

# Environment and migration: developing a framework for Somalia

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## Introduction

In response to academic and media debates regarding whether environmental migration will be a prominent global challenge in the coming decades, professors Luisa Veronis and Robert McLeman in the Department of Geography at the University of Ottawa are investigating how environmental factors influence migration choices by conducting focus groups with migrants and refugees settled in Ottawa. Current research majorly agrees that although environmental factors can directly displace people, they are linked to a range of other factors that contribute to migration decisions, such as political stability and socio-economic opportunities.

In the focus groups, three of the most significant factors identified as drivers of migration were disruptions as a result of rapid urbanization, political instability (including weak governance), and endemic poverty (including lack of economic alternatives). This project aims to develop a framework for examining causal linkages between major environmental challenges and common drivers of migration in Somalia.

**Methodology:** First, this project identifies major Somali environmental issues and then attempts to provide qualitative reasoning as evidence of correlation between environmental factors and drivers of migration.

By identifying the relationship between environmental challenges and migration, this study aims not to determine the exact effect of each environmental factor on specific migratory movements, but to confirm the complex role played by environmental factors in relation to other factors in Somali migration decisions.

## Methodology

- Identify significant environmental challenges
- Use statistical databases, online articles, government and NGO reports to determine what major effects the environmental challenges have
- Develop a framework that suggests links between environmental challenges and drivers of migration
- Find quantitative and qualitative evidence for each linkage

## Key environmental issues

Although earthquakes, sea level rise, landslides, groundwater contamination and other environmental factors affect Djibouti and Somalia, drought, flooding and desertification have had the broadest, most long-lasting effects recently in the Horn of Africa region.

### Drought

- In 2011-2012, 13 million people affected in the Horn of Africa<sup>1</sup>
- Impacts agricultural productivity year to year
- Affects water availability for livestock, irrigation and domestic uses
- Variable water supply limits potential for industrial development
- Is expected to have increasingly extreme effects because of climate change and a shift away from traditional nomadic pastoralist lifestyles

### Desertification, deforestation, overgrazing and soil degradation

- Problem exacerbated by unenforced property rights and civil conflict (difficult to conserve or reforest land)
- Terrorist groups and ex-pastoralists continue to cut down forests to provide growing cities with charcoal

### Flooding

- Occurs sporadically during rainfall events (sometimes cyclonic), most significantly when rivers overflow
- Destroys agricultural land, kills livestock, damages homes and other infrastructure (especially temporary settlements)
- Increases incidence of disease (malaria, rift valley fever, etc), contaminates water supplies and disrupts sanitation systems

