

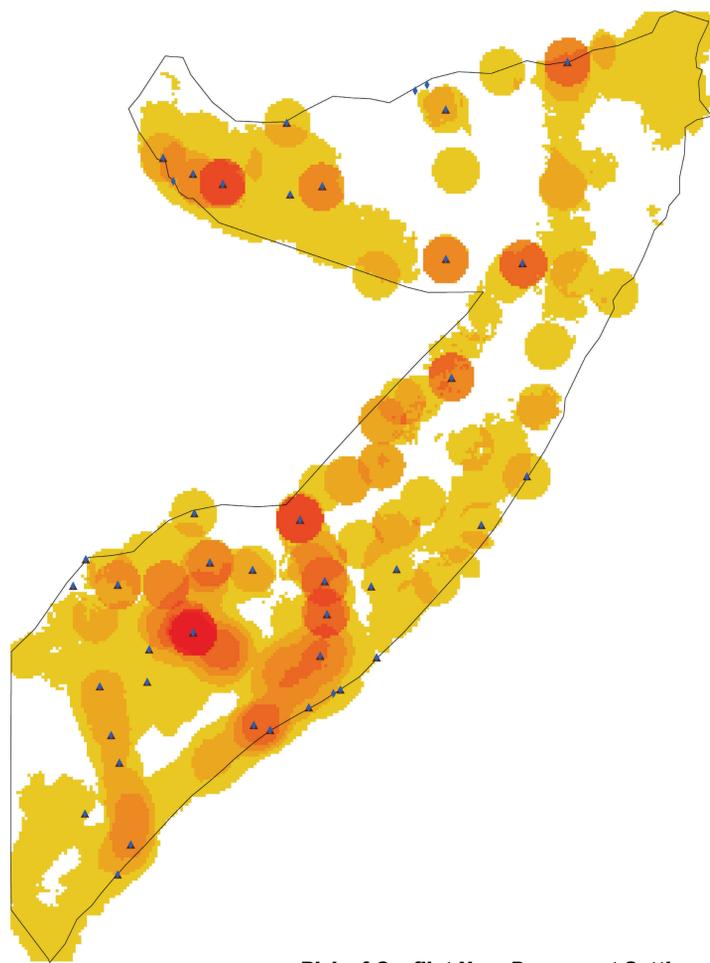
Conflict Hot Spots in Somalia and Market Access

Overview

This project seeks to look more closely at the spatial relationship between food insecurity, violence, and market access in Somalia. Somalia has often been described as a failed state due to its lack of centralized government and years of clan warfare. The famine that struck the country in June 2011 added additional problems but was also well monitored and addressed by the international community. Why was the international community able to quickly mobilize resource for the famine and yet persistently regard Somalia as a failed state? Famine early-warning and prevention also tie into the international community's desire for quick fixes and results. The international community can mobilize quickly in the face of a disaster, but taking the steps necessary to address to the root causes and sources of the famine are often lacking. In using a GIS analysis, I hope to show the struggles for food in Somalia are not only about food access but also food availability. In analyzing "hot spots" of conflict in the years leading up to the famine, specifically from 2005-2009, I hope to show that issues of food security are closely related to conflict patterns. Without addressing these underlying root causes, Somalia will be at risk for further food insecurity problems.

Analysis

Data was obtained from various GIS servers and databases including USAID, ACLED Conflict Database, and the East African Intergovernmental Authority of Development (IGAD). Due to the weak infrastructure of the government, census data from Somalia is not available for the past 25 years. I was able to obtain data on clan boundaries and market spots. Without other demographic data, I used the clan boundaries as a means to determine if conflict in Somalia is as inter-clan based as believed. I was also interested in determining if violence was becoming increasingly concentrated near markets. Although the famine of June 2011 was largely blamed on drought conditions, the on-going conflict in Somalia may have had an effect as well. I was interested to see if fighting had intensified close to markets in the years leading up to the famine. I conducted a point density analysis of conflict near markets from two time periods, 2005-2007 during a period of relative food security, and then during the period of 2007-2009 in the years leading up to the famine. I also used the point density tool to determine clusters of permanent settlements since these households would also be susceptible to famine and conflict. UNICEF conducted a household survey of more than 6,000 households looking at health and demographic information. These surveys were available but unfortunately were not coded in a way that could be useful to this analysis.



Risk of Conflict Near Permanent Settlements, 2005- 2009

0 100 200 400 Kilometers

Conclusions

Building off of development economist's Amartya Sen's concept of entitlements, famine is often not about food availability but rather food access. Often female-headed households lack access to capital and agricultural inputs and are therefore more prone to food insecurity. The hot spot analysis shows that in the years leading to the June 2011 famine, conflict became more concentrated near market areas. This could lead to limitations of food access for many households. While the drought immediately prior to the famine caused shortages of food availability, food access would also be limited due to conflict. In designing early warning prevention analysis, it is also important that conflict considerations and other hindrances to food access be considered. Somalia's changing conflict situation will also affect the ability of food aid to be effectively delivered, furthering exacerbating food access concerns. While this data is important for monitoring food security and famine early warning, I believe that to work towards preventing famine, it is important to include conflict and market access data that look more towards questions of food access rather than food availability. While the analysis presented here is only a beginning, I hope that international development and food policy makers will try to look more closely at issues relating gender and conflict in Somalia.



