

**Political Conflict and Migration:
How Has Violence and Political Instability Affected Migration Patterns in Nepal?**

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This paper is a study of migration during a period of violent, political conflict in Nepal. Past studies of conflict-induced migration have generally treated conflict as a homogenous event and focused largely on the violent aspects of conflict. In this study, we examine how specific political and violent events, as well as the general context of conflict, affect migration on a monthly basis. Violent events, such as bomb blasts, gun battles, and abductions can instigate people to migrate in response to perceived physical threat in the future and disruptions in social and economic life. Alternately, political events, such as strikes and protests, government instability, and ceasefires can instigate people to migrate in response to the perceived instability and vulnerability of the weakening political order and government control, apart from its effect on their livelihoods. Preliminary results from our event history models that are based on data from Chitwan District indicate that individuals are more likely to migrate in response to gun battles and less likely to migrate in response to the less threatening events of bomb blasts and the general context of the conflict. In addition, we find higher rates of migration following events signaling government instability and during the state of emergency periods.

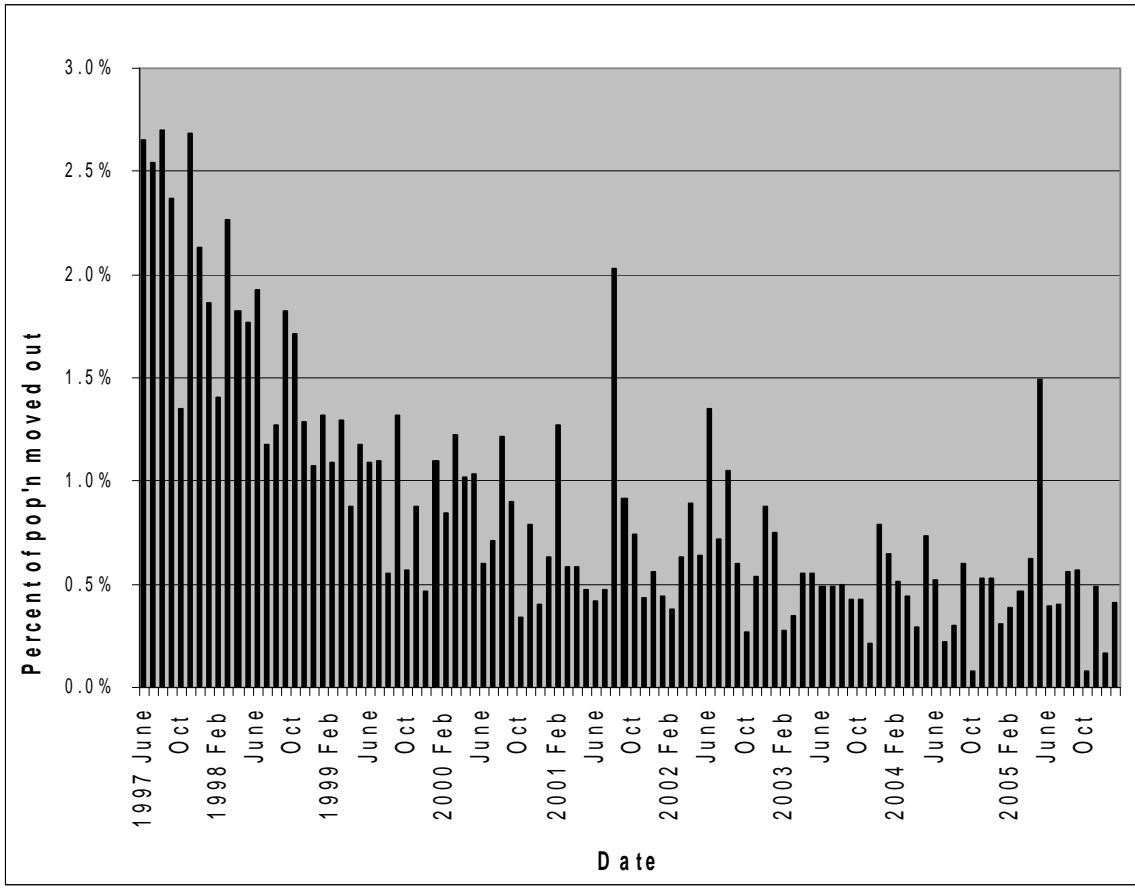
Table and figure with preliminary results are below.

Table 1. Violent Events, Political Events, and Migration
Logistic Regression Estimates of Discrete-Time Hazard Models of Out-Migration from Chitwan Valley Study Area

Variable	Odds Ratio	Z-ratio
Violent Event		
Major Gun Battles (# per month)	1.11 *	(1.909)
Bomb Blasts (# per month)	0.96 *	(1.933)
Abductions (#/10 per month)	1.00	(0.430)
During War (0,1)	0.52 ***	(8.945)
Political Events		
State of Emergencies (0,1)	1.25 *	(2.166)
Political Instability (0,1)	1.44 ***	(3.488)
Strikes and Protests (0,1)	0.93	(0.408)
Control Variables		
Gender (female)	0.83 **	(3.084)
Age		
18-20 years old	0.84	(1.225)
21-25 years old	0.90 ***	(3.913)
26-30 years old	0.93 ***	(3.191)
31-40 years old	0.94 ***	(5.297)
41-50 years old	1.02 *	(1.749)
51 + years old	1.00	(0.040)
Marital Status		
Never married	0.79 **	(2.369)
Married, living with spouse	reference	
Married, not living with spouse	1.35 ***	(4.147)
Divorced, separated, or widowed	1.48 ***	(3.440)

Have any children	(in 1996)	0.61 ***	(6.089)
Educational Attainment	(in 1996)	1.04 ***	(6.039)
Working wage or salary job	(in 1996)	1.06	(1.186)
Own any land	(in 1996)	0.53 ***	(8.117)
Ever migrated	(by 1996)	1.71 ***	(9.706)
<i>Caste/Ethnicity</i>			
Upper Caste Hindu		Reference	
Lower Caste Hindu		0.99	(0.091)
Hill Tibeto-Burmese		1.25 ***	(3.304)
Terai Tibeto-Burmese		0.77 ***	(3.749)
Newar		0.79 *	(2.261)
<i>Months of the year</i>			
January		0.95	(0.304)
February		0.84 ^	(1.452)
March		1.01	(0.093)
April		0.84 ^	(1.457)
May		1.05	(0.450)
June		Reference	
July		0.94	(0.573)
August		1.17 ^	(1.546)
September		1.19 *	(1.690)
October		0.75 **	(2.415)
November		1.03	(0.243)
December		0.89	(1.035)
No. of person-months		181,398	
-2 log likelihood		19,193	
Note: Estimates are presented as odds ratios. Z-statistics are given in parentheses.			
^ p<.10 *p<.05 **p<.01 ***p<.001			

Figure 1. Monthly Rates of Out-migration from Chitwan Valley Study Area, Nepal, (1997-2005).



Nepali Army in Transition

Indra Adhikari

One of the major demands of the Janaandolan II was to democratize the Nepal Army (NA). People believe that until the position of army is intact in terms of its exclusionary nature and association with the Monarch, Nepali democracy will not sustain. Main objective of the paper is to analyse the people's opinion on NA after the Janaandolan II. To examine the pattern of change in the NA Nepal Army (NA) could not represent the social composition of Nepali people by its origin. It is mainly because of the mind set of the traditional rulers who prioritized only the so-called "eligible" warrior or fighting cast people to recruit in the army in accordance with the interpretation in *Hindu Varna* system. It excluded both the Himali and Madeshi people due to their "absence in warrior experience". As a result, so called "High Caste Hindu Male" originated from Gorkha House held the majority and bagged all the top-most posts. Mahendra paid more attention to make it Royal Army after 1960. Political leaders in government after 1990 also could not touch thinking it as king's army and realized the necessity of democratizing military and making it more inclusive after they became fail of being "incompetent" to control and command the military to curbing the Maoists in the countryside, while Maoists insurgency was started in 1996. The "consensus" government, after the April Uprising, has taken several stapes towards democratizing and making the NA more representative or inclusive. Similarly, the NA has not only started showing its disassociation with the feudal institutions but also assured to work under the democratically formed government. It can be concluded that as everyone, today, is identity conscious, there is no alternative except to make all the state institutions inclusive and representative. Transparency in the recruitment, promotion and punishment along with its close interaction with the people's representative is the base for a democratic and representative NA.

