



**Environmental Scarcity and Conflict in Highland Peru**  
**Tom Deligiannis**<sup>1</sup>

**Roundtable A: Diplomacy: Resources and Conflict: Policy Responses - Continued**

**The Hague Conference on Environment, Security and Sustainable Development**  
**Peace Palace, The Hague, 9-12 May 2004**

My talk today centres on the research project that I am conducting in the province of Cangallo, in the department of Ayacucho, Peru. My brief comments here today are broken into three parts.

1. First, I will briefly outline the broad parameters of my study.
2. Second, in line with the intentions of the conference organizers to try to present policy options in our talks, I want to outline one tentative finding of my research and discuss the policy implications that flow from it.
3. Finally, I want to outline some of the requirements that are needed from my perspective as a researcher to push forward our understanding of environmental conflict linkages.

I have tried to position my dissertation research to respond to the recommendations that have emerged over the past 5 years or so about the type of environmental conflict research that is needed to push forward our understanding of the specific linkages at work. I will refer you to Dr. Hans Gunter Brauch's recommendations in yesterday's session, but also to the detailed recommendations that emerged out of a March 2000 workshop held at the University of California, Irvine. (Those recommendations, by the way, can be found in the summer 2000 edition of the Woodrow Wilson report.)<sup>2</sup>

The Irvine workshop surveyed the state of the field of environmental conflict research and attempted to map out the key priorities for future research. One of the key recommendations that emerged out of that workshop was that future environmental conflict research needed to "move into the field to do fine grain analysis that is informed by and sensitive to local conditions."<sup>3</sup>

I think that it is generally acknowledged by those who have followed this research for the past decade that we've had enough general case studies of environmental conflict, and enough of large-scale statistical studies that use highly aggregate data to attempt to explain what are often very local small scale conflicts. There is a disconnect between the type of research that has been done on environmental conflict linkages and the type of research that is needed to push this field forward and really deepen our understanding of the linkages.

I have attempted to integrate these concerns into my research design. My study centres on the impact on households of long-term changes in resource use, resource availability, and the impact that resource stress and population change has had household survivability and sustainability. It is a very local study of a province containing about 40 communities, with a total population of around 25000 people – that is, this is pre-civil war population, from the 1970s, before armed acts of the Shining Path and the vicious counter-insurgency policies of the Peruvian government led to massive out-migration from the area in the 1980s.

---

<sup>1</sup> **Tom Deligiannis** is a PhD Candidate at the Department of Political Science at the University of Toronto

<sup>2</sup> Richard A. Matthew and Geoffrey D. Dabelko, "Environment, Population, and Conflict: Suggesting a Few Steps Forward," Environmental Change & Security Project Report, Issue 6 (Washington D.C., The Woodrow Wilson Center, Summer 2000): pp. 99-103.

<sup>3</sup> Matthew and Dabelko p. 100.

I won't go into the details of my study methodology here, but I'd be happy to discuss it with anyone afterwards.

However, I should mention that my study is not focused solely on explaining the Shining Path insurgency. Instead, I'm interested in the impacts of environmental stress and population change in the decades preceding the outbreak of armed conflict in Peru's southern sierra. There was considerable rural unrest, land invasions, and small scale violent clashes in many parts of highland Peru in the 1950s, 60s, and 70s.

The reasons for these conflicts are highly complex, and they include the impact of a variety of long term economic, social, and political transformations that Peru was undergoing in the decades after WWII. However, the specific role of environmental stress and population change is relatively understudied in relation to these events, even though there is a vast literature to explain the changes that Peru went through in the latter half of the 20<sup>th</sup> century. This lacuna appears to be a common failing of most of the literature on Latin American agrarian issues, as Piers Blaikie and Harold Brookfield note:

There is a very large literature on land tenure and agrarian structures as impediments to productivity and causes of inequality, but in so far as the environment is considered at all in most of this literature, it is only as a passive background to human interaction. The degree to which this is so is quite remarkable. It runs through almost the whole of the vast literature on agrarian issues in Latin America, for example. Even in the series of reports prepared in the 1960s for the Inter-American Committee for Agricultural Development (CIDA), a major outcome of the Punta del Este conference convened in the aftermath of the Cuban revolution to find means of resolving agrarian discontent without revolution, environmental factors are statically and briefly described as a basis for the real information on land use and land tenure ... In consequence we have a substantial body of very insightful literature on agrarian problems of transition closely related to political and economic theory, and little until recently on the social, economic and political aspects of environmental transition.<sup>4</sup>

Based on my research thus far, I think that it is reasonable to conclude that environmental stress and population change – in combination with a variety of economic and social changes that were buffeting highland peasants – was making it increasingly challenging for households in the southern Sierra to satisfy their food production and commodity production needs.

