversity), consultations with the community members were done and land preparation works related to developing fallow land for paddy cultivation were initiated in Adimali GP. Support was facilitated in convergence with Agriculture department for tribal farmers collective as part of strengthening community institution and to reduce the cost of paddy cultivation,</p> <p>Spatial Crop Planning</p> <p>The socio economic, crop cultivation and crop demand survey of the households from 3 Panchayaths were completed. The chemical analysis of the soil samples collected from three GPs at ICAR National Bureau of Soil Survey & Land Use Planning (NBSS & LUP) was also done.</p> <p>Agroforestry</p> <p>The primary objective is to develop agro-forestry models for small and medium landholdings in the selected Panchayats in the project landscape. Field level farm plan preparation is in progress in two GPs. Development of model farmer plot is in progress in one GP.</p> <p>Organic Village – Mankulam (Idukki District)</p> <p>This activity promotes organic agriculture with focus on capacity building, organic certification and building market linkages which will help to ensure increase in income of the farmers and converting the entire Mankulam Grama Panchayath into an organic village. The activity envisages bringing about market linkages and developing value chain links for organic commodities. Farmer selection for organic</p>							
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		<p>certification is in progress. It is planned to reach out to 1000 farmers under this activity. During this quarter, a total of 26,280 kgs of Organic Cocoa was procured from farmers and an amount of INR 15,17,459 was transferred to farmers by our implementation partner.</p> <p>Organic Cardamom Under this activity, field demonstration on organic practices for cardamom cultivation was carried out with 17 farmers (focus on tribal communities) in Chinnakanal GP (Idukki District).</p> <p>Conservation of Orchids An Orchidarium and Orchid Interpretation Centre was set up in Eravikulam National Park and opened to public during the quarter. A booklet on Orchids in the National Park was prepared. The documentation of existing diversity of orchids was carried out and 55 species of Orchids have been identified based on the taxonomic inventory developed and out of which, 14 are strictly restricted (highly endemic) to western ghats.</p>						
	<p><i>1.3.3 Sustainable livelihood practices for farming community and supporting institutions</i></p> <ul style="list-style-type: none"> ☑ <i>Passion fruit value chain interventions</i> ☑ <i>Study and implementation on Market Mapping & Value Chain analysis of Veg and fruits</i> ☑ <i>Strengthening Farmer/ tribal institution for increasing their impact</i> 	<p>Passion fruit value chain intervention Based on the farmer level training workshop on passion fruit product and processing, identification of 15 model farmers each in Adimali and Mankulam GP has been completed. Developing market linkages for community members in passion fruit is in progress.</p> <p>Vegetable value chain A series of consultation meetings were carried out with Vattavada GP officials regarding the restoration of landscape area degraded with invasive and alien species. This aims at enhancing the income of farmers with the support from local self-governments and community. A project implementation strategy was devised and would be taken up in the next quarter.</p> <p>Strengthening Farmer/ tribal institution for increasing their impact Facilitating market linkages and system building support for NTFPs collective based in Athirappilly</p>			<p>Due to the 2nd wave of Covid-19, field activities around passion fruit value chain were slowed down.</p> <p>Project proposal was developed for the project - restoration of landscape area with invasive and alien species, for enhancing the income of farmers with the support from local self-governments and community which would be taken in the next quarter.</p>			

		<p>GP who are from tribal communities in the landscape is in progress Market linkage was facilitated for Jackfruit for farmer producer company in Mankulam GP, Idukki District</p>						
	<p><i>1.3.4 Innovation and enterprise support around ecologically sustainable livelihoods options</i></p> <ul style="list-style-type: none"> ☑ <i>Green Innovation Fund</i> ☑ <i>Developing a farm tourism model around fruit cultivation</i> ☑ <i>Intervention in Jaggery value chain</i> 	<p>Green Innovation Fund Green Innovation fund has been launched for social enterprises to address biodiversity conservation challenges in the landscape.</p> <p>A knowledge track series were conducted for the GIF first Cohort startups during May – June in the following areas:</p> <ul style="list-style-type: none"> • Financial Capabilities series – three-part series <ul style="list-style-type: none"> ○ Business Acumen – Thinking Through business numbers ○ Understanding Financial Projections for Start-ups- An Introduction ○ Navigating Financial Challenges & Business Health for Impact Oriented Startups • Legal series-two-part series <ul style="list-style-type: none"> ○ Basic legal considerations – 1 ○ Basic legal considerations - 2 • Accounting basic series two-part series <ul style="list-style-type: none"> ○ Accounting and Compliances basics -1 ○ Accounting and Compliances basics -1 <p>During this quarter, field trials were completed for one of the GIF startup - Fuselage Innovations Pvt Ltd, working in Sustainable agriculture domain.</p> <p>While scouting crop health manually in tea plantations is a daunting task, the aerial survey using drones may deliver valuable data quickly and autonomously. It helps to create detailed maps of the field and take subsequent action immediately. Agricultural aerial survey drones offer cost-effective alternative to manned aircraft and satellite imaging. With unmatched versatility and accessibility, they deliver precise means to capture crop data on demand. Reduce the</p>			<p>During the quarter, knowledge track series was carried out among the selected startups as a part of incubation process. Knowledge series helped the startups to relook at their business plan, operations and implementation strategy. Startups has started their field level stakeholder interactions during this quarter.</p>			