Historical published/unpublished documents, books, articles are analyzed. Interim constitution of 2006 and the agreement between the interim government and other marginalized groups are reviewed and analyzed. Previous and present military officers, former defense sectaries and ministers are interviewed. Public opinion regarding the institution of army is collected and analyzed.

Nepal's Democratic Transition and the Rule of Law

Pramod K. Kantha

As the Constituent Assembly engages in drafting a new Constitution for Nepal, institutionalizing the rule of law will be one of its most pressing challenges. A constitution is the basic law of a nation. However, the written words of a constitution are only as good as the ability of a political system to properly interpret and enforce those words; a function performed universally by an independent judiciary. In Nepal, there is a tradition of divorce between practice and policy pronouncements; not atypical of many developing countries. Nepal's success in creating a regime of rule of law will be directly tied to its ability to dismantle the vestiges of the country's neo-patrimonial system based on personal favors and clientelistic networks in which rules are routinely muted to accommodate the individual, partisan and group interests of those in power. Moreover, the role of an independent judiciary will be salient to the proper functioning of Nepal's federal Republican system. Will Nepal's judiciary be able to rise up to this responsibility? Are Nepal's politicians fully aware of the importance of an independent judiciary for the proper functioning of a democratic and more so of a federal system? Will Nepal's politicians view commitment to an independent judiciary as an asset or liability to their mode of their operation? These questions lie at the heart of an ongoing debate about the nature of judicial reforms needed in Nepal. My paper will discuss the findings of a two week long field work in Nepal in December 2007. My paper will draw mainly on the more than twenty interviews with the prominent members of Nepal's legal community (lawyers, judges, administrators, politicians) on their perception of the past, present and future role of Nepal's judiciary and their views on the nature of challenges to an effective functioning of Nepal's embattled judicial system.

Abdicate or Consolidate?

Comparing the Strategic Decision Making of the Nepali and Bhutanese Monarchies

Prakash Adhikari

James D. Timberlake

Why did the Bhutanese king unilaterally decide to give democracy to his subjects, while the Nepali king tried to take it away? Why cling to absolute monarchy when popular demand for democracy is strong? Why democratize when there is seemingly no demand for it? Who is more of a *gandu*: Jigme or Gyanendra? This paper addresses a question of strategic decision making. Our method for answering these questions is a paired case study using a most-similar-systems design. Bhutan and Nepal are natural cases for comparison because they share many similar features. They are both landlocked, mountainous countries, heavily dependent on their economic relations with India. And until very recently, they were the two remaining monarchies in South Asia. While the Wangchuk dynasty seems to be making a smooth transition to modern times, the turn of the twenty first century marked the beginning of the end for the Shah dynasty in Nepal. What explains the divergent political trajectories of the past decade?

Demand for Environmental Quality: Evidence on Drinking Water from Kathmandu, Nepal

Hari Katuwala

Alok Boharaa

This paper examines the demand for environmental quality, clean drinking water in particular, in Kathmandu, Nepal. Water supply is inadequate, unreliable and low quality and is not directly potable. Kathmanduities engage in several coping strategies to cope with the unreliable and low quality water supplies. Some of the major coping strategies are hauling, storing, boiling, and filtering. A Report on Water Survey of Kathmandu Valley 2005 suggests that, over 45 per cent of households in Kathmandu valley filter water to make it potable. Similarly, about 39 per cent of households boil to make the water potable. Use of Uro Guard and Solar Disinfection System (SODIS) are some of the other purification methods. To date, there has been little empirical analysis of such purification behaviors. This paper investigates these purification behaviors and the factors influencing these behaviors. We consider different types of treatments as demand for environmental quality. Using Water Survey of Kathmandu, we estimate the effect of education level of household head, exposure to media, gender, caste, ethnicity and opinion of water quality on drinking water purification. Treatment costs are calculated from respondents' answers on treatment types, market price and value of time. We also estimate expected willingness to pay for environmental quality from the average cost for different types of treatments. Moreover, the impact of education level of household head, exposure to media, gender, caste, and ethnicity on willingness to pay is also evaluated.

Keywords: drinking water quality, demand for environmental quality, willingness to pay

Planning for Sustainability in Kathmandu, Nepal: Developing Indicators and Implementing Policies

Ambika Prasad Adhikari

Sustainability is now considered a key objective of urban planning everywhere. However, due to inappropriate planning, weak institutions, lack of resources and poor implementation of policies, most big cities in the developing world have become even less sustainable than they were in the past.

Kathmandu, Nepal enjoyed a unique tradition, rich history and a moderate state of sustainability in the past. However, the rapidly growing and modernizing city of Kathmandu is facing serious problems of sustainability in all fronts: economic, environmental and ecological. Whereas environmental and economic sustainability was tacitly imbedded in the traditional planning practices in Nepal, the rapid expansion and modernization of all the major cities in the Kathmandu valley is making them increasingly unsustainable.

This paper discusses elements of planning for a sustainable Kathmandu, proposes major indicators of sustainability, and discusses an approach to implement sustainable practices in urban planning and development as appropriate for Kathmandu.

Key words: Sustainability, Indicators, Planning, Kathmandu

Can the Experience of Sewerage Development from Orangi Pilot Project in Pakistan be Transferred to Squatter Settlements in Kathmandu, Nepal?

Padmendra Prasad Shrestha

Generally, basic urban services, such as water supply and sanitation, are provided by the government, but access to such services cannot be guaranteed for everyone in the city. Orangi Pilot Project (OPP) in Pakistan is an example of an alternative way to provide these services through the partnership of non-governmental organizations (NGOs), communities, and government agencies. It is taken as one of the most successful community based urban services programs started in 1980s by Akhtar Hameed Khan in *katchi abadis* (unplanned or squatter settlements) of Karachi. Currently, OPPs works has extended far beyond the neighborhood level to many other parts of Pakistan. Projects in Orangi and in 248 other locations in Pakistan have demonstrated that communities can finance, manage and build internal sewerage development provided that they are organized and supported with technical support and managerial guidance.

The squatter settlements in Kathmandu are considered illegal and are completely neglected by both the local and central government. People living in these settlements are most vulnerable to preventable communicable and non-communicable diseases and have high rates of mortality mainly due to lack of proper sanitation system. This paper focuses on the success of the sewerage development component of OPP and analyzes whether such success from OPP can be transferred to the squatter settlements in Kathmandu.

The information on the success of OPP is based on the websites, journals and books written mostly by people involved in the project, whereas the information on the squatter settlements in Kathmandu is based on my own experience, my research for their improving their conditions in 2005/06 and from different websites.

The analysis shows that for the sewerage development component of OPP to be transferred, the squatter settlements in Kathmandu have good social capital; community leaders to take responsibilities of the project; different modes of financing mechanism and the technical support required from the NGOs and the universities. The paper argues that the experience of sewerage development in OPP can be transferred to squatter communities in Kathmandu given that there is a serious commitment from both the local and national government not only in terms of supporting through the implementation of the project, but in defining what the land tenure of the squatters would be, providing safe drinking water to all households, creating waste water treatment plants before discharging the sewer into the river and properly planning of some of the squatter settlements.

Religious Sites and Practices as Economic Indicators: A Consideration of the Rural and Urban Nepal

Charis Boke

The aim of this paper is to further discussion on the changing landscape of Nepal's socioeconomic world as seen through the lens of religious worship sites and practices. Anthropologists of religion in Nepal have a long history of exploring worship sites, practices, and the ways in which those sites and practices integrate, and integrate into, Nepali cultures and societies. As Nepal is increasingly connected to an economically, politically and socially globalizing world, a fresh review of worship sites and practices is in order—not only from a strictly ethnographic, documentary perspective, but from a perspective which considers how the rapid changes in the structure of Nepal's economic, political and social structures are affecting, and being affected by, religious realities.

This paper will address two major connected themes. The first looks at the effects that urbanization and urban sprawl have had on the religious landscape (both physical and metaphorical), and how urban socioeconomic conditions interact with religiosity to turn religious practice, at some points, into a leisure-time activity.

The second theme explores the different approaches to religious site organization and worship practice from urban areas (Kathmandu, Pokhara) through ex-urban areas (Pharping, Nagarkot) to rural areas (Dolakha district, Mustang district, parts of Gorkha district) with an eye towards how socioeconomic factors, such as time spent engaging in secondary economic activities and related observed cash flow, may effect the sites, practices, and local attitudes.

