

Eastern Himalayas Ecoregion: Terai Arc Landscape



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Strategic Goals & Objectives

The goal for the entire Eastern Himalayas ecoregion is to conserve representative facets of biodiversity within habitat areas that are large enough to support the natural ecological and evolutionary processes that maintain the ecoregion. The Terai Arc Landscape program was initiated in July 2001 in order to restore and maintain wildlife corridors that link 11 protected areas between Nepal's Parsa Wildlife Reserve and India's Rajaji National Park. The objective of the Terai Arc Landscape (TAL) is to conserve the biodiversity, soils and watersheds of the Terai and Churia hills in order to ensure the ecological, economic and socio-cultural integrity of the region. Forests connecting these protected areas are in various stages of degradation and fragmentation due to human population and poverty pressures. Restoring wildlife corridors will facilitate the dispersal and genetic exchange of wildlife populations, ensure the long-term survival of key endangered species, and provide ecological and socio-economic services integral for the well being of local communities.

The proposal submitted to USAID focused on seven components of this objective:

1. Program Coordination
2. Forest Regeneration
3. Community Forestry
4. Sustainable Livelihoods (Community Development)
5. Anti-poaching Activities
6. Improved Management of Protected Areas
7. Education, Communication and Coordination
8. Research and Monitoring

Collaborators/Partners

- USAID
- United Nations Development Program (UNDP)
- Netherlands Development Agency (SNV)
- Integrated Centre for Mountain Development (ICIMOD)
- Department of Forests, HMG Nepal
- Department of National Parks and Wildlife Conservation, HMG Nepal

National and community level organizations that WWF partners with include:

- King Mahendra Trust for Nature Conservation (KMTNC)
- Women in Environment
- Environmental Camp for Conservation Awareness (ECCA)
- Buffer Zone Councils
- District Development Committees
- Village Development Committees

- Community Based Organizations including Community Forest User Groups, Community Forest Coordination Committee and Women's Groups and Eco-clubs
- Resource Himalayas

Partnerships to work on the Terai Landscape are being sought with:

- DFID
- CARE

Summary – Period 10/01/02 – 9/30/03

Seven years of Maoist insurgency in Nepal has resulted in enormous political upheaval throughout the country. Insurgency began from the four remote districts of Western Nepal – Rukum, Rolpa, Pyuthan and Salyan in 1996. Within a short period of time, it spread all over the country. A number of factors such as poverty, poor governance, lack of participation and lack of economic opportunities have created a conducive environment for the spread of Maoist insurgency within a short period of time in the country.

In the biodiversity sector, insurgency has brought opportunities for people with vested interest like poachers, timber smugglers and encroachers. As a result, during this insurgency period various illegal activities such as poaching of rhinos, encroachment and illegal logging of timber increased throughout the country. For example, within July 2002-June 2003, 38 rhinos were poached which is higher than the number that died during the period of 1973-1990. This has brought serious threats to our over three decades of conservation efforts in the country.

Despite this unfavorable political situation in the country, TAL Program has continued to deliver planned activities and targets in conservation and sustainable community development programs. This was possible largely due to the rapport that the TAL program built with local communities and grass roots level community based organizations where the majority of activities were carried out through these organizations, particularly community based organizations. For instance, in one of the most Maoist infested area – the Basanta Corridor in Kailali district in far western development region of Nepal, TAL program implemented its activities through grass root level community based organizations such as CFCC, CFUGs and CBOs. Additionally, WWF Nepal Program is developing a plan to analyze threats, strengths and opportunities in relation to management risks in situations of conflict.

As per the plan, program activities were carried out in full strength including nursery establishment and seedlings production, preparation of community forest operational plans and capacity building for CFUG members. As per the demand from communities, 385,422 forest tree seedlings were produced during this reporting period. These seedlings were planted in 352 ha of degraded community lands along corridors and bottlenecks in TAL. 623 ha of degraded forests were restored through natural regeneration. During this reporting period, 19 community forest operational plans covering of 1,481 ha of forests were prepared, operational plans for 4 community forests with an additional area of 160 ha has been revised and these plans were submitted to respective District Forest Offices for endorsement. As part of local capacity building program of TAL, various trainings, workshops and exposure tours (altogether 31 events) were organized for 923 local people and representatives from CFUGs on forest management, community development, and account and record keeping.

Though the poaching of rhinos seems increasing sharply due to the unstable political situation in the country, TAL program has been initiated various efforts to make anti-poaching more effective in Royal Chitwan National Park. Various strategic meetings were held with senior government official and Park authorities. Based on the recommendations from the strategic meeting, anti-poaching strategy for RCNP was prepared with the involvement of DNPWC, Royal Nepal Army and local communities.

To motivate local communities in conservation, various community development activities including biogas, improved cooking stoves (ICS) were constructed in Basanta and Bardia-Katarniaghat corridors, Mahadevpuri, Lamahi and Dovan bottlenecks and RBNP and RSWR buffer zones during this reporting period. 185 biogas plants and 952 ICS were constructed in TAL during this reporting period. Along with the alternate energy program, stall feeding, income generation activities were promoted alongside corridors and bottlenecks. A dental health post was installed in Bhurigoan, RBNP Buffer Zone.

TAL program has been continuing its focus on conservation awareness and motivation of local stakeholders in corridor restoration through dissemination of information and organizing stakeholder meetings. A conservation newsletter – Kael Pahura, which is being published in Nepali and distributed locally on a quarterly basis to disseminate TAL outputs and conservation messages to local stakeholders. TAL program has also focused on awareness generation through formation eco-clubs, eco-club networks, literacy classes for 216 backward women in Khata (Bardia-Katarniaghat corridor).

A draft TAL strategic plan document has been prepared and circulated for feed back and comments. The entire process of strategic plan development for TAL is lead by His Majesty's Government of Nepal, Ministry of Forests and Soil Conservation. Key players including UNDP, SNV, DFID and USAID have actively participated in the process of TAL strategic plan development. Recently published 10th 5 year Plan of HMG of Nepal (2003-2007) has identified TAL as a priority landscape for biodiversity conservation in Nepal.

Major Highlights

RCA and TAL Strategic Plan Development

In December 2002, a Root Causes of Environment Degradation Workshop was organized in Kathmandu to identify issues, gaps and root causes of environment degradation in TAL. The root cause analysis workshop was organized as part of strategic plan development process of TAL. RCA is an analytical and logical tool that identifies a set of factors that are the main drivers or causes behind environmental degradation and biodiversity loss. An RCA workshop held in December 2002 at Kathmandu identified seven direct causes of environmental degradation and loss of biodiversity in Terai Arc Landscape. They are; Forest Conversion, Over Grazing, Unsustainable Timber Extraction, Unsustainable Collection of Fuelwood, Churia Watershed Degradation, Forest Fire and Wildlife Killing. Using RCA, a detailed conceptual model of environmental degradation and biodiversity loss in the Terai Arc Landscape were identified at the local, national and regional levels. Various opportunities were identified and strategies were proposed to address these issues at local, national and international levels. Following the RCA, a series of stakeholder consultation meetings were organized at local, regional and central level to validate the root causes of environmental degradation and biodiversity loss in Terai Arc Landscape. The consultation meetings identified further new issues of environmental degradation and biodiversity loss in Terai Arc Landscape Nepal and proposed broader strategies to address those issues at local and policy levels.

