14

Climate Change, Human Security and Regional Integration: The Example of the Southern African Development Community*

Oliver C. Ruppel & Katharina Ruppel-Schlichting

Abstract

The Southern African Development Community (SADC) has been in existence for 20 years.[1] During this period, climate change[2] has made itself apparent in powerful ways. Observations of increases in global average air and ocean temperatures, widespread melting of snow and ice, and rising global average sea level provide unequivocal evidence that the climate system is warming.[3] As such, the phenomenon of climate change continues to be the subject of scientific and political debate. But how are climate-change-related concerns embedded in the legal and policy framework of the SADC? Two of the objectives behind the establishment of the SADC are the acceleration of development and economic growth, and the achievement of sustainable utilisation of natural resources and effective protection of the environment. The attainment of these objectives is hampered, and will continue to be hampered, by the impacts that climate change has on the environment, the

---

* This updated article is largely based on Ruppel & Ruppel-Schlichting (2012).

1 SADC was established in Windhoek in 1992 as the successor organisation to the Southern African Development Coordination Conference (SADCC), which was founded in 1980. SADC currently counts 15 states among its members, namely Angola, Botswana, the Democratic Republic of Congo (DRC), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, the Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.

2 The definition for climate change which is used for the purpose of this article is that of the IPCC according to which "[C]limate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use". See IPCC (2007c:Annex II).

3 IPCC (2007c:2).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

people and the economy in the region. This article focuses on the linkages between climate change, human security and regional integration in the SADC.

A. Introduction

The SADC region is home to a large number of poor people; and although poverty in proportionate terms has been declining in most SADC countries, food insecurity, poverty and malnutrition remain major challenges to socioeconomic development.[4] Climate change can be considered to be one of the drivers in this regard. The Intergovernmental Panel on Climate Change (IPCC) in its *Fourth Assessment Report* states that in southern Africa, food security, already compromised by a number of factors such as HIV/AIDS, poor governance and poor adaptation, is likely to be further aggravated by climate variability[5] and change.[6] Climate change is thus going to add to the already precarious conditions of people within the SADC, mostly the poor and vulnerable – which poses a major development challenge for all SADC countries. Moreover, climate change has, and will have, severe implications for the region's biodiversity on which mostly the poor, and more specifically women, depend for their survival.[7] Assessments of water availability, including water stress and water drainage, show that parts of southern Africa are highly vulnerable to climate variability and change.[8] Taking into consideration that large parts of the agricultural production derive from rainfed production systems susceptible to droughts and floods, the possible impacts of climate change cannot be overemphasised. As much as 70% of the population in the region depend on agriculture for food, income and employ-

4 SADC (2011b:iii).
5 According to the IPCC, '[C]limate variability refers to variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the climate on all spatial and temporal scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability)'. Cf. IPCC (2007c:Annex II).
6 Boko et al. (2007:451).
7 Ruppel (2011a:313).
8 Boko et al. (2007:451).

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

ment, and the agricultural sector contributes to more than 35% of the SADC regional economy.[9]

The aforementioned and many other factors are related to the encompassing concept of human security, which is severely affected by the impacts of climate change. Since SADC countries have a number of shared characteristics, regional cooperation has the potential and the responsibility to contribute to mitigating and adapting to the effects of climate change and to enhance human development and poverty reduction in all countries of the region.

In 2011 the 17th Conference of the Parties (COP17) to the United Nations Framework Convention on Climate Change (UNFCCC) and the 7th Session of the Conference of the Parties serving as the Meeting of the Parties (MOP7) to the Kyoto Protocol were held in Durban, South Africa. Already before this meeting it had become very clear that the SADC and the African continent needed to press for the opportunities presented under climate change negotiations to address questions about justice and distribution and thus to achieve better development aspirations.[10] In this context, the draft decision -/CP.17, the so-called Durban Platform for Enhanced Action by the Conference of the Parties, sensibly
recognised –[11]

> that climate change represents an urgent and potentially irreversible threat to human societies and the planet and thus requires to be urgently addressed by all Parties, and acknowledging that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response ….

The 18th Session of the Conference of the Parties to the UNFCCC and the 8th Session of the Conference of the Parties serving as the MOP to the Kyoto Protocol were held from 26 November until 8 December 2012 in Doha, Qatar. A number of decisions were adopted at this conference (the Doha Climate Gateway).[12] A second commitment period under the Kyoto Protocol

9 SADC (2011c:23).
10 Ruppel et al. (2011).
11 See http://unfccc.int/files/meetings/durban_nov_2011/decisions/application/pdf/cop17_durbanplatform.pdf, last accessed 13 April 2013.
12 All decisions adopted by COP18 and CMP8 can be accessed at http://unfccc.int/meetings/doha_nov_2012/meeting/6815.php#decisions, last accessed 16 January 2013.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

has been launched, with the end date being 2020.[13] It has been agreed to work towards a universal climate change agreement covering all countries from 2020. Such agreement is to be adopted by 2015. Countries have furthermore agreed on ways and means to deliver scaled-up climate finance and technology to developing countries: in the Work Programme on Long-Term Finance it has for example been decided –[14]

> to extend the work programme on long-term finance for one year to the end of 2013, with the aim of informing developed country Parties in their efforts to identify pathways for mobilizing the scaling up of climate finance to USD 100 billion per year by 2020 from public, private and alternative sources…

COP18 has also taken note of the first annual report of the Board of the Green Climate Fund to the Conference of the Parties and endorsed the consensus decision of the Board of the Green Climate Fund to select Songdo, Incheon, in the Republic of Korea, as the host of the Green Climate Fund, on the basis of an open and transparent process.[15] Further key elements of the outcome included an agreement to consider loss and damage in developing countries, which are particularly vulnerable to the adverse effects of climate change.

