



# Compilation on Best Practices of Environment Friendly Local Governance Program (EFLGP)



Ministry of Federal Affairs and Local Development Environment Friendly Local Governance Program Hattisar, Kathmandu, Nepal



FOREWORD

Owing to scattered environmental management efforts and its ineffectiveness, the Ministry of Federal Affairs and Local Development (MoFALD)realized that it is necessary to integrate environmental consideration into local development plan and budget preparation process. In this backdrop, MoFALD prepared Environment Friendly Local Governance Framework(EFLGF) and was endorsed by the Government of Nepalin 2013. Based on the EFLG Framework, the MoFALD developed Environment Friendly Local Governance Program (EFLGP) and implemented in 14 Districts, 54 Municipalities and 60 Village Development Committees under broader Local Governance and Community Development Program Framework since December 2014. Within the short span of its implementation, the EFLGP has yielded various encouraging results.

I found the Best Practice is an attempt of the EFLGP to compile and disseminate successful initiatives amongst wider stakeholders. Further, the Best Practice covers its achievements in wider subjects; including water resource management, public land protection and utilization, renewable energy promotion, cattleshed management and promotion of alternatives to plastic bags. These activities are linked with livelihood of the poorest of the poor communities on the one hand and on the other contributing to climate change adaptation and mitigation objectives of the EFLGP.

I would like to congratulate the entire EFLGP – Program Management Unit team for publishing the Best Practices. Moreover, I would also like to appreciate Local Development Officers and Executive Officers for their untiring efforts to implement the EFLGP successfully in their respective areas. Thank you to all Monitoring and Evaluation Officers especially to those who documented best cases from the field. Finally, I would like to extend special thanks to DFiD for their generous financial support to the EFLGP.

Hope this report would help enhancing knowledge of local bodies for identification of environment friendly and climate change resilient development activities that contributes to livelihood improvement of rural poor in the days ahead. Moreover, this will contribute to the government's efforts of mainstreaming environment, climate change and disaster issues into local development planning and implementation process and thereby support attaining the sustainable development goals.

(MahendraMan Gurung) Secretary

# Introduction

The Environment Friendly Local Governance (EFLG) concept has been evolved with the notion that sustainable environment management should begin from the household level.

On October 9, 2013, the Government of Nepal endorsed a new initiative called the EFLG Framework (EFLGF) with goal to contribute towards overall poverty reduction, sustainable environment management and inclusive community development. The objective of the EFLG Framework is to mainstream pro-poor, inclusive, and gender responsive environmental, climate change, and disaster risk reduction criteria into local government policies, plans, systems, structures, mechanisms and working procedures.

Environment Friendly Local Governance Program (EFLGP); as execution of EFLG framework, has been implemented in 14 Districts, 54 Municipalities and 60 VDCs with goal to develop climate adaptive & environmental friendly rural and urban communities through environment sensitive local governance to contribute in poverty reduction. The objective of EFLGP program is to enhance adaptive capacity of vulnerable groups including women to cope with impacts of climate change by adopting integrated environment, climate and disaster resilient planning at local level.

To declare environment friendly house, tole, ward, vdc, municipality and district, a set of basic and advanced indicators are prescribed in EFLG framework. EFLGP has highlighted some major area of intervention (indicators) at local level.

Promotion of the joint sanitary landfill site	Reuse of waste; investment on production of energy from waste
Maintain Database of all spring source within district and prepare their protection plan	Support for construction of HH toilets for ultra-poor
Provide ICS or Solar or Bio-gas maintenance training to 2/2 people from municipality and each VDC of district	Support for construction of community compost chamber in urban area
Protection of open/barren land and expenses for planta- tion of trees on barren land and road side	Support for Improved Cooking Stoves (ICS) for sub- stitute of firewood
Investment in river cutting areas for plantation of plants for erosion protection (Bio-engineering)	Construction of nursery in each of VDC & Munic- ipality
Investment on construction of public park	Installation of HH solar plant for rural HH (up to 20 watts)
Investment for pond construction, protection of existing ponds and plantation around pond for greenery	Promotion of organic farming related activities
Erosion/landslide control, spring source protection	Installation of solar street light
Well and water small pond conservation & multipurpose pond construction	Investment in school to promote environment aware- ness
Bio-gas construction & construction of public toilet with attached bio-gas	In municipality for construction of green parking
Support for production of environment friendly bags	Invest on cowshed improvement activities
Preparation of bio-briquette	Organic farming collection center
Promotion of water recharge system	Construction of botanical garden

Some of the worthwhile implemented activities of EFLGP have been illustrated as best practices which can be replicated elsewhere with locally available technology and resources that can contribute directly to environment conservation and climate change adaptation.

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#### **Botanical Garden - Botanical Research Base Station**

Aahaldanda lies in the foothills of Panchase (1450m-2517m) in Bhadaure Tamagi VDC at Kaski district. It has subtropical and temperate vegetation. The region has religious, cultural, biological diversities with high potentiality of tourism. Out of 412 Orchid species found in Nepal, 113 species are found in this region with two endemic species known as Panisea Panchasenensis and Eria Pokharensia.

The lower belt of Panchase is being managed by the locals as community forest whereas upper belt as protected forest. Aahaldanda, was like a bushy wild land before though it contains number of orchid varieties and tree species. "We can make this place for potential research area on plant species, so we need some help. In the meantime EFLGP was launched at our VDC and we work for this place", said Prem Bahadaur Gurung, representative of user committee.



Name tag for plant



Pavement of footway

In the fiscal year 2071/72 EFLGP has

supported NRs. 2, 00,000. About 2.03 hectare of land has been selected for the garden. Site has been cleared and managed. Boundary wall of about 50m length, 1.5m height and 0.5m breadth has been constructed with other some physical works. A natural pond within the garden was also maintained. Different tree species (50-60) were planted and tagged with their scientific names.