The Strategic Plan comprises of three main components - Broad Strategies Document, Partnership Plan and Business Plan. The Broad Strategies Document has been developed in and is under review. The Partnership Plan and the Business Plan will be completed in the second phase over FY 04.

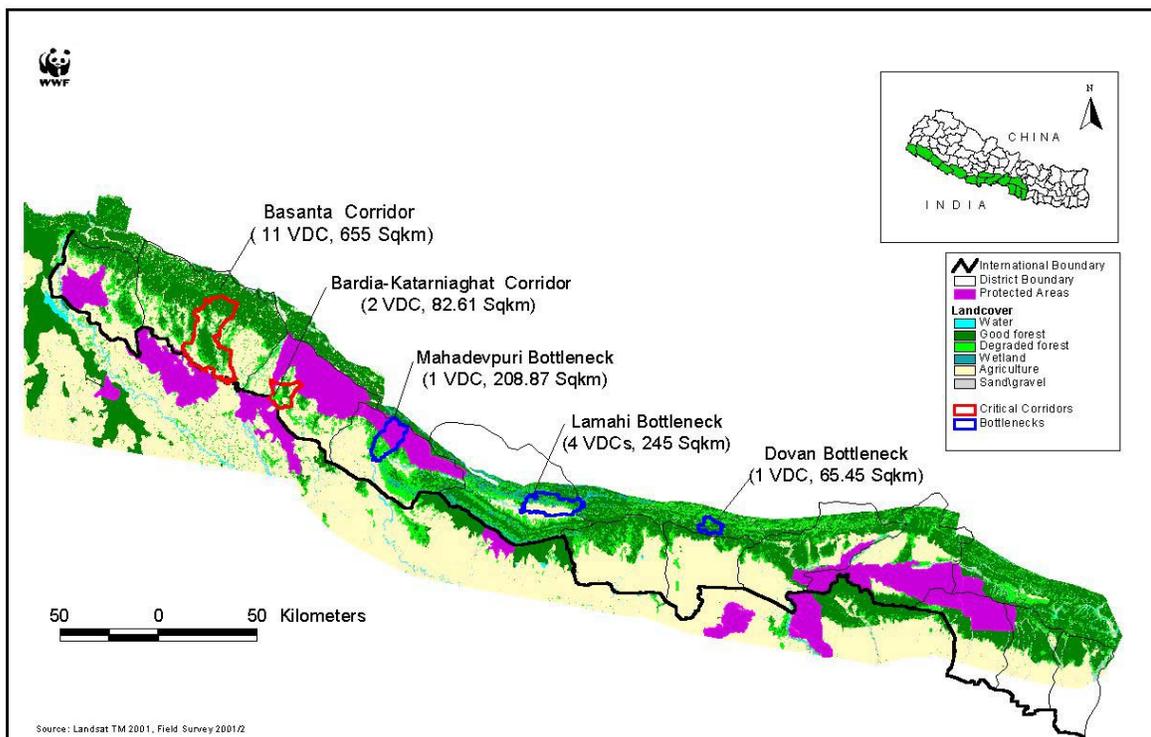
Partnership

An effective partnership among stakeholders is very crucial in bringing synergies to achieve Terai Arc Landscape vision. To do this, WWF Nepal Program organized a series of bilateral meetings with key international agencies like USAID, DFID, SNV, CARE and UNDP who are working on natural resource management and sustainable development issues in the Terai Arc Landscape Nepal. These meetings initiated a process of coordination, particularly where there was an overlap amongst institutional strategic objectives and interests in TAL. These partners or potential partner agencies have actively participated in Terai Arc Landscape Strategic Plan development process. The entire process of Strategic Plan Development for TAL is lead by His Majesty's Government of Nepal, Ministry of Forests and Soil Conservation.

TAL Planning Meeting

A planning and progress review meeting on Terai Arc Landscape (TAL) Program was held on 28-29 Jan 2003 in Nepalgunj. The meeting was fruitful in setting the targets for Critical Areas Restoration Project (CARP) for next three years (2004-2006) to attain the short-term objectives of TAL program. During the meeting, various activities were identified under Forest Corridor Conservation and Management, Species Conservation, Sustainable Development, Education and Capacity building, Communication and Coordination, Policy and Advocacy program components. Under each program component, the targets for the identified activities were set. The meeting valued the effort and contribution of local people for forest corridor conservation in TAL. During the meeting, the progress made by TAL for the last one and half year also was reviewed. The meeting also focused on the policies, programs and target outputs of TAL.

Figure 1: Critical areas - corridors and bottlenecks within Terai Arc Landscape - Nepal



Results by Objective and Activity

Despite the prevailing security situation in the country, field activities has been carried out successfully in TAL during this reporting period. Some activities such as rigorous field monitoring, biological monitoring and mass meeting that could not be initiated in the field, have been initiated after the ceasefire between His Majesty's Government of Nepal and Maoist rebels in January 2003. However, other activities based in local communities such as seedling production, community development, forest restoration have been continued with great success. This is only possible as these activities were implemented through grass root level beneficiaries organizations including community forest user groups, community forest coordination committees and women groups.

Result (Activity) 1: Program Coordination

Terai Arc Landscape shifted its strategy towards a more coordinated large-scale management approach through development of TAL strategic plan. Along with ongoing restoration activities in critical areas – corridors and bottlenecks in TAL, strategic plan development and coordination team consisting of experts from His Majesty's Government of Nepal, WWF UK, WWF US and WWF Nepal Program has been formed. As part of ongoing TAL partnership development program, a partnership coordination proposal has been developed to share vision, goal, activities and strategies that have been adopted to implement TAL program with other partner organizations including UNDP, SNV, DFID during September / October 2002..

The Ministry of Forests and Soil Conservation (MFSC) is leading the development of the TAL Strategic Plan with the technical and financial support of WWF Nepal Program. Given the size and population of the landscape and the complexity of issues involved, MFSC recognized that a multi-stakeholder partnership approach is vital. The Strategic Plan development process was therefore designed to be participatory at the central, regional and field levels. A TAL strategic plan development core team was formed to take forward the Strategic Planning process. The team is lead by Dr. Mohan Wagley, Chief of Planning and Human Resources Development Division of the MFSC. The team comprises of the representatives from the Department of Forests (DoF), Department of National Parks and Wildlife Conservation (DNPWC), UNDP, USAID, DFID, SNV and WWF.

In December 2002, a root cause analysis workshop was held in Kathmandu to identify underlying causes of environment degradation and biodiversity loss in TAL. A number of underlying issues including forest conversion for agriculture, encroachment, habitat degradation/fragmentation, over harvesting of forest products, uncontrolled grazing, poaching for wildlife or pollution were identified, analyzed and discussed during the RCA workshop. After three days of group and plenary discussions, conceptual models for major immediate and root causes of environmental degradation and biodiversity loss in the Terai Arc were developed and also discovered that there were various opportunities and strategies available to address these causal factors.