B. Human Security and Climate Change: The Nexus

The issue of human security has already been addressed by the founders of the United Nations. However, the initial development of today's concept of human security can be attributed to the Human Development Report of the United Nations Development Programme in 1994, which formulated new dimensions of the idea of human security.[16] According to this report, the concept of human security rests on two factors: the *freedom from fear* factor focuses on protecting individuals from violent conflicts and from denial of

13 However, some previously participating countries in the Kyoto Protocol have not joined the second period, namely Russia, Canada, New Zealand and Japan.

14 See UNFCCC Draft Decision -/CP.18 *Work Programme on Long-term Finance*, Advance unedited version, available at http://unfccc.int/files/meetings/doha_nov_2012/decisions/application/pdf/cop18_long_term_finance.pdf, last accessed 17 April 2013.

15 See UNFCCC Draft Decision -/CP.18 *Report of the Green Climate Fund to the Conference of the Parties and Guidance to the Green Climate Fund*, Advance unedited version, available at http://unfccc.int/files/meetings/doha_nov_2012/decisions/application/pdf/cop18_report_gcf.pdf, last accessed 17 April 2013.

16 UNDP (1994:24).

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

civil liberties and ensures freedom of expression and belief. The *freedom from want* factor emphasises satisfying the basic needs of individuals for food, shelter and clothing. A human security approach focusing on people as the prime referents of security is increasingly being integrated into policy-making and jurisprudence.[17]

Seven broad, interdependent components of human security were originally identified: economic security, food security, health security, environmental security, personal security, community security and political security. Climate change has impacts on all these components of human security, either directly or indirectly, as will be outlined in the following paragraphs.

It has been stated that "in no other continent are threats to human security more dire and the absence of protection infrastructure more conspicuous, than in Africa".[18] Undoubtedly, this assessment also applies to climate-change-related threats to human security. It should be pointed out beforehand that, despite Africa's relatively low contribution to the world's total greenhouse gas (GHG) emissions, Africa is one of the most vulnerable continents to climate change and climate variability.[19] Climate change is expected to have impacts on various sectors including water, energy, health, agriculture, ecosystems, coastal zones, tourism, settlements, industry and infrastructure. But particularly, climate change and variability have the potential to impose additional pressures on human security along with many socioeconomic factors and to overwhelm adaptive capacities of societies in many world regions, including southern Africa. Interrelating issues between climate change and human security include water stress, land degradation and food insecurity, natural disasters and environmental migration, to name but a few.

C. *Impacts of Climate Change on Various Components of Human Security: Some Hotspots*

The most direct link between climate change and threats to human security is probably the aspect of environmental security, which aims to protect people from the short- and long-term ravages of nature, man-made threats to nature, and deterioration of the natural environment.[20] Other environmental

17 Abass (2010).
18 (ibid.).
19 Boko et al. (2007:435).
20 Bantekas (2010).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

threats include non-access to clean water resources and air pollution. One major environmental security issue is global warming, caused by the emission of greenhouse gases.

The ultimate damages of climate change may significantly affect economic growth.[21] The impacts on economic security as one aspect of human security are manifold. Economic security requires an assured basic income for individuals, usually from productive and remunerative work or, as a last resort, from a publicly financed safety net.[22] The impacts of global warming on the agricultural sector in Africa are probably of the most direct and profound nature, compared to elsewhere. Water scarcity, for example, has a direct impact on many economic development initiatives in the agricultural sector, which is a vitally important sector in the economies of African countries, particularly for those, which are not oil-exporting. Climate change has economic impacts on crop and livestock farming systems: warmer and drier climates adversely affect net farm revenues, thus translating into worsening food security situations in those regions.[23]

Another important component of human security is food security, which implies that all people should have access to sufficient, safe and nutritious food at all times.[24] The Food and Agricultural Organisation has estimated that, in sub-Saharan Africa, the proportion of undernourished people in the total population was 27% in the period 2006–2008[25] and, undoubtedly, climate change played a major role in this context. Although the extent and nature are uncertain, increasing temperatures and declining precipitation in Africa resulting from climate change are likely to reduce yields for primary crops in the next two decades. These are changes which will have a substantial impact on food security in Africa.[26] Periods of droughts and floods will affect food availability and food access.[27] It is predicted that the impacts of climate change such as sea-level rise, droughts, heat waves, floods and rainfall variation, could by 2080 push another 600 million people into malnutrition and increase the number of people facing water scarcity by 1.8

21 Lecocq & Shalizi (2007).
22 UNDP (1994).
23 Nhemachena et al. (2010).
24 FAO (1996).
25 FAO (2011).
26 Boko et al. (2007).
27 Ziervorgel et al. (2006).

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

billion.[28] Although the overall cereal production in the SADC has increased in recent years, the number of people requiring food and non-food assistance in this region is estimated to be 4.04 million.[29] Climate-related factors[30] that have contributed to food insecurity include erratic rainfall, dry spells and floods.

Health security aims to guarantee a minimum protection from diseases and unhealthy lifestyles. Africa is particularly vulnerable as regards health, as threats to health security are usually greater for poor people in rural areas, particularly children, owing to malnutrition and insufficient access to health services, clean water and other basic necessities. Major killer diseases could expand their coverage as a result of global warming. For example, an additional 220–400 million people could be exposed to malaria – a disease that already claims around 1 million lives annually.[31] Other examples of climate-change-related threats to health security include the further spread of other infectious diseases, such cholera and meningitis.