The user committee is being working for collecting compatible species and other representative species from Panchase for more broadening the concept of garden and research centre. "We are asking some plant specialist especially Orchid specialist for this" said Mr. Gurung. He further added Panchase is the kingdom of orchid species and we work hard for preserving, conserving our assets.

In addition to this, the botanical garden will contribute to climate change mitigation through carbon sequestration.

#### **Economic Enhancement through Pond Conservation**

Dhara Pokhari is situated at Dhaubadi 2, Jukepani Nawlaparasi. A total of 250 household depend on this pond for irrigation facilities. There are no other irrigation options for this community and water level was being reduced gradually. Dhara Pond Water Consumer Committee has been formed and initiated for its management.

Before EFLG program, the Dhara pokhari was not managed properly. EFLG program has contributed NRs. 3, 00,000 for its proper management and multiple utilization. But after EFLG initiation, the committee was able to collect some fund for its management with support of Department of Irrigation.

Along with this pond, a shankhdev water source was also conserved. The water from sources was accumulated





Dhara Pokhari during maintenance

in this ponds and used for irrigation purpose. This Ponds has been used as a water reservoir which will contribute to climate change adaptation.

As said by Mr. Chandra Bahadur Gaha Magar; chairperson of Dhara Pond Water Consumer Committee even though precipitation was very low this year, local farmers have used it for irrigation and also collected money through fish farming".

With support from EFLG program, pond's water storage capacity has been increased substantially. Apart from enhanced water recharge capacity there has been increased access to irrigation facility that has ultimately improved the agriculture productivity.

## Local Ownership on EFLG Program

While interacting with stakeholders including municipality officials and political party representatives on 2nd April 2016 at Dhanusadham Municipality of Dhanusa District, it was noted that the Municipality has shown strong ownership and commitment for implementing EFLGP.

As said, they have carried out Municipality Council Meeting successfully in time this year even in the very difficult situation when Terai was unrest due to terai based political parties over six months long agitation that lasted in February 2016. While reviewing the annual development plan of the Municipality for FY 2073/74, it was revealed that the Municipality has incorporated all EFLGP eligible activities in the municipality annual development plan for 2073/74.



New constructed Dhanusadham Pond



Shanti Lama, a Social Mobiliser in the Municipality opined, "Voice

Field interaction of government officials with local community at Dhanusadham Municipality

of WCF/CAC has been incorporated in the municipality development plans that have made me happier this time than before. She further said, municipality has attached priority on poor and disadvantageous groups programs to political parties. This was made possible due to effective social mobilization process together with environmental awareness programs.

Thanks to the team work and engagement of grass root people in the planning process that helped formulating EFLG friendly municipality annual development plan. That has been fully owned by the municipality authority. Moreover, this indicates that the sustainability of the EFLG Program is being ensured.

#### **Multitude Benefits of Pond**

Kankali picnic spot is one of the tourist areas of the Khairahani Municipality. It is located in the Kankali Community Forest, habitat of different wild lives and birds. To make easy access of drinking water for wild lives and enhance the habitat of different species of birds, there was a need of sustainable source of water.

With this objective, the pond was constructed nearby the Kankali picnic spot. The pond has added scenic beauty to the area which helped to promote eco-tourism as well.

Kankali picnic spot has been managed by Kankali community forest. The pond is constructed in collaboration and coordination with Kankali user's committee. For this program, EFLGP has supported Five Lakhs (NRs.



Pond Construction work in Kankai



Pond after EFLGP implementation

5, 00,000) for construction of pond and One Lakh (NRs. 1, 00,000) for the solar light installation in the picnic spot in the fiscal year 2071/072.

According to local people and visitors, the construction of pond have provided natural habitat for the migratory bird species. Further they added; animals like Deer, Monkey, Leopard, Wild cat are frequently observed as these animals come to pond for drinking water. Rammani Neupane, President of Kankali Community Forest User Committee informed that, domestic tourism is flourishing and constructed pond has also enhanced water recharge capacity.

Thus the Program of EFLG has motivated local people in the field of bio-diversity conservation and climate change adaptation.

# EFLGP support to Maintain Multipurpose Pond at the Foothill of Chure

Ponds are an important source of vital ecosystem services and have a significant role in economic development and environmental sustainability. Especially, the people of chure region of Sarlahi District, which lacks perennial water resources depend heavily on pond for agricultural development.

In Parwanipur Village Development Committee (VDC) which is located north of Sarlahi district, there are few man-made ponds, out of which two ponds (Siddheshwornath Shivsagar Pokhari Bhramasthan and Pokhari) managed by local community forest user's groups were supported by Environment Friendly Local Governance Programme (EFLGP) for construction of embankment, enhancement of water storage capacity, extension of surface area and plantation in fiscal year 2071/072



EFLGP conserved pond



EFLGP investment

While asking sustainability of the work, local communities have established the pond on their own initiative and the money generated from the fish is being utilized to maintain the pond, therefore, said Parwanipur VDC Secretary Mr. Krishna Acharya.

This support from EFLGP has resulted in enhancement of recreation and spiritual values and more importantly increase in provisioning services like fishery, horticulture and animal husbandry of intervened ponds resulting in promotion of livelihoods of local people according to the Mr. Lal Bahadur Basnet; Chairperson of Siddheshwornath Dharmik Ban Byabasthapan.

Thus, an initiative taken by EFLGP has led enhancement of ecosystem services, environmental stability and livelihood security.

## Roof Top Rainwater Harvesting: Recharging Ground Water Technology

Over exploitation for drinking and irrigation together with drought due to climate change has caused depletion of ground water resources in Terai. Rajkumar Das, Executive Officer of Golbazar Municipality said, "Until few years back people could pump out drinking water from 40ft- 45ft below the ground but now it needs digging up to 150ft - 160 ft".

Accordingly, to address water scarcity issues in Terai; Rajbiraj Municipality piloted Roof Top Rainwater Harvesting and Recharging Ground Water Technology for recharging ground water in Rajbiraj Municipality premises in 2015. In this connection municipality constructed together recharge pits with water harvesting tank and made arrangement to pipe water in these pit and tank from office building roofs through financial support of EFLGP.