		<p>turnaround time to discover areas in trouble in a tea plantation. Take swift action and save money, time, and valuable resources. Based on captured data, prescriptions done through aerial spraying drones will be the new era in agriculture industry. Theoretically and experimentally, we observed that prescriptions through drones make an impact in yield change and thus leading to good agriculture practice.</p> <p>In partnership with Harrison Malayalam limited, they have completed the four field tests during the quarter and had demonstrated yield hike and reduction in usage of micronutrients. Scaling up of the pilot would be undertaken in the next quarter.</p> <p>Sustainable Sugarcane Initiative Improvement of value chain of Sugarcane with focus on production side intervention for small and marginal farmers in Marayoor and Kanthalloor Panchayats. An awareness programme for sugarcane farmers from Marayoor GP in organic cultivation practices has been carried out in April 2021. A stakeholder consultation was carried out in June at Marayoor to discuss about scaling up of the Sustainable sugarcane initiative and convergence possibilities with GP and agriculture department. An Online meeting was conducted with technical experts and model farmers in June 2021 to review the production practices in model farms.</p>						
Output 1.4: Community-based models developed for sustainable access and use of forest resources by local communities	<i>1.4.1 Developing a comprehensive strategy based on evaluation of socio-economic study of Edamalakudy</i>	Not taken up because of Covid restrictions						
	<i>1.4.2 Implementation based on the comprehensive strategy for Edamalakudy</i>	Not taken up because of Covid restrictions						
	<i>1.4.3 Facilitation in implementation of</i>	Not taken up because of Covid restrictions						

	<i>Community Forest Right in project landscape.</i>							
	<i>1.4.4 Technical Experts/Consultants extended to MoEFCC, Haritha Kerala Mission and State Forest Department (Salaries)</i>	Consultancy charges and PMU costs						
		Outcome Total					\$86,844.14	
Outcome 2: Multiple use landscape management is applied to secure the ecological integrity of the High Range landscape								
Output 2.1: <i>Capacities of conservation and production sector personnel developed for applying landscape approaches in to sectoral planning and operations</i>	<i>2.1.1 Geospatial mapping of the landscape using high resolution satellite imagery and ground information (different sector & ecological attributes) Inventorizing high value biodiversity areas & assessment of flora and fauna of selected sholas inside tea estate</i>	The decadal time series analysis of 11 Grama Panchayaths from 1990-2000-2010 is completed. The ground truthing activities for 6 GPs is currently stalled due to CoVID and delayed funds						The activity is on track. Ground truthing needs to be carried out on priority.
	<i>2.1.2 Develop & validate state of sector documents for mainstreaming into the policies and practices of sectoral stakeholders (Tea, Coffee, Cardamom, Oil, Forest plantations and Tourism sectors)</i>	State of Sector document with sectoral biodiversity plans is being developed.						Draft version of the State of sector document with recommendations for interventions in the Plantation sectors have been developed.
Output 2.2: <i>Mainstreaming of bio-diversity concerns in key production sectors demonstrated</i>	<i>2.2.1 Demonstration of developed potential strategies in plantation sector (tea, cardamom, coffee, forest plantations)</i>	Energy Audit Energy saving recommendations in the Investment Grade Energy Audit was carried out previously at two factories of Kannan Devan Hills Plantation Company Ltd. These recommendations were endorsed during the online meeting, held in April 2021, along with few suggestions; Revised final report was submitted in May 2021 for review.						The audit has been finalized. The demonstration based on the audit recommendations are to be taken forward.
	<i>2.2.2 Demonstration of developed potential strategies in Tourism sector in the landscape</i>	Sustainable Tourism Initiatives						A few training programs had to be conducted online on account of the covid restrictions and Model Code of Conduct.

