

Human Insecurity: A New Map of Cambodian Vulnerability

In this introductory article, Mr. Taylor Owen sets the concept of human security in its historical and theoretical framework, demonstrates its utility using the Cambodian context, and briefly outlines his research in measuring and mapping security threats.*

During a recent internship at the Cambodia Development Resource Institute, Mr. Taylor Owen conducted research on the concept of 'human security'. The research challenges the traditional notion of security and puts forward a new paradigm and methodology for assessing vulnerability and threats to human security in Cambodia.

According to traditionalist security studies, which are solely focused on violent threats, Cambodia would be deemed secure — a prognosis that marginalises what may be a very serious situation. In fact, the present study demonstrates that Cambodia is not a safe place; people are at great risk from a number of potential harms.

What the author seeks to demonstrate, is that using the concept of human security, a much more meaningful picture of the threats facing Cambodians can be assembled, and the proper degree of threat assessed. The study of human security data will enable the Cambodian condition to be presented with clarity and poignancy to the policy-making community.

Conceptual Framework

The end of the Cold War saw a major transition in security studies. Up until 1989, what we now refer to as 'tradition security' or 'national security' dominated the field. In this view of security, the state acts as the referent object. It is responsible for the preservation of territorial integrity, domestic order, international affairs and most importantly, the protection of its citizens. In this view, the primary threat to the state, and subsequently to its people, is the force of other states. Interstate war is the primary security concern.

This realist view of international relations came into question with the fall of the Berlin wall, and the subsequent string of successful secessionist movements (for a definition of Realism see Waltz, 1979). All of a sudden, the traditional controlling mechanism of the Westphalian state system no longer seemed reliable. The world was now fractured, and the new components could not be trusted to play by Cold War rules. Often the state, either did not have the capacity to care for its citizens, whether it be from poverty or natural disasters, or, as in

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the extreme cases of Yugoslavia and Rwanda, was explicitly responsible for the insecurity of the very people it was meant to protect.

It was this new type of instability that led to the challenging of the notion of traditional security by such concepts as cooperative, comprehensive, societal, collective and human security (Baylis 1997). Although all move away from a focus on inter state relations, human security takes the most dramatic step by making the referent object, not the state, society or community, but the individual.

"Security" says Kofi Annan, "can no longer be narrowly defined as the absence of armed conflict, be it between or within states. Gross abuses of human rights, the large-scale displacement of civilian populations, international terrorism, the AIDS pandemic, drug and arms trafficking and environmental disasters present a direct threat to human security, forcing us to adopt a much more coordinated approach to a range of issues." (Annan 2000).

Following the UNDP Report, human security can be seen to have two main components: freedom from want and freedom from fear (UNDP 1994). Freedom from want is the protection from threats such as hunger, disease and repression. This would parallel very closely with traditional humanitarian emergency efforts. Freedom from fear focuses on immanent threats to personal safety from criminal violence or war.

These two components, want and fear, are then broken down into detailed groupings of threats: Economic, Food, Health, Environmental, Personal, Community, and Political. At this level, the holistic all-encompassing UNDP concept of human security becomes quite clear: imminent threats to the individual in one of the noted seven categories.¹

Utility of Concept

For Human Security to legitimise itself in the world of foreign policy and development, it must explicitly outline its utility.

By focusing solely on interstate threats, traditional security overlooks most of what is making people insecure. By including a much broader spectrum of threats, the concept of human security is much better suited to identifying people's principal insecurities. This can be demonstrated by using a regional and a Cambodian example.

On a regional scale, mortality data can be effective in crudely demonstrating threat patterns. The following table is taken from the WHO 2000 mortality data set for Cambodia, Laos and Vietnam (subregion 15).

From the data, it is evident that the threat from infec-

Table 1. WHO 2000 mortality data set

Cause of Death	Total Number of Deaths
Tuberculosis	336,000
HIV/AIDS	32,000
Malaria	13,000
Violence	58,000
War	2,000

Table 2. The EM-DAT natural disaster database for the year 2000

Country	Deaths from	People Affected by
Cambodia	402	8,865,182
Laos	69	450,000
Vietnam	586	5,005,000

tious diseases and disasters far outweighs that from violence and war. In addition, if traditional security parameters were used, only a handful of the war deaths — those caused by interstate conflict — would be included.