A regional stakeholder consultation workshop was held on 14th-15th May 2003 with a wide group of stakeholders as well as related governmental and non-governmental representatives from the 14 districts of TAL. The results of the studies and consultations were used to verify and refine the RCA developed in December by the multi sectoral workshop. The RCA was then taken to a Central Level Consultative meeting held among more than 50 multi sectoral

representatives on May 26 in Kathmandu. At each consultation workshop, broad strategies were developed by the participants to address the root causes to biodiversity loss.

The TAL strategic plan development core team then took forward the Strategic Planning process in a series of working sessions where aided by further research, they analyzed, reconciled and regrouped the broad strategies under the identified program areas. The program areas were selected for the purposes of partnership building and effective implementation of the strategies. A Review Committee comprising of high level multi sectoral representatives was formed to review and advise the strategic plan development.

The Strategic Plan comprises of three main components - Broad Strategies Document, Partnership Plan and Business Plan. The Broad Strategies Document has been prepared and circulated for feed back and comments. The Partnership Plan and the Business Plan will be developed in FY 04.

Result (Activity) 2: Forest Regeneration

A strategy, forest regeneration has been adopted to restore the degraded forest corridors with the participation of local communities in TAL. As per the demand from local communities, 385,422 forest tree and NTFP seedlings produced in community and District Forest Office nurseries supported by TAL program. These seedlings were planted in 352 ha of degraded lands. During the field monitoring, a quite high survival rate (more than 80 percent) was found in most of previous year's plantation sites in TAL. District Forest Offices have been providing extensive technical support while choosing species for plantation, pitting and carrying out plantation in community lands. A combination of technical support from respective District Forest Office and TAL program, and enthusiasm and participation of local people for plantation has resulted high survival rate in each plantation site along corridors and bottlenecks. CFUG not only kept an eye on plantation sites but also restricted grazing through enforcement of strict rules and regulations

Forest regeneration has been adopted to restore degraded forest corridors with the participation of local communities in TAL. TAL program supports local communities to protect bare or degraded forest area with no or very little regeneration through establishment of fence, trench or bio-fence. This initiative prevents over grazing and encroachment and ultimately promotes natural regeneration in degraded areas through local people participation. Given the chance, the degraded forest patches regenerate very quickly as TAL area supports subtropical climate with fertile soils. In addition, the seedlings and saplings established from natural regeneration are less susceptible to harsh environmental conditions as compared with planted seedlings from nurseries. Furthermore, these seedlings/saplings regenerated naturally are less palatable for herbivores. From conservation perspective, natural regeneration is an ecological process in which genetic diversity, species diversity and ecosystem diversity will be enhanced through natural process. To achieve our objective of corridor restoration, TAL program will focus natural regeneration program in future as a key for restoration of degraded areas.

Some of the degraded forests with no hope for natural regeneration are restored through plantation or enrichment plantation. It is important to note that, all these activities including natural regeneration and plantation are carried out through user groups in their respective community forest areas.

During this reporting period, 34.5 km fence and 8.15 km trench was constructed along the critical areas in TAL with the participation of local communities. This helped to minimize further

forest degradation through encroachment and overgrazing and allows natural regeneration in 623 ha degraded forest area along critical areas in TAL.

Result (Activity) 3: Community Forestry

Strengthening and institutionalization of Community Forestry Users' Groups (CFUGs) is the main thrust of TAL program to restore degraded forest corridors. TAL program promotes community forestry in order to protect, manage and utilize forest resources for the livelihoods of local communities. District Forest Offices can only legally hand over the government owned degraded forest patches as community forests to the local communities who are living around the forests. With the involvement of local communities, district forest offices provides technical support for the preparation of operation plan for the forests and constitution of respective Community Forest User Groups (CFUGs) before handing over the forests to local communities. During this reporting period, 19 operational plans (7 in Basanta, 4 in Khata, 4 in Dovan and 4 in Kanchanpur) covering 1,481 ha forest were prepared and submitted to the respective District Forest Offices for endorsement. After the operational plan is endorsed by the district forest office, the forest is then legally handed over to the communities. Then the communities are legally authorized to manage their forest resources and take legal action against illegal activities. As per the operational plan, the user groups carry out forest management, protection and utilization activities in the designated block of their community forest. TAL program supports district forest offices to prepare operational plans and constitution, organize meeting with local communities and provide training including forest management, leadership and organization and financial management to CFUG members. These activities are implemented by the TAL program to enhance good governance in CFUGs through promotion of transparency and equity in product sharing, decision making and fund mobilization. District forest office approves the operational plans for five years. After five years, these operational plans need to be revised in consultation with user group members. Upon request from user groups, then the district forest office reviews and approves the revised plan for another five years. The revised and newly prepared operational plans were prepared with greater focus on conservation and sustainable livelihoods for the local communities. As per the timber inventory, sustain yield has been tried to be regulated through the operational plans as inventory is mandate for each community forest before the operational plan gets endorsed.

TAL program provides financial support for various capacity building trainings to CFUG members in order to enhance their capacity in sustainable management of their forest resources. The main purpose of the trainings, workshops and exposure tours is to strengthen the capacity of CFUGs on account and record keeping, forest management, silvicultural operations, office management and fire control. These capacity building programs introduced to enhance good governance in CFUGs through promotion of transparency and equity in benefit sharing, decision-making and fund mobilization. Local capacity building is also the major thrust of TAL program for the sustainability of the program in future. 31 trainings related to forest management were organized for 923 people (607 male and 316 female) within TAL. These capacity building programs were successful in involving women in forest management at site level. These programs also focus on field-based demonstration at local level and conducted in close coordination with District Forest Offices, CFCC and local NGOs.

Strengthening and institutionalization of Community Forestry Users' Groups (CFUGs) is critical for the restoration of degraded forest areas along corridors and bottlenecks. During this reporting period, account and record keeping training, forest management training and Non Timber Forest Product Training organized for 93 local people from various CFUGs in TAL.

Result (Activity) 4: Sustainable Livelihoods (Community Development)

From the past experiences, the success of conservation programs in Nepal depends on the cooperation and participation of local communities. Integrated Conservation and Development Program (ICDP) benefits mostly poor farmers who are dependent on forest resources. Additionally, these ICDPs are introduced in TAL to uplift the socio economic condition of local people who are living along the corridors and bottlenecks. Activities such as income generation activities, livestock improvement and capacity building continued during this reporting period. While these activities were developed partly as a means of fostering a trusting relationship, they were also designed strategically to lead to biodiversity conservation in the region. These ICDP program are implemented in critical areas – Basanta and Bardia-Katarniaghat corridors, Lamahi, Mahadevpuri and Dovan bottlenecks and RBNP and RSWR buffer zones (Figure 1).

The most local communities in TAL use fuelwood for cooking. The TAL program promotes biogas and Improved Cooking Stoves (ICS) in TAL to reduce pressure on forest resources. A total of 185 biogas plants and 952 Improved Cooking Stoves (ICS) were constructed in TAL during this reporting period. In case of biogas plant construction, the TAL program subsidizes 33 percent of material borne cost (in kind 2,000 bricks, one toilet pan and pipe) transportation and technical supports for construction of biogas-toilet plant. Similarly TAL program subsidizes material (Iron rod) and partial technical cost (total worth of NRs 100 i.e. \$1.30) for construction of an improved cooking stove in TAL area.