		<p>High value low impact tourism models at Kuttampuzha (Ernakulam District) and Mankulam Panchayath (Idukki District)</p> <p>It is aimed to develop a Sustainable community tourism model to be piloted in Kuttampuzha and Mankulam panchayaths where tourism development is in its infancy. This will be market linked replicable and sustainable tourism model with measurable benefits for the local community and biodiversity of the landscape. Panchayath specific sustainable plan is developed, and various service providers are being trained under this activity.</p> <ul style="list-style-type: none"> ○ 10 walk trails outside forest & 5 walk trails inside forest were identified and operationalized ○ Licensing process for 15 homestays is in progress. ○ Follow up trainings for tour guides is currently ongoing. ○ CODE (The code of Conduct for the Protection of Children from Sexual Exploitation in Travel and Tourism) workshop was conducted for potential service providers ○ Destination Management guidelines and proposal for Panchayat is prepared ○ Knowledge products developed which includes Festival Calendar, Farm tourism details, Stories for Guides in walk trails, walk trails mapping and information ○ 5 tour packages developed ○ Prototype of website is developed Content and design development is in progress <p>Responsible Tourism Protocol Development and Demonstration</p> <p>In order to address the need for a responsible tourism approach in project landscape, it is aimed to develop a biodiversity integrated Responsible Tourism protocol. Responsible Tourism protocol will include tourism operators, hoteliers, local self-governments, government agencies, local</p>							
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		<p>community, civil society organisations and tourists to take responsibility, take action to make the tourism in the locality more sustainable.</p> <ul style="list-style-type: none"> ○ Preparation of responsible tourism draft protocol for mountain landscape completed ○ Stake holder consultation meetings and trainings for various stake holders on responsible tourism practices and protocols initiated ○ Trainings for tourism accommodation sector service providers was conducted in June 2021. Trainings for Local Self Government is planned in July 2021 					
	<p><i>2.2.3 Removal of invasive and exotic species and Eco-restoration of degraded locations outside forest areas</i></p>	<p>Green Islands / Biodiversity Parks</p> <p>Green islands/ Biodiversity parks aim at developing biodiversity demonstration plots and ensure community participation for biodiversity conservation. It is done in convergence with the MGNREGS workforce. Maintenance is ongoing in 12 plots across 7 Panchayaths – Marayoor, Kanthalloor, Chinnakanal, Mankulam, Adimali, Kuttampuzha and Athirappilly. Saplings were sourced from Central Nursery by Forest Department, MGNREGS nursery and Social Forestry Nursery. Around 1220 saplings, including medicinal plants varieties and native fruit trees, were procured, and planted across the 12 locations generally linked with local educational institutions.</p> <p>Based on discussions done with Adimali Govt. School for starting a biodiversity knowledge centre, a separate building has been allocated for this purpose. Discussion and concurrence have been taken from District Panchayath which has decision rights over the school.</p>			<p>A team was formed with participants from the Haritha Keralam Mission and State Biodiversity Board to explore the possibility of setting up a biodiversity resource centre in Adimali, Idukki District. Discussions have been done with the School officials who have offered to provide a building for this purpose.</p>		
	<p><i>2.2.4 Adopting Soil stabilization measures outside forest, especially at identified landslide prone areas in Devikulam block such as along the National High Way from Munnar to Chinnakanal by planting</i></p>	<p>In the context of frequent natural calamities in Kerala, it is important to prepare local level disaster plans and how technology can be used for disaster preparedness. Munnar Panchayath in Idukki district selected for pilot based on suggestion by Devikulam Sub Collector.</p> <p>The model was developed and presented to various state & district level stakeholders.</p>			<p>The activity is on track. The data collection was delayed as a result of covid lockdown. But this has resumed after lockdown was lifted.</p>		

	<i>vetiver, shola species and other deep rooted species along the synforms.</i>	The tool has the following components: <ol style="list-style-type: none"> 1. GIS based alert monitoring system for landslides 2. SMS/ Telegram alerts to Rapid Response Team/ Disaster Management Officials 3. Interactive landslide susceptibility maps 4. Emergency contact management system to push alerts 						
Output 2.3: <i>Best practices documented and disseminated for improving decision making on sustainable resource management and use</i>	<i>2.3.1 Updation of State biodiversity strategies and action plan</i>	The plan of action for Biodiversity Expenditure Review (BER) by KSBB was endorsed in May 2021. First Roundtable discussion held on Biodiversity Expenditure Review with participation of 25 officials from 21-line departments for finalizing the schemes and programmes identified for BER and for clarifying data information gaps in June 2021. A template for preliminary data collection on activities leading to biodiversity conservation, issues, future projects, programmes etc was developed and to be shared with the stakeholders.				The activity is on track.		
	<i>2.3.2 Develop key policies and management framework/ decisions adopted at local and state level related to sustainable mountain landscape management</i>	Landscape level Multi Stake holder Management Strategy framework has been developed. Data collection template for Landscape Level Multiuse Management Plan developed with the sections – administrative, socio economic, socio demographic, land use, human & animal health, temperature, rainfall, water, soil, waste, extreme events, contact details, and forest				The activity is on track.		
	<i>2.3.3 Technical Experts/Consultants extended to MoEFCC, HarithaKeralam Mission and State Forest Department (salaries)</i>	Consultancy charges and PMU costs						
		Outcome Total					\$	
Outcome 3: Commonly accepted governance framework for multiple-use high range landscape management evolved							51,941.47	
Output 3.1: <i>Landscape level management plans and</i>	<i>Improved Protected Area Management</i> <i>3.1.1 Measures to mitigate threats such as forest fire,</i>	GIS center, established by the Vazhachal Forest Development Agency, has started functioning. Various spatial information has been collated so far and a geo database has been developed for				The activity is on track and is partially affected as a result of Covid-19 lockdown.		

