



**BIODIVERSITY
CHALLENGE FUNDS**



Biodiversity Challenge Funds Projects Darwin Initiative, Illegal Wildlife Trade Challenge Fund, and Darwin Plus

Half Year Report

It is expected that this report will be a maximum of 2-3 pages in length.

If there is any confidential information within the report that you do not wish to be shared on our website, please ensure you clearly highlight this.

Submission Deadline: 31st October 2025

Please note all projects that were active before 1st October 2025 are required to complete a Half Year Report.

Submit to: BCF-Reports@niras.com including your project ref in the subject line.

Project reference	30-018
Project title	Reviving Trans-Himalayan Rangelands: A community-led vision for people and nature
Country(ies)/territory(ies)	India
Lead Organisation	WWF-UK
Partner(s)	WWF-India, Centre for Pastoralism
Project Leader	Nicola Loweth (WWF-UK) and Rishi Kumar Sharma (WWF-India)
Report date and number (e.g. HYR1)	31 st October 2025, HYR3
Project website/blog/social media	Reviving Trans-Himalayan Rangelands WWF India

1. Outline progress over the last 6 months (April – September) against the agreed project implementation timetable (if your project started less than 6 months ago, please report on the period since start up to end of September).

Although we are not looking for specific reporting against your indicators, please use this opportunity to consider the appropriateness of your monitoring, evaluation and learning (MEL) systems (are your indicators still relevant, can you report against any Standard Indicators, do your assumptions still hold true?). The guidance can be found on the resources page of the relevant fund website.

Output 1. Shared, community-led vision developed for Changthang and Mago-Chu Rangelands, ensuring the inclusion of all local voices, particularly women and marginalised groups, through radical listening and participatory approaches.

Visioning Exercises

In Mago Chu: Visioning exercise have been completed in 15 villages across the Mago Chu region. Draft documents have been shared with the respective CCA Management Committees, and seven CCAs have already endorsed them (activity 1.3). Final endorsement will take place through the formal adoption of the CCA Management Plans, which incorporate the visioning components. These plans blend traditional and contemporary natural resource management practices, developed with active participation from

community groups and elders. A consolidated, landscape-level vision document has also been prepared, and stakeholder consultations are planned between October and December 2025 to finalize and share it with a wider audience.

In Changthang: The visioning exercise for the Changthang rangelands has been successfully completed, and the final report for the Changthang rangelands vision has been drafted (ref. WHL 1.2) (Vision from the Highlands: Building a Shared Future for Rangelands, Wildlife, and Communities) along with abridged version developed for policy recommendations (ref WHL1.2.2). A comprehensive multi-stakeholder meeting was subsequently organized to review, discuss, and validate the vision.

The meeting brought together a broad spectrum of stakeholders, including community representatives, government officials, youth groups, women's groups, non-governmental organizations (NGOs), and elected representatives. The Chief Executive Councillor (CEC) and Councillors of the Ladakh Autonomous Hill Development Council (LAHDC) participated in the deliberations. Following extensive discussions and feedback integration, the Final Vision Document and the Policy Recommendation Brief were endorsed and approved by all participating stakeholders, reflecting a shared commitment to the collective development vision for Changthang rangelands.

Following the multistakeholder meeting in June, the team met the Lieutenant Governor of Ladakh, who is the chief government functionary for the Union Territory of Ladakh and apprised him about the significant milestone in terms of development of a community-led vision for Changthang and the proposed rangeland council. The Lieutenant Governor also promised his support for the vision and assured that it will be officially launched in the presence of all UT Administration officials and LAHDC councillors, followed by its formal dissemination and implementation at both the administrative and community levels.

Rangeland Councils:

Mago-Chu: After detailed consultations with local partners and village representatives, it was collectively decided not to establish a separate Rangeland Council in areas already functioning under strong Community Conserved Area (CCA) frameworks. Seven CCAs are currently operational across project villages—Kharman, Kyalengteng, Shocktsen, Nyukmadung, Sengedzong, Lish, and Thembang—with two additional ecologically important villages, Lumpo and Muchut, included for their snow leopard habitats. Through a series of participatory visioning exercises and consultations, all nine villages have contributed to shaping local conservation priorities, which are being incorporated into CCA management plans. In non-CCA villages, traditional institutions such as the *Mangma* and *Panchayat* will lead the implementation of community-driven action plans.

So far, nearly 500 community members including Brokpa pastoralists, youth and women have participated in these processes, with women constituting 39% of participants. The project team has also initiated broader outreach at events such as the Shangrila Calling Festival, engaging residents and officials from Mago, Jang, and Mukto, as well as district administration, Forest Department, ICAR-NRC on Yak, and the Herders' Association. Moving forward, two district-level consultations—one each in West Kameng and Tawang—will be organised, followed by a consolidated meeting with the Chief Minister and senior officials to formalise the Mago-Chu Rangeland Council.