Anticipated Dalits Assertion During the Political Transition of Nepal

Uddhab Pd. Pyakurel

Preamble. Dalits of Nepal have been discriminated not only by the hill high-caste people but also by the high-caste Madhesi and ethnic communities of the both areas as well. In this paper, based on the study of Dalit socio-political movements in Nepal since Janaandolan I, I argue that Dalits as one of the socially, politically, economically and culturally marginalized and excluded groups in the society has been trying its best to be assertive to get an equal share and participatory opportunities in the governance and polity.

Objective. To compare/examine the size of Dalit population and its share in all sectors of governance and politics, and to explore the pace and the style of Dalit assertion before/after the successful Janaandolan II to access equal share and opportunity in the new state mechanism.

Methods. General socio-economic, political and historical literature on Nepal and Dalit is reviewed; Dalit related declarations and election manifestos of the major political parties, an emerging coalition within the Dalit wings of different political parties and NGOs are extensively studied; Dalit activists and pro-Dalit intellectuals of Nepal are interviewed.

Findings. The post-Janaandolan II democratic environment in Nepal has proved favorable to identity based peaceful political formations for the Dalits. Their numerical strength, organic relations with grassroots communities, and an emerging discourse of exclusion/inclusion within Nepal are the resources to make the Dalit community more assertive. However, internal competition leading to politics of blame and the politics of defaming opponents are the causes which made the Dalits less assertive than the people assumed after the Janaandolan II.

Most of the Dalit activists affiliated to the political parties are full subscribers of their party position even if the agenda of the party is not Dalit friendly. Such tendency of Dalit activism has made the Dalit movement somewhat difficult to comprehend. Likewise, some of the NGOs with the vested interest of its donor play a negative role in gathering all Dalits together and making the movement more assertive.

Conclusions. Dalit communities mainly under the leadership of Dalit NGOs and the Dalit wing of political parties have to make effort to get united together in making their steps more assertive if they want to capitalize the ongoing transitional phase into their favour. Indeed, it is right for all to be confined in an extensive study about the different positive discrimination related experiences of other countries, and to submit a concrete proposal to the constituent assembly before finalizing the new constitution.

Bringing Gender Sensitive, Sustainable Redevelopment To Earthquake Ridden Areas Of Pakistan

Amarah Niazi

This study is a contribution toward making ‘female-oriented’ issues in disaster relief an essential element in post-disaster development studies. My research shows there is a strong connection between gender sensitivity in development planning, deep-rooted effectiveness of reconstruction policies and the long-term sustainability of grassroots-level capacity building initiatives. Based on experiences from my internship with the NGO SUNGI in Fall 2006 and my current work with Relief International, I examine the role of various development agencies working in the North West Frontier Province and Azad Kashmir in Pakistan. I argue that there is a gradual transition from little to no participation by women in economic spheres, to a significant influx of young educated women in various fields of social reconstruction. My research indicates that this influx is triggered by policy initiatives incorporating ‘gender consciousness’ at all levels of development and is contributive toward sustainable growth.

In the aftermath of the recent disaster in China and Cyclone Nargis in Burma, the questions surrounding measurable gender-sensitivity of disaster response is even more relevant.

Vote for Change and Effect of Intimidation-Fear
The Maoist Electoral Victory in the Constituent Assembly Election
Mahendra Lawoti, Ph.D.

The Communist Party of Nepal-Maoist emerged as the largest party in the Constituent Assembly election in April 2008, becoming the first Maoist party to win in a national election in the world, surprising most political observers and analysts. It achieved the feat after giving up insurgency just two years ago. This paper argues that people's aspirations for change, effect of Maoist intimidation and threats, and disconnect of the other political parties with the people etc. contributed to Maoist win. The paper will also discuss other trends the election produced such as the emergence of identity parties, weakening of 'democratic parties' and growth of communist parties, domination of communist parties in the Constituent Assembly, and reward to movement parties and other outcomes. The analysis employs an innovative approach of comparing outlier results of the Constituent Assembly election with previous parliamentary election results and a case study of pre and post election violence in a district to establish the effect of intimidation and compares performance of established older parties in districts that were considered as strongholds but lost to Maoist and performance of Maoists in urban areas where the election was relatively free and fair to verify the change hypothesis.

Monitoring the Successes and Failures of Community Forestry in Nepal Using Remote Sensing and GIS Technologies: 1976-2000

Keshav Bhattarai

Nepal's forest policy changed in 1978 from top-down control to bottom-up forms of governance and management. Since then the management responsibilities of local forests have been transformed to many local communities, user groups, assuming community forestry as one of the panacea for sustainable forest management. In many developing countries, the community forest management systems have been claimed the most effective and successful approaches of forestry development. However, such blanket assumptions have been questioned as forest products become valuable commodities with various forms of development. This paper will examine the forestry scenarios of Nepal from 1976 to 2000 using remote sensing and geographic information systems (GIS) technologies. It will utilize Landsat Multispectral Scanner (MSS) data of 1975-76, Thematic Mapper (TM) data of 1989-90, and Enhanced Thematic data of 1999-2000. It will also use 30 m digital elevation data from Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) sensor. All these datasets will be utilized to examine how successful the community forestry is in three ecological regions—Tarai (30 m- 999.99 m), mid-hills (1,000-3,999.99 m), and mountains (>4,000 m). It will examine the driving forces of deforestation, such as roads, urbanization, distances from road to forests and settlements at various elevation levels. Separate regression models will be developed for each ecological region using area deforested as a dependent variable for the transition periods 1975-1990 and 1990-2000. This study will include all the Village Development Committees of Nepal, but will exclude the metropolitans, municipal, and national parks areas. Using statistical analyses, this paper will answer whether resource degradation is more marked in community forests than in non-community forests, and if there is any effects of elevation and development infrastructure on forestry development.

Evaluating the Impact of Institutional Change on Rural Livelihood: Lessons Learned from Nepal's Community Forestry

Vishakha Maskey
Arun Khatri-Chhetri

Nepal is a prominent model of institutional change in forest management with a shift from privatization to nationalization and then decentralization of forest management responsibility to local communities (KC, 2007). Major changes since 1970s are undertaken from sole government control of National forest to community forest, leasehold forest and private forests (Baral, 2003). Due to the dependency of rural population on forest resources (timber and non-timber), welfare of the population is directly influenced by the management system. Devolution of central government control to a decentralized system with participatory approach has claimed to ensure efficient use of forest resources (Sharma, 2002).

Since 1990s, over 25 percent of total forest in Nepal has been transferred to the local forest user groups in the form of community forestry. Access right to forest resources and increase in consumption ensures well being of the rural population, yet, collective management avoids over exploitation. Therefore, community forestry claims to improve forest condition and provide greater benefit to the forest users (Bhattarai and Ojha, 2000; Sharma, 2002, Hobley and Shah, 1996). Studies have indicated various socio-economic factors influencing the distribution of benefits and participation level, as well as limitations of such management practices (Maskey et.al, 2006, K.C. 2007, Thomas et. al., 2006). An analysis evaluating the impact of devolution of management system on the benefits of communities is not yet explored in the literature. The overall objective of this chapter is to evaluate the change in livelihood of local communities with respect to institutional change in Nepal.

A panel data from Nepal Living Standards Surveys from two different time periods of 1995/96 and 2003/04 representing different institutional management system is used to compare and analyze the forest product consumption, an indicator of livelihood in this case. A two stage multinomial-logit model is used to identify the role of three different institutions (private, government, community) on forest product benefits. First model assesses the role of socio-economic factors on institution formation, and second multinomial logit model identifies how institutional setting influences the forest product benefits. Both quantitative and qualitative analysis provides empirical evidence on change in forest benefits with different management options of private, government, and community ownership. These results demonstrate that the change in forest management system has statistically significant relationship with the household's forest product consumptions, hence in their well-being. The findings from this analysis will provide information on what we have learned in past 30 years about institutional change and its impact on rural livelihood.