<p><i>sustainable resource management systems in place</i></p>	<p><i>road kills etc in biodiversity conservation</i> <i>Technologies for monitoring wildlife movement - installation of thermal sensor at Malayattoor & Chalakkudy as part of reducing human wildlife conflict</i></p>	<p>planning. Forest fire management and mitigation plan was prepared by this cell for the Vazhachal Forest Division. Potential zones were identified for riparian eco restoration by the GIS cell.</p> <p>Periodic maintenance and revamping of tree ladders at 14 locations across the Chinnar Wildlife Sanctuary to reduce road kills of IUCN red listed species like Grizzled Giant Squirrel (Near Threatened) and Nilgiri langurs (endangered).</p> <p>Thermal sensors are conceived as warning system for wildlife and entry to the human settlements in the forest fringes. This warning will be issued to the inhabitants of the settlements and to Rapid Response Teams. It was decided to pilot the thermal sensors at Malayattoor Forest Division during the technical scrutiny of the activity proposal.</p>							
	<p><i>3.1.2 Management and reduction of waste inside the forested areas supporting Green Grass Project</i></p>	<p>Identified waste generation hotspots within and outside Protected Areas and finalized the forward linkages and systems to be established in each hotspot.</p>				<p>The activity is on track and is partially affected as a result of Covid-19 lockdown.</p>			
	<p><i>3.1.3. Protection of sandal wood forests through improved technologies (establishing digital fences in selected priority areas)</i></p>	<p>Marayoor sandal wood forest is a unique ecosystem in the project landscape. The primary objective of this activity is to establish digital environmental sensors as part of introducing smart forest approach in protecting the unique Marayoor sandalwood from theft and reducing the manual labour cost for better management of the sandalwood area. The activity entails a feasibility study to develop a solution for timely detection and prevention of unauthorized axing/ chopping-off of valuable trees, which would indirectly monitor the health and growth of these trees, thereby contributing to the social goal of conserving forests and protecting flora and fauna and providing a sustainable solution to meet this objective.</p> <p>The limitations of conventional methods of sandalwood protection was identified. In order, to overcome the issues identified it was proposed to do digital fencing. This will also aid in free wildlife movement.</p>				<p>The activity is on track and is partially affected as a result of Covid-19 lockdown.</p>			

		<p>Theft prone areas were identified and locations for installing the sensors were shortlisted.</p> <p>Advertisement released in newspaper for identifying agencies as part of this activity.</p>						
<p>Output 3.2. Institutional platforms of multiple stakeholders evolved and strengthened at appropriate levels for planning and reviewing sustainable resource use</p>	<p>3.2.1 Training forest dependent communities, VSS, EDCs & frontline forest officials on: Livelihood skill development (advanced wood working course to 25 tribal youth) Eco tourism destination management: Visitor management and disaster risk reduction in eco- tourism destinations Local Action Plan for Climate Change in 8 FDAs (106 VSS & EDCs) Advanced community research improvement: census techniques & habitat monitoring protocol by giving training and involving tribal communities</p>	<p>Virtual Capacity building trainings has been provided to Vana Samrakshana Samithi members at Vanashree eco shops. (for what)? Vanasree is an initiative of the Forest Department to add value and market the products of Joint Forest Management Committees and Eco Development Committees. This initiative was started in 2011-12 and currently, it has a network of 41 collection centres, 11 value addition centres and 37 Vanasree shops in the state to procure, add value and market NTFPs.</p>					<p>The activity is on track and is partially affected as a result of Covid-19 lockdown.</p>	
	<p>3.2.2 Community based bird conservation at Thattekkad and adjoining areas Conducting certified course on ornithology and birding for tribal youth Publishing book on bird in local language Developing Salim Ali sathram as heritage building</p>	<p>The Thattekkad Bird Sanctuary is one of the six Protected Areas in the Project landscape. The Sanctuary and adjoining areas are crucial link of the landscape due to its topographic position and altitudinal gradients. Major forests of the Sanctuary include tropical evergreen, semi-evergreen, moist deciduous forests, riparian forest and teak plantation. Sanctuary harbors about 322 species of birds including several species of migratory and endemic birds.</p> <p>Draft version of the ornithology course book on birds (field guide) has been developed. Virtual Capacity building sessions conducted for forest trainers</p>					<p>The activity is on track and is partially affected as a result of Covid-19 lockdown.</p>	
	<p>3.2.3 Strengthening of Chilla market through automation</p>	<p>The Kerala Forest Department of Marayoor Sandal Division in Idukki district started a local open market called 'Chilla' ('Protection' in</p>					<p>The activity is on track and is partially affected as a result of Covid-19 lockdown.</p>	

	<p><i>of existing market system- Establishing goods transportation facilities for tribal NTFPs and Agriculture produces from tribal settlements</i></p>	<p>English), to ensure the farmers at the tribal settlements in the region get a fair price for their organically grown agricultural produce. The main aim of the market is to help the tribal farmers sell their products and livestock from their tribal settlements at a reasonable price.</p> <p>Considering the challenges at Chilla market, it is important to explore the possibility of Process automation at Chilla market. Process automation is the use of technology to automate business processes to sequentially transition from one task to the next with minimal human intervention.</p> <p>The primary objective of the assignment is to undertake an intervention in the process automation of Chilla market which will help in easy operations and can reap major benefits.</p> <p>As a part of strengthening, Chilla market (tribal community market) branding exercise were carried out and logo concept was shared with forest department officials for approval.</p> <p>Pilot run of the automation of Chilla market was successfully carried out during the quarter and the process has been put in place.</p> <p>A building for Chilla market has been completed as part of co finance by Forest Department sourced through NABARD.</p> <p>Inauguration is being planned for the renovated Chilla Market with the automated bidding system in place in the month of August.</p>							
	<p><i>3.2.4. Strengthening of RRT (Marayoor, Munnar & Malayattoor) in the landscape by providing improved facilities & establishing tool rooms</i></p>	<p>Identification of the gaps in efficient functioning of Rapid Response Teams were completed and areas for further interventions have been identified.</p> <p>It has been decided to provide insurance for snake rescuers in the project area.</p>				<p>The activity is on track and is partially affected as a result of Covid-19 lockdown.</p>			
	<p><i>3.2.5 Establishing decision support system in the form of centralised digital database management of existing geospatial maps, studies, surveys, research publications and so on.</i></p>	<p>Strengthening of conservation measures and management systems is being done by establishing geospatial database through ground level GPS aided recording of spatial information on various ecological parameters contributing the improvement of wildlife habitat and reducing the threats to wildlife, its habitat, and the human-wildlife interface.</p> <p>Decision support system – workstation has been installed at Munnar Wildlife Division. Data</p>				<p>The activity is on track and is partially affected as a result of Covid-19 lockdown.</p>			

