

STATUS OF CHURE IN MAKWANPUR DISTRICT

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ABBREVIATIONS

| | |
|--------|--|
| BZCF | Buffer Zone Community Forest |
| BZCFUG | Buffer Zone Community Forest User Groups |
| CFUG | Community Forests User Groups |
| DFO | District Forest Officer |
| EIA | Environment Impact Assessment |
| GEF | Global Environment Facility |
| GoN | Government of Nepal |
| IEE | Initial Environment Examination |
| LRMP | Land Resources Mapping Project |
| NGO | Non-Governmental Organization |
| VDC | Village Development Committee |
| WWF | World Wildlife Fund |

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CHAPTER-1 INTRODUCTION

1.1 BACKGROUND

Churia hills are young geological structure formed of very fragile sedimentary rocks and minerals and composed of unconsolidated loose materials originating from soft rocks such as mudstone, sandstone, siltstone, conglomerates and shale, which are structurally weak and highly erodible and fragile. Chure is located between main boundary thrust and main frontal thrust.

The Chure region covers over 1,898,263 ha of land and occupies 12.84% of county's land. It extends from 80° 9' 25" to 88° 11' 16" longitudes; and from 26° 37' 47" to 29° 10' 27" latitudes. Forest area covers the highest proportion of the area in the Chure, which accounts (72.37%; 1,373,743 ha) followed by other land (26.44%; 501,848 ha) and least covered by other wooded land (1.19%; 22,672 ha). 24 % of the total forest area of Chure falls under the protected areas (core zone- 18% and buffer zones - 6%) and remaining 76% outside of the protected areas.

According to forest resource assessment, Nepal Chure shrunk by 38,051 ha with annual rate of about -0.18% from 1995-2010. During the period forest cover area dropped in 27 districts and slightly increased in the 9 districts. 281 tree species, 186 shrub species and 322 species of herbaceous plants are found in Chure and Sal is the dominant tree species.

Geographically Chure is classified in 3 different types

1. Lower Chure: Characteristics of lower Chure consists of very fine grain of sediments such as variegated mudstone, siltstone and shale with smaller amounts of fine-grained sandstone
2. Middle Chure: Characterized multi storey thick sandstone and where bio tar content is high which has salt and pepper appearance
3. Upper Chure: Characterized by gravel, very coarse sediment and conglomerate content is rich.

| Physiographic region | Area (Sq. Km) | Percent |
|-----------------------------|-----------------------|----------------|
| Chure Hill slopes | 13494 | 34.1 |
| Inner River Valleys | 881 | 2.2 |
| Dun | 3593 | 9.1 |
| Bhabar | 5847 | 14.8 |
| Tarai | 15723 | 39.8 |
| Total | 39537 | 100 |

Table 1 : Chure- Tarai Madhesh Region Nepal Physiographic Division

Chure extends from Indus River, Pakistan to Brahmaputra River India while it extends from Ilam to kanchapur district in Nepal. Chure encompasses 36 districts and extends up to 800 km from eastern to western borders and 5-15 Km to the north. The total population of the Churia is estimated to be 3.6 million covering 14% of the total population of Nepal.

Chure is the source of fresh water and rich in flora and fauna that helps to maintain sound ecological balance between Tarai and Mahabharata range. Chure has varied climate from sub-tropical to warm temperate which is characterized by hot and sub-humid summers, intense monsoon rain, and cold dry winters. The average annual minimum temperature ranges from 12oC to 19oC; with the average annual maximum temperature ranging from 22oC to 30oC. Chure annually receives rainfall from minimum of 1,138 mm to the maximum of 2,671 mm throughout the Churia. The elevation of the Churia varies from 93 to 1,955 meters above sea level.

| S.N. | Physiographic region | Area in Makwanpur District (Sq. Km) |
|-------------|-----------------------------|--|
| 1 | Chure | 1017.03 |
| 2 | Dun | 285.19 |
| 3 | Inner river valleys | 100.66 |

Table 2: Distribution of Chure in Makwanpur District

Three key questions that we have considered in the study are:

1. What is the implementation status of the existing policy formed for the Chure protection?
2. What should be the role of actors for Chure Conservation?
3. How the roles of actors should be redefined in the changing context?

