Environmental Stress and Demographic Change in Nepal: Underlying Conditions Contributing to a Decade of Insurgency

Introduction

Until recently, Nepal’s presence in world news was largely limited to stories about climbers seeking to summit the world’s highest mountain. In the past few years, however, the decade-long civil war between government forces and Maoist insurgents has pushed those stories off the front page. According to some analysts, Nepal is experiencing a typical form of post-Cold War conflict, in which a society’s effort to democratize produces widespread discontent that erupts into violence. Since the early 1990s, the Maoists have criticized the government for not addressing social and economic inequalities. They contend that this inattention compelled them to initiate the “People’s War” in 1996 (Seddon & Adhikari, 2003). Despite the fact that the monarchy legalized political parties in 1990, the royalists have also expressed concerns about Nepal’s democratic experiment. King Gyanendra justified his coup d’etat on February 1, 2005, by criticizing the elected government’s inability to resolve the Maoist issue, which he promised to do within three years (Timilsina, 2005).

But debates about Nepal’s democracy do not tell us much about the origins and durability of the civil war. For this, we must place recent events in a broader context that considers the turbulence endemic to a rapidly growing, youthful, and extremely unequal society, in

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which millions of undereducated and desperately poor people are struggling to eke out their daily existence from a declining natural resource base. Their increasingly violent struggle has undermined development initiatives and caused tourism—a key source of revenue—to drop 40 percent. In a vicious cycle, violence is limiting economic opportunity, thereby encouraging higher levels of desperation and migration, which in turn facilitates recruitment into more violence.

In this article, we review the broad dynamics of Nepal’s current civil conflict. We argue that environmental stress and population factors have played significant roles in creating the underlying conditions for acute insecurity and instability. Through a brief case study of the Koshi Tappu Wetland area, we show that this situation is evident not just in the Maoist strongholds of western Nepal, but even in remote areas of the east, thus encircling the capital region. We conclude that it will be difficult to resolve the conflict unless the underlying demographic and environmental conditions receive more attention than they have to date.

Background to Today’s Conflict

About the size of Arkansas, Nepal is a landlocked country of almost 28 million people, located in the Himalayas between China and India. During the four decades following the establishment of India and Pakistan as independent states—a period of tremendous upheaval, turbulence, and violent conflict throughout South Asia—the kingdom of Nepal seemed immune to the instability that surrounded it (Pokhrel, 2001). Although many of its inhabitants were desperately impoverished—indeed, Seddon and Adhikari (2003) claim that only “20 percent of those who live in rural areas are considered [food] secure in ‘normal’ times” (page 11)—the feudal system of agriculture and government remained stable for decades after World War II. In fact, in 1975 the late King Birendra sought to have Nepal declared a Zone of Peace, perhaps as a way of fortifying it against internal dissent, as well as maintaining its independence from its two big neighbors (Pokhrel, 2001).

Nepal comprises three major bioregions: the fertile river plain known as the Terai in the south, the central hills region, and the

![Chart 1: Population Distribution by Ecological Region in Nepal, 1971-2001](chart.png)

Source: Central Bureau of Statistics (2003), Table 2.2
The economy is agrarian, although most households are not self-sufficient and rely on some non-agricultural sources of revenue (Seddon & Adhikari, 2003). Per capita GDP is estimated to be less than US$300; 47 percent of the population is unemployed and 42 percent lives below the poverty line. The median age is 20; life expectancy is 59.8; and the population growth rate is 2.2 percent. Nepal is the last officially Hindu country in the world, with about 81 percent of its population identified as such. The literacy rate is 45.2 percent overall, which hides the enormous gender gap (27.6 percent of women are literate compared to 62.7 percent of men) common to many aspects of Nepali society (CIA, 2005).

The roots of modern Nepal extend back to 1768, when Prithvinarayan Shah, the leader of a small hill state called Gorkha, conquered and unified the Kathmandu Valley. The expansionism of the Shah kings was thwarted during the 1814-1816 war against the British, from which a smaller, but fiercely independent, Nepal emerged. A Shah king, regarded as an incarnation of Vishnu, governed until 1846, when the Rana family gained control of the
kingdom, took over the office of prime minister, married into the royal family, and ruled behind a symbolic monarch until 1950 (Gayley, 2002, page 2).