		compilation and collation of various spatial information is ongoing.						
	<i>3.2.6 Upgradation of eco-tourism destination and interpretation centre to address the special needs and make them differently abled friendly at Athirappally and Thattekad including development of eco-tourism website for differently abled</i>	Handrails has been installed at Athirappilly waterfalls tourism spot to make it disabled friendly. Athirappilly waterfalls tourism spot is managed by Vazhachal Forest Development Agency.				The activity is on track and is partially affected as a result of Covid-19 lockdown.		
	<i>3.2.7 Developing green building code with energy efficient facilities & piloting the same in the landscape (Divisional Office, Forest Station IB and Check post – one each)</i>	As part of technical scrutiny, it was decided to convert the Mankulam Anti-Poaching camp shed into a green building with solar powered energy facilities.				The activity is on track and is partially affected as a result of Covid-19 lockdown.		
	<i>3.2.8 Establishment of live museum at Marayoor</i>	As part of the technical scrutiny done by State Nodal Officer, Chief Wildlife Warden, Forest Department and Sr. Technical Advisor, UNDP, it was decided to reallocate this fund for another activity.				To be reallocated.		
	<i>3.2.9 Facilitating landscape level multi stakeholder forum for sustainable landscape management</i>	<p>Proposal has been submitted to the Government of Kerala on the formation of –</p> <ul style="list-style-type: none"> ○ Landscape Level Advisory Committee with the District Collector, Idukki as the Chairperson and the Sub Collector, Devikulam as the Convenor and representation from the key stakeholders in the landscape being members ○ State Level Advisory Committee with the Addl. Chief Secretary, Planning and Economic Affairs as the Chairperson and State Project Director as the Convenor and representation from the key departments related to Natural Resource Management & Biodiversity being members <p>The functions of the committee will be to act as a multi stakeholder forum to monitor the project activities and to enable cross stakeholder convergence.</p> <p>Another proposal has been submitted to the Government of Kerala to institutionalize the above cross sectoral forum as the institution to</p>				The activity is on track and is partially affected as a result of Covid-19 lockdown.		

		carry forward the initiatives taken up during the project period. The proposal was discussed with the Addl Chief Secretary, Planning & Economic Affairs, Govt. of Kerala.						
	Enhancing management effectiveness of HVBAs							
Output 3.3: Management effectiveness of designated biodiversity rich ecosystems are strengthened to address existing and emerging challenges to ecosystem conservation and services	<i>3.3.1. Establishment of cyber wildlife crime control cell at Forest Head Quarters</i>	As part of conserving the wildlife population by effective interventions, preliminary works for the setting up of cyber monitoring cell with wildlife crime database management system and capacity building of enforcement agencies dealing with cyber wildlife trafficking by providing professional assistance and training in a phased manner is in progress. The occurrences of cyber wildlife crime trafficking not only in the project landscape but also in the entire State such as the networks of poachers, traders, virtual markets, and the consumers through the online platform shall be monitored and disrupted through a centralized monitoring cell through trained professionals. Discussions were held with the Chief Wildlife Warden on setting up the cell at Forest HQ. As per the decision of the Chief Wildlife Warden, the cell will be integrated with the Forest Department's cyber cell. The infrastructure will be provided by the Forest Department and the technical facilities will be provided by the UNDP Project.				The activity is on track and is partially affected as a result of Covid-19 lockdown.		
	<i>3.3.2. Review of Management Plan guidelines; Review of State Forest Policy Review and validation of METT and MEE scores of PAs within the project landscape to identify gaps</i>	Management Plans of Anamudi Shola National Park and Pampadum Shola National Park has been prepared and submitted for approval. Preparation of draft management plans of Munnar and Marayoor Forest Divisions is ongoing.				The activity is on track and is partially affected as a result of Covid-19 lockdown.		
	<i>3.3.3 Developing eco-compatible habitat monitoring cell inside Eravikulam National Park Establishment of habitat and wildlife health monitoring cell at Thattekkad</i>	Eravikulam National Park forms the largest conservation landscapes in the Western Ghats with several rare and endemic species including largest viable population of Nilgiri tahr in the world. With these diverse values the park is holding, monitoring of the various habitat types becomes a challenging task. To improve the habitat, permanent monitoring stations are envisaged in an eco-friendly manner.				The activity is on track and is partially affected as a result of Covid-19 lockdown.		

