

WHAT'S UP?

OXFAM'S CLIMATE ADAPTATION

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Community members taking part in a tree planting initiative at Namo Buddha Community Forest User Group. Photo: RDC Nepal

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CHAMPIONING LOCAL CLIMATE ADAPTATION

Nepal is a geographically fragile country, and this fragility is compounded by a disproportionate share of the global climate crisis. Situated in one of the world's most seismically active regions, Nepal is acutely prone to natural disasters. It ranks 11th and 16th globally for earthquake and multi-hazard vulnerability, respectively. Shifting rainfall patterns, drying mountain springs, and accelerating glacial melt mean that more than 80 percent of Nepal's population is at risk of natural and climate-induced hazards. With agriculture employing roughly 60 percent of the country's workforce, climate change is not a future threat; it is an immediate threat to human survival.

Oxfam in Nepal has been engaging with local communities, civil society organizations, and local governments to mitigate these risks. Oxfam's climate adaptation initiatives empower vulnerable populations to transition from disaster relief to proactive, long-term climate adaptation.

The urgency of these compounding risks was powerfully highlighted by the catastrophic rock-and-ice avalanche that triggered the devastating Rasuwa flash floods on 26 August 2026. Tragedies like these reveal the reality of how a warming world destabilizes high-altitude environments, turning climate change from a theoretical future risk into a present-day crisis.

Climate change is a "triple whammy" for the poorest and most vulnerable people; they didn't cause it, they are most affected by it, and they are least able to afford even simple measures to help protect themselves from its devastating impacts.

Oxfam's strategy is to confront climate injustice by transforming the systems that places unequal burden on people's lives, by strengthening natural landscape, strengthening local institutions for accountable services, promoting inclusive governance across water, food, and land systems and enabling people's voice and agency so that resilience is built more fairly. Those most affected should have greater power, protection, and voice.

Moving beyond immediate crisis response, Oxfam actively collaborates with local communities, civil society organizations, and local governments to mitigate risks. Through targeted climate adaptation initiatives, Oxfam empowers vulnerable populations to transition from disaster relief toward proactive, long-term climate adaptation.

1. Climate-Smart Agriculture (CSA)

The traditional farming calendar in Nepal has been disrupted by unpredictable weather patterns. In regions like the Madhesh Province and the Sudurpashchim Province, floods and prolonged droughts frequently wipe out seasonal yields. In response, Oxfam has initiated and supported farmers with Climate-Smart Agriculture (CSA) techniques to protect livelihoods:

- **Drought-Tolerant and Flood-Resilient Crops:** Farmers are supplied with high-yielding, drought-tolerant cereal seeds and alternative flood-resistant cash crops.
- **Access to Irrigation and Protected Farming:** Oxfam focuses on expanding farmers' access to irrigation by conserving recharge ponds and installing pipeline networks. To optimize water efficiency, Oxfam promotes climate-smart technologies such as drip irrigation and mulching practices. Additionally, the introduction of polyhouses enables smallholder farmers to cultivate off-season vegetables, significantly increasing their income and enhancing their livelihoods.
- **Forest-Based and Diversified Livelihoods:** To reduce dependency on climate-smart farming alone, various initiatives have been launched to promote alternative revenue models, including apiculture (beekeeping), vermicompost production, and local eco-enterprises such as leaf plate enterprise.

2. Nature-Based Solutions and Locally-Led Disaster Risk Reduction (DRR)

In vulnerable districts like Rautahat, annual inundation threatens thousands of lives. Oxfam supports riverbank mitigation efforts. This includes constructing bio-embankments along high-risk river sections using locally sourced materials and participatory community labor. Concurrently, Oxfam empowers community members to lead community disaster management committees (CDMC). By strengthening early warning systems, Oxfam ensures that communities can mobilize and evacuate safely before a disaster strikes.

3. Intersectionality: Gender Justice in Climate Action

Climate change is not gender neutral. As economic and structural pressures force many men to migrate abroad for work, women are left behind to manage households, farm fields, and face the brunt of climate and disaster shocks. Consequently, Oxfam places women at the center of its adaptation framework and has been promoting women's leadership in the farm and in disaster management. Women are trained as citizen scientists, managing local seed banks, monitoring local water security, and directly lobbying local municipal boards to ensure public budgets fund inclusive climate resilience strategies.