Municipality office adjoining settlements are enjoying drinking water benefits from the project as they have been able to pump water by digging only 30ft -35 ft ground which was not the case before. Moreover,



EFLGP supported recharge pond



Water level rise in Bhagwati pond due to water recharge

excess recharged water could be a sustainable source for maintaining Bhagwati Pond that is placed some 20 meter north from the recharge pit.

In summary, Roof Top Rainwater Harvesting and Recharging Ground Water Technology could be an option to deal with the issue of ground water depletion due to over utilization and climate change in Terai.

#### Lamo Jharana: Creating Opportunity for Locals

Jalbire Lamo Jharana is the religious and touristic place of Chandibhanjang along the highway in between Mugling and Chitwan. Almost, 60 meter water falls from rock, green hills, small ponds, other small water fall nearby and the rough nature has amplify beauty of this area. With the view to conserve and promote *Lamo Jharana*, *Lamo Jharana Paryatan Bikas Samiti* was established in 2069 B.S.

Before EFLGP intervention, a local youth club namely *Sidhi Binayak Sankritik Yuwa Samaj* was involved in Lamo Jharana promotion activities. In this regard, in fiscal year 2071 /2072, EFLGP has supported ,NRs 800000 for the construction of dam along with pond, step construction and plantation. Additionally, District Development Committee, Master Plan of Jalbire Lamo Jharana has also been prepared.

As per Mrs Aasmati Gurung a local shop owner, her business has been promoted. She has own small shop at the main entrance gate of Lamo Jharana. Her business is blooming as domestic tourist number has increased to Jharana.



Natural Lamo Jharana



Dam construction from EFLGP

Similarly, Mr. Dev Bahadur Gurung; president of Lamo Jharana Paryatan Bikas Samiti, explains that Lamo Jharana has created the employment opportunity for the locals. Lamo Jharana Paryatan Bikas Samiti is collecting NRs 10 as entrance fee per visitor. Last year, they have collected NRs 250000 in their account. They use this money for the cleanliness, protection and maintenance of Jharana area.

Thus EFLGP small investment has contributed in increased natural resource based local economy and environment management .Today with support from (EFLGP), this area has been developed as one of the major tourist area of the Chitwan district.

#### **Conservation of Bishauni Danda and Tree Plantation**

Bisauni Danda lies in Chure Region of Harion Municipality Ward No. 2. The conservation work and tree plantation cover an area of two hectare. Livelihood of the people near Bisauni danda is based on product of Chure region. Firewood, grass, fodder and water are major resources that are obtained from the Chure region. Ecosystem services obtained from the region is directly benefitted to people of Bisauni danda.

Conservation of the Bisauni danda and tree plantation with involvement of local women group is one of the best conservation practices in this area.

Women group committee has divided the area in several plots. Each committee member are responsible for conserving each and every plot.

Women in conservation has added the assurance for the progressive conservation. The local has developed ownership towards the area. Women



Fencing at plantation area



Planted Sapling

group are doing regular conservation activities such as weeding and regular monitoring.

EFLG Program has aided financial support for fencing and tree plantation. EFLGP has supported NRs. 10, 00,000 (Ten lakhs Rupees) and remaining budget of the total was contributed by locals for successful implementation of the program.

As there is over exploitation of Natural resources at Churia range, EFLG program has been able to act as lubricant for involving women group in conservation work.

#### Gauthali Danda Park- A Step towards Land Reclaimed

Gauthali danda lies in Okhleyfant of Besishahar Municipaliy. Gauthali danda has been used as dumping site for almost 10 years. After the shift of the dumping site, the land remained unused. The hilly corner side of the residential area was almost abandoned and had remains of undecomposed wastes and growing bushes. The area was in need of proper management.

In response to that, with the aim of reclaiming waste land and considering the management spaces, of open Besishahar municipality had supported NRs. 12,00,000 - to park management committee through EFLGP in fiscal year 2071/2072 .The management responsibility of the park was handed over to local youth club "Marsyangdi Youth Club" in that area anticipating innovations and sense of responsibility from the local youths.



Gauthali Danda before EFLGP intervention



After EFLGP intervention

A master plan has been prepared for the construction and management of the park, with the support from EFLGP in the first year, the budget was targeted in delineating and constructing the boundary wall of the Park and in building the gabion walls.

Thus, EFLGP has reutilized and transformed the area which was once used as a dumping site. This has enhanced the greenery, augmented beautification, recreational and aesthetic value of the urban area.

#### Jaruwa Pani: Water Conservation

*Jaruwa pani* (spring water) is located in Ward no. 3, near to the old highway, of Lalbandi Municipality, Sarlahi district.

The water in this area never dries and comes out in all seasons. Mostly the local community are dependent on this for drinking, washing clothes and other household purposes. Local people residing in the area said, "It is not well conserved".

In this regard, in fiscal year 2071/2072 EFLGP supported local communities with NRs.4.50.000 for wall construction around the spring source. In addition, separate area was managed for washing and bathing. People are not allowed to pollute the drinking water. Keshab Pokhrel, president of spring source protection program constructed the Tulsi (Holy Basil) Moth so that people will not pollute water owing to religious value.



Jaruwa Pani before the start of the program



Jaruwa Pani after EFLGP initiation

Thus with small support from EFLG program, now community have access to clean water and moreover this Jaruwa acts as a water recharge pond as it has regular source of water.

# Initiation towards Household Level Clean Energy (Solar Tuki)

The distribution of household level 20 watts solar light (Tuki) is focused mainly to the poor and marginalized family where there was no electricity facility from national grid. The family residing in this community totally depends on kerosene and candle for lighting purpose. Almost 118 sets of Solar Tuki were distributed to the households (40 sets in Jingadawa Belbichhawa, 30 sets in Kanakpur, 32 sets in Gadho and 16 sets in Rajdevi VDC).