Changthang: In June 2025, a major multi-stakeholder meeting was held in Leh, attended by the Chief Executive Councillor and councillors of LAHDC-Leh, senior government officials, NGOs, and over a hundred community members, youth, and women's representatives from Changthang. The meeting discussed the structure, role, and functions of a proposed Rangeland Council to guide rangeland management and governance. The idea received strong endorsement from all participants, with an overwhelming majority voting in favour of establishing the council as a representative body to coordinate and oversee rangeland conservation and sustainable management in Changthang. Political unrest in Ladakh has temporarily delayed progress, but the team remains fully committed and confident of achieving this within the project period.

Community Perceptions of Visioning

Mago-Chu: The visioning exercises conducted in Mago-Chu have been highly appreciated by community members, who described the process as both meaningful and impactful. The participatory

discussions and consultations prompted deep reflection, especially among elders—on the traditional Brokpa way of life, their connection to the landscape, and the evolving challenges faced by the community. To date, visioning exercises have been completed in 15 villages in total, with active participation from elders, women, and youth representatives. A comprehensive satisfaction survey is planned for October, which will generate detailed and in-depth insights to further inform the process.

Changthang: This exercise has already been completed and reported in the year 2 annual report.

Output 2. Multi-stakeholder co-management of rangeland plan, based on the community-led visions in both regions, contributing to improved ecosystem, and resilient rangelands at pilot sites.

Rangeland Management Process

Mago Chu: Efforts to build convergence around the community vision for rangeland management have been initiated at the local level. Visioning exercises were completed in 15 villages, with active participation from key community representatives, including panchayat leaders, schoolteachers, and religious figures. While broader engagement with government departments and external stakeholders is still underway, preparations are in progress to consolidate the village-level visions into a unified document for presentation to policymakers and administrative authorities. In August, the key findings from the snow leopard surveys, along with an overview of the visioning insights, were presented to the Head of State and senior officials to seek their feedback and secure their support for advancing rangeland conservation in the region.

In Changthang: Convergence around the community vision for the Changthang rangeland management has been achieved through participatory visioning exercises and consultations held across key pastoral villages. The compiled visioning report was finalized after detailed analysis and review. A multi-stakeholder meeting in June further strengthened alignment among key stakeholders. Following consultations, initial discussions were held with the Hon'ble Lieutenant Governor of Ladakh and Hon'ble Chairman and the Executive councillors of LAHDC Leh to deliberate on the formation of Rangeland Management Council. The initiative has received positive endorsement by the community, with herders and local leaders (Gobas) expressing readiness for the collaborative management. Although the formal establishment of the council is presently on hold due to prevailing situation but the groundwork and coordination among all stakeholders remain active to ensure timely implementation. The upcoming council elections in Ladakh are also expected to temporarily slow administrative decision-making, which may further delay the formalisation of the Rangeland Management Council.

Rangelands Co-Management Plans

Mago Chu: In the Mago Chu region, seven Community Conserved Areas (CCAs) overlap with nine project villages, reflecting a strong alignment between traditional governance systems and conservation priorities. Visioning exercises have been completed across all seven CCAs, providing valuable insights into community aspirations for rangeland management, biodiversity conservation, and sustainable livelihoods. Based on these outcomes, detailed rangeland management plans are now being formulated and integrated into the respective CCA Management Plans. The insights and priorities emerging from the visioning process have already been incorporated into five CCA Management Plans, while the remaining plans are expected to be finalized and adopted by December 2025. These plans collectively aim to strengthen participatory governance, reinforce traditional conservation practices, and promote ecologically sound resource use across the landscape.

In Changthang: The drafting of the Rangeland Management Plan has been progressing steadily based on Vision that has been prepared for Changthang. Initial discussions regarding the formation of Rangeland Management Council were held with Hon'ble Lieutenant Governor of Ladakh and Hon'ble Chief Executive Councillor, LAHDC Leh. However, due to unforeseen bottlenecks and emerging administrative priorities, the process of formalizing the Rangeland Council is presently on hold (see risk section below). Once the administration and LAHDC Leh provide further clarity and permission to resume, WWF-India will move forward with facilitating the formation of Rangeland Council and finalizing the comprehensive Rangeland Management Plan.

Rangelands Management Pilots

Mago Chu: Eight villages were identified for piloting sustainable rangeland management interventions based on outcomes of the completed visioning exercises. The pilots focus on strengthening traditional grazing rotations, restoring degraded pastures, and reinforcing community stewardship through the existing CCA framework. Site selection and household profiling (≈ 140 households) were completed with CCA committees, and baseline ecological and socio-economic data are being consolidated. Technical consultations were held with the Forest Department, ICAR-NRC on Yak, and the Herders' Association to integrate scientific inputs with local knowledge in the pilot design.