1.2 EXISTING PROBLEM IN CHURE:

Unprecedented level of ecological and environment degradation is being experienced recently by Chure range because of massive illegal forest deforestation, extraction of sands and boulders, landslides and flashfloods in recent decades.

Over grazing has been one of the major problem of Chure degradation. Exploitation of natural resources and degradation of forest has resulted in to landslide in the upper region where as the lower region facing the problem of flood and silt deposition. Landslides and cutting of river edges have resulted in to the regular increment in sand and boulders in the river at downstream which has lifted the surface of the rivers, increased the width of the river and the human settlement, agriculture land and forest area has merged in to the river.

From 2001 to 2010 annual degradation rate of Chure forest is 0.02 % per year and as per economic study carried out in the Pasaha river found that 3 crore is lost yearly. Study states that every district has 3-4 similar rivers that results in to these type of economic loss. Another independent research found that 50 % of flowering floral plants have been extinct in the Chure region. Land degradation due to landslides, debris flow, flooding and sediment deposit in the cultivatable land has become frequent which has increased the chances of the region turning out

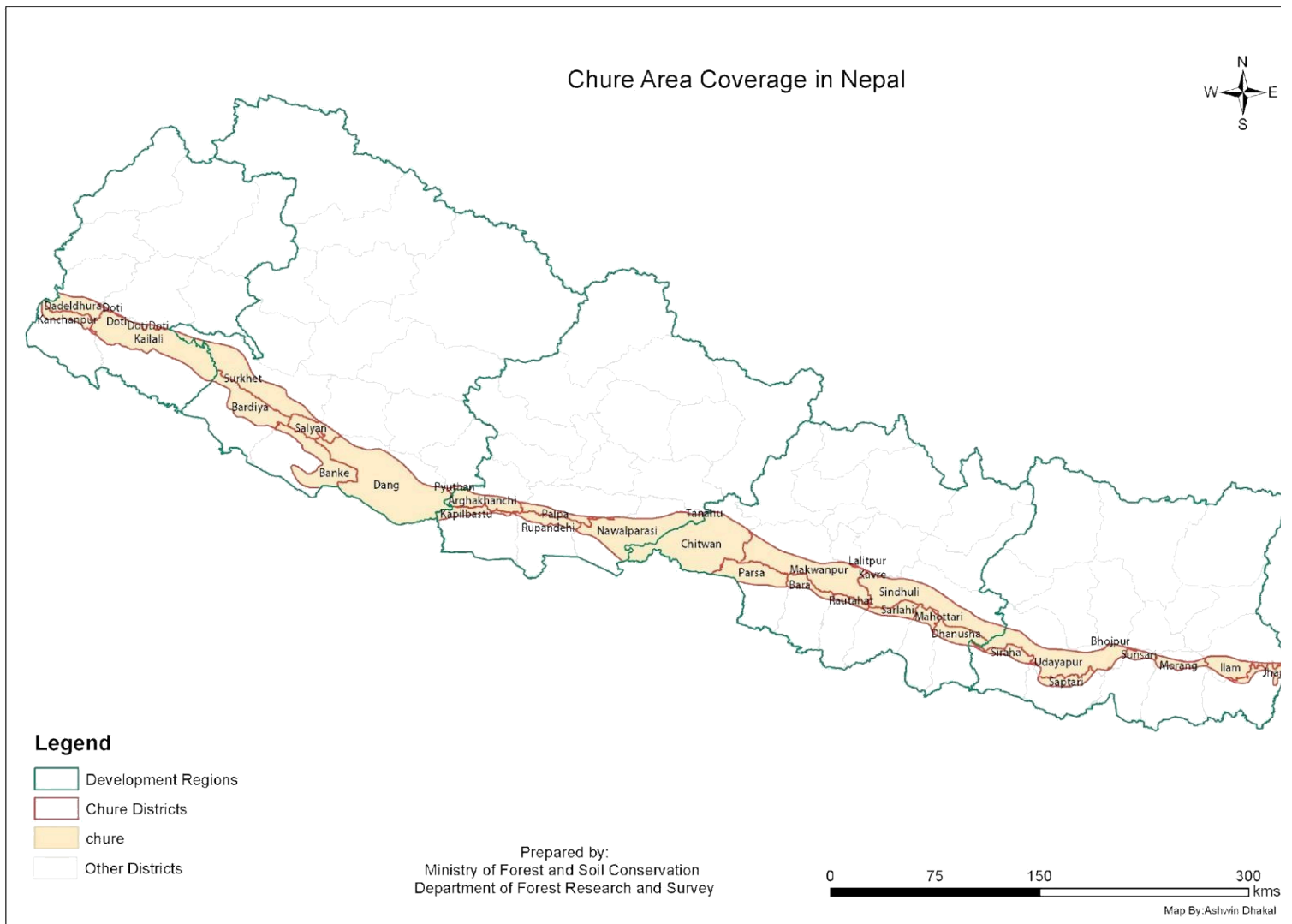


Figure 1: Map of Chure area Coverage in Nepal

in to complete desertification in a distant future. The rate at which forest are being chopped, extraction being carried out illegally in Chure, there is high likelihood region turning soon in to the desert. Flooding has led to excessive loss of the agricultural land in the region.

Due to massive illegal logging and soil erosion in the range, Khares – fast flowing rivers are being formed in the monsoon season, which has affected the fertile agriculture land and human settlements near to the river. More than 1500 farmers have been affected in last 2 decades by the destruction caused by khare flash floods in Sindhuli district.