In this regard, in fiscal year 2071/072 EFLGP has supported with NRs. 1,109,200 for poor families in installation of Solar Tuki. This activity has been done in coordination with District Energy, Environment and Climate Change Section, District Development Committee (DDC), Rautahat.

After replacing kerosene lamp with



Solar tuki in Jingadawa Belbichhawa



Solar tuki in Kanakpur VDC

solar tuki (lamp), the beneficiaries were secured from indoor air pollution to some extent. EFLGP, contribution has created awareness among all stakeholders to encourage use of renewable/clean energy.

This is an initiation of EFLGP towards the use of clean energy that contributes to better health of rural poor energy deprived community.

# Joggi Pokhari: A Great Effort of Local Community

Joggi Pokhari is a religious and touristic place situated 400m far from Triguya Municipality Office. To maintain the greenery and beautification of the area Dewalaya Rajaji Mandir Joggi Pokhari Users Committee was formed in 2071.

Before the construction of pond there was small temporary temple. The area was encroached by few of the local people and even the temporary road passes from this area.

With the objective of conserving public land EFLGP has supported Dewalaya Rajaji Mandir Joggi Pokhari Users Committee with NRs 5,00,000 for the construction of pond, fencing and bioengineering (plantation). Grasses in the slope of pond and plant species around the embankment shows the example of bioengineering



Joggi Pokhari after EFLGP intervention



Joggi Pokhari after EFLGP intervention

Even though the money was not enough to complete the project, along with financial contribution from local people; the committee has developed this area as internal tourist site. Mr. Shanta Kumar Chaudhary; president of the Users Committee, explains that this type of work is really appreciative effort in pond conservation and also he expressed commitment for proper management in days ahead. In addition, he said 8500 fishes have been laid in the pond with total cost of NRs 6000. In next year his target is to earn one to two lakh by selling fish and the money generated will be invested in management of the pond.

Thus, with small support made by EFLGP it is expected that livelihood of the local communities will be enhanced as well as contributes to climate change adaptation through water recharge.

#### **Cattle Shed Improvement: Organic Manure Promotion**

Being agriculture based municipality, cattle farming is a vital occupation of the people in Ratnanagar Municipality. However, traditional farming system is still prevalent where scientific methods are to be upgraded. Of the Nitrogen excreted by cattle, 60% is found in urine and only 40% is in dung. In the traditional sheds, urine is left to be absorbed in the bedding materials while excess urine is channeled out and disposed of in manure heap. Thus, required nutrients for crop from the cattle manure couldn't be utilized.

In order to achieve EFLG household declaration objective, a total of 70 farmers in Ratnanagar municipality were supported with NRs. 10,000 per farmer from EFLGP (total NRs. 7,00,000) whereas at least NRs. 10,000 had to be invested by the farmer.



Construction work in progress



Managed cattle shed

Establishment of collection chamber

for the separate urine collection and dung was made mandatory. Surprisingly, farmers had prepared separate chambers for urine collection and had even built shed to dung collection heap. Moreover, farmers were found pleased to use the cattle urine as an organic pesticide thus reducing the burden of inorganic harmful pesticides to their crops.

Along with the nutrient protection and organic farming promotion, cattle shed improvement program has also contributed to environmental cleanliness. As the urine and dung are being managed within the cattle shed in a fix chamber, the surrounding of the residential sites remain clean and healthy as well.

#### **Cotton Bags: Steps towards Enhanced Livelihood**

Plastic bags are the cheapest and easiest to carry daily goods but people of Ramgram Municipality were ignoring the negative effects of plastic in human life and natural environment.

With view promote а to environmental friendly bags replacing plastic bags, a cotton bag production committee was formed from the Tole Lane Organization (TLO) of the ward number 2 and 3 of the Municipality. EFLGP has supported NRs. 2,00,000 in providing four sewing machine and training in coordination with Chamber of Commerce.

Cotton bags production committee has employed ten poor and disadvantaged women by forming new women group and provided



Meeting with women group during Bag making training



Women group engage in bag production

cotton bundles. Kanaiya Lal Agrahari, a businessman has supported this program by providing room free of cost for six months to carry out all of the activities.

Besides replacing the plastic bags, woman were also generating the income from the same business and it was become a lucrative livelihood option for them. Women groups has generated NRs 20000 by selling 2000 cotton bags. They are also in process to make boutique and fancy cotton bags.

Thus with support from EFLG program municipality is in process of declaring municipality as 'plastic bag free zone'.

#### **Improved Cooking Stoves for Livelihood Improvement**

Most of the households in Katari municipality use fuel wood for cooking. Traditional polluting stoves are a major impediment to the Government of Nepal's Policy of Declaring the nation as Indoor Air Pollution (IAP) Free within 2017.

Improved Cooking Stove (ICS) is also one of the important household Environment Friendly indicators. In this regard, 350 Households of Katari Municipality were installed with ICS in the fiscal year 2071/72 from EFLGP support.

In terms of process, there was active participation of the local people in both cash and kind. Good coordination among different stakeholders also played an important role to make the endeavor successful.

Some benefits as said by users, installation of ICS include control of indoor air pollution, and improved health of people including children and women, reduced problem of blackening of utensils and most



Newly constructed ICS from Trained stove master



Women using ICS

importantly the reduction of fire wood needed for cooking by more than 50%.

#### **Ghumauri Picnic Spot: Win-Win Situation**

Ghumauri community forest is in north-western part of Devchuli Municipality with very good ecological significance. То enhance the local economy and job opportunity at local level was developed as picnic spot inside community forest since 2069 BS. Management and promotion of picnic spot was done by Janajyoti Ghumauri Youth Club and Community Forest.

EFLGP has supported NRs 19,00,000 for construction of multipurpose pond along with toilet, flower garden and plantation in Ghumauri community forest.

