

## Promoting Environmental Security and Poverty Alleviation in the Horn of Africa

### IES EnviroSecurity Assessments

A major proportion of the world's ecosystems and the services they perform for society and nature is being degraded or used unsustainably. This process affects human wellbeing in several ways. The growing scarcity of natural resources creates a growing risk for human and political conflicts and hinders sustainable economic development. Situations involving resource abundance can also be related to serious environmental degradation, increased community health risks, crime and corruption, threats to human rights and violent conflicts. Therefore, sound management of natural resources is crucial to ensure stability and security.

The overall objective of IES EnviroSecurity Assessments is to help secure the natural resource livelihood basis on the local, regional and international level. IES pursues this objective along the following mutually related lines: (1) the conservation of ecosystems and their related services, (2) the implementation of the international legal order, (3) the provision of economic incentives for maintenance of ecosystem services, and (4) empowerment of relevant actors and dissemination of results.



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The Institute for Environmental Security (IES) is an international non-profit non-governmental organisation established in 2002 in The Hague, The Netherlands with liaison offices in Brussels, London and Washington, D.C.

The Institute's mission is: "To advance global environmental security by promoting the maintenance of the regenerative capacity of life-supporting eco-systems."

Our multidisciplinary work programme - **Horizon 21** - integrates the fields of science, diplomacy, law, finance and education and is designed to provide policy-makers with a methodology to tackle environmental security risks in time, in order to safeguard essential conditions for sustainable development.

Key objectives of the ESPA programme are:

- **SCIENCE:** Create enhanced decision tools for policy makers, donors and their target groups on regional, national and local levels;
- **DIPLOMACY:** Promote effective linkages between environment, security and sustainable development policies;
- **LAW:** Contribute to the development of a more effective system of international law and governance;
- **FINANCE:** Introduce new and innovative financial mechanisms for the maintenance of the globe's life supporting ecosystems;
- **EDUCATION:** Build the environmental knowledge capital of people and organisations.

IES' mission and programme should be seen in the context of promoting international sustainable development goals and as a contribution towards long-term poverty alleviation.



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Produced by the Institute for Environmental Security, with the support of The Netherlands Ministry of Foreign Affairs.

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## Recommendations

### SCIENCE AND INNOVATION

1. **Monitoring system:** An international vegetation monitoring system including 'evidence from space' is essential to monitor the adaptation, reforestation and forest protection measures eligible for support under the financial climate mechanisms. See recommendations below. A leading role herein can be assumed by the New Partnership for Africa's Development (NEPAD). Since the EU will remain in the forefront of international climate and biodiversity policy and the financing of those policies, it stands to reason that the European Space Agency (ESA) will be employed to provide the needed satellite imagery.
2. **Natural resources and conflict:** Competition over natural resources can catalyze violent conflicts in the Horn of Africa. Research programmes, such as the Dutch CoCoon programme, should focus on the dynamics of conflict and cooperation around natural resources in the Horn.

### DIPLOMACY AND GOVERNANCE

3. **Nile River Cooperation:** Water makes or breaks relationships. The EU and its member states should intensify their support for the Nile Basin Initiative and the Nile Basin countries in the Horn to find peaceful and fair solutions for the rising tensions over the distribution of the waters of the Nile River.
4. **Land use planning:** By creating corridors to facilitate the movement of pastoralists and their herds and securing access to water and grazing lands, land use planning can be a vital peacebuilding tool. Considering the impacts of climate change and population growth in time, the international donor community should assist national and local authorities to develop long-term regional outlooks, identifying the values, strengths and strategic opportunities of a region. Local land use plans should be based on these integrated regional visions, in which unique ecosystem values should be pivotal elements.
5. **Food security:** Rather than relying on food aid, preparing for recurrent hazards like droughts, floods and diseases is essential to feed the region's growing population. National governments are advised to take the lead in drafting and implementing strategies to boost resilience to disasters in line with the 'Africa Regional Strategy for Disaster Risk Reduction'.