Further increased settlement and forest encroachment has resulted in to loss of flora and fauna in the Chure region. There has been reduction in the ground water recharge and the water table has fallen very shapely in most part of the region. Many locals have reported drying of the water resources in the Chure region.

Independent research carried out Bijay Singh found that due to natural and manmade disasters Chure is losing yearly 20 to 40 Bighas of land. Annual deforestation rate at Chure is 1.7% and 6.5 million cubic meter of boulders and sands is extracted legally every year whereas illegal extraction are expected to be double.

1.3 RATIONALE OF THE STUDY

There has not been in-depth study on the Chure degradation, which incorporates the voices of the local communities, and also there lacks evidence based case study in the Chure region. The main reason of the Chure degradation in the past is local did not have their say in the Chure conservation both at policy and program level. Based on these existing problems I want to focus this research reaching out to the locals of the Chure region. At present context, perception based research carried out in a specific district is important for the policy recommendations. The policy recommendations will incorporate people perception during policy formulation and can be effective. Lot of important aspects is not explored while formulating the policy and these limitations are yet to be explored. This study will show the detailed dimension of such limitations.

CHAPTER 2: OBJECTIVE OF THE STUDY:

- To understand the existing scenario of Chure degradation in Makwanpur district
- To understand the role and effectiveness of Chure Tarai Madhesh Development Board and government line agencies

CHAPTER 3 METHODOLOGY:

This study combines desk review with interviews and interactions with various actors in the field. It is largely based on qualitative information and analysis. This section describes key methods and steps up to the completion of this study.

Literature review: A review of literature on the analysis of Chure forest in Nepal was drawn from various contemporary studies that focused on the Chure region. Similarly different program and policies were reviewed to assess the program and policy priority and initiatives taken to address them.