As per Master Plan, multipurpose pond was designed at northwestern part of the spot with a dam on narrow end of the hillocks. That part of the spot was almost dry but it was a way out for the water



Constructed biological pond



Pond after construction

during monsoon. Monsoonal spring discharge is used for irrigation purpose by Jaluke Ghumauri Irrigation canal 200m downward, which irrigate 156 hectare agricultural land benefitting 224 household of ward no 10, Pragatinagar.

According to Januka Aryal, problems of water use between two wards has been resolved, we are very happy that we got water to prepare farmyard even in dry season. Similarly, Mr. Ram Prasad Shrestha president, Ghumarui Picnic spot user group committee explains that this pond increases scenic beauty and also serves as a water reservoir that could be used for various purposes.

Thus, EFLGP support has not only satisfied the water need but also amplified the beauty of picnic spot. It is also successful in restoring peace and harmony between two communities.

# **Greenery Promotion and Climate Change Mitigation**

The southern part of inner Terai being one of the driest areas of Nepal is very much prone to climate change impact.

Despite of being a huge possibility of urban forestry management, there are scarce municipalities which promote urban forestry in order to enhance the greenery. Although there was enough space in either side of road, people in Ishworpur Municipality were not aware about roadside plantation.

Roadside plantation in Ishworpur Municipality has directly contributes in promoting greenery. With the initiation of roadside plantation with EFLGP support, people were attracted in planting various species of fruit saplings in either side of the secondary road of the municipality.

The plantation program directly contributes greenery enhancing beautification of road in one hand and on the other hand, the green forestry acts as a source of oxygen and sinks



Plantation in roadside



Plantation in barren land

for carbon dioxide hence serving in mitigating climate change impact.

Thus, EFLG program has promoted plantation and urban forestry management to promote the greenery and reduce climate change impact at local level.

#### A Park within a Park

Barpak is the northern most Village Development Committee in Daraudi River valley in Gorkha district that lies at an altitude of 1900 m. above sea level. Barpak, an epicenter of Earthquake 2015, had 24 hours supply of water and electricity before the disaster.

The concept of establishing a park at the top/heart of the village was the brain child of community enhanced by EFLGP. So, providing financial and technical support by EFLGP was highly acknowledged at all levels.

With EFLGP support, local communities constructed a park and maintained a pond in the Barpak village with overwhelming participation of locals and coordination with the stakeholders. Also, locally available species of trees and flowering plants which have ornamental as well as medicinal values were planted. Initially, this 1.5 hectare of land was an unproductive, visually unappealing, waste public land at the upper part of the beautiful village.



Maintained pond in park



A park area; Barpak VDC

Now with EFLGP support, pond constructed inside the park has multitude of importance and benefits from religious to environmental aspects.

EFLGP support was in-line with concept of promoting one village one park and one village one pond.

EFLGP Best Practices 2071/72

#### **Toward Green and Sustainable Sunwal: Nursery Program**

As the target of EFLGP there should be at least a nursery in a ward. So, Sunwal municipality has supported local community forest user groups to construct nine nurseries in municipal areas.

NRs 60 thousand was allocated for each nursery and they were given target to produce at least 4000 plants.

Some nurseries are being economically sustainable by selling the plants in minimum price. Basically seasonal demand of plant has been fulfilled by the nurseries of Sunwal municipality.

EFLGP has programs of promoting plantation in



Plants in a nursery at Bhagawati Forestry Group



Local Political Leaders in a nursery visit at nursery

public land so all nursery groups are committed to fulfill the sunwal's demand of plants. Similarly, household demand of plants will also be fulfilled from the existing nurseries.

EFLGP support has contributed to raise income of local entrepreneur through constructing nurseries and selling plant saplings.

#### Stupa and Sarangkot- EFLGP in Eco-Tourism Promotion

World Peace Stupa is a holy Buddhist pagoda style monument on the hill of Pumdi-Bhumdi - 25, Pokhara sub metropolitan city of Kaski district. Sarangkot another tourist destination of Nepal is located inside newly added 26th ward of municipality.

These sites are famous for Pokhara bound tourists. But tourist can't enjoy evening hour due to darkness, so that people can't stay long and had reduced internal business.

In this regard, in fiscal year 2071/72 EFLGP has supported NRs. 35,00,000 for the installation of solar light in coordination with Pokhara Sub Metropolitan city. After the EFLGP intervention, both the site change their color, people stay longer because the light spread over all the paces in night, people don't afraid with any casualties feeling more secured.

Shiva Timalsina from Sarangkot Construction Committee said that the small enhancement of technology has help to promote local economy in a large scale as tourist spend more time in

this area .Splendid aerial view and constant light of the both places gives a vibrant color in the Pokhara at night time.

Beside Solar power, EFLGP program helped to improve bio engineering, landslide control masonry wall construction in the stupa and Sarangkot in the fiscal year 2071/072 as there was high risk of landslide.

Thus, EFLGP contribution has created awareness to all the stakeholder to promote clean energy which can enhance the local economic development through eco-tourism promotion in Sarangkot.



Peace stupa and installed Solar



Installed solar power lights at Sarangkot

#### **Well Maintenance: Conservation of Water Sources**

Kanchanrup Municipality is one of the driest area of Saptari district. Massive deforestation in Churia and excessive decrease in ground water level has limited the availability of drinking water in the municipality. According to locals many hand water pump, well, ponds and rivers have dried in recent years. The situation has created the problem of drinking water.

In this regard, EFLG program has supported four programs of well maintenance at different sites of municipality. The total amount funded from EFLGP was NRs. 2,21,616 for this four programs. The programs were well supported by user committee and locals.

During the maintenance the dewatering was done initially then all the sediments were removed from bottoms even the inner wall of well was clean. The upper wall of all well was renovated and plastered inside and outside. Also the surrounding of well



Well before maintenance



Local using water from well

was plastered for hygienic water fetching and other purposes.

Two wells were almost dried before maintenance work but after removal of sediments upto 7 feet, deep now water level has increased significantly.

This support of EFLGP has benefited 150 households of municipality for drinking water purpose and contributed to maintain ground water level.

