

Environmental and Climate Change Policy Brief Somalia



Photo: Somali Center for water and Environment

2012-10-28

Anja-Christina Beier

Eva Stephansson

Executive Summary

This environment and climate change policy brief aims at briefly presenting key environmental sustainability challenges and opportunities in Somalia, their linkages to poverty reduction and the millennium development goals three, four and five. It is a 'light version' and does not contain in-depth analysis.

The key environmental challenges in Somalia are several and are related to deforestation, land degradation, increasing aridity and overgrazing, water scarcity, waste disposal, climate change and ecosystem services. These challenges cause negative trends to poverty, health, economy and ecological and human resilience. Climate change is expected to add to already existing stresses.

The key poverty-environment linkages in Somalia are related to: increased conflict and general instability particularly related to further marginalisation of vulnerable men and women; lack of secure tenure to land and other natural resources; vulnerability to natural disasters and resilience; polluted water and waste disposal especially along coastland destructive to health; unreliable access to food and water leading to malnutrition and famine; low ability of particularly female-headed households to accumulate assets including land; and access to forest produce for monetary income. Women and girls are disproportionately at risk due to gender roles and inequalities. Corruption is an issue holding back the development of Somalia and is a dilemma also affecting further environmental degradation or an environmental recovery.

Somali men and women have different and unequal access to agriculture, livestock and fisheries production inputs and technology. They also experience vulnerabilities differently and resort to distinct coping strategies. Female Headed Households (FHH) among Somali populations experience higher vulnerability to shocks related to livestock losses relative to male headed households in the same wealth groups. Women and girls are often the ones responsible for collecting water, an assignment that gets more difficult when water gets degraded. It is also a highly security issue as many women and girls are becoming victims to violence.

Children's health and nutritional well-being are strongly linked to their access to safe water and proper sanitation. Lack of sanitation, safe water facilities and services and poor hygiene are significant contributors to the high rates of disease in Somalia. A comprehensive approach to reducing malnutrition and disease must include increasing access to sanitation and safe water services and addressing hygiene behaviour.

Maternal Health in Somalia is worse than in almost any other country in the world. A major problem is the infrastructure, transport facilities and distance to professional medical assistance as well as the access to safe water and sufficient and adequate nutrition.

A key concern relating to sound environmental management relates to the adoption and effective enforcement of a suite of international, regional and national agreements which define the country's own responsibilities. The regulatory framework for most of Somalia is poorly developed, although the country has had signed a number of important international conventions. While there is a clear need for a thorough revision of the country's national legislation on management of natural resources, it will require considerable effort and co-operation from all interested parties.

The list of problems and challenges in Somalia can be made very long, however there are also positive aspects to grasp; despite the collapse of the public sector, people have shown remarkable resilience, and an energetic and engaged private sector and vibrant civil society

have emerged, as for example in communications and money transfers, transportation and import/exports. Not least in the light of a newly elected parliament, a new presidency and a new constitution there are opportunities for Somalia. The transition process lying ahead of the Somali people will be a good window of opportunity to find ways to combat environmental degradation in order to act for poverty reduction.

Contents

- Executive Summary ii
- 1. Introduction 1
- 2. Key Environmental Challenges..... 2
- 3. Effects of the environmental challenges 5
 - 3.1 Impacts on Poverty 5
 - 3.2 Impacts on Public Health..... 7
 - 3.3 Impacts on Food Security and nutrition 8
 - 3.4 Impacts on Economic development..... 9
 - 3.5 Resilience..... 10
- 4. Millennium Development Goals 12
 - 4.1 Goal 3. Promote gender equality and empower women..... 12
 - 4.2 Goal 4. Reduce child mortality 14
 - 4.3 Goal 5. Improve maternal health 15
- 5. Policy Framework to manage environmental challenges..... 16
 - 5.1 Key actors 16
 - 5.2 Governance, implementation and enforcement 17
- 6. Conclusions 19
- 7. Recommendations to Sida 20
- References 22
- Annexes 25
 - Annex 1 25
 - Annex 2 MDG reference for Somalia 26

1. Introduction

This Environmental and Climate Change Policy Brief¹ has been written as an input to the Swedish results strategy process in preparation of a revised strategy document for Somalia. It aims at briefly presenting key environmental sustainability challenges and opportunities in Somalia, and focuses on the millennium development goals 3, 4, and 5.

The analysis was conducted as a desk study during end of October and beginning November and is based on selected reports, research papers and statistics. It has been written as a 'light version' as the time constrain has been significant, therefore this is only a first draft.

In the case of Somalia it has to be noted that statistics and reports are not always comprehensive or existent, which also shapes this desk study in the sense that there may be discrepancies in statistics and figures may not be up to date. However, some of the statistical data on Somalia is currently collected and disseminated by a number international agencies and NGOs; but such data collection is mostly guided by the needs and priorities of external actors linked to their areas of intervention rather than the national needs and priorities of Somalia.

The Swedish Government has identified environment and climate change as one of three thematic priorities for development cooperation. This is reinforced in the Swedish policy on environment and climate change in development cooperation concluding that these aspects are a "central point of departure for all development cooperation"². The Policy further requires that environmental impacts, effects of climate change and associated risks are assessed and integrated in analysis, planning, strategies, implementation and follow-up in Swedish development cooperation.

The previous country strategy³ is based on a combination of humanitarian assistance and support for reconstruction. The humanitarian assistance was aimed at mitigating the effects of the humanitarian disaster. The reconstruction programmes were designed to lend support to the regional and local peaceful political structures which have grown up and to contribute to poverty reduction efforts.

For the forthcoming strategy period focus is set on women and children as well as their resilience and a development towards transparent and participative governance.

¹ This Environmental and Climate Change Policy Brief was written, at the request of Sida (*Urban Sjöström*) by Anja-Christina Beier and Eva Stephansson at Sida's Helpdesk for Environment and Climate Change. The views expressed in this Environmental and Climate Change Policy Brief are those of the authors and do not necessarily represent the views of Sida.

² Swedish Government Offices, 2009

³ Country strategy for development cooperation Somalia January 2003 – December 2005 Development assistance to Somalia

2. Key Environmental Challenges

Somalia is one of the poorest and least developed countries in the world and as such presents exceptional challenges in terms of natural resource management. As a result of more than 25 years of civil unrest, Somalia's governance structures have fallen apart, and militias control different parts of the country. In addition, the regions of Somaliland and Puntland have unilaterally declared autonomy.⁴

Somalia has five main World Ecosystem types: Coastal Aquatic (11 percent), Desert and Semi-Desert (38 percent), Grass and Shrub (36 percent), Crop and Settlements (one percent), and Interrupted Woods (14 percent).⁵ The three main productive sectors are livestock, charcoal production and crops. Livestock (mainly live animals and some products) is the largest export with charcoal production ranking second. Fifty-nine percent of the population practice nomadic and semi-nomadic agro-pastoralism, followed by 17 percent made up by farmers.⁶

Food insecurity and livelihoods, lack of marine and coastal management, probable hazardous waste, and the mitigation and management of environmental degradation along with natural disasters are environmental concerns.

The *key environmental challenges* in Somalia are related to women and children, natural resource degradation and democratic instability. Most challenged areas are:

- Deforestation
- Land degradation
- Increasing aridity and overgrazing
- Water scarcity
- Waste disposal
- Climate Change
- Ecosystem services

*Deforestation*⁷

Forests cover about 11.4 percent of the total land area of Somalia. Large areas of rangelands used to be covered by various tree species, mainly acacias. Flood plain forests along the Shebelle River have been destroyed by clearing land for small farms and plantations.

Forests form the habitat of many of Somalia's 1,078 known species of animal and 3,028 plant species some of which are unique. The rate of loss of forest and wooded habitat between 1990 and 2005 is estimated at 13.9 percent or 1,151,000 ha with pressure coming from charcoal production and agriculture. Charcoal-burning has become a major source of income for 70 percent of poor and middle-income pastoralists. It is estimate that four trees are cut to produce one sack of charcoal. The charcoal industry has significant implications on livelihood security exacerbating community conflicts and increasing vulnerability to drought as well as it is rapidly depleting the forest resource.