Focus group discussion: Two different VDCs of Makwanpur district were selected for case to support the analysis. These sites were selected based on the discussion with WWF and the locals organization during initial meeting before the study. The description of each sites are provided under the respective cases. Focus group discussions were organized with the community forest user groups

Interview: Interviews were taken with officials of the Masine Shanti Buffer zone forest user group and members of different forest user groups from Chhatiwan, Local, Government agencies. These interviews were important to understand the existing dynamics in the buffer zone area. Interviews with stakeholders including officials in the district headquarters helped triangulate the findings and get a better picture on the intensity of the problem. .

CHAPTER 4

HISTORIC EVOLVEMENT OF DIFFERENT PROGRAM AND POLICIES IN CHURE CONSERVATION:

Until 1950 Chure forest were dense and was under the control of the Rana rulers. Government promulgated Forest Act in 1957 after the abolishment of Rana regime in 1951. Forest Act helped to nationalize the forest and bring them under the control of the government (Department of Forest Research and Survey, 2014 cited in Mahat, et al. 1986; Regmi, 1999) but the policy was responsible for massive forest degradation because locals were alienated from the forest resources and disrupted traditional forest management systems (Department of Forest Research and Survey, 2014 Cited in Barton, 2001; Blaikie and Springate-Baginski, 2007). Chure degradation further escalated after the introduction of the Land Tax Act 1977, which stated the forestland as a government land, which encouraged the locals to cut the forest for the farming purpose so that the land would be owned by them and government would not claim them (Department of Forest Research and Survey, 2014 cited in Gilmour and Fisher, 1991; Hobley and Malla, 1996).

Decade of 60's and 70's saw massive environment degradation in the hilly and Chure region of Nepal which resulted in the formulation of the National Forestry Plan of 1976 and Panchayat Forest and Panchayat-Protected Forest Rules in 1978 to encourage local participation for forest conservation and management (Department of Forest Research and Survey, 2014 cited in Gilmour and Fisher, 1991; Hobley and Malla, 1996). After the success of community forest under Forest Act of 1993 and the Forest Rules of 1995 fraction of forest in Chure was handed over as a community forest while most of the protected forest is managed by the government and fraction of Churia forest is managed as leasehold forest and strictly protected in the protected areas of the Parsa and Shukla Phanta wildlife reserves and the Chitwan, Banke, and Bardia national parks cited in Hobley and Malla, 1996).

As per Department of Forest 2013, Chure have about 2,837 Community Forest User Groups (CFUGs) with associated 490,547 households as the Community Forest (CFs) members. The GoN has emphasized the need to protect Churia forest since the fourth five-year periodic plan

(1970-1975), the National Conservation Strategy in 1988 and the Land Resources Mapping Project (LRMP) in 1986. Understanding the significance of the region Ministry of Forest and Soil Conservation, Government of Nepal in 2008 has prepared the Churia Program Strategy in 2008.

In 2010/11 President Chure Conservation program was set up under the leadership of then Prime Minister Madhav Kumar Nepal under the patronage of the President Ram Baran Yadav. President Chure Conservation program was set up to conserve the massive Chure forest degradation and illegal extraction of the sands and boulders. Program covered 27 districts of the Churia region. Program did not function well and failed due to poor planning and lack of right and capable institution with adequate technical and financial resources at the ground to implement the program. Further Program did not carried out consultations with local community and organizations, community forest user groups and local political representative to address their concern on the recent degradation of the Chure.

High-level autonomous body Chure Tarai Madhesh Conservation Board was formed in 2014 under the leadership of former Finance Secretary Rameshwar Khanal covering 36 districts, which is comprised of 5 expert members. The board is mandated to coordinate with different ministers and departments that have been working on the Chure protection.

Chure Tarai Madhesh Conservation Committee has 5 key working areas:

1. Formulation of the master plan which is one of the major outcome of the committee
2. Lower the risk of the landslides
3. Grazing and fire control through technology interventions
4. Setting up environmental standards and protocol for monitoring and regulation
5. Social mobilization engaging local communities

The committee has started to work on the integrated river management in 4-river system:

- a) Ratu
- b) Balan
- c) Jalad

d) Lal Bakiya

Committee is working on short term, mid-term and long term plan and working on master plan for 20 years. WWF with the support of GEF is running the project Sustainable Land Management in Makawanpur, Parsa, Bara and Rautahat districts in the Churia in coordination with the ministries of Forests and Soil Conservation, Land Reform and Management, Agricultural Development, and Science, Technology and Environment.