### LAW

6. **Land tenure security:** Significant structural changes are needed to improve land access and ownership for millions of people who risk losing land through competing claims or eviction plans. The international programme of the Dutch Land Registry Office (Kadaster) is encouraged to extend its services also to assist the governments of the Horn to improve handling of records and update cadastres as soon as possible, while developing transparent land registration procedures - see [www.kadaster.nl/english](http://www.kadaster.nl/english)
7. **Environmental Assessments:** Institutional capacity for carrying out Environmental Impact Assessments (EIAs) and Strategic Environmental Assessments (SEAs) should be strengthened in cooperation with the Capacity Development and Linkages for Environmental Assessment in Africa (CLEAA) Network with support from the Netherlands Commission for Environmental Assessment (NCEA).
8. **Piracy, illegal fishing and illegal waste dumping:** Careful consideration should be given to the implementation of Security Council Resolution no. 10092, adopted on 23 November 2010, to fight piracy off the coast of Somalia, while also stressing the importance of preventing illegal fishing and illegal dumping of toxic waste. The EU through its Common Fisheries Policy should ensure that European vessels involved in illegal fishing will not receive any support from the EU. The International Maritime Organisation (IMO) and INTERPOL should step up their efforts to track down and prosecute illegal waste dumping.

9. **Overfishing:** The national governments of Uganda and Kenya are advised to take the lead in combating overfishing in Lake Victoria and other vulnerable lakes, by stopping illegal fishing and by developing criteria to reduce the numbers of operational fishermen.
10. **Land grabbing:** If requested, the international community should assist the national governments, and in particular the new government of Southern Sudan, in preparing for the influx of large scale land investors, supporting them to develop policies and laws to regulate this development.

### FINANCE AND ECONOMICS

11. **Payment for biodiversity conservation:** Protecting biodiversity is an essential service to the rest of the world, which should be adequately compensated by the global community. Ethiopia, as one of the eight 'Vavilov Centers of Crop Origin', has a special responsibility to protect the sites of wild original crops. It is recommended to design contractual arrangements between the Global Environment Facility (GEF) and the authorities responsible for protecting these sites.
12. **Sustainable energy:** Developing new and innovative energy solutions with large potential, such as micro-hydro, solar power and geothermal power, will stimulate sustainable economic development. Given the large investments, broad applicability and significant profits, public-private partnerships are likely to be suitable institutional arrangements for developing such sustainable energy solutions.
13. **Green Climate Fund:** The region is vulnerable to the impacts of climate change - to which it hardly contributes. The Horn countries therefore qualify for financing adaptation measures out of the Green Climate Fund, as decided in the UNFCCC COP16 in Cancún in December 2010. Large-scale tree planting sequesters CO2 from the atmosphere and is eligible for financial compensation through the selling of carbon credits under the Clean Development Mechanism.
14. **Re-Greening the Horn:** The international community and national governments are advised to invest in re-greening the Horn, through improved water and soil conservation, agro-forestry and reforestation projects. Governments are also advised to strengthen their forest protection mechanisms. In particular, church forests in Northern Ethiopia offer great opportunities for the conservation of biodiversity. The government of Ethiopia is advised to actively promote the establishment of corridors for the protection of (church) forests' genetic diversity. Remaining forest estates in the Horn may benefit from the REDD+ financial provisions currently being developed. As the global community wants to ensure that it gets what it pays for, a reliable and transparent monitoring system has to be put in place (see recommendation 1 above).
15. **Waste management:** To lower the health risks of millions of citizens, private and public organizations are advised to invest heavily in improving the handling of waste on household level, and in strengthening waste management infrastructure (collection, transport and treatment) in all countries of the Horn.

### EDUCATION AND EMPOWERMENT

16. **Invasive species:** Invasive species such as 'prosopeis' and parthenium weed pose a serious environmental security threat. Eradication of the invasive species may require a massive operation, for which the involvement of the military, following the example of Djibouti, should be considered.
17. **Emergency response:** It is crucial to integrate environmental considerations in emergency aid and recovery programmes, to minimize their negative impacts on the natural environment. Humanitarian aid organizations should therefore integrate the Green Recovery and Reconstruction Toolkit into the training programmes of their personnel.