Changthang: Hanle Valley was confirmed as the pilot site for adaptive rangeland management under the community-led vision. Preliminary mapping of grazing zones and pasture conditions were completed, and field protocols developed for vegetation and livestock monitoring. Political unrest and associated administrative restrictions in Ladakh have delayed community consultations; however, technical work is ongoing. The project team will resume field engagement with the pilot implementation once normal government functioning and community access are restored.

Baseline vegetation assessments and early indicators of recovery have been established through a combined remote-sensing and field-based monitoring framework. Thirty key pastoral grounds were mapped, and a stratified, multi-criteria spatial analysis was completed using a SAVI-derived greening–browning index integrated with elevation, slope, and aspect data. This enabled classification of the rangelands into 36 ecological strata representing varying levels of degradation and recovery potential, of which 17 account for over 90% of the total grazing area. These strata are now being used to identify priority sites for pilot interventions and to monitor vegetation response to different grazing intensities derived from temporal livestock density trends.

On-ground vegetation sampling is underway across representative strata to validate satellite-based observations, measure biomass and species composition, assess soil stability and establish permanent monitoring plots for annual re-assessment. This approach will provide a robust quantitative baseline for detecting vegetation recovery at pilot sites and will directly inform adaptive management under the forthcoming rangeland management plans.

Wildlife Occupancy Estimates

Mago Chu:

A 9-month camera-trap survey using 65 cameras at 40 locations (10,887 trap nights) yielded 3,416 snow leopard photographs across three survey blocks. Spatially explicit capture–recapture (SECR) modelling identified 16 unique individuals, estimating a population density of 0.69 ind./100 km² (95% CI: 10–25). Detection probability was 0.60 on the first occasion and 0.54 on the second, reflecting consistent survey performance. Movement data indicated individual ranges exceeding 20 km for some animals, demonstrating connectivity across sub-valleys.

The survey also generated exceptional biodiversity records, including the first photographic evidence of *Pallas's cat* (*Otocolobus manul*) in Arunachal Pradesh, and the highest-elevation records of *clouded leopard*, *marbled cat*, and *common leopard* for the region.

Complementary double-observer surveys along 21 transects estimated 366 blue sheep (*Pseudois nayaur*) across 33 herds (mean group size = 11), corresponding to 0.36 ind./km² over a 1,027 km² area. Detection rates were strong and consistent (Observer 1: 59%, Observer 2: 53%), confirming the robustness of the method.

These combined datasets provide the most comprehensive high-altitude carnivore and prey assessment yet for the Eastern and Western Himalaya and form a critical ecological baseline for long-term rangeland and predator-prey management.

Changthang:

Building on Year 1 results, which estimated approximately 14 snow leopards (0.52 ind./100 km²) across the Hanle Basin, the team has advanced the next phase of ecological monitoring to track population trends

and rangeland health. Detailed survey design, sampling framework, and field protocols have been finalised for Year 3. The upcoming study will re-survey ~2,600 km² of the Hanle River Basin—one of Ladakh's highest conservation-value rangelands—to generate updated occupancy estimates for large carnivores and their prey.

An extensive network of camera traps will be deployed alongside structured community-based occupancy surveys and double-observer surveys to estimate ungulate abundance. This integrated design will allow cross-validation of ecological and participatory data to understand landscape-level carnivore–prey dynamics. All required permissions and equipment are in place, with field sampling scheduled for November 2025–January 2026. The results will directly inform adaptive management under the Rangeland Management Plan and provide empirical evidence of ecosystem resilience across the Changthang landscape.

Output 3. Enhanced tolerance for wildlife in the two target sites, through a combination of preventive and mitigative measures for reducing livestock losses and cost of living with wildlife, improves human-wildlife coexistence.

Community Tolerance for Wildlife

Mago-Chu:

Baseline assessments established a neutral mean perception score (0.41) toward snow leopards and a negative score (0.35) toward wild dogs (*Cuon alpinus*). These findings reflect existing concerns over livestock losses and competition with wild predators. Interventions—including community awareness sessions and improved livestock protection measures—are still underway; therefore, this baseline will serve as the reference for measuring Year 3 changes. The post-intervention survey is scheduled for mid-November 2025, timed with the Brokpa herders' return from high pastures. Allowing a 6–8-month interval between intervention completion and reassessment will ensure a more accurate evaluation of shifts in livestock mortality, perception, and tolerance levels following mitigation efforts.

Changthang:

In Changthang, a comprehensive Human–Wildlife Conflict (HWC) preassessment covering 359 respondents across three blocks (Durbuk, Nyoma, and Rupshu) recorded a generally positive perception toward wildlife (mean score = 0.78 ± 0.14). Regression analyses revealed that tolerance increased with stronger conservation value orientation and social engagement, while older respondents and those with higher economic losses reported lower scores. A post-assessment survey is now underway to evaluate the effectiveness of mitigation interventions—primarily flashlights and foxlights—introduced during Year 2.