# **Open Space Conservation**

With EFLGP support of NRs. 10 00000, about 8.03 hectare public land were conserved in six places in Katari Municipality. Lands encroached since a long time (particularly in Tribeni, Garans, and Simle) were reclaimed. At a time, when the government has been stressing the need to maintain database and conserve open spaces, the initiative can be considered as a big milestone. The conservation efforts (demarcation of encroached area and plantation) were efficient and effective as it was done in coordination and collaboration with all stakeholders (including local people, police, and staffs of survey, land revenue, and administration departments).

अतिक्रमित				
गामा सीमांकन				
र आमालिङ राई असार १५ को पश्चिमी कटारीले जमर्जस्ती	जण्या शीमांकन गरेको दाहालले बताए । सीमांकन गर्वेज्ञम्पा अलिकप्रित जंगामा लगाइएको मके बाल्सी पनि चष्ट भएको छ ।			
परेको जग्गा फिलॉ	कटारी नगरपालिकाले दोस्रो नगर			
त गर्न धालेको छ ।	परिषद् बैठकले सार्वजनिक जगा			
स्वाट वर्षीकषि	सबै सुरक्तित गर्न कदम चाल्ने			
परेर भोगचलन	निर्णय गरेको घियो। परिषद्ले			
सार्वजनिक जग्गा	जातालपणीजी स्थानीय सासन			
वनेर नगरपालिकाले	कार्यक्रमजन्तर्गत सार्वजनिक			
लेको हो ।	जग्गा संरक्षण गर्ने त्रिणंवअनुसार			
गरपालिकाले	सीमांकन सुरु गरिएको अधिकृत			
लेखी गाविस	वाहाल्लो बताएका छन् ।			
गपा-५ को	नगरस्तरीय सार्वजनिक जग्गा			
चत सार्वजनिक	संरक्षण समिति संयोजकस्पेत			
सीमांकन वर्न	रोका दाहाल्ले नगरवासीको			
मुरुआंतमा सोमवार	मागबनीचिम अतिकमित जणा			
ते स्वामेटर लगापर	सुरहित गरी रवडी नगरस्तरीय			
वर्षदिखि स्थानीयले	रंगशाला निर्माण गरिनेछ।			
र आएको २०	अतिकाधित जग्गा			
डी जन्मामा	व्यवस्थित गरेर त्यस			
के आली नष्ट गरेर	क्षेत्रमा पार्क, आयमूलक			
किन्द गरेको छ ।	भवन, युद्धारोपण कार्व गर्ने			
कार्यकारी अधिकृत	योजना नगरपालिकाको छ ।			
ाले सार्वजनिक	नगरपालिकाभित्र वकिन राष्ट्र्याक			
गर्वे निर्णयञ्जसार	नभए पनि अन्ताजी दुई सय			
साबिक प्रिवेणी	विषयभन्दा बडी सार्वजनिक जणा			
कर सेला लाग्ने	अतिक्रमणमा परेको अनुमान			
आसपासको	गरिएको छ।			
ध वती जम्यामा	यसवर्षं नगरपात्लिकाका			
को बताए ।	विभिन्न छ स्थानका			
अनुसार स्थानीयले	सार्वजनिक जन्मा सरक्षण गर्ने			
जम्या असिकमण	कार्यजन्मअनुसार सीमांकन			
न गर्दै आएका विष् ।	कार्यजन्मअनुसार सीमांकन			
जिन्ह सएको जला	कार्ययात्विक जन्मा जजी-कहो			

Although some people (encroachers) were against the conservation in the beginning, other general people supported the endeavor and made it a success. One of the areas conserved, Tribenidham, is a place of great cultural and historical importance as the place where a month long fair is organized every year in the month of Magh. The news



Program cover in news

Land conserved

of conservation was also covered by different local and national newspapers.

Places	Ward no.	Area of land reclaimed (hectare)
Garas park	4	2.56
Tribenidham	5	3.2
Hadaiya	6	0.8
Bus park,Simle	7	0.32
Smriti Batika and surrounding area	7	0.8
Lanslide beside Redcross building	7	0.32

Source: Katari Municipality Office

Thus EFLG program has been able to reclaim 8.02 hectare of encroached public land in short period of time. This initiatives will further discourage encroachment of public land for settlements and plantation will promote greenery.

# **Biological Dam- An Example of Low Cost River Training**

Udayapur district is located at the Churia range in Sagarmatha zone of eastern Nepal. The district is entirely irrigated by many natural rivers including Saptakoshi. The major natural resources of the district are water and sand, gravel and stones. In the lower region, a plain landscape is facing a huge water based disaster every year including flood.

The backward communities like Musahar and Tharu are the major resident of the flood prone areas. The low cost bioengineering (bamboos, broom grass & sand sacks) and river training works have been implemented in Jogidaha and Sundarpur VDCs.

The river embankments have been made using the bamboo fence, stones and mud. The bamboo fence allows the organic material like floating leaf to deposit which will ultimately become a fertilizer for the growing grasses and plants.

The grasses have been planted above the deposition and the perennial plants including bamboo have been planted at the outer ridge. The local women groups were involved in bamboo plantation. The embankments resists the floods to enter at the settlements areas and agricultural lands.



Sand sacks for protection in Jogidaha



Bamboo retaining wall and plantation work in Jogidaha

In future bamboo will be available as a raw material for handicraft, cottage industries, creating a regular income for poor village women.

Thus, EFLG program has been successful in promoting local technology and indigenous knowledge together for the protection of the river bank and safe-guarding the nearby settlements and agriculture land from flood induced disaster which can be replicated elsewhere.

# **Ranipokhari: Growth and Greenery**

Ranipokhari area covers 0.64 hectare at the boundary of ward No. 4 and 5 of Chitrawan Municipality. This area is an exemplary local intervention manifesting the promotion of biodiversity conservation, ecotourism and Nepalese sculpture. Pond is surrounded by 24 stone sculptures designed and built by the national artists of Lalit Kala Academy, Kathmandu.