		<p>The construction of earthen structures is near completion and procurement of equipment for installation is going on.</p> <p>The revamping of the infrastructure for the habitat monitoring cell is done by the co-financing from Forest Department at Thattekkad. The tendering for purchase of equipment for the monitoring cell is on going</p>					
	<p>3.3.4. <i>Development of detailed project report - Centralized Hospital for Elephants at Vadakkanchery & State level Digital Forensic Lab at Forest Head Quarters</i></p>	<p>As part of the technical scrutiny done by State Nodal Officer, Forest Department, Chief Wildlife Warden, Forest Department and Sr. Technical Advisor, UNDP, it was decided to utilize the funds allocated to this activity elsewhere.</p>				To be reallocated.	
	<p><i>Habitat Improvement – Strategies and Implementation</i></p>						
	<p>3.3.5 <i>Removal of plantations (Wattle and Eucalyptus), Eradication of alien weeds, from PAs and outside PAs, Removal of alien species from the high altitude montane grassland (inside and outside the PAs), Restoration of identified vulnerable and degraded forest areas (including shola/ grasslands segments within PAs and other degraded areas including improvement if Nilgiri Tahr habitat in Meesappulimala (Removal of exotics and restoration of grasslands) & designing a long term sustainability plan for Nilgiri Tahr</i></p>	<p>Monitoring plots were identified to evaluate the efficacy of restoration process. 3 zones at Anaimudi Shola National Park and 4 zones at Pambadum Shola National Park were identified. Permanent sampling plots were established and month wise data on biodiversity and regeneration of exotic species are being collected. This is for developing framework for restoration of the landscape.</p> <p>Controlled removal of exotics from the forest areas of Pampadumshola, Kurinjimala and reserve forests of Munnar is ongoing.</p> <p>1 Lakh seedlings of kurinji species has been produced and planting of the same at the restoration sites is completed.</p> <p>Removal of exotics and planting of native grass species is in progress. 25 Ha completed.</p> <p>Short video developed on ecosystem restoration for Forest day and World Environment Day.</p>				The activity is on track and is partially affected as a result of Covid-19 lockdown.	
	<p>3.3.6 <i>Bamboo ecosystems - mapping of species, age and developing conservation measures such as</i></p>	<p>This has not been initiated and will be taken up once the revision of Letter of Agreement is approved.</p>				The activity is on track and is partially affected as a result of Covid-19 lockdown.	

	<i>measures to prevent exotic invasion and forest fire) at Thattekkad Bird Sanctuary</i>							
	<i>3.3.7 Conservation of special habitat like Hornbill and Vayal ecosystems based on the recommendation from the study titled 'Ecosystem requirements of Hornbill' 2019-2020</i>	This has not been initiated and will be taken up once the revision of Letter of Agreement is approved.					The activity is on track and is partially affected as a result of Covid-19 lockdown.	
	<i>3.3.8 Reviving of aquatic ecosystems at Thattekkad Bird Sanctuary and establishing sustainable monitoring systems for improving the migratory bird habitat</i>	Out of the 14 waterholes in Thattekkad Bird Sanctuary, removal of IAS species (<i>Cabomba caroliniana</i> , <i>Limnophila heterophylla</i> , <i>Salvinia species</i>) from 7 waterholes has been completed. Nearly 3.5 Tons of IAS were removed, and habitat of aquatic migratory birds were improved					The activity is on track and is partially affected as a result of Covid-19 lockdown.	
	<i>3.3.9 Rejuvenation of flood affected Riparian vegetation (Stabilization of Riverbanks by geotextiles and other environment friendly techniques, planting of suitable riparian saplings) – Chalakkudy River & tributaries of Periyar River</i>	In Vazhachal Forest Division, five potential locations were identified for restoration. 20 species of riparian plants were identified for replanting. Nearly 5000 saplings will be procured this year before the onset of monsoon. In the consecutive years, the plants required for restoration will be availed from the newly established nursery itself. As part of Chalakkudy river restoration 2400 seedlings belongs to 10 species has been planted on an area of 700m2. The planting is currently ongoing.					The activity is on track and is partially affected as a result of Covid-19 lockdown.	
	<i>3.3.10 Scientific video documentation of unique features in the landscape such as elephant congregation at Anakkulam and best practices of the Project such as Chilla Market, tree ladder etc in the form of documentaries, coffee table books, short films and IEC materials</i>	Video documentation of eco restoration of degraded forest areas has been completed Draft booklet on "Orchids of Eravikulam National Park" is developed Video documentation of traditional seed conservation at tribal settlements of Chinnar Wildlife Sanctuary is ongoing Concept note prepared for Chilla Market video documentation					The activity is on track and is partially affected as a result of Covid-19 lockdown.	
	<i>3.3.11 Study on home ranges - Nilgiri Tahr, Nilgiri Martin, Frogmouth and other key species</i>	As part of the technical scrutiny done by the State Nodal Officer, Chief Wildlife Warden, and Sr. Technical Advisor, UNDP, it has been decided that the funds allocated for this particular activity to study on home ranges of Nilgiri Tahr					To be reallocated	