Personal security aims to protect people from physical violence by states or individuals, while community security is concerned with protecting people from the loss of traditional relationships and values and from sectarian and ethnic violence. Political security addresses the question as to whether people live in a society that honours their basic human rights. All these factors are of relevance in terms of violent conflicts and migration. War and conflict are undoubtedly political reasons for migration. The effects of global warming could lead to increased border tensions and conflicts over food and water. The question whether a direct link exists between climate-related environmental variability and conflict has attracted much attention and debate. There seems to be consensus, however, that the environment is only one of several interconnected causes of conflict and is rarely considered to be the

28 UNDP (2008).
29 SADC (2011b:3f.).
30 Further drivers regarding the vulnerability to food insecurity are high prices of fuel; high staple food prices; high prices of agricultural inputs; low incomes; low prices for some of the cash crops; civil unrest in eastern and central DRC; outbreak of livestock diseases and wildlife and human conflict in Namibia, Tanzania, Botswana and Angola (SADC 2011b:5ff.).
31 UNDP (2008).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

most decisive factor.[32] Environmentally induced migration[33] due to the effects of climate change is closely related to the concept of human security. People migrate either temporarily or permanently, within their country or across borders, and have an environmental signal in their reason for migration. Along with low-lying islands and coastal and deltaic regions, sub-Saharan Africa is one of the regions that would be affected by such population movements.[34] Environmental reasons for migration refer to environmental changes and natural disasters like floods or droughts. Three types of impacts of climate change on migration have been identified that seem most likely to have an effect on migration patterns: extreme weather events, sea-level rise and water stress.[35]

The total number of displaced people in Africa increased from almost 700,000 in 2008 to 1.1 million in 2009, and 1.7 million in 2010.[36] To estimate the number of people who have migrated for climate-change-related reasons would, however, be speculative, as migration drivers are usually not monocausal but influenced by multiple factors.[37] Besides war and conflict and environmental factors, further reasons for migration include responses to socioeconomic circumstances and pressures, for example unemployment, family dispersals or famine, as well as to institutional settings like intra-household structures, which may determine the gender aspect of migration.[38]

Climate change impacts on size and characteristics of rural and urban human settlements in Africa. The problems associated with voluntary or involuntary environmentally induced migration to Africa's large and intermediate cities will be exacerbated as a result of climate change.[39] Migration flows can be observed away from flood-prone localities, as well as potentially large-scale internal and cross-border mobility away from agricultural zones undermined by changing climatic conditions or declining water avail-

32 Kolmannskog (2010).
33 The terminology with regard to environmentally induced migration is varying and inconsistent (see Warner (2010)) and creates conflicts of a legal nature, when it comes to the question as to whether or not a person can be classified as a refugee with the legal consequences of international refugee law.
34 Gemenne (2011).
35 (ibid.).
36 IDMC (2011).
37 Smith et al. (2011).
38 Grote & Warner (2010).
39 Ruppel (2011c).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

ability.[40] Environmental and climatic stress not only increases existing inequalities between rich and poor, it also contributes to rural-urban migration on the African continent.[41] In sub-Saharan Africa, climatic change is considered to be an important determinant of urbanisation, as climatic conditions force people out of rural areas into urban areas.[42] African agriculture relies heavily on rainfall for watering of crops. The declining rainfall, droughts and floods have the potential of rendering agricultural lands unproductive and making rural settlements uninhabitable, which in turn affects the livelihoods of rural residents, forcing them to migrate to the urban areas.[43] As a result, African large and medium-sized cities experience extreme population growth. In 2009, almost 40% of Africa's total population of one billion lived in urban areas and it is estimated that Africa's collective population will become 50% urbanised by 2030 and 60% urbanised by 2050.[44]

Africa has 37 cities with populations above one million, half of which are within low elevation coastal zones. Low-lying cities located on lagoons, estuaries, deltas or large river mouths, such as Maputo or the Cape Flats area of Cape Town are particularly vulnerable to extreme weather events caused by climate change. They are likely to experience storm surges, sea-level rises, increased flooding, (semi-)permanent inundation, coastal erosion, landslides, and the increase of water-borne diseases, which may all have devastating effects on human settlements, especially if no measures are taken to ensure risk reduction in terms of urban planning, land-use management and the quality of housing and infrastructure.[45] In this regard, the high risk for low-lying urban slums has to be pointed out. Although the proportion of urban slum dwellers is decreasing, informal settlements remain one of the major threats to African urban stability and, by extension, to overall political stability.[46] African inland cities are quite exposed to higher ambient temperatures and more frequent heat waves, with potential risk of water shortages, damage to infrastructure and desiccating vegetation, due to the impacts of climate change.

40 UN-Habitat & UNEP (2010).
41 Scheffran & Battaglini (2011).
42 Barrios et al. (2006).
43 Hope (2011).
44 UN-Habitat & UNEP (2010).
45 Mosha (2011).
46 UN-Habitat & UNEP (2010).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

Climate change affects not only populations, but also infrastructure. Increased flooding, more frequent severe storms and rising sea levels increasingly influence the integrity of the built environment, including the supporting infrastructure consisting, amongst others, of roads, transport, water supply, sewers, energy, electrical grids and telecommunications. Depending on their location and nature of construction, buildings and supporting infrastructure are vulnerable to flooding and other extreme weather events, which increase the likelihood of landslides and building subsidence. Structures, especially those erected on clay soils, require enhanced construction standards for improved resistance and protection. These may include raised foundations, road strengthening and increased stormwater drainage capacity.[47]

D. The Role of Regional Integration

The role that regional integration can play with regard to the impacts of climate change is as multifaceted as the concept itself. With reference to the Cotonou Partnership Agreement it has been proposed to define regional integration as –[48]

> the process of overcoming, by common accord, political, physical, economic and social barriers that divide countries from their neighbours, and of collaborating in the management of shared resources and regional commons.

