



Government of Nepal
Ministry of Science, Technology & Environment
Nepal Climate Change Support Programme



SUCCESS STORIES

ON ADAPTATION FROM THE FIELD



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Ministry of Science, Technology & Environment

Foreword

Ministry of Science, Technology and Environment (MoSTE) in collaboration with Ministry of Federal Affairs and Local Development (MoFALD) has been implementing the Nepal Climate Change Support Programme (NCCSP) with the overall goal of enabling the poorest and most vulnerable communities to adapt to adverse effects of climate change. Government of Nepal (GoN) prepared National Adaptation Programme of Action (NAPA), and subsequently prepared and implemented Local Adaptation Plans for Action (LAPAs) in 90 VDCs and 7 municipalities of the 14 districts of mid and far western region. LAPAs reflect most urgent and immediate adaptation action – as expressed by the communities - that require to be implemented at the community level to capacitate them to adapt to climate-induced issues. Nepal is one of the most vulnerable countries to the climate risk, and climate change impact is already observed in the sectors like agriculture, forest and biodiversity, water resources, public health, infrastructure and livelihoods.

After implementation of adaptation actions for two years, the programme has documented thirteen success stories as experienced and expressed by the local communities living in areas highly prone to climate risks and disasters. These success stories presented here indicate that the programme is making positive impacts and helping the communities in increasing their knowledge and increased adaptive capacity to climate change. Women's role and active participation in the programme is very encouraging given the highly entrenched socio-cultural factors prevailing in the programme areas. The case stories relate to programme intervention in areas of energy, infrastructure, technologies, income generation, agriculture farming etc.

The programme will continue to document more cases and success stories which will contribute to further refining the programme strategies and focus.

I would like to thank DFID and EU for providing financial support and UNDP for technical support to the programme. Last but not the least, appreciation goes to NCCSP staff and LAPA Facilitators for their efforts in visiting the remote area, interacting with the communities and helping document the case studies.

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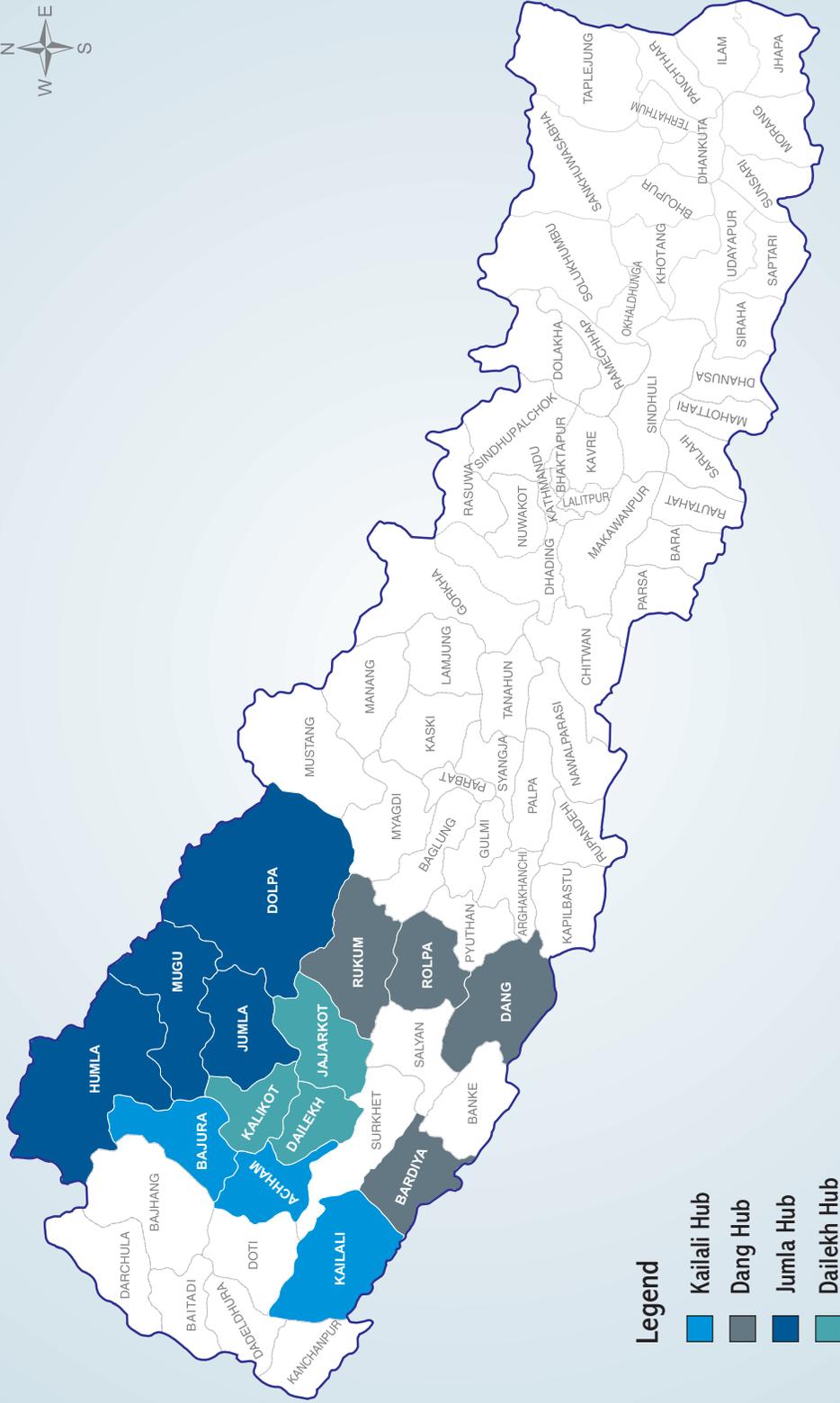