Impact of Conflict on Conservation and Local Livelihoods in Bardia National Park (BNP) and Bardia-Katarniaghat Corridor

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Conflict is a state of opposition, disagreement or incompatibility between two or more people or groups of people, which is sometimes characterized by physical violence. While the people of Nepal have borne the brunt of the brutal ten-year Maoist insurgency, which has claimed more than 13,000 lives, the impact on Nepal's environment, natural resources and conservation efforts also has been severe. Deforestation is accelerating, and globally significant biodiversity resources are facing extinction. Economic pressures stemming from the insurgency are increasing as the conflict drags on, threatening serious ecological damage and Nepal's future food security. When a conflict crisis hits, the immediate priority is often to save lives and minimize human suffering. The focus tends to be on immediate, short term, human-centered needs. Although it may seem that environmental concerns should remain a low priority during wars and human crises, the high degree of dependency on natural resources of many communities especially poor communities, in many parts of the developing world makes it essential that the environment a high priority. It is difficult to assess how much damage has been done to Nepal's conservation efforts directly and indirectly as the result of the armed conflict. However, the longer the insecurity continues, the greater the economic pressures on Nepal's rural poor -- and the greater the eventual environmental toll will be. Thus, the goal of my research is to assess the impacts of conflict on conservation and local livelihoods as a function of the seriousness of the conflict in different areas, and its environmental impacts. The purpose of this study is also to explore alternatives beyond the existing conservation approaches to achieve/maximize a win-win-situation for conservation and sustainable livelihoods of communities living in and around Bardia National Park, Nepal's largest lowland reserve, and of global importance for the conservation of tigers and other large mammals.

Key words: conflict, conservation, livelihoods

Bullet, Bandage and Ballot: A Case Study of Maoist Health Workers in Nepal

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In 1990, war ranked as the 16th cause of the global burden of disease and it was predicated that by 2020, it could take 8th place; putting it ahead of HIV and AIDS (Murray & Lopez 1997). The World Health Organization (WHO) and the World Bank predict that by 2020 war will account for one-tenth of all disability and death (Vass 2001). Though there has been an overall decrease in 'active' wars, from 226 in 2002 to 26 in 2005, preventing the destructive conflicts in the poor and developing countries still appears as an enormous challenge (Gleditsch et al. 2005). A dozen of the recently active conflicts are in Asia, and one-third of these are guerrilla wars motivated by the Communist ideologies. At present Communist guerrillas are one of the parties in violent conflicts in India, Nepal, the Philippines and Thailand.

Nepal is one of the countries recently emerged from violent conflict that was launched by the Communist Party of Nepal-Maoist (CPN-M) in February 1996. In Nepal it is known as *Janayuddha* or "people's war". Nepal's armed insurgency was home grown and led to over 14,000 fatalities (Bohora et al. 2006).

Nepal's health sector has been described as one of the less affected sectors in Nepal, the open conflict destroyed health posts and many health care professionals left their jobs due to insecurity. Over 1000 health posts, mostly those attached to the local Village Development Committee (VDC) buildings have been destroyed, more than a dozen of health workers have been killed and many more are reportedly harassed, kidnapped and threatened by the warring parties (Mukhida 2006).

As per the Comprehensive Peace Agreement (CPA) signed between the Government and the CPN-M in 2006, the rebel militants are to be integrated in the mainstream national security. The United Nations (UN) has been engaged in facilitating the process of arms management and observing the elections of the constituent assembly.

As the country is reeling under a fragile peace process, the agenda of republicanism, inclusion, and state restructuring has appeared as one eminent challenge for the newly elected Constituent Assembly. As expressed in the peace deals all political parties have committed to restructuring the state, including key services such as health and education. The process of integration and restructuring is expected to be initiated after the formulation of the new constitution.

Apart from other sectors, the conflict and post conflict settlement in Nepal has important and direct consequences for the delivery of health care in Nepal and is a pressing question for the health research community and health professionals. Therefore, a study was conducted with the objective of assessing the level and characteristics of the Maoist health workers and their services and to find out their potential for integration to mainstream health sector and improving the access and quality of health services delivery based on the perspectives of the various stakeholders in Nepal after a major conflict.

Study methodology. A descriptive study with a mixed methods approach that combined both quantitative and qualitative approaches (Tashakkori& Teddlie 1998) was used for the study. This study drew extensively on the stakeholder's objective and subjective perceptions that yielded significant insights into the ways they described rebel health services aftermath of conflict and implications of the integration of their services in reformation of health services in Nepal.

The study was based on purposive sampling. Interviews were mostly done in the Mid and Far Western Development Regions as the intensity of conflict and their accessibility for research works was higher in these regions. Rebel health workers, lay people, local leaders and service providers and district level health workers were interviewed from the study districts. The human rights bodies, political leaders, medical professionals and policy makers from the Ministry of Health and Population (MoHP), representatives of aid agencies and displaced and injured people were also purposively interviewed from the Kathmandu valley. Self-administered questionnaire (N=110), in-depth interviews (N=15) and key informant interviews (N=12) were conducted for the study. The quantitative data was analyzed by using SPSS programme while the qualitative information was transcribed, translated and analyzed under different themes and domains by using NViVO version 7.

Maoist health care provisions. Nepal's Maoist rebels claim that they have recruited and mobilized their own medical workforce to provide medical and surgical services in combat and to communities under their control (IRIN 2005). Their medical and surgical teams were reported to treat wounded militants. However, many of the injured were found referred to India and to the hospitals run by the government and the private sector. As the aid agencies and NGOs were 'caught in the middle' (DFID, 2004), and were forced to work in agreement with the rebels, they were not been able to freely communicate the level, quality and effectiveness of the medical health services provided by the rebels.

The Maoists refer to their health workers as *Janaswasthya karmi*, (People's health workers) and many of them have been providing health services in different parts of the country, including with in the provisional cantonments. The Maoists have run model hospitals and health centers under their selected 'base areas'. Preliminary findings of a recently carried out study has informed that there are 1200-1600 health workers, mostly in Maoist combat. A little more that one third of these health workers are females. Their education level ranges from grade eight at the minimum to the Bachelor's level. About 10-15 percent of these health workers were already working in different government and non-governmental organizations. Rest others were developed by the party by adopting their own training curricula. As reported, most of these health workers developed their skills from the battle field and they claim that they are confident and skillful especially in providing basic health care services both during war and peaceful times. Many of them had reportedly done surgery of their wounded comrades and also served people from the rural areas. However, the level of skills and self-reported quality of these health workers vary depending upon their past experiences, level of education and opportunities they got in having practical exposures during and after the conflict. One of the Maoists' demands is a major restructuring of the state including ensuring people's health right through introduction of free health services and a clear policy on private health institutions and

services and integration of their health workforce into the mainstream health system, among others.

Conclusion. Restructuring of Nepal's health sector could be important for several reasons: first, for long time, Nepal has failed to maintain equitable flow of health workers down the remote and unserved areas (Smith 1996). The medical workforce is mainly urban -based and there is a sustained lack of health workers in the remote districts. Maoist health workers could serve in many remote areas where there is a critical need for human resources to deliver health services. Secondly, restructuring of inequitable health services could be an enabling factor to address one of the structural causes of conflict. Thirdly, successful integration of rebel forces and structuring incentives for former rebels in the peace process is a critical component of conflict resolution and sustainable peace.

Finally, conflict transformation is not only a challenge for Nepal, but also appears as an opportunity to achieve health through peace and vice versa. It seems as an opportunity to mainstreaming the former rebel health workers and preventing further violence through reforming, rebuilding and restructuring the health sector in the near future. However, all of this is challenging, both politically and technically (Birouste et al. 2004). As Nepal has surpassed through a spiral of bullets in the past one decade followed by ballots recently, it is high time for rebuilding of services sectors including health in the days ahead. Hence, a clear policy for assessing their number and competencies with skill enhancement and reintegration strategies is necessary.

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Ethnographic Study of Pregnant Women's Decision-Making on Receiving Health Care in Rural Nepal

Tirshana Sharma

Death from pregnancy-related causes represents one of the most preventable causes of female deaths world wide (Barnes-Josiah et al. 1998). Improving maternal health is one of the eight Millennium Development Goals that UN/WHO have strived to reach by the year 2015. Improving maternal health is defined by reducing the maternal mortality ratio by three-quarters and having skilled birth attendants at the time of child delivery (UN WHO 2007). According to WHO, Nepal's maternal mortality ratio is among the highest in Asia. Despite international recognition of the significance of skilled birth attendance in maternal mortality, more than 90% of women in rural Nepal deliver at home with relatives or alone (Pradhan et al. 1997; Borghi et al. 2006, Jahn et al 2000). Multiple approaches and interventions have flourished but there is still a high rate of home deliveries without a trained attendant.