The outcome of these effects, however, is highly complex and interactive, and did not simply lead to increasing poverty, increasing outbreaks of violence, or increasing support for insurgencies. In some areas violence did break out, while in other areas it did not. In some cases peasants adapted by migrating either permanently or part-time to urban areas or to the Amazonian region to engage in small scale commodity markets or agricultural production.

The particular impacts of environmental scarcity and stress appear to have been locally contingent and regionally variable, in the same way that the impact of economic and social changes in the highlands varied locally in the decades after World War II. As a result, it's very difficult to make broad generalizations about linkages to violent conflicts that occurred in the area at the time or later when the Shining Path began its armed actions.

Only further research will be able to settle whether or not it is possible to make any linkages between environmental stress and demographic change and violent conflict in Ayacucho.

The events in Peru do offer some cautionary lessons for policy-makers today who are considering what to do to alleviate the impacts of environmental scarcity and build environmental security and sustainability. Policy makers in Peru were not entirely ignorant to challenges facing Peru's peasantry in the post-WWII era. The Cuban revolution, the land

---

<sup>4</sup> Piers Blaikie and Harold Brookfield, Land Degradation and Society (New York: Routledge,1994): pp. xvii-xviii.

invasions of the 1960s, and the CIDA reports of the 1960s – which were a series of reports prepared for the Inter-American Committee for Agricultural Development (CIDA) to find means of resolving agrarian discontent without revolution – all highlighted that peasant livelihoods were increasingly challenged, and that policy-makers needed to take action to ease the pressures on rural peasants.

At the time, solutions revolved around land reform – essentially land redistribution to alleviate structural scarcities and redress historical patterns of resource capture by highland elites. However, the way in which land reform was conducted in the southern sierra probably raised unreasonable expectations among peasants about the outcome of the process. These events combined with the economic transformation of the area, as market relationships and commodification of agricultural production gradually spread throughout the southern sierra.

All of these events had a particular impact on rural small scale agriculture in the area, resulting in both definite winners and losers in the reform process. Wealth differentials increased as some sectors of the peasantry grew increasingly rich with greater interaction in the market economy, while other peasants found the agricultural components of their livelihoods increasingly constrained. Land reform had swept away many of the old elites, only to create a new class of rural elites, who in some cases recreated the exploitative patterns of the past.

Thus, one of the results of well intentioned efforts to deal with what we would now call environmental security concerns was bitterness against both the state and the winners of this reform process. While this played out in many ways in Peru in the 1970s, there is evidence that it helped fuel widespread discontent among Peruvians, and encouraged people to believe that radical, violent paths were the only alternative – and in Peru at the time this went far beyond merely Sendero, to reinforce the highly diverse radical left in the country.

If we intend to establish policies to alleviate environmental security threats, we have to be honest in recognizing the limits of those efforts, and we have to assume that certain groups will attempt to take advantage of the reform process for their own gain.

From the start, there must be procedures in place to monitor and audit the policy implementation stage to ensure certain standards of equity and fair play are upheld. The policy process and implementation phase must be transparent and it must include stakeholders from the most vulnerable sectors (especially those most dependent upon resources for the day-to-day survival) in key positions of the reform process – perhaps in collaboration with local NGOs to provide support and expertise. This will probably increase the costs of reforms and it will complicate the policy process, but I think that it is essential to assure fairness in the implementation phase of the policy process.

Finally, my research in Peru has confirmed to me that we need to make a much greater effort at integrating experts from developing countries into our intellectual community, including a deeper representation at forums like this by developing country experts – and I speak primarily from my experiences in Latin America. In Peru, for example, there is ample intellectual talent in both the social sciences and the hard sciences in areas relevant to environmental security. However, no one talks about environmental security and practically no one makes the linkages between variability in the natural environment and social and political impacts – with the exception of the impacts of ENSO events – El Nino Southern Oscillation events. This is even more remarkable because there is considerable agricultural and ecological talent in Peru generally and in Lima in particular – at institutes like the International Potato Institute, for example.

11 May 2004