In the Fiscal Year 2071/72, EFLGP supported NRs. 12,50,000/- which was invested in encrypting the stone sculptures, installing five solar lights and tree plantation.

The conservation committee has already started levying Rs.5 from the individual visiting the pond and has collected NRs. 6000. Not being limited to biodiversity conservation, the community is also spreading an awareness to reduce the use of plastic bags and therefore being charging Rs.500 to those who carry plastic bags inside the pond. The community also earns



Rani Pokhari before EFLGP intervention



Rani Pokhari after EFLGP intervention

by selling the fallen tree branches to the locals. Such collected money is spent in regular maintenance of the pond. Besides, during the rainy season, water of pond is also diverted to the farm area for irrigation, supporting more than a 100 families.

For the above reasons, EFLGP support has by now leveraged income to local communities and promoting ecotourism.

#### **Sital Park Maintenance and Construction**

Sital Park is located at Bardaghat ward no. 4 near Bardaghat Municipality Office. Under the EFLGP in Fiscal Year 2071/072, the municipality supported for maintenance and construction of the Park.

The budget allocated for this program was Rs. 1, 50,000 from EFLGP and Rs.50,000 from user committee.

Mud filling was done to maintain and level the uneven land. The fencing was erected to safe-guard the public land from encroachment and to protect the plants from grazing animals.

This Park is mostly used by children and old people. Brick carry garden is also maintained for beautification of the park.

Thus, EFLGP supported park has been used by local people during winter season for sun heating and children use the park



During EFLG-P Implemented, Sital Park



Sital Park after EFLG-P implementation

to play during their holiday. This park is in-line with the open space management objective of EFLGP.

#### Sahid Smriti Park: Encouragement for Youths

Majhuwa area of Lekhnath Municipality, ward no. 13, is close to the entry point of Lekhnath Municipality.

"Sahid Smriti Park" is a highway side, visually pleasing and naturally refreshing park managed by local youth's group. It contributes to greenery and beautification of highway and step toward climate change mitigation.

The development works of park by EFLGP funding of Five Lakhs (NRs. 5,00,000) is spread in about 0.15 hectare lands, with total area of park measuring about 0.76 hectare. Site clearance work with walkway, stone soling walkway, earth work excavation, edge brick carry



Plantation within park



Sahid Smiriti Park complete snap

lines and bed preparation work for seasonal and perennial flowers were done from EFLGP support.

For the sustainability of park locals have decided to make it as one of the example managed by youths so they have planned to make gym center by their own cost and fund can be used for park maintenance.

Besides, EFLGP is supporting additional fund to upgrade it as Children Park. This could be demonstrated as youth managed climate change mitigation endeavor.

#### EFLG Smriti Vatika- An Unconventional Stride to Environmental Conservation

Donating a Thousand rupees for one tree was an unusual proposal to offer, however; with time and advocacy for environment conservation, and gradual realization of the people to donate in the name of their beloved ones -overturned the scenario and the Vatika was full of 437 tree saplings with a capital of NRs 4, 37,000/-.

Smriti Brikshya Vatika, ward no 8, Chitrawan Municipality has been established by the individual cash contribution.

Sentimental attachment with the beloved was the most motivating drive for an individual to own the tree and also to spend money to watch over. "Planting a tree is not as essential as to raise, nurture and protect it", is now has been understood by each and every one, so the prime concern now goes for the ultimate thriving of the trees even after 5 or 10 years.



Planted saplings with name card



Planted trees in Smriti batika

Therefore, Vatika, not only fulfills the

concept of urban Forestry but also it has become a means of knowledge replication with a view of conserving public lands.

Finally, Vatika also supports a needy family of Khush Bahadur Tamang, gardener, who earns Rs.8000/- per month. With a variety of Indica, Camphora, Cumini species, garden now thrives with 437 trees as a symbol of human sentiments, preservation and employment.

Thus EFLGP started a campaign to create a garden in the memory of the beloveds with a view to protect barren land and promote greenery. YONSED has technically facilitated this concept.

#### **Plantation for Greenery and Public Land Protection**

The 3.85 hectare barren land of Sekhauna VDC, lies towards south of Sarlahi district. Initially it was Gaucharan i.e. cow grazing land but during 2030's Manusmara Irrigation project planted large number of Sal (Shorea robusta) trees which later on developed into dense sub-tropical Sal forest.

However, the locals started exploiting forest especially for fuel wood and timber during their marriage ceremonies and performing death rituals,

additionally the illegal cutting of Sal trees by locals for timber depleted forest.

In fiscal year 2071/072, EFLGP supported (NRs. 9,40,000) for plantation and barbed wire fencing for conservation of barren land and planted saplings. More than 3000 different plant saplings (Neem, Mango, Litchi, Kadam, Amala etc) were planted. The locals who already witnessed the severe consequences of deforestation are now determined to rejuvenate the barren land into dense forest.



Barren land before plantation and conservation by EFLGP



Barren land after plantation and conservation by EFLGP

In fact, they are aiming to develop horticulture development centre for sustainable use of forest products without depleting the forest in relation to forest conservation and sustainable resource management.

# Ponds of Thumki VDC; Acts as Water Recharge Sink

Pond conservation and construction was one of the programs supported by EFLGP in Thumki VDCs of Kaski District.

In the fiscal year 2071/72 EFLGP has supported NRs. 3,00,000 for pond maintenance and construction in this VDC. "Owing to multiple use, local people were interested to rehabilitate and maintain the pond so they demanded at least one small pond in each ward" said the VDC secretary Ram Chandra Bhandari.

Currently, maintenance of old traditional conservation ponds are mainly used by domestic animals for drinking. However ponds in long run helps for recharge of ground water.

"With the help of EFLGP, community people were aware of recharge potential



Maintained pond



Maintained pond

of ponds, content with current use of ponds and sources discharge are also being monitored" said Amrit Dhungana – social mobilizer LGCDP.