The aim of the ethnographic research is to gain a comprehensive understanding of pregnant Nepali women's perceptions, decision-making process, and access to receiving women's reproductive health care from traditional medicine, modern western medicine, or a combination of both types of medicine in rural Nepal. The findings from the ethnographic research may have policy implication for maternal health in Nepal.

I intend to collect data from a sample of women in four to six villages of Nepal, who have been or were pregnant and/or had a successful or unsuccessful outcome of pregnancy within the last one year. I plan to use a snowball sampling technique, beginning with one sample participant from one of each type of health care facility (traditional or modern) in that area and then reaching the village of each initial sample participant and following up with the in-depth interview of more women in that village.

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Determinants of Familiarity of Infant and Maternal Health Care Facilities Among Pregnant Women and Mothers in Some Selected Rural Areas of Nepal

Vijaya R. Sharma
Tirshana Sharma

Rural areas of developing countries like Nepal are characterized by subsistence or low level of income, low literacy and schooling, very thinly spread and professionally and materially least equipped multiple types of health care facilities that range from traditional faith healing to western medicine-based facilities. Add to this the generally inferior status of women in the household and the society. These and few other factors are generally referred to explain high infant mortality rate, relatively lower female life expectancy, and low other measures of women's health. In spite of gradual expansion of modern health care facilities, many pregnant women and mothers in rural areas of Nepal seek services of traditional birth attendants and private practitioners of questionable qualifications. Often the physical and financial access is a contributory factor, but lack of familiarity or awareness of the availability of modern facilities could also be a factor. Women may have levels of (un)familiarity about a facility. For example, a woman may have only heard of a facility exists with no idea of its type and quality of services. Or, a woman may be aware but for some reason carries a negative image of the facility and hence has never used its services. Or, a woman may be aware, has used the facility, and has made up a negative or positive image of the services of the facility, and hence is repeatedly using or not using the services any more. In other words, the demand for services of a health care facility is a function of level of familiarity with the facility. In the proposed paper we intend to examine the determinants of level of familiarity of infant and maternal health care facilities among pregnant women and mothers in some selected rural areas of Nepal, especially the role of formal schooling and informal education in a society.

We intend to collect data from a sample of women in four to six villages of Nepal, who have been or were pregnant and/or had a successful or unsuccessful outcome of pregnancy within the last one year. We plan to use a snowball sampling technique, beginning with one sample subject from one of each type of health care facility in that area and then reaching the village of each initial sample subject and following up with the survey of more women in that village. We plan to estimate an ordered probit model by regressing the levels of familiarity with pre-identified explanatory variables.

Reproductive Health Services: An Entry Point to Reach Labor Migrants and Their Wives for Providing HIV and STI Services in Nepal

Laxmi Bilas Acharya

Background. In 2007 National Centre for AIDS and STD Control (NCASC) estimated about 65,000 HIV infections among adults in Nepal. Out of them about two in five infections were from labor migrants, particularly those, who go to India for labor type of work. NCASC also has estimated that 1,140,000 to 1,710,000 adult Nepali males migrated abroad in 2007. In the far western hill districts of Nepal almost 80 percent adult male from about 80 to 90 percent households migrate to India for labor type of work. Poor socio-economic condition in these districts is the major push factor for such high level of migration in the far west. These are short term migrations and people come back home in six months to one year intervals. In the far west HIV prevalence among labor type of migrants who visit sex workers in India is as high as 8 percent. It is anticipated that migrants visiting sex workers in India may suffer relatively high level of sexually transmitted infection (STI) also but no studies are conducted so far to measure STI infection among migrants.

Objective. Main objective of this paper is to discuss and recommend program options to reach and provide HIV and STI services to labor type of migrants and their spouses.

Program issues. From all districts of Nepal mostly economically active adult males migrate abroad. Integrated bio-behavioral surveys (IBBS) conducted for NCASC by New ERA and SACTS with technical assistance from Family Health International Nepal show that about 17 to 27 percent of migrants from western to far western hills of Nepal practice unsafe sex with female sex workers when they are abroad. When they come back home with HIV or STI infection their spouses also are directly exposed to the risk of infection. Most of the time migrants are not found in their place of origin. So it is very difficult to reach them by the health programs. Moreover, HIV and STI programs are not like general health services providing programs. Because of the stigma and discrimination associated with HIV and STI infection people should be offered services in a confidential way. In the first place it is very difficult to screen out the individuals who are in the risk of HIV and STI. Principally those who have multiple sex partners are in the risk but people do not want to disclose their sexual behavior without analyzing the risk associated with the discloser of the behavior.

Discussion and conclusion. HIV and STI services can be introduced as components of the on going reproductive health (RH) services. Use of reproductive health services by Nepali women is low. The last Demographic and Health Survey (DHS) of Nepal conducted in 2006 has shown that only about 40 percent of women of age 15-49 use antenatal care (ANC) services which is one of the RH services provide through local Health Posts. ANC services may be the first contact point to the HIV and STI services to the wives of migrants in the districts. Opt out voluntary HIV and STI screening service can be integrated in the services provided by the local health posts. Introduction of voluntary counseling and testing (VCT) services is one option. As percentage of women using ANC service is low integrated program can focus on increasing the use of such service which is relatively easy as no stigma is associated with it. Through the wives of labor migrants coming to ANC services their husbands can be reached and provided HIV and STI services. For the effective response to HIV and STI infection cross country

programs can be initiated to provide HIV and STI services to labor migrants when they are abroad. This could be a challenging intervention in the sense that women should be encouraged to talk about their and their husband's sexual behaviors. However, it is worth doing as a large number of men and women from economically active age groups can be protected from HIV and STI an infection which ultimately has economic impact in the country. Mainly the risk of HIV infection is found to be higher among the migrants who originate from western and far western region of Nepal. So as a pilot study such integration of services can start from the selected districts in the far west Nepal.

Factors Affecting the Application of New Public Management Oriented Reforms for Reforming Nepalese Public Administration

Bharat Raj Gautam

New Public Management (NPM) has become a dominant model of administrative reforms since the 1980s. The basic principle of NPM is based on economic and managerial theories. Application of economic theories in the public sector mainly allows introducing competition in the public service delivery system, contracting out of the functions of government, and privatization of state owned agencies. Application of managerial theories in the public sector basically gives an opportunity to provide flexibility in managing the functions of government where public managers have been given more autonomy to manage their jobs. Primarily, NPM based reforms applied in Britain, New Zealand and Australia. Then this model has introduced in other industrialised European and American nations. Since the 1990s NPM has been applied in developing countries too. However, the extent of application of NPM based reforms is not the same everywhere. There are various factors mainly political environment, economic condition, and bureaucratic cultures that affect the application of NPM.

In Nepal, various efforts for reforming public administration have taken place since the 1950s. Nepalese government formed a number of Reform Commissions in 1951, 1956, 1968, 1976, 1990, and 2001. Reform initiatives before 1990s were based on traditional forms of reforms which focused were mainly on setting administrative structures and making formal rules and regulations than results. Reform efforts after 1990s have introduced some reforms ideas related to the NPM model for making the public sector more effective and result oriented. Among them redefining the role of the State, privatization, delegation of administrative power and authority, procedural simplification, and application of NPM work culture in service delivery system are the major reform components. However, NPM based reform initiatives have also not been effective to bring the positive changes in Nepalese public administration as per reform objectives. We mainly see the political situation of the country, economic condition of the nation and the bureaucratic cultures that exist in the Nepalese public administration have affected the application of NPM based reforms. Therefore, main objective of this paper is to examine the extent of implication of the political dimension, economic condition, and bureaucratic factors for the effective application of NPM based reforms in the Nepalese context.

It will be not possible to look at all the reform efforts initiated from the 1950s in a single paper. Therefore, the paper will only be concentrated the reforms initiatives from 1990 onwards. This paper will contribute for analysing causal relationships between NPM oriented reforms and political, economic and bureaucratic variables in the Nepalese context in particular. The paper may also contribute to add new knowledge to the policy issues related to the public sector reforms in the context of developing nations in general. The data to the research paper will be collected from both primary and secondary sources. The primary data will be collected from questionnaires and interviews. The secondary information will be collected from the reform documents of the government-Reports of the Administrative Reform Commission, ARC-1991 and Governance Reforms Program, GRP-2001, Civil Service Act 1993 and its Amendments, Local Self Governance Act, 1998 and Good Governance Act 2007. Interpretation of data will be based on qualitative methods.