4. Bridging Community Action with Institutional Policy

True adaptation requires systemic backing. Oxfam bridges the gap between grassroots action and policy by integrating local climate data into district and national planning:

- **Local Governance:** Assisting municipalities in drafting local Disaster Risk Reduction and Management Acts, climate policies and setting up emergency funds.
- **Finance** **Advocacy:** Influencing climate finance mechanisms through research generating evidence to ensure national and global funds reach the municipal level where adaptation is implemented.

Through this integrated, multi-tiered approach, Oxfam in Nepal is building a future where resilient ecosystems, strong local institutions, and adaptive agricultural networks thrive together.



1624
FARMERS REACHED



7
CLIMATE FIELD
SCHOOLS/FARMER
FIELD SCHOOLS



451
FARMERS
RECEIVED CSA
SUPPORT



33.5
HECTARES OF
LAND
REPLANTATION



2
CLIMATE FINANCE
REPORT PUBLISHED

TURNING CLIMATE CHALLENGES INTO COMMUNITY RESILIENCE



Construction of bio-embankment along Hardiya River. Photo: RDC Nepal

Pulami Tole, located in Chandrapur Municipality-2 of Rautahat district in Madhesh Province is a farming community where agriculture serves as the primary source of livelihood. For years, however, local farmers have struggled against two major climate-related challenges.

During the monsoon, the Hardiya River frequently erode its banks, threatening agricultural land and community resources. Conversely, severe dry spells and unpredictable rainfall have left farmers without reliable irrigation, keeping them at the mercy of volatile weather.

As climate variability worsened, agricultural yields dropped. Many farmers were forced to cultivate only low-water-demand crops, leaving vast areas of farmland underutilized. Ultimately, the combined impacts of riverbank erosion, water scarcity, and unpredictable weather deepened household vulnerability and limited livelihood options.

In response to these challenges, Oxfam in Nepal and RDC Nepal have utilized the Climate Adaptation and Disaster Management Planning (CDMP) process to institutionalize collaboration among community members, local government representatives, and community-based organizations.



Culvert construction in Gujara Municipality of Rautahat district. Photo: RDC Nepal

The community identified riverbank protection as one of the priority actions. A bio-embankment was constructed along vulnerable sections of the Hardiya River using locally available materials and community participation. This nature-based solution aimed to reduce erosion while promoting environmentally sustainable practices.

Simultaneously, efforts were made to improve irrigation access. A water regeneration pond was rehabilitated and expanded, while an electric water pump and irrigation pipeline system were installed to provide reliable water for irrigation.

The bio-embankment effectively mitigated riverbank erosion, protecting

agricultural land that had previously been threatened each monsoon season. This success has encouraged the expansion bio-engineering measures to other vulnerable locations. Additionally, the upgraded irrigation infrastructure provided farmers with reliable water supply throughout the growing season. Consequently, more land was brought under cultivation, crop production increased, and farmers gained greater flexibility in selecting crops.

"Earlier, we were worried every monsoon and struggled every dry season. Today, our fields are productive, our riverbank is safer, and our community feels more prepared for the future," shared Ramkumar Khadka.



Farmers receiving maize planters and threshers. Photo: RDC Nepal

To scale up these initial efforts, additional targeted support was delivered. Soil testing services were introduced to enhance land management, while maize planters and threshers were provided to reduce manual labor and boost farming efficiency. Additionally, demonstrations of the System of Rice Intensification (SRI) promoted climate-smart agriculture, and energy-efficient electric cookstoves were introduced through a cost-sharing model to promote environmental sustainability.

Mechanized agricultural equipment drastically reduced the time and manual labor required for planting and harvesting, enabling farmers to efficiently manage larger plots of land. Soil testing and advisory services helped farmers make informed decisions about fertilizer application and soil management, contributing to improved productivity.

After observing the success of demonstration plots, local farmers have enthusiastically embraced climate-smart agricultural practices. These collective interventions have significantly strengthened Pulami Tole's resilience by reducing riverbank erosion, securing

reliable irrigation, and revitalizing agricultural yields. The promotion of nature-based solutions and cleaner cooking technologies has also contributed to environmental sustainability. Beyond these tangible benefits, the initiatives have enhanced community confidence, ownership, and capacity to collectively address climate-related challenges, enabling households to build more secure and sustainable livelihoods.