# Horn of Africa

## Environmental degradation

SUMMARY

In the Horn of Africa, increasing scarcity and degradation of natural resources seriously threatens human well-being. The population in the region (Ethiopia, Eritrea, Sudan, Djibouti, Somalia, Kenya and Uganda) has increased fourfold in the past 50 years and continues to grow rapidly. The mounting need for fertile soils and irrigated land is intensified by high international demands for food and energy. Growing pressure on natural resources leads to a decrease in the quality and quantity of soils, forests and water resources.

The region contains many protected areas (forests, lakes, wetlands and grassland ecosystems) with high biological diversity, some of which are inscribed on the UNESCO World Heritage List. Not all protected areas are adequately guarded by the responsible authorities against the threats faced by increasing demands for land and wood, which seriously disturbs the hydrological, economic, social and cultural services these ecosystems provide. Land tenure systems, resource allocations and planning processes insufficiently take into account people's needs and this whole set of ecosystem services.

Overexploitation of wood, fish, farm lands and grazing lands can thus lead to tremendous forest degradation, biodiversity loss, land degradation and resource scarcity. This exacerbates food and water insecurity in many parts of the region. Deforestation, for instance, can heavily disturb climatic and hydrological regimes. This is demonstrated in the Mau Forest, Kenya's largest "water tower". Encroachment of the forest by thousands of farmers has caused profound forest degradation, heavily affecting millions of people in the wider region depending on the water for farming and pastoralism

## Security threats

Resource-related security threats are numerous. Pastoralists are faced with declining amounts of land and water for their cattle. Regular food insecurity affects millions of people. In a continuous struggle for water and land, resource conflicts often occur between - and among - farming and pastoral communities. Such conflicts mainly occur in arid and semi-arid areas. Faced with these tensions and insecure land tenure systems, many people are forced to migrate to other - both urban and rural - areas. Currently 5 million people in the Horn of Africa are permanently displaced and forced to live in refugee and IDP camps. Vicious cycles of resource pressure, conflict and migration have very serious destabilizing effects on the region.

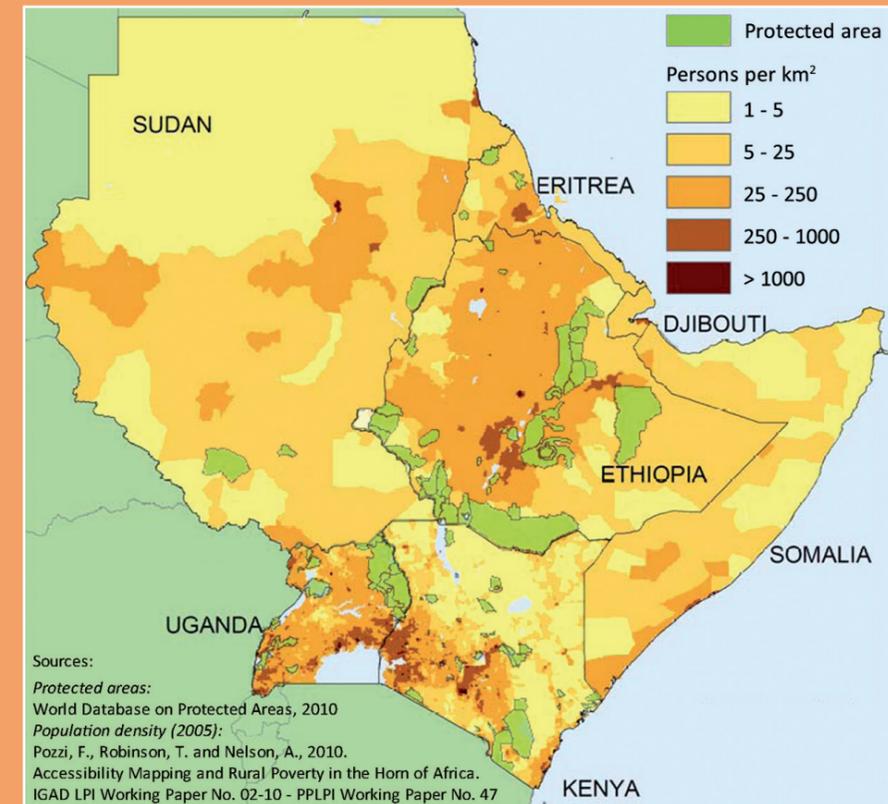
The Nile River is a source of life, but also a source of conflict. The river supplies water for millions of people in the Horn of Africa - up to Egypt. Plans to allocate more water for irrigated agriculture in Uganda and Ethiopia, to replace rain-fed agriculture, face a great deal of resistance from downstream states Sudan and Egypt. These 'hydro-political' tensions add to the already significant instability in the Horn of Africa.