The ongoing survey will revisit representative villages from the baseline sample to collect data on livestock depredation incidents, species involved, temporal trends, and perceived effectiveness of mitigation tools. Comparative analysis against baseline data will quantify changes in conflict frequency, severity, and community attitudes. The findings will directly feed into adaptive management strategies and strengthen evidence-based approaches for improving human–wildlife coexistence in both project landscapes.

Mitigation Measures

Mago-Chu:

Pilot mitigation interventions were introduced based on community feedback gathered during the visioning and conflict perception exercises. Foxlights were tested by Brokpa herders in Mago village, who reported a noticeable reduction in nocturnal livestock depredation near corrals. Participants also suggested that combining visual deterrents with sound-based tools (e.g., audio-visual deterrents such as Anider units) could further enhance effectiveness. These insights are guiding the refinement of a locally appropriate deterrent package to be expanded across additional villages during the next field season.

Changthang:

By the end of Year 2, preventive measures were implemented at scale, directly covering over 275 pastoral households. A total of 300 flashlights and 20 Foxlights were distributed across key villages including Reley-Eaching, Urgo-Phobrang, Sato, Chibra, Barma, Kherapullu, Chushul, Tsaga, Dungti, Koyul, Demchok, Hanle, and Rongo. An additional 150 flashlights were distributed in Chumur, Tegazung,

Korzok, Angkung, Tsokar, and Kharnak, ensuring saturation coverage across both Durbuk and Nyoma subdivisions.

These interventions were co-designed with herder groups and village representatives following detailed focus group discussions and household consultations. Final distribution lists and deployment sites were reviewed and validated by members of the Ladakh Autonomous Hill Development Council to ensure transparency and local ownership. The post-assessment survey currently underway will evaluate their effectiveness and inform the scale-up of context-specific coexistence measures.

Reduced Livestock Losses

Mago-Chu:

Baseline assessments indicated that while direct livestock depredation by wild carnivores is relatively low, disease-related mortality remains a major cause of loss for herding households. Accordingly, the mitigation strategy was adapted to address this primary driver of livelihood vulnerability. In collaboration with the National Research Centre on Yak (ICAR-NRCY), targeted Animal Health Camps were conducted across project villages to improve vaccination coverage, parasite control, and overall herd health management. These interventions were co-implemented with local herders and village leaders to strengthen ownership and long-term adoption. An endline study will be undertaken in the next quarter to assess changes in livestock morbidity, mortality, and household economic loss, providing quantitative evidence of impact.

Changthang:

In Changthang, livestock loss reduction will be evaluated through the ongoing human-wildlife conflict post-assessment survey. The survey is gathering detailed data on livestock depredation rates, affected species, seasonal patterns, and perceived effectiveness of preventive measures such as foxlights, flashlights, and improved herding practices. Comparative analysis against the Year 1 baseline will quantify reductions in losses and help identify which interventions deliver the most consistent results under different rangeland contexts. These findings will directly inform the refinement and scaling of coexistence strategies across both project landscapes.

Output 4 More than 200 Changpa and Brokpa pastoral households have diversified and augmented income from 'rangelands-friendly' products and micro-enterprises led by women.

Income Generation

Mago-Chu:

In Mago-Chu, the Brokpa women's enterprise focuses on winter wear and ghee-based products, which align with seasonal demand patterns. Sales typically occur during the winter months; hence, no transactions were recorded during the last six months. Preparations for the upcoming sales season are underway, including renewed production and product packaging support from CfP. The income assessment for participating households will be integrated into the project-wide endline survey to capture cumulative effects of both seasonal and festival-linked sales cycles.

Changthang:

Women-led enterprises in Changthang are transitioning from product development to active market engagement. Participation has been confirmed for major national and regional exhibitions—including the *Saras Melas* and *Enchanting Ladakh Mela*—which will provide direct exposure to buyers and retail networks. These platforms are expected to generate sales and business partnerships that strengthen household income and enterprise visibility. An endline income survey is scheduled for February 2026, following completion of these events, to accurately assess income changes against the baseline and capture tangible revenue gains from the rangeland-friendly livelihood interventions.

Training

Mago-Chu:

A 12-day *Artisan Outreach Programme* was conducted in Lubrang, West Kameng, in partnership with Somaiya Kala Vidya, engaging 11 Brokpa women weavers. The training combined traditional Brokpa

techniques—such as felting and hand-weaving—with design innovation and product diversification using locally sourced sheep and yak wool. The culturally contextual modules strengthened artisans' creative skills while promoting sustainable use of indigenous materials. The women also undertook a learning visit to Zemithang to explore potential production of woollen furnishings for the upcoming homestay under the Bengo Project. Their products will be showcased in Somaiya Kala Vidya's exhibitions, linking local craftsmanship to wider markets and reinforcing both cultural identity and economic resilience.