⁴ CIA Fact Book

⁵ FAO strategy and plan of action 2011-2015 <http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf> and Animal Info <http://www.animalinfo.org/country/somalia.htm>

⁶ FAO strategy and plan of action 2011-2015 <http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf>

⁷ FAO strategy and plan of action 2011-2015 <http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf> and trading economics <http://www.tradingeconomics.com/somalia/forest-area-percent-of-land-area-wb-data.html>

Land degradation

Somalia is a semi-arid country with about 1.6 percent of arable land⁸. Arable land (in hectares) includes land defined by the FAO.⁹

Land tenure system is based on communal ownership combined with individual ownership. Usually property transfers from male to male with few exceptions. Female inheritance is seldom allowed.

As the livestock sector is based on a nomadic system high mobility is required as well as access to extensive grazing resources. As land use is limited by soil quality, low rainfall and limited water availability, besides opportunistic movement that is possible, overgrazing is a consequence.¹⁰

Land degradation is a key environmental issue in Somalia, closely linked to desertification, drought and unsustainable livestock and agricultural practices and is also leading to conflict. Conflicts as such also result in land degradation as it obstructs and hinders a more sustainable traditional agricultural practice.

Aridity and Overgrazing

Increasing aridity of Somalia's climate, excessive logging and overgrazing, are leading to rapid environment degradation (deforestation and extension of the desert area) in the Horn of Africa country. As livestock is the main livelihood for approximately 60% Somali's the available land is overused and under ecological resilience stress. Growing competition for land is leading to conflict and further aridity and overgrazing.¹¹

The transient rights to use resources that are so critical to nomadic pastoralism were ignored when the national land tenure regime was being developed. Among the direct results of this action has been land degradation, resource use conflicts, a decline in pastoral production and impacts on Somali clan alliances, which in many cases serve to regulate rational natural resource access and use.¹²

Overgrazing in parts of the coastline has resulted in the gradual movement of coastal sand dunes inland, posing a serious threat to agricultural areas and human habitation.¹³

Water scarcity

Somalia has 6 cubic kilometers of renewable water resources with 97% used for livestock and agriculture. Three percent is for urban and domestic use. A bit more than 26% of the entire population have access to safe drinking water.¹⁴

⁸ <https://www.cia.gov/library/publications/the-world-factbook/geos/so.html>

⁹ Land under temporary crops (double-cropped areas are counted once), temporary meadows for mowing or for pasture, land under market or kitchen gardens, and land temporarily fallow. Land abandoned as a result of shifting cultivation is excluded.

¹⁰ FAO strategy and plan of action 2011-2015 <http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf>

¹¹ FAO strategy and plan of action 2011-2015 <http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf>

¹² UNEP 2005 The State of the Environment in Somalia

¹³ <http://www.nationsencyclopedia.com/Africa/Somalia-ENVIRONMENT.html#ixzz2AsViUk3D>

Most of the country receives less than 500 mm of rain annually, and a large area encompassing the northeast and much of northern Somalia receives as little as 50 to 150 mm. Generally, rainfall takes the form of showers or localized torrential rains and is extremely variable. The main rainy season, referred to as the *Gu*, lasts from April to June. This period is characterized by the southwest monsoons, which rejuvenate the pasture land, especially the central plateau, and briefly transform the desert into lush vegetation. The *Dayr*, which is the shortest rainy season, lasts from October to December.¹⁵

With an extremely low, variable and often unreliable rainfall, and misuse, mismanagement and ongoing conflict etc water scarcity is at its worse.

Less than 30 % of Somali people have safe drinking water and for rural community, the number spirals to almost zero. The lack of access to safe water is a striking feature in almost all parts of Somalia.

Waste disposal

Somalia's long, remote shoreline has been used as a dump site for the disposal of toxic waste for many years now. Circumstantial evidence indicates that the dumping of illegal waste have been made for almost 20 years. Although unverified, there are persistent reports of illegal, unreported and unregulated fishing and illegal waste dumping off the coast up until today¹⁶. The illegal dumping includes radioactive, hazardous and medical waste.

The huge waves which battered northern Somalia after the tsunami in 2004 are believed to have stirred up tons of nuclear and toxic waste dumped illegally in the country by industrialised countries and foreign firms over the years.¹⁷ There is a total lack of any waste management.

Climate Change

Due to Somalia's proximity to the equator, there is not much seasonal variation in its climate. Hot conditions prevail year-round along with periodic monsoon winds and irregular rainfall.

Recurring droughts; dust storms over eastern plains in summer; floods during rainy season¹⁸ are becoming more frequent and prolonged making the situation for people and the environmental degradation in the country even worse. In the most recent drought famine was increased.

Natural resources and Ecosystem Services

Somalia's natural resources fall into three broad categories: marine resources such as fish and salt; surface resources which include forests and forest products such as NTFP (Non-Timber Forest Products) as well as surface water; and subsurface resources such as rocks and minerals, fossil fuels, and groundwater. Many of them have been directly or indirectly

¹⁴ <http://www.nationsencyclopedia.com/Africa/Somalia-ENVIRONMENT.html#ixzz2AsViUk3D>

¹⁵ http://en.wikipedia.org/wiki/Geography_of_Somalia

¹⁶ UN security council 2011

¹⁷ http://en.wikipedia.org/wiki/Somalia#cite_note-factbook-3

¹⁸ <https://www.cia.gov/library/publications/the-world-factbook/geos/so.html>

impacted by the extended civil conflict, but competition for access to some resources has also been, and continues to be, a source of conflict in itself.¹⁹

In the absence of a government, many traditional forms of natural resource management and control systems have been abandoned or are now ignored. In several instances, this has resulted in clearly unsustainable exploitation, a trend which may prove difficult to reverse.²⁰

Ecosystems provide different types of life supporting services that are vital for livelihoods, good health and economic development and provide resilience to natural disasters and climate change. Conversely, if ecosystem services are degraded or access is denied, poverty is exacerbated. This profound connection between the environment and poverty is likely to be increasingly visible as the impacts of climate change manifest.

Ecosystem services are the benefits people derive from nature and one obvious ecosystem service in Somalia is drinking water. As freshwater habitats are destroyed, the beneficial ecosystem services they provide to people are lost. It directly affects the livelihoods of many poor men and women who depend on these services.

3. Effects of the environmental challenges

Somalia's major environmental challenges constitute over dependency on trees for energy and charcoal exports, increasing population pressures and urbanization and natural resource based conflicts. Degradation of water catchments, rangelands, agricultural lands and the marine environment, combined with illegal fishing and logging remain critical and urgent issues to address.

3.1 Impacts on Poverty

The regions that have established autonomy and experienced relatively peaceful conditions — Somaliland in the north-west and Puntland in the north-east — have achieved a greater degree of stability than the rest of the country. The southern part of the country is inevitably poorer and in a more critical situation regarding food security, infrastructure and services.²¹

In terms of measuring deprivations related to poverty, Somalia's Multidimensional Poverty Index (MPI) of 0.47 out of 1 would place it at 94 out of 104 countries in 2010 if comparisons were made to the ranking in the global HDR for that year. An estimated 82 percent of Somalis (99% of the nomadic population) are considered poor across multiple dimensions. The divide between urban and rural populations is significant – 61 percent and 94 percent, respectively. In south central Somalia, 89 percent of people are poor across several dimensions, compared to 75 percent in Puntland and 72 percent in Somaliland.²²

Women and men that were already vulnerable prior to the 1990s have been further marginalized by the conflict and general instability. In particular indigenous groups and ethnic

¹⁹ UNEP 2005 The State of the Environment in Somalia

²⁰ UNEP 2005 The State of the Environment in Somalia

²¹ IFAD 2011 <http://www.ruralpovertyportal.org/country/home/tags/somalia>

²² The Somalia Human Development Report 2012 <http://www.so.undp.org/shdr/>

minorities have fallen into greater poverty, and many have been expelled from their traditional lands.