Jocelyn Braddock, GIS for International Applications

Photos courtesy of the UK *Guardian*

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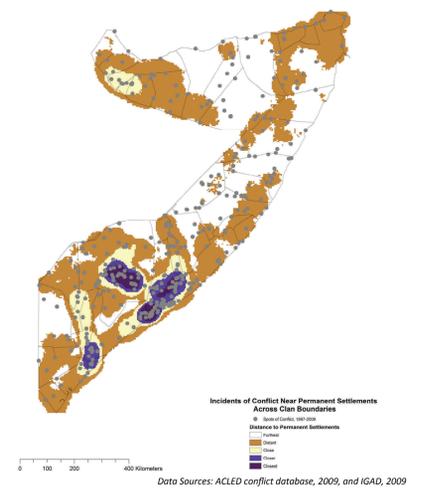
Limitations

In the Somali context, it would be interesting to include more demographic information, including gender data. This is a severe limitation for any type of geo-spatial analysis in Somalia, although hopefully the lack of census data will be changed in the coming years. Additionally, much of the food security data that exists focuses on short-term inputs such as market prices and childhood malnutrition. This information does help analysts predict areas of food shortages, but the data does not capture if households and communities are having difficulties accessing food for a variety of reasons, including conflict.



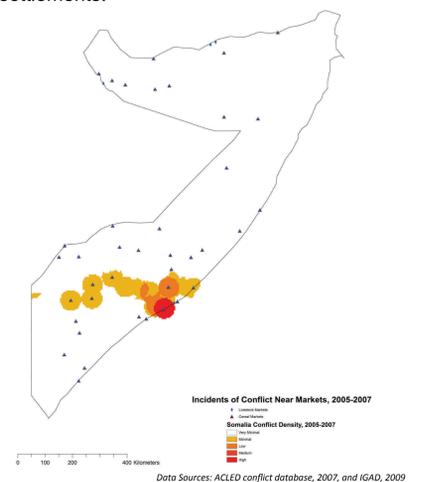
Future Work

There is much that could be done to look at the relationship between gender, food security, and violence in Somalia. Since much of the GIS analysis on food vulnerability in Somalia has been about food availability, it would be interesting to see how issues of food access could also be incorporated. The effect of famine and food security issues have not been fully considered from a gender point of view. It would also be interesting to use GIS spatial analyst tools to map the effects of food insecurity by gender. This could also help better design food access interventions and GIS tools could be further used to see gender responses to food security interventions.



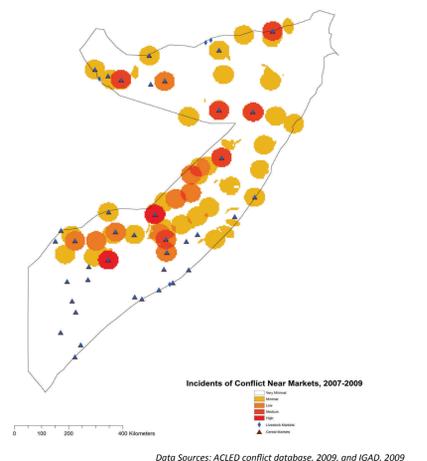
Data Sources: ACLED conflict database, 2009, and IGAD, 2009

Conflict in Somalia is thought to be mostly inter-clan, this map shows while that is often the case, there are also incidents of violence near clan borders and closest to permanent settlements.



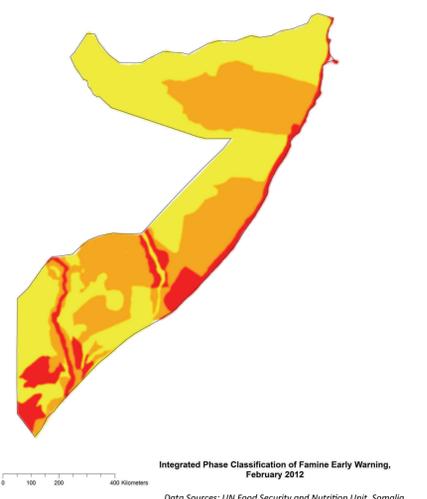
Data Sources: ACLED conflict database, 2007, and IGAD, 2009

Incidents of conflict during the years of 2005 -2007 were mainly concentrated in the area surrounding Mogadishu.



Data Sources: ACLED conflict database, 2009, and IGAD, 2009

In the year leading up to the famine of July 2011, conflict spots began spreading towards areas near livestock and cereal markets.



Data Sources: UN Food Security and Nutrition Unit, Somalia

The UN's famine early warning system suggests coastal areas are most at risk, however conflict data is not incorporated in this analysis.