Nepal’s contemporary political history begins in 1950, when the Nepalese people and King Tribhuvan overthrew the ruling Ranas with support from the government of India. A Nepali democratic movement had emerged alongside India’s struggle to establish itself as an independent and democratic state in the 1940s. After King Tribhuvan sought refuge from the Ranas in India in 1950, the dissidents increased their agitation for democracy, leading to the “Delhi compromise,” under which the king, the prime minister, and the Nepali congress agreed to hold elections (Gayley, 2002). Even with India’s support, Nepal’s experiment with multiparty democracy was brief. When King Tribhuvan’s son, Mahendra, came to power in 1962, he introduced the panchayat system, a form of democracy in which the king ruled with the support of numerous councils, or panchayats.

But democratic forces continued to demand change in Nepal. Student demonstrations led to a 1980 referendum in which 55 percent of the electorate voted to maintain a form of the panchayat system. External events further politicized Nepal, including the collapse of the Soviet Union, the 1989 Tiananmen Square protests, expanding global support for democracy, and India’s 1989 decision to restrict trade after the Nepali government signed an arms deal with China, which placed considerable hardship on the Nepali economy. By 1990, persistent protests forced the government to agree to a new constitution reestablishing a multiparty democracy, which spurred the creation of more than 100 political parties and many NGOs, newspapers, and other politically engaged entities (Gayley, 2002). Despite these political changes, social change was slow, and the political left—the United People’s Front—fragmented in 1994, when Comrade Prachanda founded the Communist Party of Nepal-Maoists or CPN (CIA, 2005; Watchlist on Children and Armed Conflict, 2005). The “Maoists claim to have prepared for (1994-96), launched (1996) and undertaken…their People’s War in response to this failure of development” (Seddon & Adhikari, 2003).

Since 1996, the collapse of Nepali society has been truly dramatic, resulting in close to
13,000 deaths, more than 200,000 people displaced internally, and the emigration of about 1.8 million. This decade of violence has captured world attention, especially for its impact on children. According to the NGO Watchlist on Children and Armed Conflict (2005), as many as 12,000 girls are trafficked across the border into India each year, primarily to work in dangerous settings and in the sex trade; a cascade of reports accuse Maoist and government forces of raping girls; approximately 200 children are killed by landmines each year; and an unknown number of children have been recruited by both sides of the conflict to provide military services. Hundreds of schools have been destroyed or disrupted, and teachers have been targeted and harassed as well as students. Although human trafficking has plagued Nepal for decades, many of these human rights failures are directly related to the civil war. From a human security perspective, the conflict in Nepal has grown increasingly brutal and is now under scrutiny by the United Nations and numerous human rights groups.

The Dynamics of the Conflict

According to Dev Raj Dahal (2004), the conflict in Nepal emerged from two factors. First, important structural dimensions, such as the rural-urban disparity—which has been aggravated by the government’s focus on the urban economy of the Kathmandu Valley—and deeply embedded discriminatory practices that defy progressive laws, such as the persistence of an “untouchable” class (the Dalits) and the marginalization of indigenous groups and women. Second, these structural conditions underlie and shape an ideological contest among liberals, monarchists, and communists. For example, in the midwestern hill regions of Rukum and Rolpa, where dissatisfaction with the state was widespread, the communists focused initially on combating social problems such as human trafficking and discrimination before turning to force. The liberals and monarchists, which have not formed a united front, compete with each other, ideologically and politically. These structural and ideological factors give rise to or reinforce political problems including corruption, politicization of public service, and human rights abuses by police and military personnel (for a more elaborate analysis, see ICG, 2003; Thapa & Sijapati, 2003; Upreti, 2001, 2003a, 2003b, 2004a).

Shobhakar Budhathoki (2004) notes that the vested interests of the conflict’s key players make resolving it extremely difficult. According to Dhruba Adhikary (2004), the key players include:

The monarchy: King Gyanendra’s strength is based in part on the loyalty of the “unified command” that includes the Royal Nepali Army (78,000 troops), the Nepal Police (50,000), and the Armed Police Force (15,000). On February 1, 2005, the king declared a state of emergency and assumed command of the country.

The army: The fight against the Maoists has allowed the Royal Nepal Army—historically a ceremonial entity—to modernize its weapons, beef up its training, and gain battle experience.

The political parties: During the 1990s, a dozen progressive parties gained support among the Nepali people, who continue to see them as the only viable platform for democratization; however, infighting and corruption, especially following the king’s dissolution of parliament in May 2002, have alienated some of the population.