In addition overfishing is a serious concern, not only in Ugandan and Kenyan lakes, but also in the Indian Ocean. Piracy, which originally started as 'coastal protection' against illegal fishing fleets and toxic waste dumping, has developed into one of the main international security problems.

## The challenge

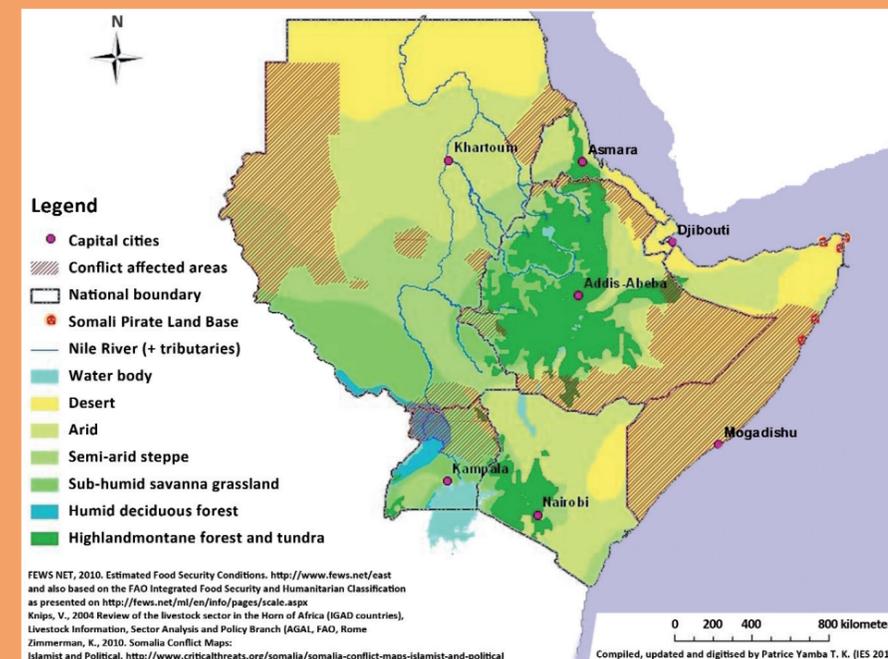
The challenge for the Horn of Africa is to combat the loss of fertile land by deforestation and erosion, to slow down natural population growth and to integrate the maintenance of ecosystem services into planning and decision-making processes. In all countries it is essential to strengthen institutional capacities for disaster response, waste management and enhancing food and water security.

The international community can contribute significantly to reforestation, agro-forestry and forest protection measures in order to maintain the ecosystem services, on which economies and societies in the region depend. Re-greening the Horn will improve energy, food and water security and will help to alleviate poverty, by ensuring a sound basis for economic development and human wellbeing •



## POPULATION DENSITY AND PROTECTED AREAS

"Pressure on natural resources leads to a decrease in the quality and quantity of soils, forests and water resources. Not all areas of high conservation value are adequately protected against the threats faced by increasing demands for land and wood."



## ECOLOGICAL ZONES AND CONFLICT AFFECTED AREAS

"In a continuous struggle for water and land, resource conflicts regularly occur, especially between pastoralist communities in arid and semi-arid areas."