If Cambodia is taken on its own the disproportionate weight of threats shows a similar imbalance. Although the impact of recent murders has been profound, as a whole, the threat from physical violence and war in Cambodia is a fraction of what it was ten years ago. Since the disbanding of the Khmer Rouge, the possibility of regional conflict has diminished significantly. It is now safe to travel anywhere in the country and in Phnom Penh, once the country's hub of physical insecurity, murders, violent crime and street violence have decreased dramatically.

This being said, Cambodia is not yet a safe place. Although not threatened by war, Cambodians are dying at alarming rates.

- The first problem is food insecurity. The World Food Program has recently shown that in 835 communes, over 50% of the population lives below the poverty line (WFP 2002).
- Communicable diseases such as malaria, HIV/AIDS, tuberculosis, dengue fever and anaemia are threatening hundreds of thousands of people.
- Flooding, drought and deforestation are leading to large-scale crop failure, population movement and social instability.
- Finally, the political system is rife with conflict. There were deaths, threats, and irregularities surrounding the 2002 elections and there is concern for 2003.

This is not to say that Cambodian security has not improved significantly over the past decade — to the credit of the many working tirelessly for peace and justice, it has. It is only to point out that using a traditional notion of security, or even a violence focused human security definition, almost all of what is truly harming Cambodians is simply off the radar screen. Consequently, Cambodia will not be treated as insecure, strictly limiting international support to development efforts.

This divisive categorisation, between development and security, leads to the underemphasis of what are very serious problems. Limiting the vast intellectual, financial and policy influencing resources available to foreign affairs departments and security institutions, to interstate war, is leaving out the majority of the insecure populace.

Research Project

If human security is accepted as conceptually useful, proponents are left with two serious concerns:

- 1) How does one organise and compare the vast amount of data representing all of the aforementioned threats, keeping in mind that it is in different formats, and is generally only intelligible to disciplinary experts?
- 2) How can this information be effectively presented to the public and to the policy-making community?

An internship with the Cambodian Development Research Institute provided the opportunity to test a methodology that addresses these two concerns. Based on the structure of a Geographic Information System (GIS), the methodology is designed to collect, organise, map, and analyse data that depicts human security threats. Although still in its infancy, some early reflections might be of benefit to those working in the Cambodian development community.

Methodology

There are four stages of the measuring methodology. The first is to determine the most significant threats in each of six categories of security: economic, health, food, environmental, personal and political.² These are the threats for which data will be collected, mapped and analysed. This is essential in order to isolate the most serious concerns from the thousands of possible threats falling under the broad definition.

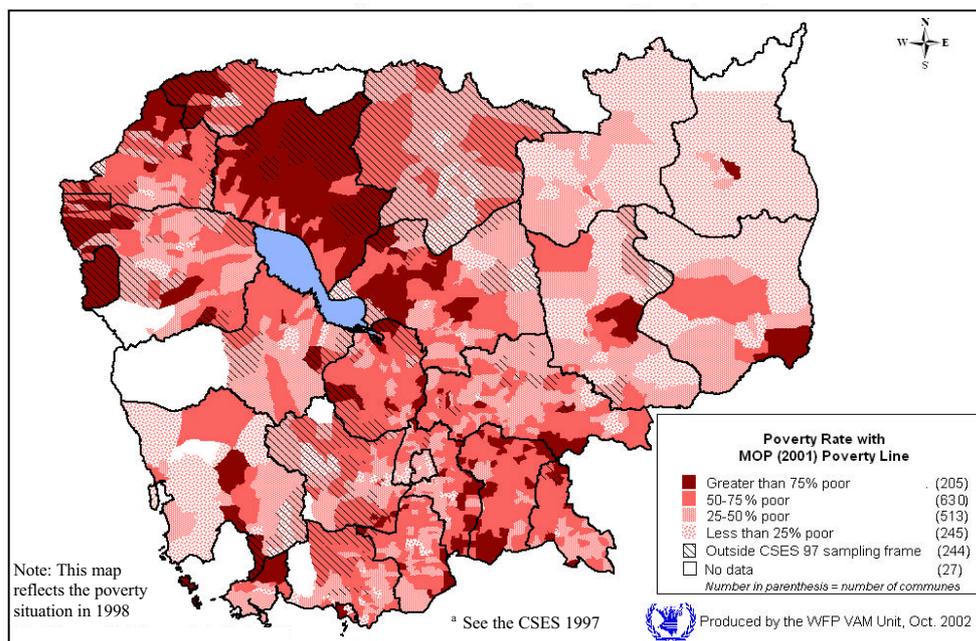
Interviews with 65 researchers, development workers and Government officials produced the following conclusions.