Based on the field visit, the ICS constructed in Dovan, Lamahi and Basanta are functioning well and people are using them not only for saving fuelwood but also from health perspectives as ICS is smokeless. Due to the inadequate awareness program and cultural factor, the ICS constructed in Khata area are not fully used by the local people as it is in other areas of TAL. *Tharu* communities have a big family with family members more than 10 persons. ICS takes time while cooking for big family. As a result, *Tharu* communities rather preferred the traditional stoves. TAL program has been taking it seriously and advised ICS constructor to design the size of the stoves as per the family size. In February 2003, an intensive training was organized for the ICS promoter and video program on the benefits of ICS was shown in Khata area. As a result, the TAL program has received more demand for ICS. Poor farmers who cannot afford biogas plants, improved stoves are the cheapest means of reducing firewood use and consequently reducing the pressure on forest. TAL program has developed the capacity of local community in construction and maintenance of ICS for its sustainability in future. During this reporting period, 16 ICS promoters (including 12 females) received training in Khata and Mahadevpuri area.

A small hydro-electricity (2.5 kW) project was initiated in Bandel Pokhari CFUG of Dovan. The installation of the hydro plant has been completed in June 2003 and construction for electric transmission and distribution will be completed in August 2003. The total estimated cost of the project is NRs 812,000 out of which NRs 400,000 has been supported by TAL Program and rest of the cost is borne from the local sources. The project will not only provide electricity to the villagers, the water from the turbine will also be used for irrigation purpose. This will benefit 28 families in the area. At the moment, electricity will be used for lighting but in future the villagers have planned to use the surplus electricity during day time for income generation activities such as oil and grinding-mill, preparation of leaf-plates and rope making.

Stall-feeding ultimately reduces open grazing in forestlands, thus minimizing forest degradation while simultaneously enhancing income generation potential of local farmers through increased productivity of their livestock. TAL program distributes improved breeds of livestock to the local farmers. Distribution of improved livestock breeds increases productivity of livestock, diversifies household income, promotes stall-feeding and thus, minimizes grazing in national forests.

During this reporting period, various improved breeds of female goats, buffalo and chicken were distributed for local farmers in Basanta area. Additional improve breeds of livestock are planned to be distributed for the local farmers. Stall-feeding, which greatly reduces pressure of grazing on forests was also indirectly promoted through the production of fodder-tree seedlings in multi-purpose nurseries for private plantation.

Forest plantation goals were combined with the need for alternative income generation and a NTFP nursery was established in Dovan with the financial and technical support from the TAL program. A total of 10,124 NTFP seedlings were produced and distributed for plantation, consisting of Harro (*Terminalia chebula*), Barro (*Terminalia belerica*), Banana (*Musa sp.*), bamboo (*Dendroclamus sp.*), and cane (*Calamus sp.*). A total of 50,260 NTFP and fruit tree seedlings including Bamboo, Rattan, fruits and other NTFPs have been distributed to 62 CFUGs for plantation during June 2003.

A dental health care facility was installed in Bhurigaon in September / October 2002 with the support from TAL program. Local people were benefited from the health care facilities and the dental care hospital has been operating in close coordination with district health office – Bardia.

TAL Program launched community services program including health care support, drinking water supply, irrigation, road, culvert, toilets, and school support to gain trust of the local community and motivate them in forest conservation and management along corridors. The program has become one of the successful programs in TAL. Various community development services such as tube-well (41), hume pipe (27), school infrastructure (4), irrigation scheme (4), spring protection (2), culvert (1) and dug well (1) construction has been supported by the TAL program during this reporting period. These supports for community development have always been important that motivates local communities to participate actively in forest conservation. The level of motivation has been reflected through user contribution in TAL activities. In natural resources management and sustainable development program the people contributed more than 40 in the form of cash or kinds. Over 10,000 local people were benefited from these community development activities.

Local capacity building is a major component of the TAL program that ensures long-term sustainability of the program and provides the foundation of local community participation in conservation and development activities. Trainings, workshops and study tours were designed for local people and CBOs on forest management, species conservation, income generation and awareness building activities. Two income generation training on piggery and poultry farming and kitchen gardening were organized in RSWR buffer zone which has benefited 70 households in the area. Later on the program has planned to distribute improve variety of pigs, chicken and vegetable seeds to distribute with subsidize price for those poor families. This type of training enhances alternate income generation schemes for local people who are dependent on forest resources, hence reduce the pressure on forests.

Upon written request from the local communities and protected area authorities, 10 km of trench in Majgoan-Gobariya and Majgoan-Ppipaldadi of RSWR and 10 km of fence in Thakurdwara and Ramuwapur areas of RBNP were maintained with the support from TAL program. The trench and fence protect crops from wildlife damage.

Local communities cultivate mentha as an alternate crop, which is not edible by wild animals and has high economic value. Therefore, it has been one of the most popular crops among local farmers in RBNP BZ. This year farmers produced their own seedlings and have managed to grow mentha in 40 ha of land. With the objective of value added at local level, a distillation plant was supported to local community of Thakurdwara this year from TAL Program. According to the local farmers, mentha oil was sold for NRs 500 per liter in Nepalgunj. Approximately the local farmers of Bardia sold 500 liters of mentha oil this year.

Result (Activity) 5: Anti-poaching Activities

The present Anti-poaching Operation program in PAs in TAL initiated since 1992. WWF Nepal program is providing financial and technical support for DNPWC to run the anti-poaching operation smoothly. Prior initiation of TAL program, there were 17 Anti-Poaching Units (APUs) operating in four protected areas in TAL. These APUs used to conduct anti-poaching operation to reduce illegal poaching and trade incidents inside protected areas and their buffer zones in close collaboration with Royal Nepal Army (RNA) and protected area staff as a team. A meeting among DNPWC, WWF Program and other concerned agencies working on AP was held to institutionalize the Anti Poaching Operation and make it sustainable in future. These APUs were restructured and formed Anti Poaching Operation (APO). Based on this restructuring, TAL program provides financial support on mobility, maintenance and information collection and networking which are essential for APO.

TAL Program's efforts to save endangered species of wild animals from poaching have been continuing despite all difficulties in the field. One of the main handicaps for our anti-poaching operations was the restriction in mobility inside the protected areas due to the prevailing security situation in the country. Currently, organizing large mass meetings to campaign against poaching and raising awareness among the local people are not practicable. Therefore one of the main strategies of TAL Program has been to strengthen the anti-poaching operations through capacity building of anti-poaching members, support logistics for APO, support information network and strengthen coordination among stakeholders. Anti-poaching operations are operating in protected areas of TAL, all of which are supported by TAL Program. In addition to general patrolling jointly conducted by PA staff and RNA, in certain circumstances, they also conduct sweeping operation during this unstable political situation.

These APUs conduct anti-poaching operation to reduce illegal poaching and trade incidents inside protected areas and their buffer zones in close collaboration with Royal Nepal Army (RNA) and protected area staff as a team. Due to security situation, movement has been restricted in protected areas as a result; sweeping operations (in RBNP) could not be conducted on a regular basis. However, general patrolling for poaching activities has been continued by the APU in each protected area. TAL program provides mobility and informant support to the APO in all four protected areas.