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Joint-Secretary and
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NCCSP

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NCCSP Programme Districts



Legend

- Kailali Hub
- Dang Hub
- Jumla Hub
- Dailekh Hub

Nepal Climate Change Support Programme (NCCSP)

Nepal Climate Change Support Programme (NCCSP) is the first significant, Government led-initiative, to implement Nepal's National Adaptation Programme of Action (NAPA), with a focus on priority area 1- promoting community based adaptation through integrated management of agriculture, water, forest and biodiversity sectors. The goal of the programme is to ensure that the poorest and most vulnerable communities in Nepal are able to adapt to negative effects of climate change. It aims to enhance the institutional capacity of the GoN to address climate change responses by (i) establishing and capacitating the institutional mechanisms at national and local level, (ii) mainstreaming the climate change into Nepal's national development agenda and local planning process and (iii) collaborating with private sector in implementing Climate Change Actions including funding mechanisms

This programme is being implemented in 90 VDCs and 7 municipalities of 14 districts of far and mid-western regions of Nepal since 2013 in close coordination with the Ministry of Federal Affairs and Local Development (MoFALD) and Alternative Energy Promotion Centre (AEPCC). At the local level, District Development Committees (DDCs) own, lead, coordinate, facilitate and implement the programme through Community Users Groups, line agencies and service providers (NGOs).

DFID – UK and EU have provided financial support, and UNDP technical support to the programme.

Far-western Region		Mid-western Region	
Kailali Hub	Dang Hub	Jumla Hub	Dailekh Hub
Kailali	Dang	Jumla	Dailekh
Achham	Bardiya	Humla	Jajarkot
Bajura	Rukum	Dolpa	Kalikot
	Rolpa	Mugu	

1

Poorest Households Benefitting from Solar Energy



“With technical and financial support from NCCSP, the government’s solar energy project has helped to install solar power in over 80 households, targeting the poorest households and those run by single women.”

A young student, Ram Bahadur Nepali, is overwhelmed to see his house lit up at night. Although there is no electricity grid in his village, his family’s new solar-power panel installation means they can access light even in the remote district of Achham where he lives.

He is from an impoverished family in Nada VDC, which makes him particularly vulnerable to the natural hazards and the regular food and water shortages that his district suffers from.

The lack of rural electrification makes life difficult for families such as Ram’s. Studying and carrying out household chores is limited by the darkness, and they lack access to basic communications.

With technical and financial support from NCCSP, the government’s solar energy project has helped to install solar power in over 80 households, targeting the poorest households and those run by single women.

“This simple technology has changed our lives” says Ram. Prior to the solar energy facilities in their households, the women would spend time doing chores in the daytime as they were unable to work in the evenings. “Now they can focus on generating income during the day and continue any household chores in the evenings without worrying about the darkness,” says Ram. “The students can also now study at night and improve their grades”.

He also explains how the solar energy is now helping to improve communication services in the village by helping to recharge mobile phones and listen to radio. They are now better connected to news and weather updates and can call a doctor in an emergency.

An added benefit is the light in outdoor bathrooms makes it less dangerous to use the toilet at night and people can see properly to wash their hands thoroughly.

By helping impoverished families like Ram’s gain access to energy, income communications, education and health facilities, NSCCP is enabling households to cope better when natural disasters and food shortages hit.