The process of regional integration is thus characterised by arrangements for enhancing cooperation through regional rules and institutions entered into by states of the same region. Particular cornerstones of regional integration within the SADC are guided by the objectives as laid down in the constitutive legal document of the SADC, the SADC Treaty, which in its Article 5(a) identifies regional integration as a tool to "achieve development and economic growth, alleviate poverty, enhance the standard and quality of life of the people of southern Africa and support the socially disadvantaged". This

47 (ibid.); Mosha (2011).
48 EC (2008:3).

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

and further objectives of the SADC[49] are all relevant in terms of human security in view of the complexity and versatility of the climate change phenomenon.

Some broad aspects of regional integration and their role in climate change mitigation and adaptation should be stressed: Economic development is probably at the core of most regional integration initiatives, including the SADC. The free movement of capital, labour, goods and services spur economic growth more effectively in larger and more harmonised markets. But what is the impact of international trade on the environment and climate in particular and vice versa? The general debate about *trade versus environment* has given rise to many polarising viewpoints.[50] What can be stated outright, however, is that trade has contributed to the development of today's industrialised nations and can be expected further to contribute to the economies of less developed countries, including African economies. Furthermore, it is beyond doubt that economic growth, as a result of trade, carries the risk of environmental degradation, particularly through, but not limited to, the production of goods. With regard to climate change, the IPCC in its last Assessment Report[51] states that "[m]ost of the observed increase in global average temperatures since the mid-20th century is very likely due to the observed increase in anthropogenic GHG concentrations". The different sectors which contributed to the total anthropogenic GHG emissions in 2004 in terms of carbon dioxide ($CO_{2)}$ include energy supply (25.9%), industry (19.4%), forestry (17.4%), agriculture (13.5%), transport (13.1%), residential and commercial buildings (7.9%), and waste and wastewater (2.8%),[52] and are in one way or another all related to economic development resulting from trade. Conversely, climate change has the potential negatively to affect the ability to trade as a result of direct and indirect impacts on productive capacity, particularly in the agricultural sector in Africa owing

49 As listed in Article 5: "evolve common political values, systems and institutions; promote and defend peace and security; promote self-sustaining development on the basis of collective self-reliance, and the interdependence of Member States; achieve complementarity between national and regional strategies and programmes; promote and maximise productive employment and utilisation of resources of the Region; achieve sustainable utilisation of natural resources and effective protection of the environment; strengthen and consolidate the long standing historical, social and cultural affinities and links among the people of the Region".

50 UNEP (2005).

51 IPCC (2007b:10).

52 Rogner et al. (2007:105).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

to climate-change-related water stress, as "[t]he area suitable for agriculture and the length of the growing seasons and yield potential, particularly along the margins of semi-arid and arid areas, are expected to decrease".[53] The two-way relationship between economic development and climate change, however, not only becomes apparent in terms of the negative effects that one might have on the other, but, in fact, cross-fertilisation between trade and climate change regimes may also create synergy effects, potentially beneficial for both in economic development and climate change mitigation and adaptation.

The stimulation of growth and income levels, for example, potentially enable nations to have opportunities to generate additional resources to address climate-change-related issues more effectively. The increasing awareness about the negative effects of climate change and the ongoing communication among international institutions, as well as the public dialogue, necessarily lead to the rethinking and eventually to adjustments of traditional frameworks. These also lead to fruitful discussions, for example, on new trade and climate-change-related measures such as carbon labelling or similar standards or regulations, or on the imposition of border carbon adjustments, which impose border taxes on the embodied carbon of imported goods, set at the level of equivalent domestic taxes.

Regional integration furthermore provides an opportunity to enhance political stability by establishing regional organisations which play an increasing role in defusing conflicts within and between countries and in promoting human rights. In terms of climate-change-related matters, such organisations are of the utmost relevance, especially when it comes to climate-change-related disaster management and environmentally induced migration. In this context, regional integration may serve as a tool to maintain political stability by building trust, enhancing understanding between groups and deepening interdependence.

Regional cooperation in climate-change-related matters, including knowledge and technology transfer, is another important link between regional integration and climate change. Besides addressing climate change per se, such cooperation can serve to confront further interrelated challenges of a transnational dimension, such as threats to food security, biodiversity and natural resources, and disease and pest control. One example in this regard is the ongoing energy deficit, in terms of which the considerable hydroelec-

53 IPCC (2007a:13).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

tric, solar and wind energy potential existing in southern Africa can be collaboratively explored. Since several SADC countries share relevant resources, such as cross-border river basins, a regional approach is best suited to attract respective investment.