Women have particularly low status in Somalia. Many are illiterate or poorly educated, and they have inadequate access to health and family planning services. Female genital mutilation is widespread. The country has one of the highest rates of maternal mortality in the world.²³ Every day about 45 women die as a result of pregnancy and childbirth (see further in chapter 4.3).

Forests are economically important for the production of NTFP and charcoal. From the environmental standpoint (as ecosystem services) forests are valuable as habitat, for soil stabilization and fertility and water runoff control.

Charcoal production is a major cause of deforestation. Traditionally, Somalis used wood collected from forests for fuel but charcoal is now the preferred local source of fuel and has become a lucrative export commodity, ranking second behind livestock. As a result of charcoal production, trees in traditional grazing areas of Northern Somalia were devastated and the damage continued as the industry moved south.²⁴ Forest management for recovery, sustainable use and protection is an urgent issue. Public policy, regulations and the institutional capacity to implement, monitor and enforce will need rebuilding along with programmes to inform and enlist people's participation. Alternative energy sources are needed to reduce the demand for charcoal and wood for fuel. Other income earning opportunities will also help to limit poor people's reliance on destructive forest exploitation.²⁵

Today, about 60% of all Somalis are nomadic or semi-nomadic pastoralists who raise cattle, camels, sheep, and goats. About 25% of the population is settled farmers who live mainly in the fertile agricultural zone between the Juba and Shabelle Rivers in southern Somalia. The remainder of the population (approximately 15%) is urban.

Extreme poverty has become widespread and large numbers of people are unable to meet basic food requirements. Many Somalis have been internally displaced, often from rural to urban areas. The strongest clans have taken over valuable agricultural land, expelling weaker clans and indigenous peoples from their traditional lands. Vulnerable people have lost their assets and livelihoods. Famine and disease have raged unchecked, causing the death of about one million people. Extensive damage to roads and other infrastructure makes it extremely difficult.²⁶

Extended civil conflict has had a direct or indirect impact on many resources, but competition for access to some resources has also been and continues to be a source of conflict itself. In the absence of a central government and regulation, many traditional forms of **natural resource** management have been abandoned, leading to unsustainable exploitation. For example, **overgrazing and deforestation** have led to environmental degradation that may be difficult to reverse. Un-regulated off-shore fishing threatens marine resources.²⁷

Livestock is a key local consumption commodity for household food security.

²³ IFAD 2011 <http://www.ruralpovertyportal.org/country/home/tags/somalia>

²⁴ IFAD 2011 <http://www.ruralpovertyportal.org/country/home/tags/somalia>

²⁵ FAO strategy and plan of action 2011-2015 <http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf>

²⁶ IFAD <http://www.ruralpovertyportal.org/country/home/tags/somalia>

²⁷ IFAD <http://www.ruralpovertyportal.org/country/home/tags/somalia>

3.2 Impacts on Public Health

Approximately 30% of the population in Somalia has access to improved drinking *water* sources; 67% in urban areas while 9% only in rural areas²⁸. Approximately 23% of the population has access to improved sanitation facilities; 52% in urban areas while 6% in rural areas. This is a reason why cholera is endemic in Somalia and Acute Watery Diarrhea (AWD) and cholera peaks generally following the rains. Cholera can be devastating during the rains, especially for a region in famine as well as it claims hundreds of lives annually, particularly in densely populated areas.²⁹ Increasing access to safe water must also be accompanied by efforts to ensure the quality of drinking water. Water quality monitoring and house water treatment and safe storage are critical interventions that aim to reduce the risk of contamination of water supplies.³⁰

Safe water can make the difference between life and death in a poverty-stricken environment. As the present famine crisis forced more than a million Somalis to flee their homes in search of food and water, many Somalis have fled to Mogadishu. There are now more than 100 camps for displaced Somalis scattered around the capital.

Water may also become severe; half dried and flooded water pumps and wells can spread life threatening diseases when polluted. Heavy floods contribute to soil erosion, destroy crop and swamp unprotected villages and lead to additional *land degradation*. Together with lack and/or absence of governmental services like infrastructure, health care centers etc the situation has become cruel.

According to reports by the UNEP, illegal and uncontrolled *waste disposal* has resulted in far higher than normal cases of respiratory infections, mouth ulcers and bleeding, abdominal haemorrhages and unusual skin infections and diseases consistent with radiation sickness among many inhabitants of the areas around the north eastern towns and along the Indian Ocean coast. UNEP adds that the current situation along the Somali coastline poses a very serious environmental hazard not only in Somalia, but also in the eastern Africa sub-region.³¹

Qat is considered an illegal substance in the regions controlled by the Islamists. In the regions under Al-Shabab the selling of qat leaves is completely prohibited in small towns and villages, whereas in the densely populated cities, (Kismayo, Marka, Mogadishu, etc.) they have designated special selling places, usually outside the city centre. Qat addiction among the population has increased with years of war. Excessive chewing of qat leaves leads to apathy and disinterest in family and work: It reduces productivity and leads farmers to abandon animal husbandry³².

Despite the lack of coherence in overall statistics (coverage versus mortality), they indicate there are major gains to be made through basic health activities, water and sanitation services, and increasing and sustaining high levels of vaccination coverage, as well as improved food security with particular focus on improving feeding practices and the quality of food for young children.

²⁸ The statistic figures for water availability are very variable and not very reliable. Also some sources rely on old figures mixed with uncertain estimates to attain more recent figures.

²⁹ WASH Cluster Somalia; <http://ochaonline.un.org/somalia/WASH>

³⁰ http://www.unicef.org/somalia/wes_95.html

³¹ FAO strategy and plan of action 2011-2015 <http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf>

³² IFAD <http://www.ruralpovertyportal.org/country/home/tags/somalia>

3.3 Impacts on Food Security and nutrition

Food security in Somalia is severely constrained by recurrent *drought and land degradation*, and *climate change* will make the problems worse over time. A report released by UNDP in February 2012 showed that ensuring food security goes beyond addressing agricultural production. It also requires better basic rural infrastructure, access to credit, resilience to shocks, and an end to armed conflict. A comprehensive developmental approach with a medium to longer-term focus is required to build greater food security.³³

The nutrition situation shows continued improvements from the past two seasons. The number of acutely malnourished children under 5 years is now estimated to be 236,000 down from 323,000³⁴. However, the south of the country remains in a state of acute nutrition emergency. The central and northeast parts of the country have displayed sustained improvements and are classified as serious.

The situation began to improve following reasonable *Deyr rains* during October and December of 2011, and in February 2012, the FSNAU (Food Security and Nutrition Analysis Unit)³⁵ and FEWS NET (Famine Early Warning Systems Network)³⁶ announced that famine conditions had receded. Other factors that contributed to this improvement included a slight decrease in the price of food, enhanced access to food and the impact of humanitarian assistance. However, more than 2.5 million people remain in crisis throughout the country, and any gains made in food security and nutrition must be considered fragile as communities are recovering from many seasons of failed rains and subsequent drought. The *Gu rains* (April to June) have been uneven in geographical coverage and below average and there are fears that recent gains could be lost without continued humanitarian assistance. Furthermore, another 1.8 million people are also estimated to be acutely food insecure and in a stress situation where they are barely able to meet their minimum food requirements. Without livelihoods assistance and adequate rains in the coming months, this portion of the population could revert to severe malnutrition. Meanwhile, insecurity and conflict continue to contribute to poor household food security and high malnutrition rates.³⁷

Since the start of the Somali civil war, the country's 3,330 km (2,000 miles) of coastline – the longest in Africa – remains the country's most untapped resource³⁸. Domestic fresh fish consumption is limited to coastal areas because of poor infrastructure, which has restricted access to fish for a large portion of the population, lack of familiarity with fish, seasonality of supply and a tradition of meat-eating among the Somali communities, are among other reasons for one of the lowest per capita fish consumption rates in the world.