2

Rudhakhola Irrigation
Helps to Change
Life for Farmers



NCCSP is reaching out to vulnerable communities to help them improve their livelihoods and become less dependent on a changing climate.

For many years, farmer Lekhendra Shahi had been struggling to achieve subsistence from his farming. The food he produced barely lasted four months a year.

This is not only his story but of hundreds of farmers and their families in Nada VDC, where there is very scant supply of water and irrigation depends on monsoon rains which are becoming increasingly unpredictable with the changing climate.

Nada is one of the VDCs suffering from acute shortage of water especially with the drying of water sources over the years. Villagers themselves have been witness to this rising calamity and believe that climate change is a key contributing factor.

This pessimism has now changed since the Rudhakhola Irrigation project was built in 2014. This was implemented by NCCSP, which invested Rs 800,000 with additional manual labour support provided by the local communities.

“For the first time, my farm has been producing food enough to last eight months, enough to feed my 12 family members,” explains Lekhendra, relieved that he will not have to travel to India or the Gulf to find work as a laborer to support his family.

Prior to the irrigation system, Lekhendra’s family produced barely 2.5 quintal of rice over 9 ropanis (about half hectare) of farmland. Now, he is able to harvest nearly 4 times that amount.

He is now producing enough vegetables to sell a surplus at the local market and is already planning to re-invest his profits into his farm and a better life for his family. 44 other farming households like Lekhendra’s are also benefitting remarkably from the new irrigation system in the VDC.

NCCSP is reaching out to vulnerable communities such as Lekhendra’s across the mid-west region, to help them improve their livelihoods and become less dependent on a changing climate.

3

Improved Cooking Stoves: A Healthier Life for Women



Building smokeless stoves the people of her community are protecting their forest, and also themselves from future natural disasters.

In the remote Duli VDC of Rukum District, a new wave of excitement is filling the kitchens of many households.

NCSSP has provided training for local women on how to change their kitchen environment by building improved cooking stoves. This simple but effective technology can be made in homes at low cost with locally available resources and tools.

Mina Gharti, mother of six, was one of the first to pioneer the new cooking stove. She explains how the local villagers are enjoying a lot of benefits. First of all, there is much less smoke and Mina and her children no longer feel suffocated when they cook.

The stoves are also more efficient and use less fuel wood. "In this way, we can preserve the forest from being destroyed," she explains. The forests in her hill district play a vital role in preventing landslides and regulating water flows. Through building smokeless stoves the people of her community are protecting their forest, and also themselves from future natural disasters.

The efficient stoves also save women time. Cooking is much faster and they spend less time foraging for fuel wood. Cleaning cooking utensils is also much quicker as they are no longer covered in black tar caused by the smoke.

Mina is so inspired by the benefits of her improved cooking stove that she is campaigning for a 'smoke-free VDC' with help of her female peers.

The best part of this is "I have to work less than before and have more time for myself and children," says Mina. "I am very grateful towards NCCSP for its guidance and support".

4

From a Labourer to an Entrepreneur



By helping people train in new skills NCCSP is supporting people out of poverty and to move away from climate dependent livelihoods such as agriculture.

At the Ghetma VDC in Rukum district, skills development training is changing the lives of many low-income people.

Nabin BK is one of them. There was a time when he didn't have any land or a stable job and had to work as a labourer, travelling frequently to foreign countries due to a shortage of work.

Since taking his smithing training through Lumbini Social Development Centre and Jebi Sisne Youth Club his life took a new turn. He was trained in the craft of making and repairing knives, axes, khukuri, spade, dibber and many other useful tools with high local demand.

Now he is a successful entrepreneur and runs his own smithing workshop, selling a variety of construction and carpentry tools. Now he makes enough money to support his family and saves from his supplementary income. "Now I don't have to go around looking for jobs. I have good business now" he says.

This programme is supported by NCCSP through the LAPA. By helping people train in new skills NCCSP is supporting people out of poverty and to move away from climate dependent livelihoods such as agriculture. This helps them both now and in the future as climate becomes increasingly unpredictable.

5

Improved Water Mill, Whatever the Weather



The local villagers are benefitting from the increased efficiency in processing their wheat and rice.

Traditional ways of using natural resources to survive are still in practice in remote villages. In Arma VDC in Rukum district, local villagers use traditional water powered mills, which are easily damaged in poor weather.

With help of NCCSP, efforts are underway to upgrade the traditional water powered mills with sturdier materials. The wooden roof is replaced by tin which will no longer leak. Wooden tubes are replaced with plastic, turbines with iron and the canal supplying the mill strengthened using cement instead of wood.