If the government adopts a pro-poor approach to conservation—reconciling the ecological limits of the wetland with sustainable development practices and integrating the local community into wetland management—they might win back the support of the people.
The Maoists: The outlawed CPN is regarded as a terrorist organization by the state, but wields considerable control and support in much of the countryside.

Beyond these indigenous actors, the United Nations, the United States, the United Kingdom, neighboring countries such as China and India, NGOs, and donor agencies are embroiled in the conflict through their attempts to help broker a peace agreement. The end result is a complicated political landscape of scrappy, entrenched interests, none of which appears able to win the civil war or spearhead the formation of an alliance that could achieve peace and restore good governance. Because of this, many assessments of Nepal are quite bleak (Budhathoki, 2004; Pokhrel, 2001; Asian Development Bank, 2005), although some observers believe a peaceful settlement is possible (Dahal, 2004).

Consideration of population and environmental factors is absent from most analyses of the conflict. Their significance, however, affirms many of the arguments made over the past 15 years in the literature on environment and security (see, among others, Deudney & Matthew, 1999; Homer-Dixon, 1999; Peluso & Watts, 2001).

Population Factors

The population of Nepal is young, underemployed, undereducated, and insecure. According to the 2001 census, 40 percent of the population is under age 15 and the median age of the population is 20.1, compared to the global average of 26 (United Nations, 2002). More than 40 percent of the people live below the poverty line, and unemployment and underemployment are 17.4 and 32.3 percent, respectively (National Planning Commission, 2003, pages 58, 99). The official literacy rate, which differs from other sources, is 65.5 percent for men and 42.8 percent for women (Central Bureau of Statistics [CBS], 2003). Approximately 12,700 people have been killed in the 10-year civil war.

Population in this resource-thin country has increased more than five-fold in less than a century. Between 1911, when the first census was taken, and 2001, Nepal’s population increased from 5.6 million to 23.2 million, and population density rose from 38.3 to 157.3 people per square kilometer (CBS, 2003, page 3). In 2001, the population growth rate was 2.25 percent and the total fertility rate was 4.1 per woman. Although agricultural output has kept pace with population growth (Seddon & Adhikari, 2003), human welfare has not improved in many areas of Nepal, which was ranked 143rd in the 2003 Human Development Index—and last in South Asia (United Nations Development Programme [UNDP], 2003).

As Chart 1 shows, population growth has not been uniform across the country, which is understandable given the relative scarcity of natural resources in the northern mountainous area. The rapid growth of the population in the Terai (plains) results from a combination of births and migration from mountains and hills, as people are lured by better physical facilities such as electricity, transportation, communications, education, and health; more productive agriculture land; and other job opportunities in the plains. The 2001 census summarizes internal migration: 62.8 percent rural-to-rural, 25.5 percent rural-to-urban, and 3.5 percent urban-to-urban migration (CBS, 2003, page 141). The rate of urbanization is also faster in the Terai than elsewhere in Nepal. Because the Terai is situated along the border with India, it also experiences informal and seasonal immigration. Finally, it is estimated that 200,000 to 300,000 people are internally displaced due to the ongoing armed conflict and most of them are living in district headquarters and urban areas.

The situation in Nepal reflects the principal findings of Phase III of the State Failure Task Force, which found “the odds of failure to be seven times as high for partial democracies as they were for full democracies and autocracies” (Goldstone et al., 2000, page vi). Moreover, “low levels of material well-being” doubled the odds of state failure, and “countries with larger populations and higher population density had 30-percent and 40-percent greater odds of state failure, respectively” (page vi).
Environmental Factors

Nepal is experiencing significant environmental pressures. About 48.4 percent of the population lives in the Terai, which constitutes about 17 percent of the total land (Subedi, 2003). This land is the most productive in the country: the average yield of Nepal’s major crops (barley, maize, millet, paddy, wheat, and potatoes) is 1.71 metric tons per hectare in the mountains, 2.08 in hills, and 2.61 in the Terai (Subedi, 2003). In fact, only 20 percent of the entire country is suitable for agriculture, upon which 78 percent of the total population relies for subsistence. Arable land is scarce in Nepal, and its cost is out of the reach of most people. The Nepal Human Development Report 2004 indicates that the bottom 47 percent of households own only 15 percent of the total arable land, whereas the top 5 percent own around 37 percent (UNDP, 2004). According to the same report, 29 percent of the people are landless and more than 70 percent of the peasants own less than one hectare of arable land. This skewed distribution of land in favor of elites has been criticized by the Maoist insurgents.