Key Words: New Public Management, Application of NPM, Political Environment, Economic Condition, Bureaucratic Factors, Causal Relationships.

International NGOs Approaches to Institutional Reforms in Nepal

Raj Khadka

Poverty, caste and gender inequities continue to challenge the creation of economically and socially just societies in Nepal. In such a context, international non-governmental organizations (NGOs) are emerging as important developmental actors in reforming social institutions such as belief systems, attitudes, and tradition, among others. International NGOs are internationally funded organizations that have been working towards building strong and just communities in Nepal since the 1960s. This study explored the International NGOs approaches to institutional reforms in Nepal.

This qualitative study was conducted [in 2007](#) with ten International NGOs operating in Nepal in the areas of poverty reduction, gender and caste equity. The data collected from interview, focus group discussions and secondary research was analyzed in terms of emerging themes and for external validity interpreted from human rights and development theories. The study found [that](#) the premium given to people-centered development, in partnership with local organizations, addresses issues of social exclusion, poverty, and underdevelopment through empowerment, social investment, advocacy, awareness education, and capacity building. As a result, marginalized groups have been able to unite, organize and advocate for their rights and development.

This paper will look at how International NGOs are undertaking development policies as a way of reforming social institutions in a Himalayan country ridden by a decade-long conflict.

Heritage Conservation in Nepal: Policies, Stakeholders and Challenges

Neel Kamal Chapagain

Introduction of Ancient Monuments Preservation Act in 2013 B.S. (1956 AD) institutionalized the modern concept of heritage conservation in Nepal. UNESCO's mission to restore the Hanuman Dhoka Durbar and the enlisting of the 3 Durbar Squares, Pashupatinath, Bouddha, Changu Narayan and Swoyambhu in the UNESCO's World Heritage Sites brought Nepal to international attention in Heritage Conservation arena. Many national and international agencies interested in culture, heritage, tourism and development have taken various initiatives in this regard. However some conflicts of interests among different stake holders -for example – tourism agencies and the local entrepreneurs, donor agencies and government institutions, conservation works and development projects, and so on - have also been observed. Department of Archaeology, the central government institution in-charge of cultural heritage conservation in the country and powered by the Ancient Monuments Preservation Act, lacks resources and mechanism to oversee heritage sites throughout the country. Even within heritage sites in the Kathmandu valley, some conflicts among different stakeholders – particularly between the DoA and local residents are observed. The complications and “failure” of management of world heritage sites in Kathmandu valley was criticized by UNESCO and had warned to take these sites off the World Heritage Sites list. Though the warning has been positively resolved now, the complication of heritage management still exists, not only in Kathmandu valley but in other places as well. Often the underlined conservation approach in these policies is contested by residents of heritage zones. One aspect of my ongoing research analyzes the consequences of influence of international conservation movements on the heritage conservation policy in Nepal. The conservation policy in Nepal – most of which is adapted from international frameworks mostly originating in different contexts abroad - needs to be evaluated in local cultural contexts. Responding to Nepal's diverse geographical and cultural contexts, the conservation policy in Nepal shall seek participatory approach of integrating local cultural institutions, cultural practices and economic bases.

Monetary Integration of Nepal with India: A Road to Faster Growth?

Mukti Upadhyay
Kamal Upadhyaya

Nepal has had a strong trade relationship with India which accounted for 69 percent of its exports and 62 percent of its imports during the year ending in mid-July 2007. The country has long maintained a fixed exchange rate of its rupee vis-à-vis the Indian rupee at NR1.60 = IR1.00. Since IR floats against the major currencies of the world, NR's exchange value against them also fluctuates in the same proportion. This can create a problem for the small economy of Nepal, particularly at a time when the dominant IR appreciates significantly vis-à-vis the US dollar, as has happened in the last several years. The effective appreciation of the NR raises the price of Nepal's exports to third countries and lowers the value of dollar earnings of Nepali workers when remitted to Nepal.

These disadvantages of the NR peg with the IR go with an important benefit that Nepal receives from such an arrangement. The unilateral peg avoids uncertainty arising from exchange rate fluctuations between the two rupees. Since transport costs and tariffs have fallen in recent years, the law of one price is expected to be operating more smoothly between the two countries making bilateral trade freer of obstructions. While this benefit is shared by both the countries, the cost of stability arising from such a fixed exchange system is borne entirely by Nepal. The larger country is free to pursue stabilization policy in its own interests, whereas the currency peg denies Nepal independence in setting its own monetary policy or using it to offset any adverse policy shock coming from India.

A likely complication in the near future is the introduction of capital account liberalization in India. A swollen foreign exchange reserve and a sustained and robust output growth give India a high degree of confidence in its ability to manage full rupee convertibility. How Nepal will cope with this likely scenario has emerged as an important policy question. If Nepal is to avoid any strain in its currency peg with India, would it be easier if Nepal drops its currency completely by adopting IR as its monetary unit? Or, would it still be beneficial or even feasible to continue its current practice in the face of capital account convertibility in India?

Our research examines if conditions necessary for an India-Nepal optimum currency area (OCA) currently exist. We stay away from the more difficult questions of political feasibility of such a scheme for Nepal where the nature of a new political order is just being debated. The OCA literature has gained prominence in the wake of the expansion of European Union where several newer member nations have adopted Euro as their new currency. The basic theory (Mundell, 1961; Krugman, 1993, Obstfeld, 1996) emphasizes labor mobility, large interregional trade, similarity of shocks, and smooth fiscal redistribution as conditions that are necessary for a region to meet to become an OCA. We analyze the strength of these conditions between Nepal and India over time to determine if the conditions have become more or less conducive to the formation of an OCA today compared to 10 or 20 years ago. The conditions of high labor mobility and large bilateral trade seem favorable to an OCA whereas other criteria look more divergent. We examine each of them carefully in our paper.

Frankel (1999) gives a greater emphasis to two properties to evaluate whether the benefits from an OCA will exceed costs—the openness to trade, i.e., the extent to which

countries in the region trade within the region, and correlation of income changes among countries. If countries score high in each criterion, costs from the loss of monetary independence should not outweigh the gains from the OCA.

The more recent empirical literature suggests that benefits from the elimination of currency fluctuations may not be large. If so, this would place a larger burden on the cost of joining a monetary union to assess the desirability of a membership. However, in the context of EU, fiscal policy has gained prominence as a more practical local tool for a small economy to deal with shocks originating in the larger members of a region (Adoa, 2006; Corsetti, 2008). If internal operation of fiscal policy is smooth, the attractiveness of an OCA increases. On the other hand, there are limits to fiscal deficit and increase in public debt that an OCA member is normally required to observe. Even in Nepal, the Rastra Bank Act prevents a large scale monetization of public debt. This does not mean fiscal policies of India and Nepal are well harmonized, yet it indicates another aspect of Nepal's policy similarity, within a broad range, with India. Among other aspects of economic trends, the money supply growth in the country has stayed moderate as in India, and most of Nepal's trade already occurs with India as well.

A major difference between economic performances in the two countries is the GDP growth itself. Per capita income in Nepal has grown on average at a low rate of 1 percent a year for the last five years and 3 percent in the last 10, compared to about 5 percent in India over the last decade. Whether incomes in Nepal and India are likely to converge in the medium run is yet to be seen. It should be highly interesting to see if relinquishing monetary autonomy more completely to India is likely to give a much needed boost to Nepal in terms of trade, foreign direct investment, and income growth.

Natural Disaster and Sickness Shocks: Evidence of Informal Insurance

Pallab Mozumder

Bangladesh, one of the world's poorest countries, is prone to large-scale natural disasters with consequent impact on human health and survival because of its geographical location and topographical features. Poverty, demographic pressure and rapid urbanization are forcing a vast majority of people to migrate to high risk areas (e.g. flood plains and islands). The vulnerability is further exacerbated by the increasing threat of a rising sea level. In 1998, Bangladesh experienced the "flood of the century" and households exposed to this flood had major crop failure, suffered from various water-borne diseases, lost shelter, assets and ability to meet their basic needs. Based on multiple rounds of household survey data from rural Bangladesh collected after the 1998 flooding, this paper investigates the factors that contribute to reduce sickness shocks after a massive natural disaster. Of particular interest, we take advantage of the well-known joint liability scheme of microfinance programs offered by NGOs to investigate if such a scheme reduces sickness shocks after a major natural disaster. The microfinance program initiated by the Grameen Bank in Bangladesh is considered as a major innovation in the credit delivery system. In offering credit to the poor, it has largely replaced the traditional system of physical collateral requirement with group responsibility (the group members are mutual guarantors of each other). The successful model of group-based credit delivery system encouraged many NGOs to introduce similar programs. The role of group-based microfinance program in coping with natural disasters is yet to be explored. There are some preliminary discussions on exploring the pathways through which microfinance may affect the recovery from natural disasters but still lacks empirical investigations.