“Our mill is now resilient to any kind of weather,” says Bhim Bahadur Oli, a local mill owner. “We can work more than three shifts and the efficiency of the mill is much better”.

He explains how the mill no longer has to close regularly for repairs and the local villagers are benefitting from the increased efficiency in processing their wheat and rice.

6

Reaping the Rewards of Training



“It takes them away from a livelihood affected by weather variability, and provides services like electricity that are usually not accessible for the poor.”

In the remote Chaukhawang VDC of Rukum district, Dekendra Oli is the talk of his village. A son of a poor farmer, the 29-year old entrepreneur has started a new career of electric house wiring.

“It was the training that changed my life,” he explains. With support of NCCSP and Rukum District Development Committee, Sisne Yuwa Club ran a 15 day training course for unemployed youths like Dekendra.

Using his new skills Dekendra has wired 81 households so far, and has set up his own business, hiring young interns to assist him in return for their training. In this way he is getting good returns to support his family and supporting the next generation of entrepreneurs so that they can also find jobs in house wiring.

“I’m glad to see so many houses alight with the help of my wiring,” he says. He wants to further advance his skills in repairing transformers and battery inverters and thus expand his business.

Training programmes like this was supported by NCCSP helped local people adapt to climate change because it takes them away from a livelihood affected by weather variability, and provides services like electricity that are usually not accessible for the poor.

7

Opportunities Make Women Empowered



“She is a source of pride for her family and has now built over 51 improved cooking stoves, making a significant contribution to her household’s income.”

Harkama Pun is a prime example of how a woman can become empowered if given the opportunity. She has proven to be a role model for local women and a source of pride for men local to the remote Pang VDC of Rolpa district.

Harkama was so pleased with her new improved cookstove that she built herself with the help of training supported by NCCSP. She can cook more efficiently and no longer struggles with heavy smoke in the kitchen.

She has used her new skills to begin building stoves in households throughout her community. Neighbours constantly praise her work and pay her NRs 500 to NRs 1,000 to build more improved stoves. She is a source of pride for her family and has now built over 51 improved cooking stoves, making a significant contribution to her household’s income.

Communications is crucial part of her job which has helped to build her confidence and give Harkama a voice. She is no longer quiet and shy but constantly promoting the idea of improved kitchen stoves and the role women can have in business.

The recognition by her local community has been her greatest reward, as her transformation was not easy especially in a community with conservative attitudes towards women. “Now people now say that I am a good example of how women can do so much when they get opportunities to learn and work” says Harkama.

8

Building Water Tanks Saves a Village



In early 2014, when a haystack caught fire the local people used the reserve tank to put out the fire before it spread to other houses in the village.

A new water reserve tank in the Ruga VDC of Mugu district is allowing villagers to cope with increasingly unpredictable monsoon rains.

Ruga is a remote village in a difficult geographical landscape, and its residents have been suffering from water crisis for a long time. The nearest water source is the Karnali River over 40km away and depends on highly seasonal rainfall and snow melt.

This reserve tank is a part of the drinking water project of the NCCSP's local adaptation plan. It distributes water through four taps that provide for a mixed ethnic population but 70% of the 125 households served are Dalits, the poorest caste.

"The project has been a great relief to all of us", says Bal Bahadur Thapa, a local villager. Now villagers can store water and have a consistent supply of water throughout the dry season.

The area is prone to fires in the forest but also in the village. In early 2014, when a haystack caught fire the local people used the reserve tank to put out the fire before it spread to other houses in the village. "We would have been killed and all our homes destroyed if there had been no tank here," says villager Badrinath Thapa.

One of the taps is now also connected to a local public school and allowing the students to drink clean water and improve sanitation.

"We are so thankful for this initiative from the government and NCCSP," says Badrinath.

9

NCCSP Helps to Bring Water to a Dalit Woman's House



“Now I can finally use water whenever I need without having to face the possible refusal and unbearable remarks from my neighbours.”

As a single mother, Sukmaya BK is one of the poorest in her village in Shivpur VDC, Bardiya. She works as a daily wage labourer but can hardly earn enough cash to buy meals for herself and her daughter.

Her only wealth is a tiny thatched hut built with help of some local villagers. “I also have my two goats and five chickens,” she says, but fears losing them in the increasing droughts.

For Sukmaya, her hardship was worsened due to lack of access to water and depends on her neighbor’s kindness to let her use their tap.

“It was never easy and I had to endure so much ranting from them,” she explains.

Relief finally came when NCCSP supported the local District Development Committee to install water taps in the poorest households. Her house was selected as among the most vulnerable.