Changthang:

Refresher handloom training commenced in August 2025, focusing on sustainable skill development in spinning and weaving of market-grade yarn and sheep wool products. A total of 178 Changpa women are currently undergoing training, scheduled to conclude by December 2025. The curriculum, developed in consultation with the Ladakh UT Administration and LAHDC-Leh, emphasizes improved technical proficiency, product quality, and market readiness. To strengthen exposure and sales linkages, two trained women from each village will participate in the upcoming *Saras Mela* and *Enchanting Ladakh Mela* (Dec 2025–Jan 2026) to showcase their handcrafted products. Feedback from a beneficiary satisfaction survey (March 2025) indicated high levels of confidence and satisfaction among participants, reflecting both skill enhancement and motivation to pursue livelihood activities independently.

Rangelands Friendly Enterprises

Mago-Chu:

A women-led micro-enterprise anchored with *It's All Folk* has been successfully established, engaging 12 Brokpa women in wool-based production. During the on-the-job training phase, 15 women earned INR 1,63,450 collectively, followed by INR 2,00,550 during the production phase (Oct 2024–Feb 2025), surpassing the initial revenue target. Most members are first-time earners who previously relied on subsistence agriculture or casual labour, reflecting strong empowerment outcomes.

Three Brokpa women participated in a market exposure visit, where one showcased and sold her products, earning INR 13,900. Through three new market linkages, locally crafted bags, jackets, and scarves reached urban exhibitions, achieving premium prices and fair compensation. Additional community income was generated through workspace rentals (INR 69,000) and restoration work (INR 18,400). Indigenous wool worth INR 49,180 was procured from local herders, directly benefiting household economies. Together, these activities demonstrate a functioning, community-owned value chain linking herders, artisans, and markets.

Changthang:

Ten women-led micro-enterprises were formally registered under the Ministry of Micro, Small and Medium Enterprises, Government of India. These units, already reported in Year 2 (Ref: WHL_4.1.1_Livelihood Report; WHL_4.2.1_Micro-enterprise certificates.zip), continue to operate independently across villages, focusing on wool-based products. Building on earlier capacity-building efforts, the enterprises are now enhancing product quality, introducing value addition, and preparing to participate in upcoming national-level exhibitions in New Delhi. Participation in these markets will enable direct sales, improve visibility, and generate concrete income data for evaluation in Year 3.

Our national partner, The Centre for Pastoralism (CfP), has also advanced enterprise development across both project landscapes, focusing on goat manure and hair-based ventures in Changthang and a ghee-based enterprise in Mago-Chu. These initiatives aim to diversify household income while promoting sustainable use of rangeland resources.

In Changthang, two goat manure-based ventures have been initiated. A business orientation workshop for Changpa youth, conducted jointly with the Agriculture Department, introduced enterprise models for value addition in goat hair and manure. Several participants have since been mentored to develop business plans. Manure samples collected across seasons were tested for nutrient content to establish agronomic value and inform product differentiation, branding, and pricing. Packaging prototypes are being designed, and vendors identified for production. Field visits to assess previously distributed manure barrels reaffirmed community interest and highlighted opportunities to integrate goat hair and manure into a single business model. Subsequent meetings with the Agriculture Department resulted in

interest in scaling manure enterprises, with plans to link entrepreneurs to the Himalayan Institute of Alternatives, Ladakh (HIAL), for technical and business mentorship.

In Mago-Chu, progress has focused on developing a women-led ghee enterprise. During the Mago Shangrila Calling Festival, four Brokpa women successfully piloted the end-to-end process—from butter collection and ghee production to packaging and sales—demonstrating feasibility and local capacity for independent operation. This pilot was supported by CfP with seed funding and basic packaging materials. Additional training for four Brokpa women in Lubrang enhanced technical skills in ghee production and enterprise setup.

Scalable Market Models

Significant progress has been made in developing viable livelihood options and practical marketing models for women-led, rangeland-friendly enterprises across both landscapes.

In Mago-Chu, the partnership with *It's All Folk (IAF)* has yielded a strong proof of concept for a Brokpa women-led weaving enterprise. The initiative successfully established production systems, introduced contemporary designs while retaining cultural identity, and achieved direct income generation through sales and exhibitions. WWF-India provided facilitation, oversight, and institutional coordination to link the enterprise with local authorities and explore pathways for replication through Community Conserved Areas (CCAs). The IAF-supported pilot now serves as a working example of how artisanal enterprises rooted in traditional skills can evolve into community-owned business models with clear market potential.