Recognizing huge environmental degradation government of Nepal from 2071 shrawan 1 government of Nepal have prohibited extraction and transportation of sands and boulders from Chure region and on 2071 Asar 2 government designated Chure as a conservation area.

4.1 EXISTING LAW AND POLICIES RELEVANT TO CHURE PROTECTION:

1. Under the leadership of the Ministry of Forest and Soil Conservation, Government of Nepal has formed a working committee who will prepare a law related to Chure protection.
2. **Chure Policy:** This policy has categorized forest location in the Chure region in to three categories a) Highly Sensitive b) Sensitive C) Normal
3. National Conservation Strategy 1998
4. Nepal Environment policy and Action Plan 1993
5. National Agricultural Policy 2004
6. Revised Forest Sector Policy 2000

CHAPTER 5 - CASE STUDY:

5.1 Masine Shanti buffer zone community forest user group (BZCFUG), Handikhola VDC

Handikhola VDC is situated South-West of Hetauda. Total Area of Handikhola VDC is 10630.7 Ha. Handikhola VDC has 6-community forest user group and all of them are in the buffer zone area and covers total area of 1560.91 Ha.

The Masine Shanti community forest was registered under district forest before 2052 and before the establishment deforestation rate was high. Masine Shanti BZCFUG is situated in ward no 7, Handikhola VDC with the total area of 575.15 Ha which was started in 2053 B.S as a community forest. Masine Shanti BZCFUG have Total 517 user group. In 2062, Asadh 13 Mashine Shanti CFUG came under the Parsa wildlife reserve buffer zone.

30% of the population of the Masine Shanti buffer zone hold illegal land and most of them are hold by illegal migrants who came from raksirang, kalikatar, bharta, Khairang and Sarikhel in 2020 B.S. There has been no illegal migration in the community forest area since last couple of years after the community forest came under the buffer zone and further Masine Shanti BZCFUG is a powerful entity.

As per secretary of the Masine Shanti BZCFUG it is very difficult to access the woods from forest even for household purpose from buffer zone community forest user group and strict rules and regulation of the buffer zone should be followed for the transportation of wood outside the specific wards. This has fully stopped the supply of wood outside Masine shanti buffer zone community forest user group.

Local needs to pay the tax to extract sands and boulders from the buffer zone area for personal household usage in the BZCF this has decreased forest deforestation.

Since 2068 logging of trees has been stopped in the buffer zone area and the forest and wildlife has increased since then. Because of the awareness level since last 2-3 years dependency over the

forest have decreased and no forest fire observed in last 2-3 years in BZCF. Forest degradation decreased since Masine Shanti CFUG moved to buffer zone community forest user group.

So far handful organization came for the Chure protection in the Masine Shanti BZCF. Since 2066 only few organization made intervention for Chure protection .WWF is running a project on Sustainable Land Management in Masine Shanti buffer zone community forest user group no project so far under Chure development board.

Low income and marginalized family of Masine Shanti BZCFUG like Bankariya, Raute were provided with the facility of Goat and chicken farming, Sewing trainings which has helped them to be more dependent and lower their dependency over the forest, which has lowered the forest degradation in the BZCF.

5.2 Community forest user groups of Chhatiwan VDC

Chhatiwan VDC is situated 23 km South- East from Hetauda. The total area of Chhatiwan VDC is 16414 Ha and the total forest area is 10254 Ha. Chhatiwan VDC has 28 community forest which covers total of 5920.90 ha. None of the community forest in the Chhatiwan VDCs falls under the buffer zone area.