“Now I can finally use water whenever I need without having to face the possible refusal and unbearable remarks from my neighbours”, says Sukmaya. “It is a huge relief from worsening water crisis”.

10

Saving a Village with Culvert Construction



In the Shivapur VDC in the southwest district of Bardiya, local villagers used to live in fear during the monsoon season due to the high risk of flooding of a channel near their homes.

Over 70 households were at risk from the flooding channel, many of them the poorest in their community and so forced to live in this dangerous area and with the most limited capacity to respond to flooding.

The villagers had difficulty crossing the roads, particularly children on their way to school.

In 2014 NCCSP helped to build a 90cm culvert that has dramatically reduced the risk and helped in safe mobility of the villagers, especially the children, to cross the roads from their homes.

A 90cm culvert has dramatically reduced the risk and helped in safe mobility of the villagers.

11

Educating Farmers in Improved Farming



“With the help of Improved Maize Farming Program launched by Bardiya DADO under the LAPA with support of NCCSP people learn to properly farm and harvest new maize crop.”

For a subsistence farmer like Sitaram Tharu, knowledge of improved farming can transform crop production.

Normally he grows paddy, potatoes and mustard. With the help of District Agriculture Development Office (DADO), he got a supply of 25 kg of maize seeds known as Arun-2, which he acquired from Agriculture Research Centre from Surkhet.

However, he still lacked the knowledge on the best time for planting and harvesting the maize crop and the storage and processing needed. Last year, all his maize seeds got destroyed. “The seeds developed black fungus when I dried them all in one place in the sun,” explains Sitaram.

With the help of Improved Maize Farming Program launched by Bardiya DADO under the LAPA with support of NCCSP, he learnt how to properly farm and harvest his new maize crop.

“Now I know how to properly weed, store and process the crop. I know which fertiliser to use and most of all when it is the best time to plant and harvest,” says Sitaram.

Now he can educate fellow farmers in his village and provides a staple crop for his family.

12

Plastic Tunnel Farming



The cultivation of vegetables under plastic tunnels almost doubles the yields and produces high quality crops.

55-year old Desh Raj Tharu often struggled to provide food for his family of 8 who live in the agricultural village of Baghpur of Patavar VDC of Bardiya district.

His small land size barely grew one quintal of rice per katha and sold for a very low price in the local market. He also grew vegetables on his farm but barely earned Rs 20,000-25,000 in each harvesting season.

Desh Raj explains how the fertility of land has been reducing and his concerns for the erratic rainfall and the prevalence of drought that is increasing with the change in climate.

As a vulnerable household dependent on agriculture and a variable climate, Desh's household were selected for a Plastic Tunnel vegetable farming program run by the DDC office under the LAPA with support by NCCSP.

"There has been a huge change in our livelihood and I am so relieved," says Desh Raj. The cultivation of vegetables under plastic tunnels almost doubles the yields and produces high quality crops.

"I was so surprised to see the results," he explains. His family planted a species of tomatoes and chillies species, earning him nearly half of his seasonal income in just two weeks. His income from vegetable farming has now doubled and he can fetch a high price at the market for off-season vegetables.

He has plans of expanding his plastic tunnel vegetable farming with support of LAPA.

13

Land Protection in Bela Village



“Households and croplands are now protected from future landslides, offering greater food and financial security.”

In Khardariya of Dang district, flooding and river cutting threatens farmland and households situated close to the river. The district has high vulnerability to climate change and this threat is worsening over time.

During the LAPA preparation communities have identified gabion wall construction as the adaptation option for this area.

In 2013 NCCSP allocated funds for the implementation of LAPA adaptation activities, according to the active participation of the communities, and in 2014 the gabion wall was built.

As a result of the construction, the gully has stabilised to prevent further damage and the risk of flooding and river cutting has reduced. Households and croplands are now protected from future landslides, offering greater food and financial security. In total, 32 vulnerable Madhesi households have benefited directly from this intervention and 42 households indirectly.

“Last year we could not do anything as the floods washed away our land where we used to grow crops” explains local villager Mr. Purna Bahadur Yadav. “LAPA has really helped us to save our house and land, which otherwise would have been destroyed again this season”.

Communities were very happy that they were empowered to develop their own LAPAs and have now been able to protect their land and houses from climate hazards.

LAPA facilitator Ms. Jamuna Chaudhary says that they have supported about thirteen (13) such schemes in the Bela VDC benefiting about 1765 households out of which 80% poor and vulnerable.

One of the lessons is that addressing the needs of the majority of community by actively engaging them in community decision making should receive high priority.





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