Three community based Anti Poaching Operation (two in Basanta corridor and one Bardia-Katarniaghat corridor at Khata) were initiated since last year. These APUs were restructured and anti-poaching strategies were formulated from unit to operations level in forest corridors based on the past experience and success of involving local community in anti-poaching activities. During this reporting period, six community based Anti-poaching Operation Coordination Committees were formed at two critical corridors in Basanta and Khata, Chitwan and Parsa.

Due to the political instability in the country, poaching of rhinos in RCNP increased noticeably in the past two years. To address this issue of poaching a number of efforts and strategies on anti-poaching were initiated by the MFSC, DNPWC and TAL program. Various anti-poaching strategy meetings were organized with senior government officials and park authorities. During these meetings, a number of issues related to rhino poaching like communication set, support for mobility, management and well strategize APO were discussed and possible strategies such as basket funding, coordination, rewards to informants and preparation of anti-poaching strategy plan were proposed for immediate action to Park authority and HMG Nepal. Then immediately with the initiation of DNPWC and Royal Nepal Army, Mr. Shiva Raj Bhatta, Planning officer of DNPWC and Mr. Shankar Karki, Major of Royal Nepal Army (RNA) were contracted for the

development of anti-poaching strategy plan. Draft strategy plan was prepared and central level consultation meeting was also held in Kathmandu on August 27 2003. Additionally, TAL program has already incorporated some of these recommendations in its programs and activities for FY 04 for Chitwan.

To make APU more efficient for effective APO and timely information sharing among APO team members, TAL program supported for the installation of communication set in Royal Chitwan National Park. Strengthening APO with mobile communication sets enhances communication among and between APU members during patrolling, raiding and capturing poachers. In June/July 2002, there was very heavy flooding in Chitwan which has not just washed away the agriculture and forest lands in Chitwan, also destroyed the communication repeater station, repeater, solar power station and solar power in Royal Chitwan National Park (RCNP). With the written request from DNPWC and RCNP and from financial support of TAL program, the damaged repeater and solar power stations were renovated and new repeater and solar power sets (solar panels, deep cycle batteries and chargers) were installed in RCNP. Additional 10 handsets were also procured and handed over to RCNP. Four APU posts were renovated one in Majhgoan and two in Singpur at RSWR and one in Ambasa at RBNP. Two new APU posts are under construction in RCNP and PWR. Field monitoring report shows that more than 50% of the construction work has been completed and expected to be completed by the end October 2003. APU posts are constructed to strengthen mobility of APO team to curb poaching and to monitor wildlife movement in the area.

Lack of knowledge in biodiversity conservation and current issues on poaching may be the constraint of protection unit in PAs for the effective patrolling to curb poaching in protected areas. The capacity building and updating park staff and army personnel is essential for controlling poaching in TAL. A two days protection unit orientation programs were organized to various companies of RNA deployed for the protection of protected areas in TAL. These programs were conducted in close collaboration with respective park staff.

Result (Activity) 6: Improved Management of Protected Areas

Reduction of grassland habitat is the one of the major problem of protected areas in TAL. For instance, invasive and unpalatable trees species emerging in the grasslands reduce the size of the *phanta* (open grassland) and decrease availability of palatable species for ungulates, prey base of tigers. As part of improving management of protected areas, TAL program is supporting the protected areas financially and technically to clear unwanted bushes, burn grasses and uproot the unpalatable trees and shrubs. During this reporting period, 256 ha of grassland has been managed in four protected areas (121 ha in RSWR, 75 ha in RBNP, 50 ha in RCNP and 10 ha in PWR).

Waterholes within protected areas were constructed to make drinking water and wallowing places available for rhinos, elephants and ungulates particularly during dry season. Normally these waterholes are fed by the natural stream or by a manmade canal or by pumping underground water. As per the plan, construction of 3 waterholes has been completed in RSWR, RBNP and RCNP, and additional 12 waterholes were constructed in PWR in partnership with Parsa Wildlife Reserve (PWR), private conservationist, road construction project and TAL Program. Additionally, two waterholes (Purano *Tal* and Gauthali *Tal*) were renovated while constructing a new waterhole – Budo *Tal* in RSWR. Siltation and invasion by weeds threaten most of the wetlands in TAL. Therefore, TAL program renovated 2 waterholes in RSWR by cleaning siltation and clearing weeds including water hyacinth.

The waterhole construction sites were selected based on animal movement and naturally established waterholes within Protected Areas. The protected areas and TAL staff assessed the positive and negative impacts of waterhole construction while selecting the site for waterholes construction within protected areas. The site selection is crucial while constructing waterholes because the constructed waterholes need to be used by the wild animals in future. During field monitoring, footprints of rhinos, tigers, elephants and ungulates were found around the edge of newly constructed waterholes which gives an indication of the use of waterholes by these targeted wild animals.

Result (Activity) 7: Education, Communication and Coordination

Education is the key to the success of any conservation program. Unless people understand the reasons for conservation of forest corridors and wildlife, their active participation cannot be expected. To generate awareness and built local capacity, TAL has launched various conservation education programs including Non Formal Education classes for women, eco club support and mobile education.

With the aim of disseminating TAL activities and outputs among local communities, TAL program publishes *Kael Pahura* series quarterly. During this reporting period, 1000 copies of *Kael Pahura* series - 4 (year 5) was published and distributed. Similarly, a book entitled "Status, Distribution and Monitoring of Tigers in Protected Areas of Terai Arc Landscape-Nepal" was published jointly by DNPWC, KMTNC and WWF-Nepal Program. And also 1,000 copies of CITES manual was also reprinted for distribution to various stakeholders related to trade in wild animals and their products.

With the support from TAL program, 10 signposts were prepared and installed in RBNP buffer zone. The sign posts were prepared with the aim of disseminating buffer zone rules and regulation to local communities. The Sundar CFUG has released a cassette on cultural and environmental songs named in Tharu language as "*Chameli Ke Phool*" was partially supported by TAL program. The artist is well known in the village who belongs to the CFUG. The songs have become very popular among local people and convey messages on the cause of forest degradation and its implication and importance of cultural heritage conservation. Besides this, extension kit, brochure and leaflet have been prepared and distributed at local level during this reporting period.

During this reporting period, a Non Formal Education class facilitator training was organized for 11 facilitators in Bardia-Katarniaghat corridor in March 2003. 11 classes for 216 women from various CFUGs were initiated since March 2003. During this reporting period, 6 new eco clubs formed to foster environmental awareness in Lamahi. During eco club formation meeting, the students were briefed on vision, goal and objectives of TAL program. After the formation of eco clubs, they were supported with conservation related materials including books, brochure and leaflets. Additionally, an eco club network was also formed in RSWR buffer zone. There are 96 eco clubs and three eco club networks exist in TAL.

During this reporting period, wetland day, wildlife week were celebrated among student children to generate awareness on conservation of wetlands and wild animals. Similarly, various activities such as conservation awareness, essay, art, folk song, poem and speech competition and interaction programs were organized for the eco club members in TAL area.

A community radio program has been broadcasted from two radio stations – Surkhet radio station and Kalika FM at Bharatpur fortnightly with the aim of promoting TAL vision, goal,

objectives and programs in the areas. The program covers various aspects of TAL including success stories and live interaction program with local communities.