In fact, the CPN has developed detailed analyses of Nepal’s economic structure, which it characterizes as “semi-feudal” and “semi-colonial,” along with clear recommendations for change (International Crisis Group, 2005). These reforms include “changing production relations” by “confiscating land from feudals,” “mixed ownership” of land, “a protected and regulated economy,” “planned development” on the Maoist model, and “balanced development” (International Crisis Group, 2005, page 6).

Terai areas are highly prone to flooding—facilitated by deforestation—during the rainy season, which compels people to move. According to UNDP (2005, page 61), forest cover declined from 37 percent to 29 percent between 1990 and 1995, a trend that appears to be continuing. The growing population depends primarily on traditional energy sources, 90 percent of which is provided by burning wood for fuel. In fact, the use of fuel wood increased slightly from 1995 to 2003, while other traditional energy sources such as cow dung declined; kerosene use remained con-
stant; and petroleum gas (LPG) jumped from 0.99 percent of energy in 1995 to 8.2 percent in 2004 (UNDP, 2005, page 66). The extremely high dependency on wood for fuel has also created air pollution and respiratory problems, in addition to producing deforestation. Flooding, land scarcity, and wood collection cause people to encroach on ecologically fragile areas such as Siwalik (CBS, 1998).

The general environmental trends in Nepal are well-summarized by L. P. Sharma (1998):

The Midland region of Nepal is at present under the serious attack of environmental maladies. The deforestation has already been severe, so in most of the places, there is acute shortage of wood, fuel wood, and fodder to run daily life. The soil erosion has been non-stop phenomena [sic] aggravated floods and landslides. In most of the hill districts of Nepal, there is shortage of food supply on account of low productivity and ultimately the carrying capacity of the land has been seriously distorted. The out migration process to the valleys, plain lands and urban areas for better opportunities has been a regular practice. (page 23)

On the whole, environmental governance in Nepal is uneven and often ineffective, a reflection of the broader political processes that have afflicted the country (Upreti, 2001). There have, however, been improvements in some environmental indicators. Land protected to maintain biological diversity increased three-fold from 1995 to 2004 (UNDP, 2005, page 61). The proportion of the population with sustainable access to safe drinking water increased from 46 percent in 1990 to 81 percent in 2005, and the proportion with sustainable access to improved sanitation jumped from 6 percent in 1990 to 39 percent in 2005, a gain realized primarily in urban areas (UNDP, 2005, page 70). Ironically, in some cases conservation efforts have exacerbated the environmental scarcity experienced by the growing population of poor and landless, making them more receptive to the rhetoric of the CPN. This is clear in our case study of Koshi Tappu, described below, but it is also validated by our work throughout the region with the International Union for the Conservation of Nature (IUCN; 2005).

Case Study: Koshi Tappu Wetland

A case study conducted in 2004 in the Koshi Tappu area by an IUCN research team (including the authors) reveals the strong relationships between indigenous communities and natural resources in Nepal in terms of livelihood, culture, tradition, and religion. This wetland area, located on the eastern Terai plains near the border with India, includes the Koshi Tappu Wildlife Reserve and the 16 villages surrounding it. People moved into the remote and sparsely inhabited wetland only in the mid-20th century, a migration encouraged by Nepal’s government to reduce pressure on the Kathmandu Valley. Today some 78,000 people live in an area where the resources they depend upon are steadily becoming less available due to changes in land tenure, poor conservation practices, and depletion. Primary resources include gathering grass for roofing and fodder; fishing; collecting fuel, including dung and driftwood; irrigation farming; collecting rocks for construction; grazing livestock; and gathering cattails for mattresses (Bastola, n.d., pages 4-5). The region’s population growth rate is 2.8 percent, adding more pressure on resources (Bastola, n.d., page 3).

Nepal leased 5,000 hectares of the wetland to India in 1954 to permit the construction of a dam so that water could be diverted to irrigate farms in the Indian state of Bihar. A wildlife reserve, established in 1976 and expanded in 1979, is now classified as a Ramsar Wetland of International Importance. Little or no compensation was offered for the residents’ decreased access to resources and the Maoists have channeled frustration with this situation into support for their insurgency.