In the light of the fact that the global village, with international trade as one foundation stone, has become a reality, it is commendable that the trade versus environment debate has shifted towards the concept of mutual supportiveness between trade and environment or trade and climate change, even though it might – at a first glance – appear to be a forced marriage. Despite many uncertainties which may still surround the risks associated with climate change, it is indisputable that climate change is one of the greatest challenges of our time. It is not only reflected in many international agreements, but has also been emphasised by various political,[54] religious[55] and economic[56] leaders and heads of international organisations,[57] and last but not least by the SADC Summit in August 2011.[58] It is therefore

54 E.g. Jacob Zuma, Address to the Informal Ministerial Consultations on COP17 on 9 September 2011, available at http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=21490&tid=42441, last accessed 16 September 2012; Barack Obama and Hu Jintao of China in a joint statement on 19 January 2011, available at http://www.whitehouse.gov/the-press-office/2011/01/19/us-china-joint-statement, last accessed 16 September 2012; and Angela Merkel on 24 January 2007 at the World Economic Forum in Davos, see http://www.bundesregierung.de/nn_916176/Content/DE/Bulletin/2007/01/07-3-bk-davos.html, last accessed 16 September 2012.

55 "Preservation of the environment, promotion of sustainable development and particular attention to climate change are matters of grave concern for the entire human family" (Pope Benedict XVI, Letter to the Ecumenical Patriarch of Constantinople on the Occasion of the Seventh Symposium of the Religion, Science and the Environment Movement, 2007, available at http://www.vatican.va/holy_father/benedict_xvi/letters/2007/documents/hf_ben-xvi_let_20070901_symposium-environment_en.html, last accessed 16 September 2012.

56 E.g. Bill Gates, chairman and former chief executive of Microsoft at the occasion of the launch of the report titled *A Business Plan for America's Energy Future* on 10 June 2011: "The world faces many challenges, but none more important than taking immediate and decisive action to develop new, inexpensive clean-energy sources that avoid the negative effects of climate change".

57 Including United Nations Secretary-General Ban Ki-moon at the opening of the United Nations General Assembly on 23 September 2009; and jointly by Director-General of the WTO Pascal Lamy and Executive Director of UNEP Achim Steiner, in the joint report (WTO & UNEP (2009)) by the WTO and UNEP on Trade and Climate Change in 2010.

58 SADC (2011a).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

of particular relevance to analyse how the SADC links its regional integration agenda to climate-change-related issues.

E. The SADC Climate Change Agenda

It should be stated in advance that up to the present time, the SADC does not have a specific agenda on climate change per se,[59] though several of its provisions address climate change either directly or indirectly, and the current institutional structure supports climate-change-related action to a certain extent.

As briefly sketched in the paragraphs above, interrelating issues pertaining to climate change include water stress, land degradation, food insecurity, health insecurity and environmentally induced migration, amongst many others. As such, the negative effects of climate change, and thus climate change adaptation and mitigation, must be analysed against the backdrop of SADC environmental law in its entirety. Although the number of climate-change-related programmes and initiatives[60] is increasing in the SADC, much still needs to be done in the region when it comes to the implementation and enforcement of policy and law.

The SADC region is particularly vulnerable with regard to the impacts of climate change as it is one of the poorest in the world and has experienced unusual weather patterns over the past years in terms of drought and flooding.[61] This has, inter alia, lead to destruction of habitats, loss of crops, livestock and settlements, as well as to displacement of people and, concomitantly, to an increase in poverty. Predicted impacts associated with temperature increases include a further rise in sea levels, changes in precipitation patterns, and the resultant threat to food security and sustainable development in general, with more people being caught up in the poverty trap – especially in developing countries whose economies are particularly sensitive and vulnerable. It is also expected that the water side of climate change is likely to generate a significant impact on national and global economies; and it is not unlikely that this will result in increased local and international

59 The SADC Climate Service Centre is still very weak in terms of capacity.

60 An overview of subregional climate change programmes in Southern Africa can be found in Chishakwe (2010).

61 Haensler et al. (2010:2).

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

conflict.[62] The interconnectedness and interdependence of water, energy, national welfare and international economies becomes clearer, as the deleterious effects of climate change progress around the world.[63]

In the forest sector, the SADC member states have decided on a participatory process to develop a programme that addresses the common problems of deforestation and degradation in the region and to formulate joint climate change mitigation measures in order to contribute to the sustainable management of the forests within the SADC and to facilitate poverty reduction and sustainable development. To this end, the SADC ministers responsible for Environment and Natural Resources Management have approved the SADC Support Programme on Reducing Emission from Deforestation and Forest Degradation (REDD+)[64], a programme to support member states in their efforts to combat climate change and achieve their development goals through reduced emissions in the forestry sector. A comprehensive framework for the region to participate actively in and benefit from the carbon market is provided, which will contribute to the social and economic development in the member states.

In the absence of a clear climate change agenda on the SADC level, it is commendable that the SADC Summit[65] underscored the importance of the multilateral dialogue in addressing challenges posed by climate change.

F. Relevant SADC Law

The SADC Treaty as amended by the SADC Amendment Treaty is the constitutive document from which all subsequent instruments are derived. En-

62 Scholtz (2010).

63 This has for example been addressed at the 32nd SADC Energy Ministers Meeting held in Gabarone, Botswana in May 2011, where Isak Kitali emphasised that the SADC region needed to seriously address the challenges of the diminished surplus power generation capacity. It was also stated that there was need to ensure that the solutions that are pursued will result into sustainable energy development in the region. See http://www.sadc.int/news/32nd-sadc-energy-ministers-meeting/, last accessed 16 September 2012.

64 The programme was approved during the SADC Ministerial Meeting in Windhoek, Namibia on 26 May 2011. See http://www.sadc.int/REDD/index.php/document-bank/documents/, last accessed 16 September 2012.