A systematic coordination mechanism has been developed at central and field level for TAL program implementation. The Steering Committee, Project Executive Committee and Program Coordination Committee have been formed as per the supplementary agreement signed with HMG of Nepal for the implementation of TAL program. Project Executive Committee (PEC) meeting was held on 28 January 2003 at Nepalgunj. The meeting reviewed the progress of TAL program for last two quarters and also revised the budget and programs for the next two quarters as per the request from project management. The Director Generals of executive departments (Department of Forests and Department of National Parks and Wildlife Conservation) chaired the meeting. Program coordinators were the member secretaries for the PEC. The Country Representative, Program Directors and Finance Director of WWF Nepal Program and TAL Project Managers were also present at the meeting. Similarly for day to day coordination on TAL, Program Coordination Committee (PCC) consisting of Program Directors WWF Nepal Program, Deputy Director General /Program Coordinator – DOF and Deputy Director General /Program Coordinator – DNPWC has been formed and has been meeting once a week.

A community level transboundary meeting was organized on May 31, 2003 at Belaparsuwa village of Khiri-Lakhimpur district of India. The meeting was organized by Nepal – India Friendship association, Kailali with the support from TAL program. The meeting was participated by representatives from CFUGs of Basanta corridor, local NGOs and government officials from Nepal side and representatives from Gram Panchayat, eco development committee and government officials from Indian side. The meeting was effective and useful to build transboundary cooperation between two countries at the field level in biodiversity conservation. This meeting broke the ice and the field level government officials of two countries have already initiated few informal exchange visits and communication.

TAL project staff participated in His Majesty's Government of Nepal (HMG/N) planning meetings organized at various development regions – Central Development Region, Western Development Region at Pokhara, Mid Western Development Region at Nepalgunj and Far Western Development Region at Dhangadhi to plan activities and budget for next fiscal 2004.

Based on the recommendation made by the joint monitoring team, a two-day TAL planning and review meeting was organized in Nepalgunj from January 28-29, 2003. The major targets for next three years and review of the progress of TAL for the last one and half years were the main agenda of the meeting. At the conclusion of the meeting, site based targets for the next three years were identified and refined from participatory ways. The meeting was participated by senior officials from Ministry of Forests and Soil Conservation, Department of Forests and Department of National Parks and Wildlife Conservation, Directors from Mid Western and Far Western Regional Forest Directorates, District Forest Officers of Kailali, Kanchanpur, Bardia, Dang, Banke, Palpa and Parsa, Chief Conservation Officers of Royal Suklaphanta Wildlife Reserve, Parsa Wildlife Reserve and Royal Bardia National Park, Assistant Conservation Officer of Royal Chitwan National Park, Director of King Mahendra Trust For Nature Conservation (KMTNC) Bardia and senior officials from WWF Nepal Program.

Result (Activity) 8: Research and Monitoring

Monitoring with research and scientific database are the backbone of the success of conservation programs of TAL. To support the program with scientific database, spatial data for the entire landscape and site level data for the immediate intervention sites – five critical areas

were collected and stored using remote sensing and GIS technologies. To do so, TAL program commissioned Dr. Anup Joshi, consultant and Resources Himalayas in order to develop the TAL vegetation monitoring at two spatial scales – landscape and site levels respectively. Landscape level monitoring with forest classification includes use of satellite images and process them using Geographical Information System (GIS) and Remote Sensing (RS) technologies. The spatial data were analyzed to produce land cover, land use change, habitat fragmentation, habitat loss, and coarse scale intactness at the landscape level of Nepalese portion of TAL. 4 scenes of digital satellite data were procured and analyzed for the Nepalese portion of TAL (from the Bagmati River to the Mahakali River). The site level monitoring of vegetation condition were conducted at five critical sites – two corridors (Basanta and Bardia-Katarniaghat) and three bottlenecks (Mahadevpuri, Lamahi and Dovan) to analyze species diversity, structural diversity, human pressure, and establishment of permanent plots for periodic monitoring over time. The spatial database comprising of road, river, contours, settlements, administrative boundaries, geology and community forest were digitized and stored in GIS system for the entire Terai Arc Landscape.

A national NGO - Resources Himalayas was commissioned to carry out site level vegetation monitoring in TAL. Resources Himalayas conducted vegetation monitoring in close collaboration with Department of Forests of His Majesty's Government of Nepal and WWF Nepal Program. To develop a baseline information on vegetation at the site level and develop vegetation monitoring protocol for periodic monitoring of vegetation change over time using permanent plots, a site level vegetation monitoring was conducted in five critical sites – two corridors (Basanta and Bardia-Katarniaghat) and three bottlenecks (Mahadevpuri, Lamahi and Dovan) (Figure 1). A total of 85 permanent plots were established for future vegetation monitoring in these critical areas in TAL. The protocol for vegetation monitoring at site level using permanent sampling plots is under development by the Resources Himalayas. This protocol will be used to monitor the vegetation at site level on periodic basis.

TAL program hired Dr. Anup Joshi and experts from the University of Minnesota and Hunter College to analyze the satellite images for the Nepalese portion of TAL. 8 satellite images covering entire TAL identified and procured. However, four satellite scenes were acquired to cover Nepal portion of TAL. A hybridized method of classification was used. First unsupervised classification was done to cluster spectral values into 60 spectral classes which was then group into 14 (9 vegetation and 5 non-vegetation) types for 2 terminal scenes. Signatures from overlap zones of each terminal scene were used to classify two middle scenes using supervised algorithm. This classification was then rigorously field verified with 540 sampling plots covering all the vegetation classes and extending over Nepalese portion of TAL. Based on the field verification data scenes were stratified and reclassified masking cultivated lands and settlements in the first run. Then vegetation along the flood plains of major rivers was masked and classified separately to increase overall accuracy to 90%. The accuracy was tested with spatial locations and vegetation cover information collected during different studies independently by other scientists over the same areas. This classification is the most recent and accurate representation of forest situation in TAL and provide a baseline data for developing, managing and monitoring any forest related programs in future.

The data and classification will serve as a baseline data for periodic monitoring of vegetation change over time and comparative results will be produced in each time for Nepalese portion of TAL. This data will provide broader understanding on vegetation conditions that will assist for policy makers and managers for future management intervention in TAL. In future, TAL will use this data with adaptive monitoring process and scientific monitoring of both forest cover and specific faunal response to management activities. Analyzing past trends of forest destruction and building a model for future change will provide a powerful tool to monitor effectiveness of the TAL interventions.

The GIS database with roads, rivers, landuse system, contours, political boundary (district and Village Development Committee levels), community forest, population and geology were digitized and stored in GIS system for Nepalese portion of TAL. A trend analysis in vegetation change was carried out based on the available data on land use in the Nepalese portion of TAL. It has shown a trend of deforestation over time in TAL. This data is also stored in GIS. The spatial data can be used for landscape level planning and develop Strategic Plan for TAL. In addition, the database can be used as a monitoring tool in the field. Not only that these spatial database are most powerful tool to assess the effectiveness of TAL strategies and programs on corridor restoration. Similarly the database provides the foundation to design and develop effective conservation and management plan that will address tiger conservation at the landscape level.

The final draft of rhino action plan has been prepared by the team headed by Mr. Shyam Bajimiya, then Ecologist DNPWC. Two experts – Dr. Pralad Yonzon, team Leader of Resource Himalaya and Dr. Tirth Man Maskey, Director General of DNPWC reviewed the draft rhino action plan. An interaction meeting organized on 26th of August 2003 to finalize the action plan before submitting it to HMG of Nepal for endorsement.