Moving forward, community members are committed to expanding climate-smart

agriculture, strengthening riverbank protection measures, and maintaining the irrigation system to ensure long-term benefits. The success of Pulami Tole highlights how community-driven planning, local government collaboration, and sustained support can effectively transform vulnerability into resilience.

As one community member reflected, "The biggest change is not only in our fields or along the riverbank. The biggest change is that we now believe we can face future challenges together."



Construction of bio-embankment along Hardiya River. Photo: RDC Nepal

FROM BARREN FIELDS TO PROSPEROUS FARMS

For decades, Dada Tole, located along the banks of the Bagmati River in Rautahat district's Chandrapur Municipality-1, was known for its vast extension of barren agricultural land. Despite being located near the perennial Bagmati river, the community struggled with the lack of irrigation facilities. The river flowed year-round, yet its water was completely out of reach for the local community. Without any irrigation infrastructure, farmers were forced to rely solely on monsoon rains and families could only cultivate small patches of land for crops like maize. Paddy cultivation was out of the question, leaving large areas of potentially fertile land completely abandoned.

These challenges were further exacerbated by the escalating impacts of climate change. Increasingly irregular and unpredictable rainfall patterns made farming risky, leading to frequent crop failures and declining agricultural income. Consequently, numerous families were forced to diversify their livelihoods, turning to daily wage labor, hotel sector, seasonal migration, or foreign employment.

"We had land, but we could not use it properly. We watched the Bagmati River flow every day, yet we had no way to bring that water to our fields," recalled one farmer.

The community experienced a major turning point when Oxfam and RDC Nepal stepped in. Through a collaborative Climate Adaptation and Disaster Management Planning (CDMP) process, locals identified irrigation as their most urgent need. In response, two electric pumps were installed at the Bagmati River, paired with a water-lifting mechanism and roughly 1,000 meters of pipeline with eight water outlets.

This intervention successfully extended irrigation to approximately 33 hectares of farmland, directly benefiting 45 households. As a result, nearly 33.86 hectares (50 bighas) of previously barren



Irrigation water is pumped from a nearby canal and channeled directly into the fields. Photo: Rachana Mukhia/Oxfam



With reliable access to irrigation water, maize is now being successfully cultivated in fields that were previously barren. Photo: Rachana Mukhia/Oxfam

land were brought under cultivation, enabling local farmers to launch large-scale paddy production for the first time.

"For the first time in our lives, we saw paddy growing across Dada Tole. The land

that once remained dry and barren has now turned green. This change has given us hope, income, and confidence for the future," shared Sangita Sijali, a farmer.

Alongside paddy cultivation, maize production also increased significantly. Farmers were able to cultivate larger areas, improve productivity, and finally began earning a stable income from their land. This transformation went far beyond food security; it strengthened the community's resilience against the unpredictability of climate change. Families that once depended heavily on labor work and migration started finding livelihood opportunities within their own community.

Building on this initial success, Oxfam and RDC Nepal continued to strengthen the community's resilience. They expanded the irrigation network to reach additional farmland, ensuring broader access to water resources. Furthermore, soil testing was conducted on 18 farms, enabling farmers to improve soil management and fertilizer application practices.

To ease labor burdens and advance climate-resilient agriculture, the initiative equipped the community with three manual maize planters and three electric maize threshing machines through a cost-sharing model. This introduction of modern technology significantly minimized manual labor requirements while boosting efficiency.

"The maize threshing machine has saved us a great deal of time and hard work. Farmers across the community are benefiting from this," said Wakil Sijali, a member of the Climate Adaptation and Disaster Management Committee (CDMC).

Today, Dada Tole presents a starkly different picture than it did just a few years ago, having transitioned from a dry, underutilized area into a highly productive agricultural hub. Farmers now cultivate paddy and maize backed by

reliable irrigation and modern machinery. This holistic integration of irrigation infrastructure, climate-resilient farming techniques, soil management, and mechanization has significantly bolstered

the community's resilience to climate risks while improving livelihoods and food security. The transformation of Dada Tole stands as a powerful testament to how community-driven planning, local government collaboration, and sustained project support can drive enduring, systemic change.