While traditional tastes and lack of consumer education programmes to promote fish consumption have confined the market to certain coastal areas, the shortage of meat experienced particularly during the recurring droughts has diverted some demand towards

³³ UNDP

<http://www.undp.org/content/undp/en/home/ourperspective/ourperspectivearticles/2011/07/13/drought-is-life-or-death-issue-in-horn-of-africa.html>

³⁴ WFP <https://www.wfp.org/countries/somalia/food-security>

³⁵ FSNAU <http://www.fsnau.org/>

³⁶ FEWS NET <http://www.fews.net/Pages/default.aspx>

³⁷ WFP <https://www.wfp.org/countries/somalia/food-security>

³⁸ WFP <https://www.wfp.org/countries/somalia/food-security>

fish, especially among low income groups like internally displaced people (IDP)³⁹. They are today the driving force for a growing demand for fish.

Somalia's fisheries sector lacks key equipment such as jetties and fishing boats. Lack of research and training opportunities for fishing communities and absence of a regulatory framework for the industry and serious limitations in the cold chain, compound the problem.⁴⁰

3.4 Impacts on Economic development

In Somalia there is a mix of Agro-pastoralist; agriculture and livestock production based livelihood and Agriculturalist; agriculture based livelihood.⁴¹ Pastoralists exist throughout Somalia with high concentrations of strict pastoralists in the north and central areas and pastoralists and agro-pastoralists in the southern areas. Throughout greater Somalia (including areas of Ethiopia and Kenya), rainfall patterns force a complex series of movements in search of grazing-land between the different seasons⁴².

The livestock sector is the largest contributor to Somali livelihoods with over 65% of the population engaged in some way in the industry. Exports of livestock and their products account for 80 percent of exports in normal years but exports have been periodically interrupted by droughts and international bans. Despite the ban imposed by Saudi Arabia in 2000, livestock exports continue to be the largest traded commodity for Somalia⁴³.

Agriculture is an important economic activity in Somalia not only in terms of meeting the food needs of the population but also in terms of generating income through crop sales and agricultural labour opportunities. With roughly 50% of population's cereal requirements are met through domestic production, agriculture is a major component particularly for two of the main rural livelihood systems in Somalia; Agro-pastoralist, mix of agriculture and livestock production based livelihood and Agriculturalist, agriculture based livelihood⁴⁴.

Somalia is not abundant in resources and depends heavily on agriculture to sustain its economy. Agricultural productivity is often at the mercy of climatic extremes, including periodic droughts and flooding. Livestock is essential to the economy. Over 60 percent of the population depends directly on livestock for food and income. Outbreaks of disease frequently go unchecked and untreated as a result of the lack of an effective disease control strategy. Over the last decade Saudi Arabia has imposed several livestock bans because of disease concerns, and these have severely hampered the sector and generated serious problems for the pastoralists whose livelihoods depend upon the sale of livestock.⁴⁵

Large stocks of animals put considerable pressure on grazing land, causing land degradation and generating disputes over land rights. In the absence of regulatory measures and the competition over resources, especially land and water, is a major component of the current conflict and affects economic development tremendously.

³⁹ FAO strategy and plan of action 2011-2015 <http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf>

⁴⁰ FAO strategy and plan of action 2011-2015 <http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf>

⁴¹ <http://www.faosomalia.org/environment>

⁴² <http://www.faosomalia.org/environment>

⁴³ FAO strategy and plan of action 2011-2015 <http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf>

⁴⁴ <http://www.faosomalia.org/environment>

⁴⁵ IFAD <http://www.ruralpovertyportal.org/country/home/tags/somalia>

Qat addiction among the population has become a real problem⁴⁶. The consumption of Qat is deeply entrenched within the Somali society, albeit gradually diminishing. However it has also become an important trading commodity and for traders it appears to be a good alternative⁴⁷.

Corruption is an issue hampering the development of Somalia and is a dilemma also affecting further environmental degradation or an environmental recovery. A UN report says that 70 percent of money donated never made it into public coffers in 2009 and 2010⁴⁸.

The Corruption Perceptions Index ranks⁴⁹ countries and territories according to their perceived levels of public sector corruption. It is an aggregate indicator that combines different sources of information about corruption, making it possible to compare countries. Both petty and grand forms of corruption are prevalent in Somalia, permeating key sectors of the economy such as ports and airports, tax and custom collection, immigration, telecommunication and management of aid resources. According to a recent audit report by the Prime Minister's office, corruption manifests itself through various practices, including gross public financial mismanagement, large scale misappropriation of public and donor funds, and concealment of actual resource flows.⁵⁰

3.5 Resilience

Resilience is the ability to anticipate, resist, absorb and recover in a timely and efficient manner from external pressures and shocks in ways that preserve integrity and do not deepen vulnerability. This includes the ability to *withstand threats* and the ability to *adapt if needed* and the ability to *further develop* to new options in the face of shocks and crises.

The people of Somalia are remarkably resilient, especially given the multiple and protracted challenges that have marked Somalia over time but this varies by gender, age and livelihood group. This resilience is grounded in determination, entrepreneurialism, mobility and communities of solidarity and generosity. More than other societies, given the inadequacies in public and private, formal and informal systems that provide support, Somalis principally have had to rely on their own resilience to protect their lives and livelihoods.

The following characteristics⁵¹ can help to acknowledge and understand where it is possible to find entry points to work with resilience in different areas.

- **...knowledgeable and healthy.** Have the ability to assess, manage and monitor risks. Learn new skills and build on past experiences.
- **...manage natural assets.** Recognises their value and has the ability to protect, enhance and maintain them.

⁴⁶ IFAD <http://www.ruralpovertyportal.org/country/home/tags/somalia>

⁴⁷ Somaliland press <http://somalilandpress.com/qat-in-somalia-the-multi-million-dollar-battle-18693>

⁴⁸ Voice of America <http://www.voanews.com/content/un-reports-says-somali-government-corrupt/1405372.html>

⁴⁹ Transparency International

⁵⁰ Overview of corruption and anti-corruption in Somalia 2012

⁵¹ IFRC 2012

- **...organised.** Has the capacity to identify problems, establish priorities and act.
- **...connected.** Have relationships with external actors who provide a wider supportive environment, and supply goods and services when needed.
- engaged in the development of **local policy** for reducing risks.
- **...infrastructure and services.** Has a strong system in place to help mitigate for instance climate change. Has strong housing, transport, power, water and sanitation systems, and the ability to maintain and renovate them.
- **...economic opportunities.** Has a diverse range of employment opportunities, income and financial services. Is flexible, resourceful and has the capacity to accept uncertainty and respond (proactively) to change.

Local resiliency has its difficulties, especially given sustained and myriad threats often generated by factors well beyond the control of individuals or communities. One Minister neatly summarizes these threats as “war, weather and weak governance/economy”⁵². As witnessed in the famine of 2011, some shocks overwhelm the resiliency of the poorest or marginalised, leading to destitution, displacement, hunger, illness, death and the breakdown of families and communities. These intolerable outcomes needs a paradigm shift in support of the resiliency of the poor or marginalised. The delayed response to the warnings of crisis issued from 2010 starkly demonstrated the limits of the international humanitarian and development community as well as the extent of inadequate efforts to build resilience in the years prior to the famine.⁵³

However in promoting resilience it is necessary to recognise the need for an enabling environment based on an understanding of local resilience and vulnerability as well as a policy and regulatory framework for effective service delivery as possible.

Building resilience can be done by different actions addressed comprehensively.

- **Improve basic social services** – to strengthen/empower vulnerable households and human capital (men and women) by creating systems able to assess communities, capture the information needed and assure participation for men and women.
- **Establish predictable safety nets** – to address the most vulnerable people’s basic need through predictable and sustainable transfer of food or cash for the destitute or seasonally at risk populations without discrimination.
- **Strengthen the productive sectors** – to increase household income by diversifying livelihood strategies, enhancing the access to markets and market information and assure impartial access to natural resources such as land, forest and water as well as eco system services.