It is the best practices for sustainable environment as ponds stops runoff from accumulating to grow bigger when there is heavy rain. It reduces runoff size to reduce slope erosion. Ponds recharge soil moisture thus allowing vegetation growth faster to increase stability. It also helps in disaster reduction like fire control by providing sufficient water.

#### Amritdhara Sundar Pokhari: A step towards Conservation

Amritdhara Sundhar Pokhari is constructed within the lap of Sundari community forest; ward no 15. With active participation of community people and users committee pond was constructed within three months of period.

Before EFLGP intervention, the area was not managed properly by the local people. Technical and financial value from EFLG-P adds spirit to pond conservation. Community people are thankful to program for support and consideration as their dream come true.

In this regards, in FY 2071-72 EFLG-P has supported NRs 4,50,000/- for construction of pond, fencing and plantation. From this support the pond came into new shape.

The pond in middle of the community adds recreational beauty to that area and useful in disaster management like fire and contribute in water recharge system. The small effort of EFLG-P in construction of pond has given positive message to the entire municipality.



Pond before EFLGP implementation



Pond after EFLGP implementation

An initiative taken by EFLGP has put a footstep in the conservation practice for the community by the community for conservation of public land and natural resources.

### **Bajini Dhara- Restoring the Traditional Tap Water Supply**

Bajinidhara is about 8km far from Besishahar market area and falls in the Thumka Danda in Gaunshahar, Lamjung. Bajinidhara had continuous flow of natural water but was in critical stage. Locals had used bamboo as an alternative to channel the water from the source. The water source on which around 50-60 households depended for drinking and for other purposes was deteriorating.

The water system was in high need of renovation but due to lack of adequate technical and financial assistance people there had no options but rely on the same old dwindling structure.

In fiscal year 2071/2072 EFLGP had supported NRs. 1,00,000|- for the maintenance of this water system.

It is not only successful in achieving its target but it was also successful in terms of the proper mobilization and participation of users' group committee. All



Discussion with local for maintenance work



Water Spout after renovation

the maintenance and renovation work was done with local people's participation and also planted trees around the water sources.

The president of users' committee says; they are very thankful for the support and consideration. It has kept their spirit up for the community and village and has lighted the flame of coordination among the community members to work together.

Thus the support of EFLGP has protected the source of drinking water and maintained in its traditional style and has facilitated in supplying the drinking water as well as for other purposes.

# School Toilet with Attached Bio-Gas; Source for Renewable Energy

Shiva higher Secondary School is a leading educational institute situated in Kawasoti municipality wards no 2 of Nawalparasi district. In fiscal year 2071/072 school had received EFLGP budget of Rs 9, 00,000 for the construction of bio gas attached toilet that converts the disposal (human excreta) into the bio-gas. The school effectively accomplished the task by producing the bio-gas from the toilet waste.

The chairperson of user's committee Mr.Postaraj Kandel says "The school also contributed Rs 5,00,000 for the construction of latrine from its internal source so the structure consists of 4 different rooms namely for ladies, gents, staffs and kids.

The digester of biogas installed is of 6 cubic meter and the block in which this latrine is constructed comprises of 530 students. The continuously produced gas has been used for the complete feeding purpose of 15 dumb and deaf who are the residential students of the school. The head master of school is grateful



School toilet constructed with attached biogas



Biogas energy used as cooking in school canteen

towards the EFLG and expresses his gratitude for the support and proudly mentions that the school is moving ahead to make the school premises environment friendly.

He further added" there used to be the consumption of six cylinders per year". The installation of biogas reduced the dependency on non-renewable energy and at the mean time it has practically demonstrated that the waste can be converted into energy.

Thus, EFLGP has been promoting use of clean energy through construction of ICS, toilet with attached biogas.

These best practices are written on the basis of field experience by M& E officers and Environment Experts.

S.N	Best Practices Title	Name
1	Botanical Garden : Botanical Research Base Station	Nirmal M Dahal
2	Economic Enhancement through Pond Conservation	Sudarshan Kharwar
3	Local Ownership on EFLG Program	Ek Raj Sidgel
4	Multitude Benefits of Pond	Bina Dangol
5	Conserving Ponds: Enhance Environmental Stability and Livelihood Security	Lokendra Subba
б	Roof Top Rainwater Harvesting: Recharging Ground Water Technology	Ek Raj Sidgel
7	Lamo Jharana: Creating Opportunity for Locals	Pushpa Koirala
8	Conservation of Bishauni Danda and Tree Plantation	Bishok Dangol
9	Gauthali Danda Park- A Step towards Land Reclaimed	Sikha Karki
10	Jaruwa Pani: Water Conservation	Nirasha Pandey
11	Initiation towards Household Level Clean Energy (Solar Tuki)	Bhawani Pd Pandey
12	Joggi Pokhari: A Great Effort of Local Community	Upendra K.C
13	Cattle Shed Improvement: Organic Manure Promotion	Sandhya Rijal
14	Cotton B ags: Steps towards Enhanced Livelihood	Pratima Poudyal
15	Improved Cooking Stoves for Livelihood Improvement	Pratistha Pyakurel
16	Ghumauri Picnic Spot: Win-Win Situation	Sushila Regmi
17	Greenery Promotion and Climate Change Mitigation	Prabin Shrestha
18	A Park within a Park	Khadak Rokaya
19	Toward Green and Sustainable Sunwal: Nursery Program	Khem Raj Awasthi
20	Stupa and Sarangkot- EFLGP in Eco-Tourism Promotion	Hari Neupane
21	Well Maintenance: Conservation of Water Sources	Santa Kumar Maharjan
22	Open Space Conservation	Pratistha Pyakurel
23	Biological Dam- An Example of Low Cost River Training	Sanjaya Gyawali
24	Ranipokhan: Growth and Greenery	Deepa Gurung
25	Sital Park Maintenance and Construction	Maru Yogal
26	Sahid Smriti Park: Encouragement for Youths	Chanda Prajapati
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