Once the threats are determined, data detailing them must be collected. This data can be of any type providing it has a spatial correlation. This means that all data entries in the set must be linked to either a distinct geographic area (such as a village, commune or province) or to a spatial coordinate (grid point or axis point). This is needed in order to organise and map the data with the GIS. Without going into explicit detail as to the sources, extensive data was collected depicting most of the threats compiled in stage one (Table 3).

Once the spatially referenced data is collected, it is then organised in a GIS. As it is all linked to a like unit, space, all the data is connected by a common attribute. Within the GIS, each threat becomes a layer that can be

Table 3. Cambodian Threat Assessment

Economic and Food	Poverty
Health	Tuberculosis HIV/AIDS Malaria Dengue Fever Anaemia
Environmental	Floods Droughts Conflicts over land
Personal	Landmines and UXOs Violence (crime, domestic violence) Human rights violations Small Arms Sex trafficking
Political	Corruption Political violence and intimidation

Figure 1. Commune-level Poverty Rate with Ministry of Planning (2001) Poverty Line ^a

mapped alone or with any other threat. This enables any data set, whether it is a survey, quantitative study, or a satellite image to be mapped and analysed.

As an example of what each map layer will look like, a map was created by the WFP to show a poverty data set at the commune level (See Figure One).

The final stage, data analysis, is done by conducting a series of overlays between threat layers. In particular, three trends are expected to emerge: hotspots, correlations and consequences of war.

Hotspots are regions that experience the aggregate impact of multiple security threats. Although we may know where each independent threat is the most serious, we have no idea where they are overlapping and causing cumulative harm. For example, satellite images can tell us where flooding has been the worst, studies demonstrate the location of landmines and socio-economic analysis reveals regions of extreme poverty. But what if one village, commune, or region was subject to all three of these threats? Clearly they would be the most vulnerable and should be the focus of immediate attention.

Hotspots also help us to understand whether multiple minor threats have the same impact as one emergency threat. This should be important to the development community as it addresses the trend of development as a humanitarian emergency response. Should we be doing more than simply responding to the next emergency? Perhaps by showing that people are insecure, not solely in disaster areas, but also in communities faced with many 'non emergency' threats, we will bring attention to these forgotten regions.

Geographic analysis also seeks to determine *correlations* amongst threats. This is important in order to better understand relationships between natural events, conflicts and socio-economic conditions. Based on simple logic equations (if A and B, then C etc.), spatial analysis is able to identify areas that are subject to ex-

PLICITLY defined combinations of threats. This, for example, could be invaluable in determining the long-term impacts of landmines, carpet-bombing or floods. Understanding these relationships will also help to better target assistance and to predict future instabilities.

Finally, spatial analysis could help us better understand the socio-economic and environmental *consequences* of civil war. For example, overlaying landmine and UXO data with regions of high disease rates or poverty could provide a

telling picture of the legacy of war.

The methodology applied for the analysis begins to address both of the concerns facing proponents of human security — analysis and presentation of large amounts of interdisciplinary data.

First, adding a common variable, space, to each of the data sets, allows for the direct comparison and aggregation of very different information. In other words, a common language facilitates interdisciplinarity. Also, having all relevant data in one location and linked by a common attribute will be invaluable to data users and policy analysts.

Second, interactive data visualisation is the ideal mechanism to present complex, broad ranging information to the policy-making community. A map is infinitely more approachable than a complex database, especially when doing multivariate analysis. This accessibility will prove critical in attracting the much-needed attention that Cambodian security issues warrant.

Conclusion

Cambodia is not a safe place. In order to see this, however, one needs to look beyond traditional notions of security. Human Security, by expanding the discourse to include health, environmental and economic threats, provides such a framework. There is reason to believe that a tool that recognises and displays human insecurities, in a manner attractive to both academics and policy makers, would go a long way toward both identifying Cambodia's human insecurities as well as solidifying the concept in international discourse.

Endnotes

¹ For more on the definition of human security see: Hampson: 2002, Alkire: 2002, Rothchild:1995, and Bajpai: 2000.

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