Open grazing land has been one of the main problems of forest degradation in most of the community forest in the Chhatiwan VDC. Since Jestha 28 2070, forest area of Chhatiwan district has been announced as open grazing land free but still the open grazing is practiced in the community forest of the Chhatiwan VDC. Illiteracy and lack of awareness is one of the main reasons for continued practices of open grazing land. 50 % of the population in the Chhatiwan district is the illegal settler who do not have authorized legal document of their land.

Community forest user group members do not require any permission to chop the tree for household purpose and usually they cut the trees more than their need, which is one of main reason for the forest loss in Chhatiwan VDC. Local also do not require any permission to extract sands and boulders from nearby river in Chhatiwan VDC.

When the ban on cutting trees was lifted by government, massive deforestation took place in the Chhatiwan district. Trees from one community forest user group to other community forest user group and district forest can be easily transported in the Chhatiwan VDC. In addition forest fire has been one of the main problems of the community forest user groups in the VDC.

5.3 STAKEHOLDERS RESPONSES AND THE CONTRADICTIONS:

Some of the respondents from government officials were reluctant to speak about the existing role of their agency and ongoing government efforts on Chure protection at the local level. One of the respondent mentioned there is flaw at policy level for the Chure protection. Government never had a policy which focused on the extraction of natural resources on limited amount or scientifically from Chure despite knowing the Chure had fragile soil and it's degradation would impact large number of population both upstream and downstream.

Local stakeholders were surprised on initiation of new institution for Chure protection which came in to existence merely from the annual budget program.

There has been huge question on the area that has been marked as Chure among locals, non-government agencies, government agencies and local political leaders. Local government officials and local political leaders have contradiction in the Chure area marked by government. Some of the areas that are Chure do not fall under the Chure as defined the geologist and the Chure development board. This has raised big question mark over the board and the experts. Local seems angered and worried with experts who have identified Chure area as a non Chure area and working with businessman to rip the benefit by extracting the boulders, sand and wood. Local firmly believes present Chure has been identified randomly in pressure and influence and demands for intense and rigorous field level scientific study for Chure area identification.

Some of the respondents mentioned that one of the main reason for the failure of Chure conservation program is that it was top- down approach which lacked clear responsibility to the local agencies and the most of the budget was channelized for the program only.

There lacked budget for the monitoring and evaluation of the program and initially reporting of the program at the district was conducted from the center. In addition there lacks uniformity in approval of IEE and EIA report among different government agencies, Chure Board should take the responsibility of approving IEE and EIA to minimize the degradation in the region.

Stakeholders stated that the main problem is the project approach of the Chure conservation and there also lack media sensitization on Chure issue at local level. Respondents during the interview mentioned the local CFUG and the local NGO's were not involved in the discussion and decisions related to the Chure Policy and Program.

One of the respondents mentioned President Chure Conservation program was not effective because local government agencies took it as a one off program only and they did not took any responsibility and further lacked effective monitoring and supporting unit for this program.

Local stakeholders stated that main reason for the Chure degradation is because of weak policy on land use system. We lacked proper system on cutting the tree, settlement planning, and extraction of resources near to river and area, which had fragile topography.

Local cut down the trees more than their need and also set up new settlement nearby the Chure and there was no intervention from the government, which has resulted in to the massive degradation. Government of Nepal came with Land use policy in 2069, which is yet to be implemented.

CHAPTER 6 ANALYSIS:

6.1 Buffer zone Community forest user group versus community forest user group:

The study was carried out in Masine Shanti Buffer zone community forest user group, Handikhola VDC and different community forest user group members from Chhatiwan VDC. Study found that buffer zone community forest user group seems to be right approach over community forest group for the Chure conservation. Buffer zone community forest were less disturbed from anthropogenic activities compared to community forest. Community forest regular patrolling and inspection likewise in buffer zone community forest should be carried out for the Chure conservation.