65 At the 31st Ordinary Summit of SADC Heads of State and Government held in August 2011 in Luanda, Angola.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

suing legal instruments are the SADC protocols[66] and legally non-binding instruments such as memoranda of understanding,[67] other agreements,[68] charters[69] and pacts.[70]

In view of the heterogeneity of SADC member states in terms of surface area, population figures, size of domestic markets, per capita incomes, endowment with natural resources, social and political situation, and also in respect of variety of legal systems applied,[71] it is of increasing significance for the SADC member states to harmonise the law by means of implementation and transformation of SADC protocols aiming to reduce or eliminate the differences between national and SADC community law.[72]

I. The SADC Treaty

The SADC was established by signature of its constitutive legal instrument, the SADC Treaty.[73] In terms of the SADC community law, the SADC Treaty is the highest source of law within the SADC's legal framework. In its preamble, the SADC Treaty determines, inter alia, to ensure, through common action, the progress and well-being of the people of southern Africa, and recognises the need to involve the people of the SADC region centrally in the process of development and integration. The SADC envisages "… a

66 SADC protocols are legal instruments of implementation of the SADC Treaty and it is required that two-thirds of member states ratify a protocol before it becomes legally binding.

67 A Memorandum of Understanding (MoU) is a preliminary legal document describing an agreement between parties.

68 An agreement is a less formal document dealing with a more specific subject, or narrower range of issues, than a protocol. It is generally used for outlining technical or administrative areas of cooperation. One such example is the Agreement on the Establishment of the Zambezi Watercourse Commission.

69 A charter is a document incorporating an institution and specifying its rights, privileges and responsibilities. It usually includes the set of principles that form the constitution of the organisation.

70 A pact is similar to an agreement, although its contents are usually defence or security related.

71 Ruppel-Schlichting & Ruppel (2011:305-307).

72 Ruppel (2011b:62ff.).

73 The consolidated text of the SADC Treaty as amended is available online at http://www.sadc.int/english/key-documents/declaration-and-treaty-of-sadc/, last accessed 16 September 2012.

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

common future, a future in a regional community that will ensure economic well-being, improvement of the standards of living and quality of life, freedom and social justice, and peace and security for the peoples of southern Africa." This shared vision is anchored on the common values and principles and the historical and cultural affinities that exist between the peoples of southern Africa.[74]

To this end, the SADC's objectives include the achievement of development and economic growth, the alleviation of poverty, the enhancement of the standard and quality of life, support of the socially disadvantaged through regional integration, the evolution of common political values, systems and institutions, the promotion and defence of peace and security, and the achievement of the sustainable utilisation of natural resources and the effective protection of the environment.[75] Amongst other aspects, food security, land and agriculture, and natural resources and the environment have been identified as areas of cooperation by the SADC Treaty (Article 21.3).

II. The SADC Protocols

Besides the aforementioned general provisions and objectives in the SADC Treaty, the SADC legal regime becomes responsive to climate-change-related concerns in various other legal instruments as well. One category of such documents constitutes the SADC protocols. The protocols are instruments by means of which the SADC Treaty is implemented, and they have the same legal force as the SADC Treaty itself. The protocols of particular relevance for climate change will briefly be introduced in the following paragraphs.

1. The Protocol on Energy

Energy is a defining issue and closely linked with key contemporary global challenges in the SADC region: social development and poverty alleviation, environmental degradation, climate change, food security, etc. Better energy efficiency plays an important role in sustainable growth and development and can produce substantial benefits both for global economic growth and

74 For SADC's vision see http://www.sadc.int/, last accessed 16 September 2012.
75 These are some of the SADC objectives laid down in Article 5 of the SADC Treaty.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

poverty reduction as well as for mitigating climate change. In the household sector, efficient use of energy can directly reduce household expenditure on energy services, and therefore directly help to reduce poverty.

The Protocol on Energy[76] strives to outline means of cooperation in the development of energy to ensure security and reliability of energy supply and the minimisation of costs. The protocol does not explicitly refer to climate change. However, it is emphasised that development and the use of energy must be environmentally sound (Article 2.8). To achieve this objective, the Guidelines for Cooperation annexed to the protocol inter alia propose cooperation in the development and utilisation of energy in the subsectors of wood fuel, petroleum and natural gas, electricity, coal, new and renewable energy sources, and energy efficiency and conservation. The protocol formulates the intention to promote increased production of new and renewable sources of energy in an economically and socially acceptable manner, including biogas, windmills, mini-hydroplants, passive solar design of buildings, and photovoltaic, solar thermal and solar stoves and water heaters. The development of national energy efficiency and conservation plans is encouraged.

On the basis of the SADC Treaty and the Protocol on Energy, the SADC Energy Corporation Policy and Strategy (1996), the Energy Action Plan (1997) and the Energy Sector Activity Plan (2000) have been drafted in order to –[77]

> position the energy sector such that the region can derive maximum benefits from a rationalisation of resources and facilities in the region, and to develop initiatives that contribute to building the capacity of energy institutions in the region to participate effectively in future liberalisation of the energy sector, as well as in the regional economy.

Conducive policies are central to the development of sustainable energy generation and markets. Laws governing sustainable energy development and supply cut across many sectors such as mining, forestry, agriculture, environment, water, industry, electricity and petroleum, and hence require coordination – a complex challenge that is not easily overcome. The energy sector and the provision of electricity for southern Africa's population and industries make for a complex issue. Although the protocol aims to achieve

76 The Protocol entered into force on 17 April 1998. Text available http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/20060623_protocol_energy.pdf, last accessed 16 September 2012.