During in-depth interviews conducted on site, representatives of the 19 ethnic groups dependent on the case study area’s natural resources explained that their traditional or cus-
emporary rights to local natural resources have been curtailed or denied (Upreti, 2004b; Matthew, 2005). Consequently, their livelihoods have become increasingly perilous, and their willingness to engage in protest and crime has increased.

The problem has at least three interactive causes. First, local people have seen few benefits from the development of the dam, the Koshi Barrage, in part due to barriers such as language and lack of information. For example, the construction of the dam relied heavily on labor imported from India. Second, in the 1950s, the availability of abundant natural resources and fertile land attracted a large number of migrants from nearby hilly regions. But as resources became relatively scarce, the construction of the East-West Highway made the area accessible to even more migrants from other parts of the country (Heinen, 1993; Sharma, 2002). Finally, conservation efforts, including the decision to protect the area as a Ramsar site due to its remarkable biodiversity, have further restricted access to essential resources, including fish, birds, forest products, and grasses. Reserve wardens have introduced the political corruption endemic throughout the country, allowing some people to access the reserve’s resources for a fee or other considerations.

The resources that are available to the residents are woefully under-serviced. Since irrigation facilities are inadequate, farmers depend upon rainwater. Much of the area lacks a reliable means of transportation, making it extremely difficult to reach the market, schools, and hospitals, especially during the rainy season.

The Maoist insurgents have promised to return the reserve land to the local inhabitants, thus underscoring their appeal to the beleaguered residents. However, a recent study conducted by IUCN (2005) offers some grounds for optimism: if the government adopts a pro-poor approach to conservation—reconciling the ecological limits of the wetland with sustainable development practices and integrating the local community into wetland management—they might win back the support of the people.

Conclusions

The current crisis in Nepal has not only eroded social capital but has also ruined community relationships, undermining indigenous forms of social networks and institutions that once glued the society together. The state has not been able to reduce poverty, control the exploitation of disadvantaged communities by those in power, prevent environmental degradation, or generate employment opportunities for the large mass of unemployed people. Semi-educated and unemployed youths are a handy reservoir for the Maoist insurgents, providing justification for their cause and recruits for their war (Cincotta, 2003; Upreti, 2004a). As Nepal’s human development indicators flounder, its population continues to grow, placing enormous pressure on natural resources and on the relatively prosperous Kathmandu Valley.

Knitting Nepali society back together will not be an easy task, and the current focus on political reform and reducing socio-economic inequalities is essential. As we write, the CPN has forged an alliance—brokered in India—with mainstream political parties, which is regarded by some analysts as more focused and promising than the previously intermittent dialogue. However, the royal palace has been excluded from this agreement and is trying to discredit it. At this point in time it is unclear whether the uneasy truce will continue, or whether this new alliance will coax the royalists into a meaningful and stable settlement.

In any case, we believe that rapid population growth and environmental degradation are important elements of what has gone wrong in Nepal, and they must be addressed before stability can be restored.
on reproductive and sexual health, and understanding the integral linkages between population policies and development strategies.

- Shift the focus of conservation efforts toward IUCN’s pro-poor approach to conservation, which seeks to ensure that conservation efforts: do not further disadvantage the poorest people in the area of environmental concern; consider and adopt mixed-use strategies when possible; offer fair compensation in exchange for reducing access to resources; and respect customary and statutory property rights.

- Use the Millennium Development Goals as a guide to policymaking and as a baseline for measuring policy impacts.

Finally, the situation in Nepal must not be simplified into a fight against left-wing terrorism. Rather, its complex nature—including population factors and environmental degradation—must be understood so that the rest of the world can provide appropriate assistance and support.

Notes

1. For a general discussion of the relationship among population factors, environmental stress, and state failure, see Goldstone et al. (2000).

2. The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty that provides a framework for national action and international cooperation for the conservation and use of wetlands and their resources. There are presently 147 contracting parties to the convention, with 1,524 wetland sites, totaling 129.2 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance. For more information, see http://www.ramsar.org/

3. The main ethnic groups are Sunaha, Khanwas, Mallahs, Bote, Mushahars, Bantar, Gongi, Mukhia, Dushad, Sahani, Kewar, Danuvars, Darai, Kumal, Barhamus, Dhangar, Pode, Kushars, and Majhi.

References