The study shows rate of illegal settlers in Chhatiwan will increase slowly and present 50% illegal land will be bought which will lead in to increase in the population by 50 % in next decade. This will result in to additional forest degradation in the Chhatiwan area. Rapid forest degradation is not observed in the Chhatiwan area but the degradation at present is in slow pace, which is like slow poison whose impact will be visible after a decade. It is very important for government and concerned local authority to make timely intervention to stop such activities, which will impact the Chure.

Strict rule over cutting the trees in the BZCFUG is one of the main reasons of Chure conservation where as members are community forest user groups are allowed to fell the trees that are old and decayed for personal usage but the locals usually chop the fresh and greens once too.

In order to protect the forest of the Chhatiwan, VDC announced Chhatiwan grazing land free VDC but the decision could not run effectively. There lacks awareness on forest conservation and grazing among the population of the Chhatiwan VDC, it is very important for government to run awareness program on grazing, forest fire and forest conservation to the different community forest user groups of Chhatiwan. In addition for the effectiveness program should be designed directly with community forest user groups.

The study saw difference in awareness level between two-community forest user groups, which is one of the main reasons for degradation of Chure in the community forest user group. Community level aspiration is most for the Chure conservation, which is high among the communities of the buffer zone community forests user group. In addition it is very important to provide alternative income generation opportunity to the user of the CFUG likewise in Masine Shanti BZCFUG.

6.2 Government Line agencies versus Chure board

There did exist government institutions who were working on Chure protection before the start of the president Chure conservation program and Chure Tarai Madhesh Development board. Department of Forest, Department of Livestock, Department of Agriculture, Department of Plant resources, Department of Soil conservation and watershed management and Department of water induced disaster prevention have been working on Chure area.

Existing government institution human resources were insufficient for the Chure conservation and there was need of additional human resources and institutional capacity for the Chure. In addition there was no existing organization to carry out monitoring and research in Chure region and the need for so was felt at the national level and where board came in to the existence.

As per Chure board strategy it only works on the river system and they work on limited area. Out of 19 VDCs and 1 municipality in Makwanpur district board is running project in the specific area only. For Chure conservation under the leadership of the Director of the District Forest office a district level committee has been set up. The committee comprises representatives from Department of Livestock, Department of Agriculture, Department of Plant resources, Department of Soil conservation and watershed management and Department of water induced disaster prevention. The committee updates the activities, decision program and updates to the district coordination committee chaired by LDO. The DCC endorse the activities carried out by the committee lead by the forest.

All the departments could not come under the Department of forest so Chure Tarai Madhesh development board came in to the existence and the Board holds full authority. Board lack authority in the policy level and lack skilled manpower. In addition Staff at Chure board are temporary who have been hired for a year, which are politically appointed and affiliated to the political parties also involved in active politics.

The role of the board is key but it is merely working on research work and providing technical support to the government line agencies at the district level. One of the main problems faced by the board is they are under staff, lack funds and most of their staff have been contracted for a year which make them feel they do not have much responsibility. There is huge question over the role and need of the board in the district because government agencies are carrying out the program based on their annual planning. Different Departments working on Chure prepare the program at the district level and they get approved by the Chure board at central level and implement the program at the district level. Chure regional office at Hetauda helps in monitoring and technical support in the project.

There lacks ownership among the Chure staff and lack sense of responsibility because they are temporary staff for short time period. In addition these staffs at regional and district level can not pressure the existing permanent government staffs while monitoring the project implemented by different departments at local level, which might be conflicting if they exert pressure.

The board do not have clear mandate, Existing district level organization are powerful than board which is an autonomous but do not have capacity to function on Chure. Even to carry out the research work it has signed MOU with academic institutions like KU and TU. It needs to strengthen and empower existing staff and hire them permanently make them qualified and focus on research activities. If done so Chure Board could be one of the leading research agencies on Chure conservation.

Board has to engage its staff in the implementation it cannot just observe and the monitor the program carried out by departments. So it is very important and urgent for board to recruit permanent staff and take the leading role in long run and also need to be more powerful and hold more authority and make intervention in all the area of Chure beyond river strategy.