## References

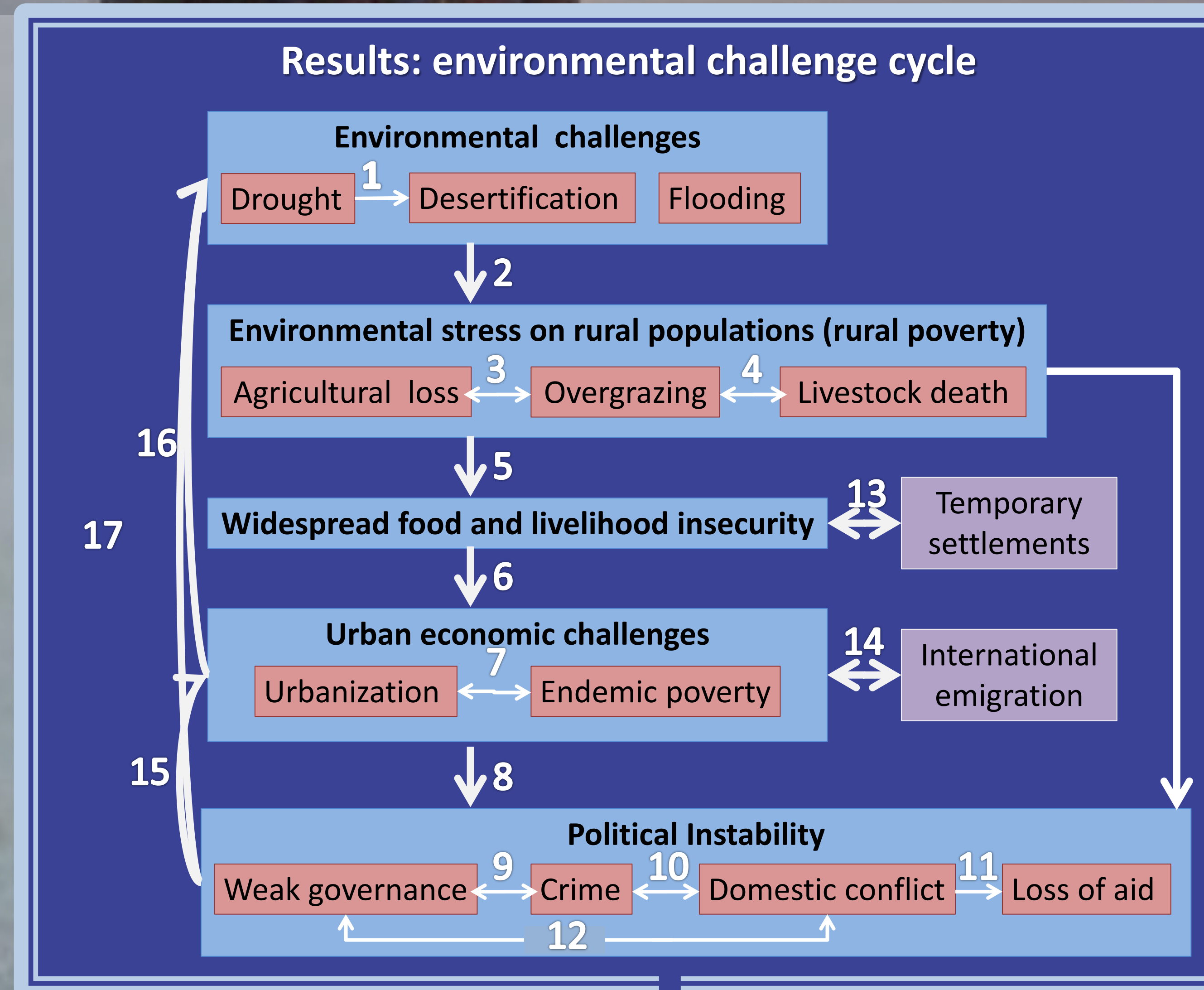
- Global Facility for Disaster Reduction and Recovery (2013). Djibouti. Retrieved from: [www.globalfacilityfordisasterreductionandrecovery.org/countrynotes/djibouti.pdf](http://www.globalfacilityfordisasterreductionandrecovery.org/countrynotes/djibouti.pdf)
- United Nations Department of Economic and Social Affairs: Population Division (2013). *Population Division, Population Estimates and Projections Section*. Retrieved from: <http://www.un.org/en/development/desa/population/>
- Cabrol, J.C. (2011). War, Drought, Malnutrition, Measles – A Report from Somalia. *The New England Journal of Medicine*, 365. Retrieved from: <http://www.nejm.org.proxy.lib.uottawa.ca/doi/full/10.1056/NEJMp1111238>
- Drought in the Horn of Africa: Preventing the Next Disaster (2011). International Federation of the Red Cross and Red Crescent Societies. Retrieved from: <http://www.ifrc.org/PageFiles/90410/201009-Drought%20in%20the%20Horn%20of%20Africa-Preventing%20the%20next%20disaster-EN-LR.pdf>
- Al Jazeera (no author indicated) (2013, 11/11). "Tropical cyclone kills scores in Somalia". Retrieved from: <http://www.aljazeera.com/news/africa/2013/11/11/tropical-cyclone-kills-scores-somalia-201311114594955946.html>
- All information is retrieved from the Canadian Census 2011 Household Survey as a part of the *Immigrant Status and Ethnocultural Diversity* data set
- United Nations Office for the Coordination of Human Affairs (2013). *Somalia: Humanitarian Snapshot*. Retrieved from: <http://reliefweb.int/sites/reliefweb.int/files/resources/Somalia%20Humanitarian%20Snapshot%20-%20November2013.pdf>
- United Nations High Commissioner for Refugees (2013). *Somalia Fast Facts*. Retrieved from: <http://www.unhcr.org/1077ad09.html>
- Global Security Organization (2013). *Somalia Civil War*. Retrieved at: <http://www.globalsecurity.org/military/world/war/somalia.htm>
- World Food Programme (2013). *Somalia Overview*. Retrieved from: <http://www.wfp.org/countries/somalia/overview>