⁵² Partnership Forum on Resilience 2012 Preparing Somalia’s Future: Goals for 2015

⁵³ Partnership Forum on Resilience 2012 Preparing Somalia’s Future: Goals for 2015

4. Millennium Development Goals

The last population census was done in 1985/86, but no data was released. Only a few data were released from the earlier census conducted in 1975. A settlement survey was done by United Nations Development Program back in 2005/06⁵⁴.

A lack of baseline data in all areas is a major constraint facing Somalia for policy making and planning in the country general and in South/Central in particular. Over the past 25 years neither national population census nor national demography and household income and expenditures survey were conducted due to prevailing political situation.⁵⁵

The Millennium Development Goals (MDGs) have been signed by Somalia.

In terms of progress toward achieving Millennium Development Goals, Somalia has seen a gradual improvement in maternal, under-five and infant mortality rates. However, the current humanitarian crisis (famine) may have implications for maternal and child health. In addition, the poor quality health services may jeopardize the recent health gains and limit the progress in achieving the MDG targets.⁵⁶

4.1 Goal 3. Promote gender equality and empower women

Gender inequality is alarmingly high at 0.776 out of a value of 1 (complete inequality), with Somalia at the fourth lowest position globally on the Gender Inequality Index (GII) if internationally comparable data were available. Women suffer severe exclusion and inequality in all dimensions of the index – health, employment and labour market participation. Somali girls are given away in marriage very young, and violence against girls and women is widespread. Traditional laws, used in lieu of a state judiciary, are highly discriminatory against women.⁵⁷

Many courageous efforts of Somali women to rise above patriarchy have been isolated and short lived, and they have yet to achieve the critical mass in decision-making required to effect wider change. Young women end up greatly disadvantaged in all spheres of life, a reality that hinders their rights and development, and perpetuates intergenerational cycles of gender inequality and the feminization of poverty.

For Somalia, the Gender Parity Index (GPI), which is the ratio of female to male primary and secondary net attendance ratios, for both secondary and tertiary education is significantly behind by global comparisons, at 27% and 18% respectively. The GPI for tertiary education has actually declined to 18% from 22% in 1990.⁵⁸

Women generally have a weak position in the labour market and represent a large proportion of vulnerable employment. The share of women in wage employment in the non-agricultural sector remained constant at 22% from 1990 to 2002, experiencing a significant increase only afterwards to a share of 36% in 2010. Women in wage employment in the non-agricultural

⁵⁴ UNFPA

⁵⁵ UNDP 2010 Millennium Development Goals Progress Report Somalia

⁵⁶ WHO cooperation Strategy at a glance

⁵⁷ http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_som_en.pdf

⁵⁷ <http://www.indexmundi.com/somalia/millennium-development-goals.html> and The Somalia Human Development Report 2012 <http://www.so.undp.org/shdr/>

⁵⁸ The Somalia Human Development Report 2012 <http://www.so.undp.org/shdr/>

sector reached its highest value in Puntland 40% followed by Somaliland 36%, while the lowest value is in South Central at 33%.⁵⁹

Despite national gender equality policies and provisions, for example, gender-based violence and discrimination against Somali women continue to brutally suppress human rights and often go unpunished. Traditional Somali society is conditioned not to openly discuss issues such as domestic violence and rape, which further hampers women's access to justice and to have equal rights with men in the society.⁶⁰

Further, Somali men and women have different and unequal access to agriculture, livestock and fisheries production inputs and technology. They also experience vulnerabilities differently and resort to distinct coping strategies. For example, Female Headed Households (FHH) among Somali populations experience higher vulnerability to shocks related to livestock losses relative to male headed households in the same wealth groups.⁶¹

Women and girls are often the ones responsible for collecting water, an assignment that gets more difficult when water gets degraded. It is also a highly security issue as many women and girls are becoming victims to violence.

Sound management of chemicals can improve women's working and living conditions, increase their knowledge about health risks and proper handling of chemicals and thereby help protect them and their families. Proper integration of gender dimensions into safe chemical management initiatives can promote women's participation in regulatory and policy decision-making processes on chemical safety, and enable women to play a more informed role in the management of chemicals.⁶²

Overall, only 30% of pupils in upper primary education are females, compared with 30% in lower Primary education (2006/2007). Gender disparity rapidly increases in higher grades. Early marriage, timing of classes and economic constraints force many girls to leave school early, leading to higher girl dropout rates. Secondary and tertiary enrolment ratios are very low, gender specific data is not readily available. Many women are forced to take up informal and unskilled employment due to their low educational attainment, which further marginalizes them from professional employment opportunities.⁶³

Men and women who depend on small-scale farming in developing countries will be differently vulnerable to climate change impacts due to pre-existing inequalities. For example, rural women tend to have less financial, physical and human resources than men, so they will have fewer options for responding to the effects of climate change. Also, poor women tend to rely more than men on natural resources, so when these are directly hit by climate change, women's livelihoods will also be affected. Adaptation strategies that do not take into account

⁵⁹ <http://www.so.undp.org/index.php/Millennium-Development-Goals.html> and UNSD 2010 Somalia Household Survey

⁶⁰ The Somalia Human Development Report 2012 <http://www.so.undp.org/shdr/>

⁶¹ UNDP http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/chemicals-management/how-is-the-sound-management-of-chemicals-related-to-the-mdgs/banner_A3_web1.pdf

⁶² UNDP http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/chemicals-management/how-is-the-sound-management-of-chemicals-related-to-the-mdgs/banner_A3_web1.pdf

⁶³ The Somalia Human Development Report 2012 <http://www.so.undp.org/shdr/>

the differences between men's and women's vulnerabilities and resources are less likely to succeed.⁶⁴

4.2 Goal 4. Reduce child mortality

The infant mortality rate is defined as the number of infants who die before reaching one year old for each 1000 live births. This rate has decreased from 152 deaths per 1000 live births in 1990 to 86 deaths per 1000 live births in 2006.⁶⁵

The under-five mortality rate (U5MR) reached its highest (in South-Central Somali) with 231 deaths per 1,000 live births and its lowest with 188 (in Somaliland), and 225 (in Puntland) in 1999.⁶⁶

Children's health and nutritional well-being are strongly linked to their access to safe water and proper sanitation. Across Somalia, unpredictable rainfall patterns, ongoing conflict, and lack of maintenance has resulted in only 29 per cent of the population having access to clean water and 39 percent to sanitation. Diarrhoea, a key water and sanitation related illness, is closely associated with malnutrition and is the cause of nearly one in five deaths (19 percent) of children under five.⁶⁷

Lack of sanitation, safe water facilities and services and poor hygiene are significant contributors to the high rates of disease in Somalia. A comprehensive approach to reducing malnutrition and disease must include increasing access to sanitation and safe water services and addressing hygiene behaviour. The mapping of access to water and sanitation taken from an analysis of WASH data collected during FSNAU household surveys in 2009 and 2010⁶⁸ shows a close correlation between areas of high malnutrition and areas with poor access to water and sanitation. Frequently poor hygiene and sanitation practices combined with the use of unsafe water combine to cause chronic and/or acute diarrhea. Integrated interventions which include nutrition and WASH components can help to reduce the incidence of diarrhoea.⁶⁹

Children are particularly sensitive to adverse effects from the improper use of chemicals. Raising awareness about the importance of sound management of chemicals is essential to help safeguard children's mental and physical development and enable them to attend school. In addition, providing basic science education will help countries develop the skills needed to manage chemicals safely. Every year many children die as a result of chemical poisoning in the home, and in the case of Somalia there is a special high risk along the coastal area. Sound

⁶⁴ How men and women farmers are differently affected (10 March 2008, Rome). Climate change a further challenge for gender equity

⁶⁵ UNDP <http://www.so.undp.org/index.php/Millennium-Development-Goals.html>

⁶⁶ UNSD, UNICEF MICS 2000 and 2006

⁶⁷ UNDP <http://www.so.undp.org/index.php/Millennium-Development-Goals.html>

⁶⁸ FSNAU <http://www.fsnau.org/sectors/gender>

⁶⁹ UNICEF http://www.unicef.org/somalia/wes_95.html

management of chemicals plays a vital role in reducing children's exposure to hazardous chemicals and improving their working and living conditions.⁷⁰

4.3 Goal 5. Improve maternal health⁷¹

The level of maternal mortality in Somalia, which is extremely high and on the rise, has been the highest worldwide, at 1200 per 100,000 live births in 2008.