"The support did not just provide us with water or machines; it gave us confidence that agriculture can be our future. We now believe that our children can have opportunities here without leaving the village," reflected a community member.



CDMC member from Gujara Municipality using maize seed planter. Photo: RDC Nepal

THE YEAR FARMERS DARED TO TRY SRI



Farmers in Chandrapur Municipality, Rautahat, cultivating rice using the System of Rice Intensification (SRI) method.

Ram Kumar Khadka from Pulami Tole, Chandrapur Municipality-2, Rautahat district is a dedicated farmer who has spent his entire life planting paddy following traditional methods. It involved random spacing, using old seedlings, and planting multiple saplings in a single spot. He never imagined that he would one day find himself experimenting with a completely new method, SRI (System of Rice Intensification).

It all began when a Junior Technical Assistant (JTA) from RDC Nepal, Oxfam's local partner in the district, arrived in the community to conduct a small orientation. While he explained the System of Rice Intensification (SRI), the farmers were genuinely shocked by his instructions.

He advised them to plant seedlings that were only 12–14 days old and to place only a single seedling in each spot. This caused confusion among the group as they were used to planting 30–35-day-old seedlings, often grouping 5–10 together in a single hole. The idea of a single seedling per spot sounded impossible to them. Even more unbelievable was his recommendation for spacing of 25 cm plant-to-plant and 30 cm row-to-row, arranged in perfectly straight lines.

"We feared that the field would look empty, and production would fall drastically," shares Ram Kumar.

Because the farmers did not fully trust the method, they decided to try it together as a group. This collective approach offered a sense of security; if the experiment failed, the losses would be shared. They even joked amongst themselves, saying, "At least if it fails, we all fail together!"

Consequently, a group of seven farmers decided to consolidate their land to test the new method together.

1. Uttam Bahadur Khadka – 6 kathha (0.203 hectare)
2. Bal Krishna Ghimire – 6 kathha (0.203 hectare)
3. Hom Bahadur Sijali – 2 kathha (0.025 hectare)
4. Tikaram Khapangi – 2 kathha (0.025 hectare)
5. Panch Bahadur Sijali – 1.5 kathha (0.0186 hectare)
6. Sona Kumari Chaudhary – 5 kathha (0.169 hectare)
7. Tilak Bahadur Bohara – 3 kathha (0.101 hectare)

Later, Bal Krishna Ghimire stepped back because he did not trust the SRI method. He was replaced by Ram Kumar Khadka. Once the group and their respective land areas were officially endorsed by the ward office, RDC Nepal provided comprehensive support to the group. This included Gorakhnath paddy seeds, ploughing costs, manure, mustard cake, and fertilizer, alongside continuous technical guidance throughout the process.

The group initiated the plantation on the 15th of Ashadh (29 th June 2025). What began as a farm task quickly transformed into a vibrant festival, as RDC Nepal and Chandrapur Municipality collaborated to celebrate Dhan Diwas (National Paddy Day), which falls on the same day, in their SRI demonstration site.

The event drew a distinguished crowd, including the Mayor, representatives from the agricultural section, and local community members. By the following day, the entire SRI demonstration area had been successfully planted.



Paddy plantation using SRI method on National Paddy Day Celebration in Rautahat district.
Photo: RDC Nepal



Rice farming using SRI method. Photo: RDC Nepal

In the first week, the fields appeared almost empty, with tiny, individual seedlings spaced far apart. There was a sense of deep anxiety among the group with some farmers even saying, “We made a mistake, this will not work.”

However, after about seven days, they noticed the first signs of growth. Small tillers emerged in rapid succession. While their traditional methods typically yielded only 6–8 tillers per plant, the SRI method produced a minimum of 15, with some plants reaching as many as 23–24. On average, most plants were between 18–20 tillers, and with this visible progress, they felt hopeful.

Throughout this period, the JTA provided consistent technical support through weekly visits. He guided the farmers on wet-and-dry irrigation techniques, disease control, spacing and weeding, the use of bio-fertilizers, and general field management. When pests like the stem borer appeared, they were quickly controlled under his expert advice. Beyond the impressive growth, the farmers discovered a major economic advantage, the SRI method reduced their seed requirement from 4–5 kg per kattha to just 1.5 kg. This saved their material costs and labor.