Thanks to Dr. Luisa Veronis (University of Ottawa Dept. of Geography) for supervising and University of Ottawa UROP

Picture Credits:  
Large picture behind title: a Somali refugee boy walking with a donkey, retrieved from BBC News: Africa in Pictures – 19 December 2013, <http://www.bbc.co.uk/news/world-africa-25448392>

'US aid' tag in 'urban economic challenges' box: the News Service, retrieved from: [http://www.biyokulule.com/view\\_content.php?articleid=1180](http://www.biyokulule.com/view_content.php?articleid=1180)  
Picture in bottom right corner of flooding: Radio Ergo, retrieved from <http://www.r-1.com/somalia-humanitarian-aid-works-to-alleviate-flooding-effects-2/>  
Map of Somalia in the 'international migration' box: Google Maps

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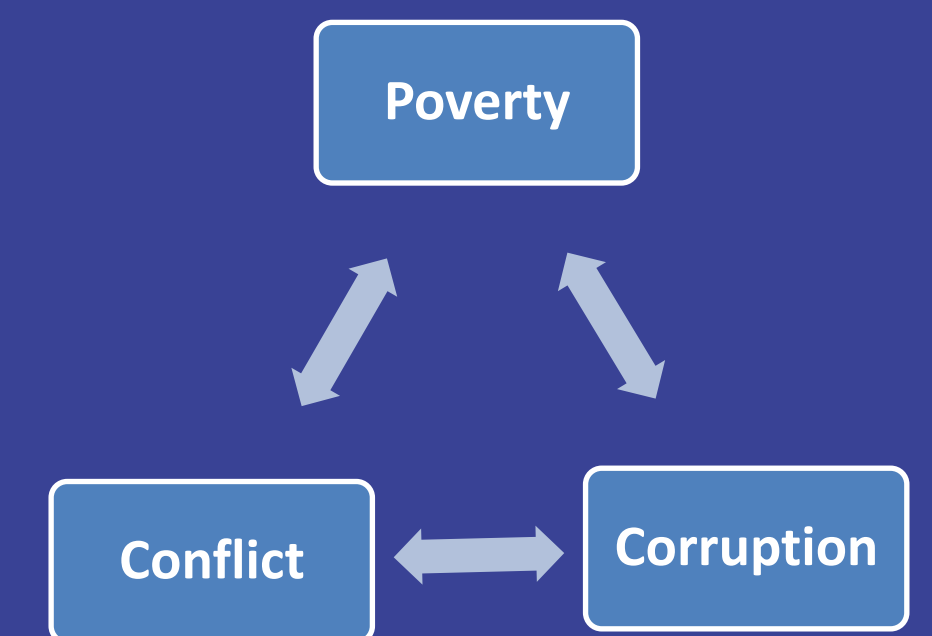


## Political instability

- Since 1991, as many as 1 million Somalis have died because of conflict<sup>9</sup>
- Somalia is a source, transit and destination country for men, women and children subject to human trafficking and forced labour
- Maritime piracy and crime is largely a response to poverty



After 22 years, Doctors without borders was forced to withdraw from Somalia in August 2013 because of extreme violence