Maternal Health in Somalia is worse than in almost any other country in the world. Most deliveries are still being done home attended by family members or traditional birth attendants (TBA) which has limited knowledge and resources when it comes to complications related to pregnancy.⁷² A major problem is the infrastructure, transport facilities and distance to professional medical assistance.

The vast majority of childbirths (55.9%) take place with the help of Traditional Birth Attendants (TBA). Conversely, only 3.4% of deliveries are handled by medical doctors, 9.4% are assisted by family members, and 25.4% are done with the help of nurses and midwives.

The percentage of current contraception use among married women (15-49 years old) in Somalia is no more than 15%. In addition, use of modern contraception methods is even much lower (1.2%).

Antenatal care coverage, an indicator of access and use of health care during pregnancy, is very low, at 31.6% in 2006 (Source: MICS 2006). After birth access to safe water and sufficient and adequate nutrition is problematic.

Female genital mutilation (FGM) afflicts an estimated 98 percent of Somali women. The highest maternal and infant mortality rates are in FGM-practicing regions. The actual number of girls who die as a result of FGM is not known. Under the new Somali Constitution 2012 FGM has been banned⁷³.

Certain types of chemicals can build up to dangerous levels in humans, causing adverse reproductive, developmental, immunological, hormonal and carcinogenic effects. Exposure to these chemicals can also result in miscarriages, low birth weight babies and premature births. Women can pass on these toxic chemicals to their children, both prenatally and through breastfeeding. There is no evidence on how chemicals inflict on maternal health, however in Somalia with high levels on waste disposal it is important to consider.⁷⁴

⁷⁰ UNDP http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/chemicals-management/how-is-the-sound-management-of-chemicals-related-to-the-mdgs/banner_A3_web1.pdf

⁷¹ If no other source given; STATISTIC Trends in maternal mortality: 1990 to 2010 WHO, UNICEF, UNFPA and The World Bank WHO 2012

⁷² UNFPA http://countryoffice.unfpa.org/somalia/2012/05/23/5039/succeeded_delivering_triplets/

⁷³ <http://somalilandpress.com/21-years-somalia-adopts-constitution-abortion-islam-fgm-32914> and <http://www.guardian.co.uk/global-development/2012/aug/17/female-genital-mutilation-banned-somalia>

⁷⁴ UNDP http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/chemicals-management/how-is-the-sound-management-of-chemicals-related-to-the-mdgs/banner_A3_web1.pdf

5. Policy Framework to manage environmental challenges

The Transitional Federal Government (TFG) was the internationally recognised government of the Republic of Somalia until 20 August 2012, when its tenure officially ended and the Federal Government of Somalia was inaugurated. The TFG was established as one of the Transitional Federal Institutions (TFIs) of government as defined in the Transitional Federal Charter (TFC) adopted in November 2004 by the Transitional Federal Parliament (TFP).⁷⁵

A new constitution is about to be taken in force, however there is no Supreme Court functioning, also no nationwide legal system is in place.

Somalia has not had a central body for environmental issues nor functioning environmental policies, environmental management plans or strategies.

More than 15 years without an effective central government and a chaotic state of ongoing civil conflict and lawlessness have had a devastating effect on the country's population and the resources they depend upon for their survival.⁷⁶

As an example; many of the environmental aspects are related to water in Somalia. The country never had a water act, socially and political acceptable legal-based mechanism reflecting climatic conditions and cultural values of the people is needed and has to be developed in consultation with local communities. In the making of a Water Resource Management system being effective, separation of functions of the national and local institutions in water business is absolutely necessary, while encouraging private-public partnership. At the time of peace, water institutions with centralised and decentralised elements will be necessary. Future development of the two rivers Juba and Shabelle, which supply the most fertile regions and the rice bowl of the country, requires a national authority with an autonomous structure.⁷⁷

5.1 Key actors

Somali civil society

A meeting that took place in Istanbul May 27 -30, 2012 was hosted by the Government of Turkey. The meeting was intended to create a space for Somalis to come together and to talk about the post-August 2012 transition. This conference was for Somalis and by Somalis.⁷⁸ The conference did provide space for Somalis to come together and to talk about collective issues. It proved to be very positive and for development cooperation to be sustainable it is important that there is a committed and thriving civil society.

Although civil society plays an important role in assisting vulnerable and unarmed civilians, it suffers a lack of adequate support⁷⁹, nevertheless new initiatives are signs of hope in the current situation in Somalia.⁸⁰

⁷⁵ http://en.wikipedia.org/wiki/Somalia#cite_note-factbook-3

⁷⁶ IFAD <http://www.ruralpovertyportal.org/country/home/tags/somalia>

⁷⁷ Somali Centre for Water and Environment (SCWE) 2000 <http://www.somwe.com/water.html>

⁷⁸ http://www.internationalpeaceandconflict.org/profiles/blogs/somali-civil-society-discusses-somalia-s-future-by-ladan-affi?xg_source=activity

⁷⁹ IRIN <http://www.irinnews.org/Report/81760/SOMALIA-Civil-society-support-is-key-to-success-of-919m-relief-plan>

⁸⁰ UNEP 2005 The State of the Environment in Somalia

Somali Diaspora

In 2012 UNDP commissioned an investigation of the role of the Somali Diaspora in relief, development and peace building. It was found that in all areas, the Diaspora was heavily involved in promoting education, healthcare, public infrastructure and private enterprise. In the relatively peaceful north the emphasis was on post-conflict reconstruction and development, whereas in the south the humanitarian situation meant more people were involved in providing life-saving support to their relatives and communities. It was also found that in many areas, people from the Diaspora were returning temporarily to provide technical skills, advice and leadership in addition to their financial support. Support came not only from older people, but crucially – and unexpectedly – from young Somalis as well, even people who had been born and raised outside the country.⁸¹

Swedish actors

In connection to the environmental aspects and its challenges, Sweden has several actors that may contribute with skills and knowledge.

These may be; Swedish Civil Contingencies Agency (MSB) is in Somalia already supporting in the area of humanitarian aid through multinational organisations; Swedish Chemical Agency (KemI) accomplish activities for the sound management of chemicals and has cooperation in the region as well as with UN organisations also active in Somalia; Swedesurvey (Lantmäteriet) has in-depth experience in e.g. mapping, cadastral and land registration; Swedish National Heritage Board (RAÄ) working for the cultural heritage has also good insights in development cooperation in working with UNESCO; Swedish Environmental Protection Agency (Naturvårdsverket) work according to the saying Cooperation across boundaries is a prerequisite for a healthy environment; Swedish University for Agricultural Sciences (SLU) work with many of the environmental areas important in Somalia for a healthy future, for example livestock, pollution, crop production, climate change issues etc.

5.2 Governance, implementation and enforcement

Historic legacy and situation today

Somalia has ended 20 year-long era of transitional and interim administration that spawned statelessness, protracted conflicts, political vacuum and warlordism.

With the collapse of the central government in 1991 Somalia was not able to regain internal political unity because of internal schisms and widespread conflict. In 2000 the Transitional National Government (TNG) was formed, but was not effective and was succeeded by the TFG in 2004.

After more than two decades, the country has assumed its full responsibility of post transitional government, adopted a new – federal - Constitution, installed a new president and a prime minister and downsized parliament.