The degree of post-disaster recovery is significantly affected by the incidence of sickness. On the other hand, borrowers under a group-based microfinance program have incentive to provide mutual insurance by exchanging health-related information (e.g., use of oral re-hydration therapy, avoiding contaminated water, taking vaccination immediately), preventive medicine (e.g. water purification pills), loans to cover instant medical expenses, networks of personalized contacts with health workers and doctors, as well as by providing nursing and sharing the workload for those who fall ill. Motivated by some earlier theoretical studies, we empirically investigate if there is any evidence of mutual insurance due to joint liability scheme of microfinance programs in the face of a massive natural disaster shock. We use a panel data set compiled from household surveys conducted by the International Food Policy Research Institute (IFPRI). The data was collected from 757 households in rural areas in Bangladesh at three points in time over a period of a year following the 1998 flood. Households were selected through a stratified random sampling and survey responses included households' incomes, consumption expenditures, number of sick days, medical expenditures, assets, credit availability etc. and household level flood exposure. Empirical analysis indicates that microfinance programs may provide an informal mutual insurance mechanism to reduce sickness shocks. This result holds after addressing the potential selectivity bias due to nonrandom placement of microfinance programs. Simply put, panel data analysis reveal that households participated in microfinance programs suffer less from sickness. Thus, group-based microfinance program has the ability (though may be partially) to provide peer monitoring and mutual insurance in times of sickness after a major natural disaster.

The Limits of Success?

Feisal Khan

For its advocates in economic development circles, microfinance has become a near-panacea for ensuring that the developing world's poor benefit from growth and development. In short, microfinance would ensure that trickle down would actually trickle down. Microfinance became more than 'just' a development policy option when its staunchest proponent spoke of it in moral and social justice terms; Muhammad Yunus, the Nobel-laureate founder of Bangladesh's Grameen Bank, declared access to credit as a basic human right.

One of the world's largest and most successful rural development Non-Governmental Organizations (NGOs) is the Aga Khan Rural Support Program (AKRSP), operating since 1982 in Pakistan's Northern Areas (NAs). Despite covering over 85% of the NAs million-plus rural population and offering a full range of rural development services (credit, agricultural, forestry and veterinary extension training, business consulting services, civil engineering, etc), the AKRSP has been relatively unsuccessful in facilitating a successful transition to a market-oriented focus among its overwhelmingly subsistence-farmer beneficiary base. The AKRSP has devoted substantial time, money and other resources in attempting to create a successful and self-sustaining microenterprise culture among its beneficiaries, but its results have been far from encouraging.

Given how few NGOs fall into the 'successful' category and how few have AKRSP's resources and institutional resources, AKRSP's relative failure to promote successful microenterprises in the NAs of Pakistan is a clear sign of the limits of microfinance success. While microfinance may well provide hope for poverty alleviation and improving social welfare indicators, it cannot provide all of the conditions necessary for sustainable economic development and long-term success for the poor.

Estimation of Maximum Willingness to Pay for Improved Quality of Trekking in Manang, Nepal by International Trekkers

Bishwa Koirala

Alok Bohara

Valuation of trekking in mountain landscape as a non-market good is quite challenging especially when considered international trekking. This paper estimates the valuation of trekking in mountain landscape as a non-market good considering international trekking to Manang in Nepal. The paper looks at international trekkers' maximum willingness to pay (WTP) for improved quality of trekking which include longer nature walk in and around conservation area, extended village tour for cultural understanding, improved quality of museum, and enhanced quality of evening live cultural show. The study employs open-ended questionnaire to estimate maximum WTP. The study shows a positive relation between stated values of WTPs and income and their choices for quality improvement. The results demonstrate that international trekkers are attracted for extended nature walk, village tour and improved museum quality.

Income Convergence and Polarization in Nepal

Mukti Upadhyay

Satis Devkota

We study absolute and conditional convergence of real income per capita in Nepal using cross-section data. Lack of data precludes estimations based on long time series for divisions of the country such as development zones or topographical regions. A similar constraint exists in estimating the σ -convergence which indicates if the dispersion of incomes is narrowing over time. Yet data available from Nepal over the last decade do permit investigation of some convergence issues for a division of the country into numerous areas such as districts. We use the results of the National Living Standard Survey (NLSS) I and II (Central Bureau of Statistics) to examine if the initially poorer districts have displayed a tendency to catch up with the initially richer districts.

This is simply β -convergence (Barro and Sala-i-Martin, 1996). While it indicates to some extent whether the catch-up process is operating in Nepal, there are other related issues that we also examine with the available data. One is polarization (Duclos, Esteban and Ray, 2004; Bandyopadhyay, 2006). An economy has likely become more polarized if several convergences occur among a limited number of regions within a country around levels of income that have grown further apart from each other. These multiple peaks in income distribution indicate different dynamics compared to a single-peaked distribution. This is of enormous interest in countries such as Nepal where an egalitarian distribution remains a highly important goal of development.

Finally, we study if some of the districts have shown a tendency to leapfrog to a higher income level by overtaking originally richer districts. This is an issue that is best analyzed separately from convergence.

We use cross-section econometrics to estimate our models. Since we are not aware of any studies on Nepal that examine economic convergence, our goal in this paper is primarily to understand first whether incomes are converging, diverging, or distributionally constant. Second, we would like to identify the determinants of convergence or the lack of it. The neoclassical growth model emphasizes physical and human capital accumulation, and population growth as the prime determinants of the steady state of an economy (Mankiw, Romer and Weil, 1992; Islam, 1995). By controlling for these factors and others as well, we focus on the coefficient of the initial income to see if convergence exists in the data. Some of these other factors important for convergence, particularly in Nepali context, would be related to physical infrastructure such as road network, percentage of irrigated land, and access to electricity and telephones. Finally, an understanding of the degree of polarization among income classes would also be helpful in thinking about the importance of a broad-based policy for development.

Rural Poverty Analysis: A Case Study of Kaski District of Nepal

Uddhab Bhandary

Though rural development is the main focus in the National Development Plan of Nepal, there are no objective methods to compare small administrative areas called Village Development Committee (VDC) in order to allocate development resources to the neediest ones. Several poverty measurement methods are available, but commonly used methods are difficult to apply for the VDC level due to the limitation of data.

Available poverty measurement methods can be divided into three categories: non-normative, semi-normative and normative. Non-normative methods use a fraction of per capita income for the poverty threshold. Some of the European countries use this technique. The semi-normative category uses social and economic aspects. The notion behind this category is that the increased income cannot ensure a better quality of life for people. The Physical Quality of Life Index (PQLI) and the Human Development Index (HDI) are the examples in this category. The normative method applies a threshold which is derived on the basis of a notion of a minimum living standard that includes food, shelter and other household necessities. In this research a method has been devised which falls in the category of the semi-normative method. This method is applied to the Kaski district of Nepal.

Kaski district is a typical mid-hill district with a mixed income and development level. The Village Development Committee (VDC) is the unit of analysis for this study. Variables were selected through a series of meetings including the local planning officials and people's representatives. Most of the socioeconomic data for the selected variables were collected from the District Development Committee and its line agencies. Natural resources data were extracted from the Land Resources Mapping Project (LRMP) Data using Geographic Information Systems (GIS). From the available variables and their data, five indices were designed: poverty index, social index, women empowerment index, infrastructure and institutional index, and natural resource index. The poverty index was designed to use as a proxy of income poverty. These indices were frequently used in development planning at the local level. A simple correlation test was applied (1) between income data and indices, and (2) among indices themselves. The indices were mapped in Geographic Information Systems (GIS).

In the analysis, correlation between income data and poverty index were statistically significant. However, there was no statistically significant correlation between income and other indices. The first result showed that the income poverty could be reflected by certain index in the rural areas. However, the second result suggested two possibilities: (1) the income data could not represent social aspects, or (2) resources did not go to the neediest people.