## Urban economic challenges

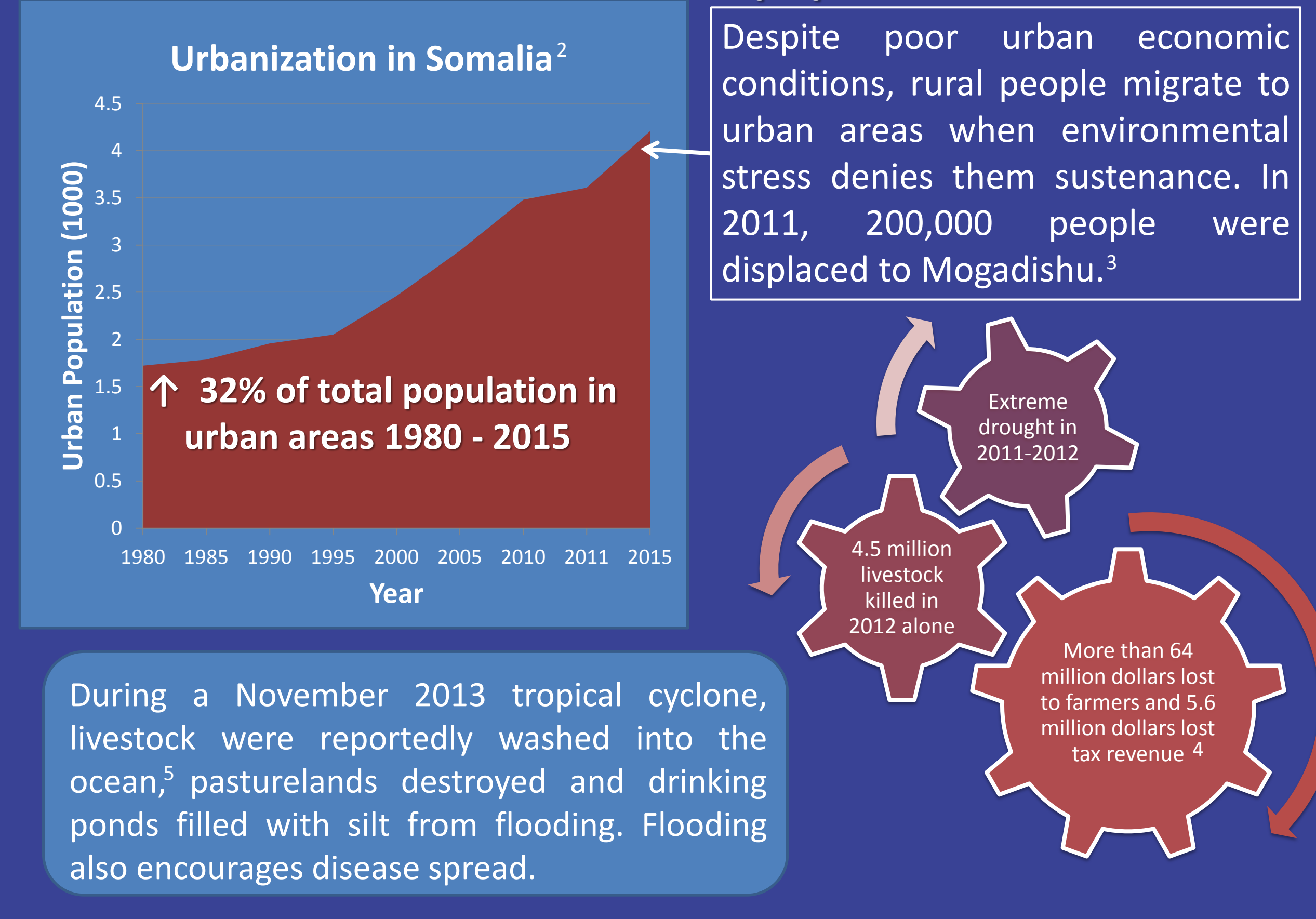


-4 million people experienced "extreme food insecurity" during the 2011 famine, relying heavily on international food aid for survival<sup>10</sup>

-Squatter camps and IDP camps are home to urbanites displaced by conflict and rural-migrants seeking employment

- Cities are often adjacent to water sources and susceptible to flooding
- With limited a public sector and widespread poverty, poor sanitation, transportation and security infrastructure exists in urban areas