77 SADC (2009).

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

cooperation regarding new and renewable energy resources, amongst others, the influence of climate change is not included in the equation. In southern Africa, most CO_2 emissions are caused by the burning of fossil fuels (liquid fuels and especially coal in the thermal power stations of South Africa) and deforestation.[78] If the SADC intends reducing its GHGs, a transition to sustainable energy is essential. This requires redefining the region's competitive advantage and moving away from attracting energy-intensive sectors on the basis of non-renewable energy (e.g. coal) to building a new advantage around climate friendly technology and energy. What remains a challenge is how emerging regional and national legislation can harmonise and coordinate the work around the issues of sustainable energy. Cross-sectoral coordination and responsibilities need to be streamlined in order to assure that decision-making promotes energy security in the region through more effective energy trade mechanisms in future. In the same context, policy-makers and government officials need to be capacitated to translate international policy to national and local levels, and vice versa. Further emphasis needs to be placed on linking national, regional and international policy-making.

2. The Protocol on Forestry

In maintaining the Earth's climate, forests play a crucial role as they are effective sinks for the carbon dioxide produced as a result of animal respiration, burning of fossil fuels, and other natural and human-induced phenomena, and release oxygen into the atmosphere. Moreover, forests are home to the majority of terrestrial biodiversity; they provide water, food and shelter, and the livelihoods of many people depend on forests. Sustainable forest management can therefore contribute significantly to sustainable development and human security; and regional approaches towards policy harmonisation and transboundary forest conservation and sustainable use concepts are important mechanisms to attain regional integration.

Within the SADC region, forests cover an area of 357 million hectares, corresponding to about 33%.[79] The basic regional policy for sustainable

78 Chishakwe (2010).

79 See http://www.sadc.int/fanr/naturalresources/forestry/management.php, last accessed 16 September 2012.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

management of forests in the SADC region is the Protocol on Forestry[80]. It is a set of rules or principles agreed upon by the SADC member states on how to integrate and cooperate among themselves in order to jointly conserve and manage the SADC forests and woodlands for the benefit of the SADC people.

The protocol recognises the transboundary nature of forests, the importance of transboundary management strategies, and the vital role of forests in protecting water catchments, particularly of shared water courses; and understands that potential harm to these forests is not limited by national boundaries. According to Article 3(1)(f) of the protocol, one of the objectives is "effective protection of the environment" and the ways listed to achieve the objectives include "harmonising approaches to sustainable forest management, forest policy, legislation and enforcement". The guiding principles include the obligation of state parties to "facilitate, promote and continually improve policy and legal frameworks that promote sustainable forest management" (Article 4(4)).

Recognising the essential role which forests play with regard to maintaining the earth's climate, controlling floods and erosion, and as sources of food, wood and other forest products, the protocol's primary objective is to promote the development, conservation, sustainable management and utilisation of all types of forests and forest products in order to alleviate poverty and generate economic opportunities. To this end, the protocol in Article 3(2)(a) inter alia addresses issues of common concern including deforestation, genetic erosion, climate change, forest fires, pests, diseases and invasive alien species, and deals with law enforcement.

Furthermore, states are called upon to facilitate the gathering and monitoring of information, and the sharing and dissemination of information, expertise and technology concerning forests; and to harmonise approaches to sustainable forest management, forest policy, legislation and enforcement, and issues of international concern. State parties are encouraged to undertake national forest assessments, which should, amongst others, include data on climate, environment and uses of forest products (Article 9). However, such assessments are subject to the availability of funds and human resources. Trade and investment are to be promoted based on the sustainable management and utilisation of forests and the rights of communities are to be

80 The Protocol entered into force on 17 July 2009. Text available at http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/20060623_protocol_forestry.pdf, last accessed 16 September 2012.

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

strengthened by facilitating their participation in forest policy development, planning and management. The protocol emphasises that traditional forest-related knowledge must be protected and requires mechanisms to ensure the equitable sharing of benefits from forest resources.

3. The Protocol on Health

Health largely depends on a minimum protection from diseases and unhealthy lifestyles. Many people in southern Africa are particularly vulnerable to health threats. These threats are usually greater for poor people in rural areas, particularly children, women and indigenous groups and arise from (situations of) malnutrition, insufficient access to health services, lack of clean water and other basic necessities.[81]

The adverse impacts of climate change on health, combined with poverty, poor policy and institutional frameworks, make Africa one of the most vulnerable continents to climate change and climate variability. The Protocol on Health[82] was adopted primarily in order to enhance cooperation in addressing the health problems and challenges facing member states through effective regional collaboration and mutual support. The protocol does not explicitly refer to climate change. However, as a clean environment can provide best for the health of the region's population, state parties undertake to collaborate, cooperate and assist each other in a cross-sectoral approach in addressing regional environmental health issues and other concerns, including toxic waste, waste management, port health services, pollution of air, land and water, and the degradation of natural resources (Article 23).

4. The Protocol on Mining

The SADC region is extremely rich in natural resources, including minerals, which can contribute to accelerating the economic and social development and growth. The mining industry in the SADC contributes about 60% of foreign exchange earnings and 10% of gross domestic product and the share

81 UNDP (2008).

82 The Protocol entered into force on 14 August 2004. Text available http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/20060623_protocol_health.pdf, last accessed 28 April 2013.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

of mineral exports in total exports in the SADC accounted for 29.1 % in 2006.[83] On the one hand, the mining industry is vulnerable to climate change as reduced water levels or severe floods may negatively affect mining activities. On the other hand, mining activities may have a negative impact on climate owing to related deforestation, land degradation and the release of emissions into air, soil and water. It is therefore of utmost importance for SADC states to ensure a balance between mineral development and environmental protection. The Protocol on Mining[84] strives to harmonise national and regional policies and strategies related to the development and exploitation of mineral resources through developing human and technological capacity, including collaboration between the mining industry and training institutions. The protocol takes up the issue of environmental protection in Article 8, which encourages member states to "promote sustainable development by ensuring that a balance between mineral development and environmental protection is attained". Measures to ensure environmental protection include environmental impact assessments (especially in shared systems and cross-border projects), and sharing information on environmental protection and rehabilitation.