⁸¹ Cash and Compassion 2011 Laura Hammond et.al.
<http://www.sodp.org/docs/Cash%20and%20compassion.pdf> and <http://www.guardian.co.uk/global-development/poverty-matters/2012/feb/20/what-role-somalia-diaspora-rebuilding>

Given Somalia's recent past, this is a historic and generational moment.

The appointment of Hassan Sheikh Mohamud, a longtime civil society activist represents a new and genuine leader who seeks to resuscitate Somalia from the quagmire, and unlike previous governments he was appointed in the capital Mogadishu and thus enjoys a degree of legitimacy⁸².

However, fundamental facts remain unchanged; government institutions are woefully dysfunctional, insecurity has reached unacceptable levels, Somali forces are heavily dependent on AMISOM's assistance every step of the way and the government is bankrupt. And despite al-Shabaab being severely degraded, they still remain a very potent force that controls a sizable swath of territory in the central parts of Somalia.⁸³

Somalia has a mixed legal system of civil law, Islamic law, and customary law (referred to as Xeer).

Skilled labour is scarce or unavailable due to loss of talent abroad, a 20-year lapse in educating and training new generations and financial constraints that hamper the mobilization of available talent. On the positive side, with the collapse of the public sector, people have shown remarkable resilience, and an energetic and engaged private sector and vibrant civil society have emerged, as for example in communications and money transfers, transportation and import/exports.

National Environment management

The lack of any effective government has meant that many people, both local and foreign, have engaged in many kinds of illegal and damaging activities. Despite a number of international investigations, rumours have persisted for many years concerning hazardous pollutants being dumped in Somali waters and on beaches by foreign vessels. The rampant trade in charcoal as well as unregulated off-shore fisheries are also widely reported as having a damaging impact on the country's natural assets, which can be expected to limit and restrict options for national recovery and sustainable development.⁸⁴

Until the establishment of the Ministry of Environment and Disaster Management in 2005, Somalia lacked a central body responsible for environmental matters. Instead, a National Environmental Committee, with representatives from 13 Ministries/Agencies, served as the coordination body for environmental governance.

A key concern relating to sound environmental management relates to the adoption and effective enforcement of a suite of international, regional and national agreements which define the country's own responsibilities as well as those of the international community. The regulatory framework for most of Somalia is poorly developed, although the country has had signed a number of important international conventions. While there is a clear need for a thorough revision of the country's national legislation on management of natural resources, it will require considerable effort and co-operation from all interested parties; nationally as well as internationally. A number of gaps in the legal system also need to be addressed, for example the lack of any reference to a national water act or adherence to the Contracting Parties to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and

⁸² Abdihakim Aynte; The Road Forward for Somalia, Challenges for the Post-Transitional Government. 2012 NAI

⁸³ Abdihakim Aynte; The Road Forward for Somalia, Challenges for the Post-Transitional Government. 2012 NAI

⁸⁴ UNEP 2005 The State of the Environment in Somalia

Other Matter, 1972 (the London Convention), the latter being especially relevant to the alleged dumping of toxic and hazardous materials along the coastline.⁸⁵

Other opportunities to benefit natural resource management could be based on improved regional co-operation and co-ordination. Somalia's natural assets – its grazing and agricultural lands as well as its rich marine fisheries – are a platform on which the peoples' livelihoods might be rebuilt. Taking control of these assets and managing them productively, sustainably and equitably will, however, remain a considerable challenge for the decision-makers and population of the country. Finding a solution to the current levels of over-exploitation will therefore not only depend on reaching acceptable solutions between stakeholders within the country, but also hinges on the co-operation and assistance from neighbouring states.⁸⁶

6. Conclusions

Somalia currently has an historic opportunity to choose a new and better path. A government is becoming established and is seeking popular recognition throughout Somalia, despite the country's fragmentation with two breakaway regions and a third still plagued by conflict.

Peace and stability are absolute prerequisites for any future rebuilding and development of Somalia, and continued access to natural resources and ecosystem services is essential to the livelihoods of the majority of its people. This is basic if the Millennium Development Goals, for instance the ones that will be targeted by Swedish development cooperation are going to have any progress in near future.

In Somalia adaptive capacity and building resilient livelihoods are fundamental challenges but also crucial for survival and combating deep poverty. The ability to adapt will be of increasing importance not least in the shade of climatic change⁸⁷.

Security is being threatened by climate change and resulting in natural disasters, such as the drought afflicting Somalia 2011⁸⁸. *As vulnerability, natural resources, health and gender-issues are so closely connected having a holistic approach in programming is necessary and will also positively strengthen the outcome of a contribution.*

Multiple risks and their impacts on vulnerable people must be considered together with assessments of capacities and efforts to strengthen these. *Relevant both to humanitarian work and for development programming is inclusiveness, sustainability, accountability and participatory approaches.*

Human health and well-being and also individual knowledge and awareness are central to the ability of households individually and collectively to be able to prepare, respond, to recover from environmental shocks and stresses and develop afterwards. As well as it is important to have assets and access to wider resources beyond the immediate control for individuals and of a community.

⁸⁵ UNEP 2005 The State of the Environment in Somalia

⁸⁶ UNEP 2005 The State of the Environment in Somalia

⁸⁷ Moench: Water, Climatic Variability and Livelihood Resilience: Concepts, Field Insights and Policy Implications. 2012

⁸⁸ http://www.climateactionprogramme.org/news/extreme_drought_climate_change_and_security_in_somalia/

7. Recommendations to Sida

In regard to resilience the environment and climate change policy brief recommend the following:

'*Ingångsvärden*' for Swedish development cooperation in Somalia are:

- MDG 3, 4 and 5
- strengthening peoples livelihood in regard to / regarding their resilience
- development of a democratic society with emphasis on human rights, transparency and accountability
- further suggestions in areas where Sweden has comparative advantages; waste management

As pointed out in chapter 3.5 resilience includes the ability to *withstand threats* and the ability to *adapt if needed* and the ability to *further develop* to new options in the face of shocks and crises (man-made or natural). The people of Somalia are remarkably resilient, especially given the multiple and protracted challenges that have marked Somalia over time. Somalis principally have had to rely on their own resilience to protect their lives and livelihoods; however this varies by gender, age and livelihood group.

In order to understand what resilience may contain in development cooperation a few statements are made:

- To achieve resilience in programming objectives has to be comprehensive. The starting point for support must be recognition and appreciation of the efforts of individuals and their households and communities. This includes of course the participation and contribution of the target group which is paramount to reduce their vulnerability.
- Understanding diverse underlying causes of vulnerability and disaster and crisis risks requires holistic assessments, planning and implementation across various sectors. It is not possible to isolate issues or relate to one sector.
- Working with vulnerability and resilience is not possible in short term; it requires long-term engagements and investment.
- Building strategic partnerships; relevant stakeholders on different levels; locally, regionally and nationally (as well as international, not least within the donor community).

By striving to achieve progress in MDG, strengthening livelihood and democratic development there are certain activities that can be introduced when building resilience and integrating environmental and climate change aspects.

- Including training;
 - Assure that men and women access training on equal terms in areas of health, environment and good governance both in urban and rural areas.
 - Include advocacy and increased knowledge in sustainable natural resource management practises, adapted to local situations and future scenarios.