Various studies including forest management in Terai, NTFP desktop and field study, rhino translocation feasibility study and forest fire wree conducted during this reporting period. A study for the Site Level Plan Development was undertaken from May-July, 2003 in the four critical areas of TAL - Dovan bottleneck of Palpa, Lamahi bottleneck of Dang, Khata a corridor of Bardia and Basanta corridor of Kailali covering 18 VDCs. The main output of the work was the Five Year Site Level Plan (2004-2009) developed along with the DFO, CFCC and CFUG members. The objectives of this study were, to collect baseline information on livelihoods in the 4 critical sites and to develop a 5-year Site Level Plan for each site with the involvement of local communities and DFOs. Participatory methods like APPAs, planning workshops, stakeholders' consultations and desk reviews were employed for the present study.

A joint TAL program monitoring team consisting of Mr. Shiva Raj Bhatta from DNPWC, Mr. Bal Ram Kandel from DOF and Mr. Bharat Pokharel from WWF Nepal Program visited field from 23 December 2002 to 1 January 2003 to monitor TAL progress in the field. The team appreciated progress made by the project despite the prevailing security situation in the field.

Progress and status

Benchmark	Output	Status
1. Program Coordination		
1.1 Develop partnership and TAL strategic plan	<ol style="list-style-type: none"> 1. Partnership proposal developed 2. Root cause of biodiversity loss in TAL carried out 3. Gaps identified and research and studies conducted. 4. Rigorous consultation for strategic plan development carried out 5. Partnership development continued 6. TAL Strategic Plan 	<ol style="list-style-type: none"> 1. Completed 2. Completed 3. Partially completed 4. Partially completed 5. On track 6. On track
2. Forest Regeneration		
2.1 Restore degraded forests along corridors and bottlenecks	<ol style="list-style-type: none"> 1. Quality seedlings produced and distributed 2. Natural regeneration initiated 3. Plantation established in community and private lands 	Completed as per target
3. Community Forestry		
3.1 Establish and Institutionalize community forest user groups	<ol style="list-style-type: none"> 1. Degraded forest patches identified to hand over as community forests to local communities 2. 19 Community Forest Operational Plans prepared 3. 19 Community forests handed over to local communities 	<ol style="list-style-type: none"> 1. Completed 2. Completed 3. On track
3.2 Build capacity for community forest user groups	<ol style="list-style-type: none"> 1. Empowerment and participation increased of CFUGs in the local communities 2. Empowerment increased to women's participation in CFUGs 	<ol style="list-style-type: none"> 1. Increased 2. Increased
4. Sustainable Livelihoods		
4.1 Promote community development activities	<ol style="list-style-type: none"> 1. Community services provided to local communities 2. Alternate energy promoted 3. Local communities motivated in conservation 	Completed as per the annual target
4.2 Enhance income generation of local communities.	<ol style="list-style-type: none"> 1. IGA groups formed and institutionalized 2. Income generation enhanced and local people trained on income generation activities 3. Agro-forestry promoted 4. Staff feeding and improved breed adapted by the local communities 	As per annual target completed
4.3 Minimize human wildlife conflict	<ol style="list-style-type: none"> 1. Non lethal barrier for wild animals established 2. Decreased in crop depredation by wild animals 	As per annual target completed
4.4 Local capacity building	<ol style="list-style-type: none"> 1. Local communities trained and empowered 2. Local people trained on various aspects include income generation, alternate energy, stall feeding 	As per the annual target completed
4.5 Build capacity of government implementing agencies	<ol style="list-style-type: none"> 1. Government field staff trained successfully in community forestry and income generation 2. Increase in participation of local communities in planning, managing and developing of conservation activities as a result of better-trained forest officials 	<ol style="list-style-type: none"> 1. On track 2. On track
5. Anti-poaching		
5.1 Strengthening anti poaching operation in PA	<ol style="list-style-type: none"> 1. Anti-Poaching Operation strengthened 2. AP post constructed 3. AP strategic plan developed 4. CITES implementation and monitored illegal trade 	As per the annual target completed

	<p>of wildlife</p> <ol style="list-style-type: none"> 5. Government officials and local communities trained in anti-poaching efforts through series of anti poaching training sessions 6. Trained manpower and better communication system in place 7. Improved communication among APU members and coordinated anti-poaching efforts 	
5.2 Strengthening community based anti poaching operation along corridors	<ol style="list-style-type: none"> 1. Community Based Anti-Poaching Operation in two corridors institutionalized 2. Capacity of APU team including local community built 	<ol style="list-style-type: none"> 1. Completed 2. On track
6. Improved management of protected areas		
6.1 Improving protected area management	<ol style="list-style-type: none"> 1. 256 ha grassland managed in four protected areas in TAL 2. 4 waterholes constructed 3. 4 waterholes renovated 	<ol style="list-style-type: none"> 1. Completed 2. Completed 3. Completed
7. Education, communication and coordination		
7.1 Generate conservation awareness	<ol style="list-style-type: none"> 1. Conservation awareness generated among local people and school children 2. Brochure, leaflet, books and newsletter published and distributed to disseminate information 	<ol style="list-style-type: none"> 1. Completed as per annual target 2. On track
7.2 Facilitate international dialogue and cooperation between Nepal and India	<ol style="list-style-type: none"> 1. Field level transboundary meeting held will result in collaboration and cooperation between field staff of two countries. 2. Cooperation on transboundary issues such as illegal trade control gained. 	<ol style="list-style-type: none"> 1. Enhanced 2. Enhanced
7.3 Systematic coordination mechanism	<ol style="list-style-type: none"> 1. Systematic Coordination mechanism in place 	<ol style="list-style-type: none"> 1. Enhanced
8. Research and Monitoring		
8.1 Obtain GIS Mapping and ground truthing results	<ol style="list-style-type: none"> 1. Field verification completed 2. Vegetation classification for entire TAL completed by June 2003 3. Established GIS database for TAL 4. Vegetation monitoring protocol developed and permanent plots established 	<ol style="list-style-type: none"> 1. Completed 2. Completed 3. Completed 4. On track
8.2 Wildlife monitoring through collection of baseline data	<ol style="list-style-type: none"> 1. Status of wild elephants in western Terai known. 2. Blackbuck conservation strengthened 3. Regular monitoring of flagship species and other species such as blackbuck and swamp deer 	<ol style="list-style-type: none"> 1. On track 2. On track 3. On track
8.3 Establish baseline in socio-economic condition	<ol style="list-style-type: none"> 1. Feasibility of NTFP in Terai explored with detail action plan for critical areas 2. Socio-economic baseline data collected and analyzed through development of site level plans for four critical areas. 	<ol style="list-style-type: none"> 1. Completed 2. Completed
8.4 Monitor TAL activities	<ol style="list-style-type: none"> 1. Regular program monitoring in place as a regular activity 2. Regular feed back and comments provided to TAL field staff in program planning, implementation and monitoring 	<ol style="list-style-type: none"> 1. Regularly 2. Regularly

Note: some of the activities were delayed due to field security situation

Next steps

The TAL program was initiated in July 2001 with the aim of linking 11 protected areas in Nepal and India. The first stage of the program was to identify critical areas for immediate intervention. As a result five critical areas – two corridors and three bottlenecks were identified in 2001. Then a five year critical area restoration plan was developed for these sites. As per the plan, various activities forest restoration, community forestry, anti-poaching, wildlife monitoring, habitat improvement, Integrated Conservation and Development Programs (ICDP), awareness generation programs are initiated in TAL. The TAL program, which is jointly implemented by HMG Nepal and WWF Nepal Program, took an initiative to develop TAL strategic plan under the leadership of HMG of Nepal. TAL strategic plan aim to address all the needs and complex issues of biodiversity conservation and sustainable livelihoods across the landscape. One of the priorities of the strategic plan consists of developing a coordination mechanism with various key stakeholders at central and field levels that can lead to the successful scaling up and implementation of current activities. Another component involves building partnerships with institutions that work on conservation and development issues in the Terai Arc Landscape.