		and Nilgiri Marten can be utilized in some other activity						
	<i>3.3.12 Demonstrating measures to conserve the soil and water resources inside and outside the Protected Areas by improving the existing water retaining facilities and checking gully formation in the high-altitude grasslands.</i>	This has not been initiated and will be taken up once the revision of Letter of Agreement is approved.				The activity is on track and is partially affected as a result of Covid-19 lockdown.		
	<i>Human Wildlife Interface management</i>							
	<i>3.3.13 Management of human-wildlife interface (identification and mapping of corridors, development of early warning systems and other short term and long-term strategies with potentials of co-financing)</i>	<p>The sites for establishing sensors for alerting elephant entry into settlement area has been identified. Consultation was made with few agencies to demonstrate the sensor techniques. The agency visited the locations and mapped the area.</p> <p>Work order will be issued after getting permission from the Chief Conservator of Forests, High Range Circle.</p> <p>Technical agency has been identified for Mapping of corridors in the landscape. They have submitted the technical and financial proposal which has been scrutinized and await approval from CCF.</p>				The activity is on track and is partially affected as a result of Covid-19 lockdown.		
	<i>3.3.14 Facilitating the preparation of comprehensive plan for protecting the Anayirangal elephant ecosystems in Chinnakkanal</i>	The Conservation plan developed for protecting the Anayirangal elephant ecosystems in Chinnakkanal has been presented before the Chief Conservator of Forests Council of the Kerala Forest and Wildlife Department. Based on the suggestions provided, field data is being collected.						
	<i>3.3.15 Establishment of Veterinary Care unit - rescue and rehabilitation centre; Establishment of Monkey Rescue Centre at Malayattoor</i>	This has not been initiated and will be taken up once the revision of Letter of Agreement is approved.						
Output 3.4: <i>Rare Endangered and Threatened</i>	<i>3.4.1 Establishment of nurseries with micro-propagation facility for RET species at Devikulam</i>	Studies are being carried out to understand the mode of propagation of 14 shola species (Rare Endangered and Threatened). The nursery for the generation of seedlings have been established.						

<i>(RET) ecosystems and endemic species are secured through improved conservation measures</i>		Mapping of shola eco systems in and around tea plantations has been completed. The biodiversity assessment of shola ecosystems has been completed. Currently, the plan for securing these ecosystems is undergoing.							
	3.4.2 Establishment of centralised grassland/shola/nursery at Devikulam & Pampadumshola. Sandalwood nursery at Marayoor. Riparian species nursery at Chalakkudy & Vazhachal	Mother beds for two grassland species is established at Devikulam and Pampadumshola National Park (924 & 720 numbers respectively) 45000 seedlings of 11 shola species are raised at the Central Nursery, Devilkulam, Idukki District Nursery for sandal wood plant species has been established. 10,000 seedlings are being propagated at the nursery in Marayoor, Idukki District. 1 Lakh seedlings of Kurinji species has been produced at the Pambadum Shola National Park and have planting has been started at restoration sites in Kurinjimala Wildlife Sanctuary. Both the Protected Areas are in the Idukki District.				The activity is on track and is partially affected as a result of Covid-19 lockdown.			
	3.4.3 Technical Experts/Consultants extended to MoEFCC, Haritha Keralam Mission and State Forest Department (Salaries)	Consultancy charges and PMU costs							
		Outcome Total							
Project Management Cost									

Sub Total: \$ 197,293.46

Project Management Expenses: \$ 761.47

Grand Total: \$ 198,054.93

Delivery Status:

Delivery target for 2021: USD 2,000,000

Delivery for 2021 by end of Quarter 2: USD 503,428.12

2. PO's Overall Analytical Report

2.1. Narrative – based on PO's own assessment, BTORs and other reports

2.1.1. Comments on progress in project as per QPR, and on whether the project is on the right track:

The project is on track. The suggestions provide in the Mid Term Review on certain implementation arrangements have been worked out and has been put in place. This includes posting a Project Coordinator, posting a Technical Advisor, ensuring M&E at the Country Officer, etc. The frequency of FPIC meetings has also been increased to make sure the communities and Panchayath representatives are completely on board with the project activities.

Two occurrences affected the project progress during the Q2 reporting period – 1. The Covid-19 induced lockdown in the state from May 8th to June 16th, 2021 and 2. The Model Code of Conduct on account of State Assembly Elections from April 1st to April 30th 2021. Many of the meetings had to be postponed or cancelled. Some meetings could be done through the online media.

2.1.2. List of project issues/ risks that the PO wants to ensure are included and addressed in the PSC:

List of issues:

1. Forming a Landscape Level Advisory Committee with landscape level stakeholders for landscape level convergence
2. Forming a State Level Advisory Committee with state level stakeholders for state level convergence
3. Project extension on account of time lost due to Covid and fund transfer delay

2.1.3. List of issues that the PO wants to escalate to unit Heads/ senior management:

List of issues:

1. The project continues to face apprehensions on certain project activities being contradictory to the interests of few sections of the community; The project team and the SPV have tried to assuage these fears through local level meetings and block/ district level meetings.