In Changthang, WWF-India has led the development of wool and pashmina-based livelihood initiatives through extensive training, quality improvement, and product development with local women's groups. Two goat-manure and wool-based ventures by CfP have advanced beyond the feasibility stage, supported by business orientation workshops and partnerships with the Agriculture Department and the Himalayan Institute of Alternatives Ladakh (HIAL). These initiatives are shaping an integrated value chain—from raw material sourcing to product refinement and market engagement—built on sustainability and women's economic participation.

Across both landscapes, CfP has engaged extensively with village leaders, including Gaon Burahs and CCA committees, to strengthen community ownership and facilitate broader youth and women's participation in livelihood initiatives. Policy briefs on pastoral economies and livelihood diversification are under final review, alongside two three-year synthesis reports summarising research and enterprise development outcomes for Changthang and Mago-Chu. Building on their pilots, CfP is finalising a detailed *Business Opportunities in Ghee* report outlining steps for scaling a sustainable, community-owned enterprise.

Collectively, these initiatives have generated a robust, evidence-based understanding of viable livelihood pathways and a scalable framework for rangeland-linked enterprises that combine conservation outcomes with enhanced economic resilience for mountain communities.

Reflection on indicators: the indicators we have been working to on this project remain, in general, appropriate as targets. Time frames to achieve the stated results have been adaptively managed to respond to local contexts. The overall Outputs and Outcomes will be achieved, albeit if the processes followed have not been in the distinct stages as envisaged in the original planning.

One indicator that we have had to adapt relates to how we will enable the delivery of Output 3 re reducing livestock losses. While we have focused on mitigation of livestock losses due to wildlife, it was clear that in Mago Chu a greater concern of the herders was livestock loss due to disease. Hence, we have integrated responses to livestock health in this project, funded through match.

We can report against Standard Indicators and assumptions in the final report.

2. Give details of any notable problems or unexpected developments/lessons learnt that the project has encountered over the last 6 months. Explain what impact these could have on the project and whether the changes will affect the budget and timetable of project activities.

During the reporting period (April–September 2025), project implementation in both Ladakh and Arunachal Pradesh faced a mix of contextual challenges and adaptive learning opportunities.

In Ladakh (Changthang), widespread public demonstrations demanding constitutional safeguards for the Union Territory led to temporary political unrest. The protests in late September 2025 resulted in curfews, restricted movement, and suspension of communication networks across several districts. As a result, planned field activities—including community consultations, coordination meetings with the Ladakh Autonomous Hill Development Council (LAHDC) and UT Administration, and the formalisation of the Rangeland Management Council—had to be postponed. While these disruptions are temporary, they have delayed governance-related outputs and rangeland pilot implementation. WWF-India continues to coordinate with administrative authorities and local leaders and is ready to resume activities once normal functioning is restored.

In Arunachal Pradesh (Mago-Chu), seasonal migration of Brokpa herders and heavy monsoon rains affected field accessibility, delaying the finalisation of the consolidated visioning report and related consultations. Field timelines have been adjusted to align with herder return schedules, and pending deliverables are expected to be completed by November 2025.

Across both Changthang and Mago-Chu, Centre for Pastoralism (CfP) teams successfully designed viable business plans for prospective community entrepreneurs. However, convincing individuals or groups to commit to these enterprises for the long term remains challenging. To address this, CfP adopted a more participatory and experiential approach, piloting business models with interested groups rather than relying solely on theoretical feasibility studies. In Changthang, this approach was applied to the collection and marketing of goat hair and manure, while in Mago-Chu, it was tested through the purchase and processing of butter into ghee for sale during the Mago festival. These pilots allowed participants to engage in the full business cycle—from research and product testing to production and final sale—and have been valuable in building local understanding, ownership, and confidence in developing microenterprises.

A key lesson learnt during this period is the importance of flexible timelines for pastoral landscapes and hands-on, iterative engagement to build trust and sustained community participation. The project has also recognised the need to maintain multiple channels of coordination with both administrative and community institutions to ensure continuity during socio-political disruptions.

These challenges have not significantly impacted the budget but have caused minor shifts in the timing of some activities into the next quarter. No formal change request is anticipated at this stage.

3. Have any of these issues been discussed with NIRAS and if so, have changes been made to the original agreement?

Discussed with NIRAS:	No
Formal Change Request submitted:	No
Received confirmation of change acceptance:	N/A

Change Request reference if known: *If you submitted a financial Change Request, you can find the reference in the email from NIRAS confirming the outcome*

Guidance for Section 4: The information you provide in this section will be used by Defra to review the financial status of projects. This review will identify projects at random for spot checks on financial management and will include requests for evidence of the actual spend information provided below. Please ensure the figures you provide are as accurate as possible and that you have the evidence to support it. You do not need to provide it now.