Regarding GIS maps depicting indices and indicators, local planners and policy makers can easily understand them. Through these maps, the concerned planners and policy makers can compare the situation of their VDCs with respect to other VDCs in terms of a given index. This knowledge offers them evidences for bargaining resources with the higher authorities.

Improving Food Security in Nepal: Analyzing the Results of a World Food Program Survey

Steven Archambault

The World Food Program carried out a national household food security survey in Nepal in 2005. This research analyzes the data collected in this survey to better understand the activities and characteristics of households that improve or diminish food security levels. An ordered logit econometric model was used to analyze the nearly 1800 data points. GIS maps were used to carry out a spatial analysis of food security and deforestation and various land use variables. The analysis particularly focuses on social capital, natural capital, human capital, and financial variables that influence food security. The analysis finds that membership in lower castes, living in areas with more conflict, poor soil quality, deforestation, and less access to agriculture training were indicative of a higher probability of lower food security. Variables associated with higher food security include receiving remittances from family members working abroad, higher education levels, access to governmental and non-governmental aide, better access to clean drinking, and access to irrigation systems. Food security was determined by the household's food basket, and the frequency at which household members consumed carbohydrates, fruits, vegetables, and protein. Such results are important for both governmental and non-governmental agencies designing policies to strengthen food security, which is often considered vital for breaking poverty cycles and improving the welfare of households and communities.

Measurement of Depth and Severity of Food Insecurity in Rural Areas of Nepal

Nilam Prasai

Arun Khatri-Chhetri

Food security has long been used as an important macro-level indicator of agricultural and economic stability and progress. Initially, food security means avoiding transitory shortfalls in the aggregate supply of food. However, a large segment of a population could be living in hunger even if the country had sufficient food in the aggregate during normal time (Sen 1981). During 1980s and later period the conceptual understanding of food insecurity has gradually evolved to include not only transitory problems of inadequate supply at the national level but also chronic problems of inadequate access and unequal distribution at the household level.

National Agricultural Statistics shows the adequate level of food production to meet countries food demand (CBS, 2005). However, the presence of hunger in Nepalese households due to insufficient resources for access to food has a long-standing challenge to Nepal's rural development policy. The incidence, depth and severity of food insecurity in rural areas of Nepal based on food requirement in household level have not been measured. Similarly, impact of distribution of resources on household food security among the rural household has not been explored adequately. The overall objective of this paper is to measure the depth and severity of food insecurity along with impact of distribution of resources on the household food security in the rural areas of Nepal.

Household survey data of 2004/2005 in Pyuthan and Dailekh district of Nepal representing different socio-economic characteristics, and food production and consumption are used to measure the depth and severity of food security. This study applied concept of adequacy of calorie to measure the household food security status. The difference between total calorie consumption and requirement within household was analyzed by converting all consumed food to calorie value. Household total calorie requirement was calculated based on age and sex of household members using FAO recommended level of calorie requirement for all age group and sex (FAO 1990). In order to get a standard measure, all production and consumption figures were converted into calorie based on their relative energy supply. Results show 22% chronic food insecure and 19% potential food insecure households in Pyuthan district. Similarly, 22.7% households are chronic food insecure and 43.8% are potentially food insecure in Dailekh districts. The unequal distribution of resources among the different caste and ethnic groups has significant impacts on the depth and severity of food security. These results show that the distribution of resources has important relationship with the household's food security status.

Table 59: Annual average income by economic activity and socio-economic characteristics (in Nepalese rupee)

Attributes	Agriculture	Livestock	Off-farm	Forest products*	Total
Household head					
Male	13,695	8,185	28,485	3,099	53,464
Female	7,177	6,387	32,054	1,574	47,192
Caste					
Bahun	20,878	10,859	33,178	4,434	69,349
Chhetri	15,875	9,935	42,913	2,669	71,392
Magar	7,930	7,927	15,683	2,874	34,414
Occupational caste	3,179	2,332	21,136	1,243	27,889
Household head education					
Illiterate	6,059	5,469	21,597	1,739	34,864
Literate	17,876	10,180	41,482	3,488	73,025
Family size					
Small	7,815	4,726	23,544	2,249	38,334
Medium	10,381	8,454	26,350	2,331	47,516
Large	28,342	13,011	78,180	4,259	123,792
Landholding					
Small	3,951	3,104	21,524	1,105	29,683
Medium	8,652	7,663	28,555	2,497	47,367
Large	22,365	12,851	42,122	4,218	81,556
Livestock					
Small	7,169	3,750	25,243	1,750	37,912
Medium	12,639	10,289	29,244	3,388	55,560
Large	28,272	20,715	57,836	4,160	110,984
Consumption expenses					
First quintile (Poorest)	4,642	3,115	17,341	1,818	26,916
Second quintile	9,662	7,230	18,705	2,348	37,945
Third quintile	9,977	9,489	33,315	2,254	55,035
Forth quintile (Richest)	19,626	10,099	49,829	3,599	83,153

* Income deriving from selling forest products from private land (excluding subsistence use).

Food security status	Chronic Food Insecure (22% Households)	Potentially Food Insecure (19% Households)	Food Secure (59% Households)
Food self-sufficiency	4 month s	6.5 month s	8.6 months
Total land holding	0.18 ha.	0.45 ha.	0.87 ha
% of irrigated land	1%	5%	13%
Family size	7.3	5.8	6.6
Dependency ratio	0.51	0.43	0.45
Education	0.47	1.3	1.5
Livestock holding	2.7	3.1	7.4
% of expenditure on food	81%	77%	70%
Diet	Staples:Maize/barley/millet	More diversified: rice, wheat, maize, pulses	
Crop diversification	Maize/barley/millet	More diversified: rice, wheat, maize, pulses barley, millet vegetables	

Table 49: Incidence, depth and severity of food insecurity

Attributes	Incidence of food insecurity	Depth of food insecurity	Severity of food insecurity
<u>Household head</u>			
Male	35	0.45	0.24
Female	48	0.53	0.31
<u>Caste/ethnicity</u>			
Bhaun	37.5	0.32	0.13
Chhetri	26.5	0.45	0.22
Magar	16.5	0.40	0.16
Occupational caste	70.0	0.58	0.38
<u>Family size</u>			
Small	45	0.42	0.21
Medium	66	0.57	0.36
Large	77	0.40	0.24
<u>Farm size</u>			
Small	54	0.51	0.30
Medium	16	0.29	0.13
Large	-	-	-
<u>Livestock holding</u>			
Small	63	0.50	0.28
Medium	8	0.27	0.13
Large	-	-	-
<u>Household's Income</u>			
Low income	53	0.51	0.29
Medium	17	0.43	0.22
High income	11	0.04	0.02
Total	41	0.49	0.28

Source: Field survey, 2002

Socio-Economic Impacts of Rural Road Development in South Asia

Ben Briese

Started in 1994 by the 16 village development committees (VDCs) of Mustang, the motor road connecting the district headquarters of Beni, Jomsom, and Lo Manthang in north-central Nepal is nearing completion. When completed in the fall of 2008, this road will provide jeep, motorcycle and tractor service to the 15,000 residents of Mustang from Pokhara to the Chinese border. Well documented case studies, such as that of the Karakoram Highway in Pakistan, show that these rural road development projects affect virtually all aspects of life in nearby communities. Using a holistic approach, this paper examines societal changes in agriculture, migration, health, education, environment and culture, to assemble a comprehensive picture of change caused by road development projects in these affected rural societies of South Asia. Preliminary findings of research done on the road project in Mustang show that as modern forms of transportation become more available and convenient, other traditional forms of transportation inextricably linked to community culture and heritage, such as the horse, are being rapidly replaced. Due to significant decreases in the cost of transportation agriculture has become much more profitable, encouraging not only an expansion and diversification of crops, but steadily increasing property values and migration to the region. Decreases in transportation costs are also resulting in an expansion of health care in the region including ambulance service and a greater variety and quantity of available medicines. Education professionals expect to see shifting patterns of attendance and a consolidation of students attending larger schools in the district. While various government regulations are being enacted such as vehicle efficiency standards and checkpoints, pollution and poaching are still expected to be exacerbated by the presence of the road. Tourism, a major economic activity in the region, is expected to undergo radical changes with a steep decline of foreign tourism and a steady increase in domestic tourism. This paper will use the road development project in Mustang as a case study and lens for more general patterns of societal change caused by road creation projects in the greater scope of South Asia.