Just as things were going well, a severe drought affected the entire community. Water sources began to dry up, and even the local recharge pond was insufficient to meet everyone's needs. The farmers grew deeply concerned that their crop might not survive the harsh conditions. But the results were unexpected. While adjacent fields struggled, the SRI plot remained greener and stronger. The combination of stronger root systems, spacing for air and sunlight, and the natural resilience of the Gorakhnath variety allowed the crop to withstand the dry spell.

“This Gorakhnath variety was stronger, greener, more tolerant to diseases, and more productive than Salyan and other varieties. The SRI method made it even better. We were unaware of this method before, but now we feel confident to continue it every year,” shared Ram Kumar.

This experience significantly increased the farmers' income while strengthening their understanding of climate-resilient agriculture. In a year when severe drought troubled the entire community, the SRI field served as a source of hope. It proved that with proper technical guidance, improved farming practices, and the selection of the right seed variety, it is possible to cultivate strong, successful crops even under difficult environmental conditions.

The contrast in the fields was so striking that people passing by could clearly see the difference. Many farmers arrived to observe the results, nearly filling the group's visitor logbook. Even Bal Krishna, who had withdrawn from the project earlier, expressed deep regret after witnessing the success of the SRI method.

When harvest time finally arrived, the results exceeded all expectations. The SRI plots yielded nearly 160 kg per kattha, while neighbouring fields using traditional methods produced less than 100 kg per kattha. The farmers believed that, had the drought not occurred, they could have easily reached a yield of 200 kg per kattha. In that moment, any remaining doubts they had about SRI vanished completely.

Ramkumar happily claims, “Today, I feel proud that our group became the first SRI farmers in our community. We feel confident and empowered. We have realized that SRI is not just a new method, it is a smart, climate-resilient, cost-saving technique. We will continue with SRI method and Gorakhnath variety again next year.

The group expressed deep gratitude to RDC Nepal and Oxfam for introducing this innovation to their village. They acknowledged that without the combined technical, financial, and motivational support provided, they would never have dared to try it.

Reflecting on their journey, the farmers admitted that were traditional farmers fearful of change. However, after witnessing the results firsthand, they proudly declared, “SRI has transformed our farming techniques, mindsets, and future prospects. For us, this year's success was about more than just a higher yield of paddy; it provided us with the confidence to embrace a more resilient future.



Farmers harvesting paddy cultivated using SRI method. Photo: RDC Nepal

ENHANCING CLIMATE RESILIENCE THROUGH LOCAL BUDGETING IN NEPAL

In Nepal, local governments hold the primary constitutional responsibility for disaster risk reduction and climate adaptation. However, the research reveals a significant gap between financial commitments and actual resilience outcomes. While local budgets are the frontline for public service delivery and risk management, the study across sample municipalities shows that money visible in budgets often fails to translate into effective action on the ground.

The research highlights a stark efficiency gap. Although approximately 7 percent of total municipal budgets are tagged for climate and disaster priorities, only 64 percent of those funds are successfully spent. This results in a total effective utilization rate of just 4.76 percent. Higher allocation levels do not automatically guarantee strong execution, suggesting that institutional capacity and procurement readiness are greater hurdles than simple resource scarcity.

The findings expose a major flaw in how funds are spent. Physical infrastructure dominates, absorbing over 64 percent of tagged finance, whereas governance and institutional management receive a negligible 0.16 percent. This focus on visible assets neglects the essential systems, such as planning, staffing, and community preparedness, that keep infrastructure functional during crises. Furthermore, investment remains highly fragmented; over 80 percent of projects are micro or small, favouring short-term political visibility over strategic, long-term impact.



TRACKING CLIMATE AND DISASTER BUDGET AT LOCAL LEVEL IN NEPAL



Equity also remains a concern, as political influence often overrides risk-based prioritization, leaving vulnerable groups like landless households and Dalits underserved. To bridge these gaps, the report recommends institutionalizing standard budget tagging and shifting toward multi-year resilience packages. By leveraging performance-linked grants to reward execution quality rather than just allocation volume, Nepal can ensure its local public finance builds durable, inclusive climate security for its most exposed citizens.

If you have any concerns or queries regarding safeguarding, please contact the number 16600150076 or send an email at speakup@oxfam.org.uk. For feedback and complains related to programme, please contact the following numbers: NTC: 9851179358; Ncell: 9801571204

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