4a. Please confirm your actual spend in this financial year to date (i.e. from 1 April 2025 – 30 September 2025)

Actual spend: £

4b. Do you currently expect to have any significant (e.g. more than £5,000) underspend in your budget for this financial year (ending 31 March 2026)?

Yes ☐ No ☐ Estimated underspend: £

4c. If you expect an underspend, then you should consider your project budget needs carefully. Please remember that any funds agreed for this financial year are only available to the project in this financial year.

If you anticipate a significant underspend because of justifiable changes within the project, please submit a re-budget Change Request as soon as possible, and not later than 31st December. There is no guarantee that Defra will agree a re-budget so please ensure you have enough time to make appropriate changes to your project if necessary. Please DO NOT send these in the same email as your report.

NB: if you expect an underspend, do not claim anything more than you expect to spend this financial year.

5. Are there any other issues you wish to raise relating to the project or to BCFs management, monitoring, or financial procedures?

Suspensions or allegations related to fraud and error concerns should be reported to fraudanderror@Defra.gov.uk

No

6. Project risk management

6a. If your project has an Overseas Security and Justice assessment, please provide an update on any related risks, and any special conditions in your award paperwork if relevant for your project.

N/A

7. Please use this section to respond to any feedback provided when your project was confirmed, or from your most recent Annual Report. As a reminder, all projects that were scored as 'Not Yet Sensitive' in the Gender Equality and Social Inclusion (GESI)

assessment of their latest Annual Report should demonstrate how they are meeting the minimum GESI-Sensitive standard.

Comment # 5: Activity 4.3 relates to a market analysis. The results of the analysis however are not clearly reported: rather what the report outlines what it aimed to achieve. The study was immediately followed by training in one of the proposed products with market potential. The input for this was animal dung. Animal dung in poor, remote communities is most commonly a resource in high demand, not a waste. It is unclear what the study reports about input provision or if the community sees dung as a waste product or a vital local resource'

FEEDBACK FROM CFP

- Response to lack of reporting of the analysis in relation to animal dung:

In Changthang, a value chain study (Ref CP 4.3 1) was completed to assess the risks, linkages, and market potential associated with livestock manure, particularly from goats, sheep, and yaks. The study aimed for 4 different results (see bold section headers below):

- Highlight the potential of manure as a valuable agricultural resource by analysing its nutrient content and benefits.

Test Criteria in %	Method	Field results range	Indian (goat) Comparator	Cattle manure comparator (AI)
N	Kjeklahl	1.6-1.9	0.9-1.2	0.6-0.7
P	Spectrometric	2.6-2.7	0.5-0.7	0.2-0.3
K	Photometer	1.5-2.0	0.8-1.0	0.5-0.6
Organic content	Walkley-Black	27.6-30.3	20-30	15-20

The NPK&OC of the samples of manure from livestock pens indicate that the manure sampled from Ladakh has better fertiliser value than a national trial. Goat manure (mixed with other livestock manure) has, in comparison with other manure, higher nutrient density, higher organic carbon, less odour and a dry texture making it easier to handle. This data was corroborated in an informal conversation with Dr. Jigmet of SKUAST-K centre in Stakna. Dr. Jigmet is a leading scientist and agriculturalist: She emphasised the value of local and regional manure instead of the bulk-imported manure from other parts of the country. She has done scientific research on the quality of manure produced locally vis-a-vis the ones imported, and said that, from her tests and experience, that the imported manure is inferior to the local manure

In addition:

- Farmers in Leh confirmed long-standing use of manure for barley and vegetable cultivation, citing improved soil fertility and moisture retention.
- Trials and secondary research suggested composted manure improves soil structure, reduces chemical fertilizer dependence, and fits with Ladakh's organic agriculture ambitions.

- Explore methods to transform manure into a marketable product, such as through composting and vermicomposting, thereby increasing its commercial value.

The report found that the production of manure is so high that the raw manure is not fully utilised, nor is it connected to Leh agriculture market: due to transportation constraints/costs of "raw" manure: the distance from the rangeland areas to the agricultural production areas requires several hours drive. Composting and vermicomposting reduce the weight of the manure, concentrating the nutrient value (of cattle manure) per kg (and in the case of vermiculture, transforming the nutrients into more plant-available forms) and adding 20-30% above the price paid for raw manure.

A vermiculture experiment was run with women from a Self Help Group in Changthang: coming up against several barriers: (i) vermiculture does not add significant nutrient value to goat/sheep manure – although it does to cattle manure; (ii) in the high altitude of Ladakh it is necessary to run the vermiculture process in polytunnels to keep temperatures high enough for worms to function

(iii) the process results in death of the worms, which is not acceptable within Buddhism (iv) there is considerable additional work in vermiculture practice.

- iii. Encourage local communities, particularly youth, to recognise the entrepreneurial opportunities associated with manure management.