- For example train local water operators on the operation and maintenance of newly constructed or rehabilitated water supplies as well as the importance of security matters to raise the issue of violence in relation to water collection.
- Building partnerships;
 - Linking to different national institutions agencies and ministries to ensure the sustainable management of the country's natural resource base.
 - Revitalising environmental co-operation with neighbouring countries and within the region, in order to support peace building, enhance important environmental initiatives, share knowledge and information and strengthening institutional development.
 - For example use of environmental management, analysis and assessments as a tool to build community resilience to crises and influence policy-making at community and national levels.
- Strengthening institutional capacity:
 - Conducting environmental assessments to guide the setting of priorities for environmental recovery, resource management and development planning.
 - Development of an adequate policy and legal framework for environmental management.
 - Conducting field-based environmental assessments to inform future decision making.
 - For example include capacity development in all areas of programming.
- Locally adapted technical solutions;
 - Assure access through improved infrastructure and locally placed health service/clinics in especially rural areas.
 - Incorporate proper management of waste, to achieve effective containment and/or clean-up of all remaining stocks of pesticides in the country.
 - For example investing in systems powered by renewable energy (solar powered pumps) that are accessible, affordable and possible to maintain on local basis.
- Supporting communities' ability to cope and respond to emergencies;
 - for example strengthening the sustainability of infrastructure and services means that in times of crisis communities can continue to access essential water and sanitation services and that there are mechanisms in place to guide local governments to manage the emergency.
 - Increasing access to safe water must be accompanied by efforts to ensure the quality of drinking water. Water quality monitoring and house water treatment and safe storage are critical interventions that aim to reduce the risk of contamination of water supplies.
 - Combating climate change requires investment in soil conservation, water harvesting, reforestation and restoration of grazing and control of soil erosion.
 - For example assure system and registration of ownership and land tenure by male and female headed households to secure natural resource management.

It might be difficult to measure resilience as well as to apply to different programmes. Nevertheless, achieving positive outcomes will require that we fall back to more familiar concepts like adequate risk and risk management, and not least allow cross-disciplinary and cross-issue discussions.

References

Abdihakim Aynte; The Road Forward for Somalia, Challenges for the Post-Transitional Government. 2012 NAI

Animal Info (accessed November 2012) <http://www.animalinfo.org/country/somalia.htm>

CIA Fact Book (accessed November 2012) <https://www.cia.gov/library/publications/the-world-factbook/geos/so.html>

Country strategy for development cooperation Somalia January 2003 – December 2005
Development assistance to Somalia. Sida

FAO 2011 strategy and plan of action 2011-2015 (accessed November 2012)
<http://faosomalia.org/uploads/FAO%20Somalia%205-year%20strategy.pdf>

FAO <http://www.faosomalia.org/environment>

FEWS NET (accessed November 2012) <http://www.fews.net/Pages/default.aspx>

FSNAU (accessed November 2012) <http://www.fsnau.org/>

FSNAU (accessed November 2012) <http://www.fsnau.org/sectors/gender>

The Guardian 2012 (accessed November 2012) <http://www.guardian.co.uk/global-development/2012/aug/17/female-genital-mutilation-banned-somalia>

The Guardian 2012 (accessed November 2012) <http://www.guardian.co.uk/global-development/poverty-matters/2012/feb/20/what-role-somalia-diaspora-rebuilding>

Hammond, Laura et.al. Cash and Compassion 2011
<http://www.so.undp.org/docs/Cash%20and%20compassion.pdf>

IFAD 2011 (accessed November 2012)
<http://www.ruralpovertyportal.org/country/home/tags/somalia>

<http://www.indexmundi.com/somalia/millennium-development-goals.html>

IFRC 2012 Characteristics of a Safe and Resilient Community. Risk Reduction Study
ARUP International Development

International Peace and Conflict (accessed November 2012)
http://www.internationalpeaceandconflict.org/profiles/blogs/somali-civil-society-discusses-somalia-s-future-by-ladan-affi?xg_source=activity

IRIN (accessed November 2012) <http://www.irinnews.org/Report/81760/SOMALIA-Civil-society-support-is-key-to-success-of-919m-relief-plan>

Moench, M: Water, Climatic Variability and Livelihood Resilience: Concepts, Field Insights and Policy Implications. 2012 Policy Paper II SIWI

Nationsencyclopedia (accessed November 2012)
<http://www.nationsencyclopedia.com/Africa/Somalia-ENVIRONMENT.html#ixzz2AsViUk3D>

Partnership Forum on Resilience 2012 Preparing Somalia's Future: Goals for 2015 Second Istanbul Conference, Turkey Partnership Forum on 31st May 2012

Trading economics (accessed November 2012)
<http://www.tradingeconomics.com/somalia/forest-area-percent-of-land-area-wb-data.html>

Transparency International, Corruption perception index (accessed November 2012)
<http://cpi.transparency.org/cpi2011/results/>

UN Security Council 2011 Report of the Secretary-General on the protection of Somali natural resources and waters S/2011/661

UNDP 2010 Millennium Development Goals Progress Report Somalia

UNDP (accessed November 2012)
<http://www.undp.org/content/undp/en/home/ourperspective/ourperspectivearticles/2011/07/13/drought-is-life-or-death-issue-in-horn-of-africa.html>

UNDP The Somalia Human Development Report 2012 (accessed November 2012)
<http://www.so.undp.org/shdr/>

UNDP (accessed November 2012) <http://www.so.undp.org/index.php/Millennium-Development-Goals.html>

UNDP (accessed November 2012)
http://www.undp.org/content/dam/aplaws/publication/en/publications/environment-energy/www-ee-library/chemicals-management/how-is-the-sound-management-of-chemicals-related-to-the-mdgs/banner_A3_web1.pdf

UNEP 2005 The State of the Environment in Somalia; A Desk Study

UNEP fact sheet

UNFPA (accessed November 2012)
http://countryoffice.unfpa.org/somalia/2012/05/23/5039/succeeded_delivering_triplets/

UNICEF (accessed November 2012) http://www.unicef.org/somalia/wes_95.html

UNSD 2010 Somalia Household Survey

UNSD, UNICEF MICS 2000 and 2006 (accessed November 2012)
<http://www.so.undp.org/index.php/Millennium-Development-Goals.html>

Somali Centre for Water and Environment (SCWE) 2000 NEED FOR MANAGING & DEVELOPING WATER for Peace and Prosperity in Somalia - Constraints and Opportunities

Somali Centre for Water and Environment (SCWE) (accessed November 2012)
<http://www.somwe.com/water.html>

Somaliland press (accessed November 2012) <http://somalilandpress.com/gat-in-somalia-the-multi-million-dollar-battle-18693>

Somaliland press (accessed November 2012) <http://somalilandpress.com/21-years-somalia-adopts-constitution-abortion-islam-fgm-32914>

Swedish Government Offices, 2009

WASH Cluster Somalia; (accessed November 2012) <http://ochaonline.un.org/somalia/WASH>

WFP (accessed November 2012) <https://www.wfp.org/countries/somalia/food-security>

WHO Cooperation Strategy at a glance (accessed November 2012)
http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_som_en.pdf

WHO, UNICEF, UNFPA and The World Bank WHO 2012
STATISTIC Trends in maternal mortality: 1990 to 2010

Wikipedia (accessed November 2012) http://en.wikipedia.org/wiki/Geography_of_Somalia

Wikipedia (accessed November 2012) http://en.wikipedia.org/wiki/Somalia#cite_note-factbook-3

Annexes

Annex 1

POPULATION (2010):

9.3 MILLION

GDP (1990):

\$917.04 MILLION

INFANT MORTALITY RATE (PER 1,000 LIVE BIRTHS - 2010):

108.3

LIFE EXPECTANCY (2009)

50.63 YEARS

CORRUPTION MEASUREMENT TOOLS

The Corruption Perceptions Index ranks countries/territories based on how corrupt a country's public sector is perceived to be. It is a composite index, drawing on corruption-related data from expert and business surveys carried out by a variety of independent and reputable institutions.

RANK:

182 / 183

Scores range from 0 (highly corrupt) to 10 (very clean).

SCORE:

1 / 10

OTHER GOVERNANCE AND DEVELOPMENT INDICATORS

Rule of law N/A

Press freedom index N/A

Voice and accountability N/A

Annex 2 MDG reference for Somalia

Indicator	1990	2002	2007	2015 Target
Female Primary school enrollment rate%	No Data	54	31	100
Female Secondary school and Tertiary enrollment rate%	22	18	31	100
Proportion of seats held by Women in the national parliament%	No Data	No Data	8	100
Source: UNICEF				