2.2. Section on Gender and Inclusion

2.2.1. What were risks related to:

a) mainstreaming gender

The project takes into consideration the gender dimensions while undertaking activities related to biodiversity conservation and sustainable livelihoods. Several interventions have been undertaken w.r.t training and capacity building for alternate livelihoods and sustainable natural resource management wherein 90% participants were women. The key risks related to mainstreaming gender includes:

1. Loss of livelihood opportunities as a result of Covid related restrictions

2. Social stigma associated with sanitation workers especially in the Covid period leads to women green entrepreneurs (Haritha Karma Sena) not getting expected support from the general public in carrying out their responsibilities
3. Climate vulnerabilities leading to failure of crops being promoted through the project (like sustainable sugarcane farming, lemongrass, traditional seeds like millets/ rice varieties etc.) where women were taking lead
4. Lack of markets for products from the women led enterprises
5. Gender roles with regards to natural resources like women can take up livelihood opportunities close to home, men to take up activities that involve more skill & training, etc.
6. Unavailability of a credible database on LGBTQ community for gender mainstreaming of genders other than male & female

b) concerns of women and men belonging to the marginalized groups e.g. related to participation, access and control of resources and benefits, etc.?

1. Loss of livelihood opportunities as a result of Covid related restrictions
2. Climate vulnerabilities leading to failure of crops being promoted through the project (like sustainable sugarcane farming, lemongrass, traditional seeds like millets/ rice varieties etc.)
3. Lack of markets for products

2.2.2. What were challenges related to:

a) mainstreaming gender and

1. Covid lockdown and health concerns accentuated the stigma associated with the sanitation workers who are women SHG members or Haritha Karma Sena. This was one of the reasons why they could not go for household collection of solid waste in the project area.
2. Unavailability of a credible database on LGBTQ community for gender mainstreaming of genders other than male & female
3. Because of restrictions in movement of people and closure of shops and other commercial establishments, women have lost livelihood opportunities including Employment Guarantee Schemes

b) concerns of women and men belonging to the marginalised groups, e.g. related to participation, access and control of resources and benefits, socio-cultural/institutional obstacles, etc.? Any new upcoming opportunities/ ideas on facilitating gender & inclusion in the project?

1. Loss of livelihood opportunities as a result of Covid related restrictions
2. Climate vulnerabilities leading to failure of crops being promoted through the project (like sustainable sugarcane farming, lemongrass, traditional seeds like millets/ rice varieties etc.)

2.3. Any innovations/ success stories (completed or ones to watch for) that PO wishes to bring on board or for Communications to follow up:

1. Sustainable Sugarcane initiative – SSI focus on improvement of value chain of Sugarcane with focus on production side intervention for small and marginal farmers in Marayoor and Kanthalloor Panchayaths
2. Green Innovation Fund - Green Innovation fund has been launched for social enterprises to address biodiversity conservation challenges in the landscape.

3. Carbon Neutral Mankulam - Through the project, a unique attempt is being made to develop Mankulam Grama Panchayath as a Carbon neutral panchayath. Mankulam Panchayath has over 1000 farmers practicing organic agriculture and is very rich in forest cover.
4. GIS Cell - GIS center, established by the Vazhachal Forest Development Agency, has started functioning. Various spatial information has been collated so far and a geo database has been developed for planning. Forest fire management and mitigation plan was prepared by this cell for the Vazhachal Forest Division.
5. Biodiversity Parks - Green islands/ Biodiversity parks aim at developing biodiversity demonstration plots and ensure community participation for biodiversity conservation. It is done in convergence with the MGNREGS workforce. Maintenance is ongoing in 12 plots across 7 Panchayaths – Marayoor, Kanthalloor, Chinnakanal, Mankulam, Adimali, Kuttampuzha and Athirappilly. Saplings were sourced from Central Nursery by Forest Department, MGNREGS nursery and Social Forestry Nursery. Around 1220 saplings, including medicinal plants varieties and native fruit trees, were procured, and planted across the 12 locations generally linked with local educational institutions.
6. Sustainable Tourism initiatives - High value low impact tourism models at Kuttampuzha (Ernakulam District) and Mankulam Panchayath (Idukki District). A community centered sustainable tourism model is being developed for the two panchayaths. The sustainable tourism plan is developed based on resource mapping and stake holder consultations done in the two Panchayaths. Experiential tourism packages and products promoted for local economic development.
7. Visual Media course - One of the videos taken as part of Covid awareness, features a tribal community member – Laya. Laya is the coordinator of a partner agency working on waste management as part of the project. The video was produced by Arjun Murali, another tribal community youth in the project landscape who is also a student of the Visual media course that has been launched in July 2021. The course supports 25 youth, like Arjun, from underprivileged communities (Scheduled Caste and Scheduled Tribes) from the landscape on visual media.

2.4: Any partnerships / success stories (completed or ones to watch for) that PO wishes to bring on board or for Communications and partnerships team to follow up:

1. Recity – Partnership with Recity group which operates with CSR funding from Nestle for Munnar Waste Management

Anushka Sharma

Team Leader a.i.