CHAPTER 7 RECOMMENDATION:

1. President Chure Tarai Madhesh Conservation Board is insufficient this board have not functioned properly. Existing mechanism of board could not provide the timely and needed impact for the Chure conservation. Poverty alleviation fund model can be adopted which detailed study need to be carried out in relation to Chure and also seek possibility of replicabilty of the model.
2. Buffer zone community forest approach will be the best approach for the Chure conservation. When regular monitoring, inspection and patrolling is helpful to regulate the degradation but not the complete solution. These measures are essential component, which should not be undermined.
3. There lacks ownership over Chure. Political party does not seem serious over Chure; political party has not acknowledged Chure and its conservation in their political manifesto. Lower level government authority village Development committee is also not serious about Chure protection because they fear of losing revenue generation.

Annex 1: Questionnaire Checklist

1 What is the implementation status of the existing policy formed for the Chure protection?

- a) What are being implemented?
- b) What is the engagement of locals, CFUGs in the implementation?
- c) Does the engagement on policy formation follow the participatory approach?
- d) How is the local stakeholders and NGO engagement in the process?

2. What should be the role of actors for Chure Conservation?

- a) List of NGO, stakeholders, private sectors involved in Chure Conservation
- b) What area are stakeholders involved in Chure conservation
- c) What has their role been so far (Active, neutral, negative) of stakeholders and why
- d) What has been the engagement of the CFUG's?
- e) Why has government failed to conserve Chure?
- f) Why is the Chure degradation problem growing day by day?
- g) Do present earthquake condition and new decision impact on further degradation of Chure

3) How the roles of actors should be redefined in the changing context?

- a) What are the benefit sharing mechanisms in Chure?
- b) What are legal provisions and amendments that are to be made for Chure conservation?
- c) How should we take the Chure policy forward?

Annex 2: List of Interviewee:

| S.N. | Name | Institution | Position | Interview Date |
|-------------|----------------------|---|--|----------------------------|
| 1. | Shree Krishna Dhakal | Masine Shanti Buffer Zone Community Forest user group | General Secretary | 4 th June, 2015 |
| 2 | | Masine Shanti Buffer Zone Community Forest user group | Member | 4 th June, 2015 |
| 3 | Bishal Bhattarai | District Forest Office | Ranger | 5 th June, 2015 |
| 4 | | District soil and Watershed management office | Director | 5 th June, 2015 |
| 5 | Dev Kumar Syangbo | Geologist | Chure Tarai Madhesh Development Board, Hetauda Cluster | 5 th June, 2015 |
| 6 | Bhojraj Khatiwada | Village Development Committee | Local development Officer | 5 th June, 2015 |
| 7 | Mohan Khadka | Chhaitwan VDC | Assistant Forester | 5 th June 2015 |
| 8 | Bijay Lama | Andheri Jite Damar CFUG, Chhatiwan | Member | 5 th June 2015 |
| 9 | Sukhra Bahadur | Sunkoshi CFUG, Chhatiwan | Member | 5 th June 2015 |
| 10 | Prem Bahadur Dimdung | Basankali CFUG | Member | 5 th June 2015 |
| 10 | Geeta Aryal | WoSS | Coordinator | 6 th June 2015 |
| 11 | Kamal Prasad Ghimire | District Small cottage and handicrafts industry | Chief | 7 th June, 2015 |
| 12 | Rajendra Bhattra | Village Development Committee | Lekha Parikshan Adhikari | 7 th June, 2015 |

Annex 3: Photographs



Photo 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7

Annex 4: Work carried out by different departments of government in Makwampur

Department of Forest Activities

- Plantation
- Sapling distributions
- Training and Seminars
- Awareness about plantation and charicharan
- Built nursery

Department of Soil conservation and watershed management

- Dam plantation and small scale embankment

Department of water induced disaster prevention

- Large scale embankment, spur and check dam

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