## Environmental stress on rural populations



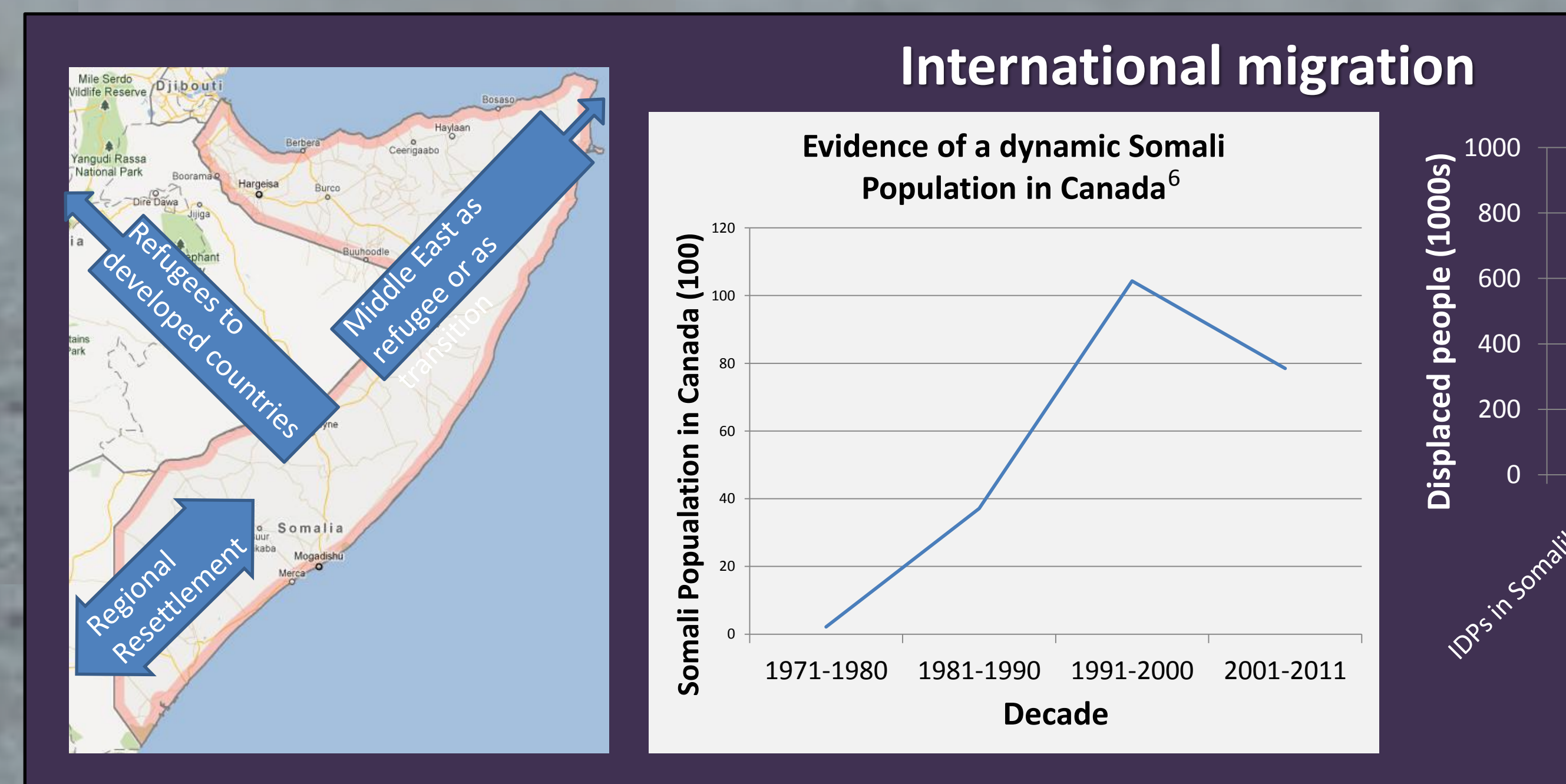
## Internal Migration

- In 2011, 1.3 million Somalis were internally displaced because of drought, with 1 million taking refuge in neighbouring countries as a result of food insecurity and poverty.<sup>8</sup>
- Migration to the peripheries of already food insecure camps and urban areas increases strain on the original population's resources and jobs, which fosters violent conflict, disease outbreak and increased insecurity.

## Conclusion

A complex network of integrated and dynamic factors contribute to urbanization trends, political instability and endemic poverty. Environmental factors and natural disasters indirectly affect individuals' decisions to migrate. Thus, while "environmental migration" may not be commonly referenced as the primary reason for migration, Somalia's environmental factors have real and significant effects on drivers of migration on multiple scales.

Thus, if researchers and policy-makers want to determine the effects of environmental challenges and changes on migration patterns, it may be most effective for them to first examine the effects of the environmental factors on local livelihoods.



To **extend** this research, it would be interesting to gather specific information about climate conditions and natural disasters and compare the severity of disasters with emigration rates or refugee camp populations. As well, there is a need to study links between urban environmental conditions (such as sanitation, pollution, groundwater contamination) and migration.