Moreover, mobilization of local people is critical for the success of landscape level program. In coming year, TAL will focus on various awareness generation programs for the local communities. TAL program has been organizing various stakeholder meetings and interaction workshops for local communities. TAL program will also focus extension program in future. Local capacity building is vital for the long-term sustainability of the program. TAL program has been organizing various exposure tours, trainings and workshop related to community forestry and income generation for the local communities. These programs are vital for the success and sustainability of landscape level conservation. The impact of awareness and capacity building program has been seen in the past year as people has confronted for the forest encroachment and assisted District Forest Offices. *Gothala* education and Non Formal Education for women are quite popular as they are the key to generate conservation awareness at grass root level.

The involvement of women in community forestry program along TAL is considerably high. The success of landscape level conservation program depends on the cooperation and participation of women in natural resources management in forest corridors and bottlenecks. To motivate local participation, TAL Program continued its effort to uplift the socio economic condition of local people who are living along the corridors and bottlenecks in TAL.

Success Stories

Within a short period of time, the TAL program, which is jointly implemented by HMG Nepal, and WWF Nepal Program has been able to develop a good rapport with local communities, government line agencies and NGOs working in the area. As a result, despite the political turmoil in the country, the TAL program was been successful in implementing its planned activities in the field. This is only possible as the programs were implemented through grass root level organizations most particularly CBOs, CFUGs and CFCC. Community participation in most of the TAL activities is over 40 percent of the total cost which is remarkable. This shows an indication of community's motivation on forest corridors restoration and community development activities in TAL.

TAL program has been working very closely with District Forest Offices and Parks / Wildlife Reserve offices. TAL has received extensive support from District Forest Offices while planning, implementing and monitoring seedling production, plantation, community forest user group legalization and institutionalization in corridors and bottlenecks. Similar supports have also been

received from protected area offices for planning, monitoring and implementation of activities in protected areas and their buffer zones.

A good coordination mechanism has been developed at both field and central levels to plan, implement and monitoring TAL program. Furthermore, not only in the field, WWF Nepal Program has also developed good rapport with central level government line agencies most notably Ministry of Forests and Soil Conservation, Department of Forests and Department of National Parks and Wildlife Conservation. In the field, the program has also received extensive support from local community, CBOs and NGOs.

During this reporting period, Western Terai Landscape Complex Project has been approved by GEF to initiate conservation activities in the western part of Terai Arc Landscape under the leadership of HMG of Nepal. Other agencies such as SNV, UNDP, WWF, Nepal Agricultural Research Council (NARC), Local initiatives for Biodiversity, Research and Development (LI-BIRD) and International Plant Genetic Resources Institute (IPGRI) are co-funding this project over 8 years with an amount of USD 12,827,282. This partnership will bring synergy in landscape level biodiversity conservation in Nepal and will be implemented using existing TAL set up in the field.

Similarly, Biodiversity Sector Program of Siwalik and Terai (BISEP-ST) of SNV and Livelihoods and Forestry Program (LFP) of DFID have been implemented in the eastern and central regions of Terai Arc Landscape as complementary programs for TAL Program. Such partnership has already brought synergy in biodiversity conservation at the landscape level in TAL.

Challenges and Lessons Learnt

Seven years of Maoist problem resulted in an unstable political situation in the country. This lead to a security problem especially for movement in the field. However, TAL Program has been able to continue its program activities in the field despite the security situation. This was only possible largely due to the rapport that the TAL program has built within the short period of time with local communities and grass root organizations. TAL program has mostly implemented its activities through grass root level beneficiaries organizations most particularly Community Forest Coordination Committee and Community Forest User Groups.

On 29 January 2003, His Majesty's Government of Nepal and the Communist Party (Maoist) agreed for a ceasefire to facilitate the dialogue to end the 7 years old Maoist problem in the country. TAL program took ceasefire as an opportunity to carry out various programs such as large mass meetings, biological monitoring and rigorous field activities monitoring which were restricted during political instability in the country.

The political instability and state of emergency provided opportunity for rhino poaching in Royal Chitwan National Park and Royal Bardia National Park. WWF Nepal Program made various attempts including organizing various strategic meetings, coordination at central and field level government senior officials and strategizing various AP activities through involvement of local communities in the area. The WWF Nepal Program took an initiative to prepare anti-poaching strategic plan for RCNP to combat poaching. Success of community based anti-poaching operation has proved the role of local community in anti-poaching operation. As they are involved as informants for anti-poaching operation, the poaching incidences including illegal timber cutting, encroachment, fire and grazing in corridor has been reduced drastically.

The success of landscape level program depends of more rigorous field monitoring of activities. A joint monitoring team consisting of representatives from executing agencies – Department of Forests and Department of National Parks and Wildlife Conservation and WWF Nepal Program

monitored the TAL progress in the field. Such program monitoring provides feed back for the improvement of the program in future. Furthermore, the Project Executive Committee meeting has also decided to carry out program monitoring as a regular activity. Similarly, the meeting also suggested that small scale impact monitoring should also be conducted to assess and get feed back on various activities ongoing in the field.

Within a short period of time, TAL program able to developed good partnership with key players in TAL including UNDP, SNV, DFID and CARE Nepal. Ultimately, the conservation of the landscape will be possible through strong partnerships among stakeholders, governmental and non-governmental agencies working in the region, donors, the private sector and interested groups. This vast landscape with its huge population has many complex dynamics and issues. The TAL Strategic Plan is about making partnerships happen and about creating a synergy of forces to achieve the vision of TAL.

During this reporting period, a group of elephants used Bardia-Katarniaghat and Basanta Corridors. Local people reported that herds of elephants used Khata corridor for their movement to and from Katarniaghat wildlife century. Local people have noticed that the movement of elephant has increased this year as compared to the previous years. In Basanta, a large herd of elephant came to Basanta forest from Dudhuwa National Park of India in November 2002 and moved back in February 2003. No major crop damage is reported except small damage caused by trampling in agricultural lands. Besides Elephant movement, Royal Bengal Tiger was seen in the Sonahaphanta and Kusminia CF of Bardia. Similarly in Radhakrishna Community Forest of Basanta, the forest watchmen saw a Royal Bengal Tiger on last week of May 2003. This information supports the both tigers and elephants have been using two critical corridors – Basanta and Bardia-Katarniaghat for their movement.