The study above was used to inform training and business planning in two stages: there was a drop off in numbers joining for stage 2, indicative of the realisation of the nature of the work involved and the firm intent of 2 young men to take up the opportunities

- iv. Provide practical insights into improving manure collection, processing, and distribution to promote sustainable agricultural practices and income generation.

The study demonstrated that with a 50% collection efficiency, approx. 125,000 kg of manure could be mobilised daily from ~253,000 goats.

At Rs 5–10/kg, this equates to unrealised potential annual market of Rs 180,000.000 (£1.5m)

Main challenges:	Main opportunities:
<ul style="list-style-type: none"> Scattered production, high transport cost in remote areas. Seasonal availability. Lack of standardisation for fertiliser markets Current competition with subsidised inorganic fertiliser sales. 	<ul style="list-style-type: none"> Government interest (e.g. Ladakh's organic/zero-chemical farming policy) provides an enabling environment There is latent demand, particularly from farmers shifting to organic inputs Government agreement to provide an aggregation location in Leh

Suggested solutions agreed with communities for follow up: village-level collection points (secured), government support/subsidy for aggregation, and exploring procurement by organic agriculture programmes to be able to sell in bulk.

- Rangeland / herder community perceptions of livestock manure

Given the absence of trees and woody vegetation, livestock manure is commonly used as household fuel. Also, for centuries, Changthang's pastoralists have bartered or sold surplus dung to farming communities in lower Ladakh, where it was in demand as agricultural manure, although this is now largely superseded by provision of government subsidised imported fertilisers. This trade—historically in exchange for barley, straw, butter, or later cash—remains largely informal, with some households still selling some of their excess dung to buyers in Leh, occasionally for use as fuel.

The business plan did not treat dung as a “waste product,” but rather as a high-volume byproduct with underutilised potential. In particular, the report highlighted the large volumes of remnant dung that accumulate in goat corrals and pens—material that is not typically collected for household fuel but could be aggregated across herder camps. Since nomadic herding communities do not practice agriculture themselves, large surpluses often go unused locally, underscoring the opportunity for enterprises that can connect this supply to arable or horticultural farmers in and around Leh. By formalising and scaling the monetisation of this underused resource, a manure enterprise could supplement pastoral incomes and build on an already existing, though fragmented, market practice.

There is a second stage of the market analysis, relating to the use of goat hair as an insulation material: there were no follow-up questions about this study.

COMMENT # 8: While there are still some concerns and it may be on the weaker end of GESI Sensitive, the project could address the comments in this section in their HYR.

During the reporting period, deliberate steps were taken to strengthen Gender Equality and Social Inclusion (GESI) integration across project activities. Both field teams in Changthang and Mago-Chu have now mainstreamed gender and inclusion considerations within training, visioning, and livelihood processes.

- In Changthang, 178 women are currently participating in structured handloom and product development training, with at least two women from each village nominated to represent their groups at national and regional fairs (e.g., *Saras Mela*, *Enchanting Ladakh Mela*). These platforms are expected to enhance women's economic visibility and agency in enterprise decision-making.
- In Mago-Chu, the women-led microenterprise supported through *It's All Folk (IAF)* has enabled 12 Brokpa women to become first-time income earners through weaving and product sales. This initiative has demonstrated measurable financial returns and increased women's participation in local economic governance through the CCA framework.
- All community consultations and visioning exercises have included explicit efforts to ensure women's and youth participation, with women representing 39% of participants across Mago-Chu and a strong presence in Changthang's multi-stakeholder forums.
- A gender and inclusion checklist is now being applied across all training and consultation activities, and data on participation and leadership roles are being systematically recorded to strengthen evidence of gender outcomes for the endline evaluation.

Despite existing social and cultural hesitancy, efforts are underway to ensure that women and youth are represented in emerging decision-making bodies such as the proposed Rangeland Councils. Similarly, CCAMCs are being encouraged to make their decision-making processes more inclusive, actively hearing and responding to the voices and aspirations of Brokpas, women, and younger community members. While the project acknowledges that some processes remain male-dominated due to entrenched social norms, the consistent participation of women in training, enterprise leadership, and decision-making forums reflects clear and steady progress toward GESI-sensitive implementation. The upcoming endline survey will include gender-disaggregated indicators on participation, income, and agency to further document these gains.

COMMENT # 9: Please update your risk register to include SEAH risks and mitigations.

Checklist for submission

Have you responded to feedback from your latest Annual Report Review ? You should respond in section 6, and annexe other requested materials as appropriate.	yes
Have you reported against the most up to date information for your project ?	yes
Have you clearly highlighted any confidential information within the report that you do not wish to be shared on our website?	n/a
Include your project reference in the subject line of submission email.	yes
Submit to BCF-Reports@niras.com	yes
Please ensure claim forms and other communications for your project are not included with this report.	yes