5. The Revised Protocol on Shared Watercourses

Southern Africa is projected to suffer a decrease of water resources due to climate change. Higher water temperatures and extreme weather events resulting in droughts and floods will affect water quality and exacerbate water pollution. Moreover, changes in water quality and quantity resulting from climate change are expected to lead to decreased food security and increased vulnerability of the rural poor.[85] Water resources management is therefore required in order to develop suitable mitigation and adaptation strategies. The Revised Protocol on Shared Watercourses[86] amends and clarifies the

83 Twerefu (2009).

84 The Protocol entered into force on 10 February 2000. Text available at http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/20060629_protocol_mining.pdf, last accessed 28 April 2013.

85 Bates (2008).

86 The Protocol entered into force on 22 September 2003. Text available at http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/20060629_protocol_shared_watercourses.pdf, last accessed 28 April 2013.

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

text of the previous Protocol on Shared Watercourse Systems[87]. The scarcity of water restricts "economic development and social upliftment" in the SADC region.[88] Successfully managing water resources in southern Africa will contribute to reaching the SADC's vision of sustainable development in the region:[89]

> The people of southern Africa call for a desirable future in which the region's environment is conserved among all the competing uses of water, recognising the constraints inherent in natural ecosystems so that the environment can be sustainably improved, used and managed in the spirit of social and environmental justice.

This protocol recognises international consensus on a number of concepts and principles related to water resource development and management in an environmentally sound manner. The protocol acknowledges the Helsinki Rules, the United Nations Convention on the Law of the Non-Navigational Uses of International Watercourses and Agenda 21 concepts, and facilitates the establishment of shared water agreements.[90]

The protocol does not explicitly refer to climate change but aims to foster closer cooperation for judicious, sustainable and coordinated management, protection and utilisation of shared watercourses and advance the SADC agenda of regional integration and poverty alleviation. In order to achieve the objective, this protocol, by virtue of Article 2, seeks to promote and facilitate the establishment of shared watercourse agreements and shared watercourse institutions for the management of shared watercourses;[91] to advance the sustainable, equitable and reasonable utilisation of the shared watercourses; to promote coordinated and integrated environmentally sound development and management of shared watercourses; to promote the harmonisation and monitoring of legislation and policies for planning, development, conservation, protection of shared watercourses, and allocation of the resources thereof; and to promote research and technology development,

87 Text available at http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/20060629_protocol_shared_watercourse_systems.pdf, last accessed 28 April 2013.
88 SADC (2011d).
89 (ibid.).
90 Ruppel & Bethune (2007).
91 Various bilateral and multilateral water commissions within the SADC region have been established, such as the Permanent Okavango River Basin Water Commission (OKACOM); the Zambezi River Commission (ZAMCOM); the Permanent Water Commission (PWC); and the Orange-Senqu River Commission (ORASECOM).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

information exchange, capacity building, and the application of appropriate technologies in shared watercourses management.

Recognising the principle of the unity and coherence of each shared watercourse, the SADC states undertake to harmonise the water uses in the shared watercourses, to ensure that all necessary interventions are consistent with the sustainable development of all watercourse states, and to observe the objectives of regional integration and harmonisation of their socioeconomic policies and plans.

State parties are obliged to respect the existing rules of customary or general international law relating to the utilisation and management of the resources of shared watercourses. According to Article 3.4 of the protocol, state parties commit themselves to maintaining a proper balance between resource development for a higher standard of living for their people, and to conservation and enhancement of the environment to promote sustainable development.

Of particular relevance with regard to climate-change-related concerns is Article 4 on planned measures; environmental protection and preservation; management of shared water resources; prevention and mitigation of harmful conditions; and emergency situations. Watercourse states undertake, in their respective territories, to utilise a shared watercourse in an equitable and reasonable manner, taking into account the interests of other watercourse states concerned, consistent with adequate protection of the watercourse for the benefit of current and future generations, and to participate in the use, development and protection of a shared watercourse in an equitable and reasonable manner. Such participation includes both the right to utilise the watercourse and the duty to cooperate in the protection and development thereof, as provided in this protocol. Furthermore, state parties have to take all appropriate measures to prevent the causing of significant harm to other watercourse states. Where significant harm is caused to another watercourse state, the state whose use causes such harm is to take all appropriate measures to eliminate or mitigate such harm and, where appropriate, to discuss the question of compensation.

Even though climate change is not explicitly mentioned in the protocol, it should be noted that at the meeting of the Committee of SADC Water Ministers in Maseru, Lesotho, in September 2011, it was stated that –[92]

92 Opening Remarks by the Deputy Excutive Secetary – Regional Integration Engineer Joao Caholo at the SADC Ministers Responsible For Water Meeting and the Regional Strategic Water Infrastructure Investor/Donors Conference. See http://www.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

climate change has also seen us facing more intense and frequent extremes of weather such as droughts and floods, thus necessitating coordinated management of our shared water courses and resources. For the SADC region with its multiplicity of shared watercourses, issues of cooperation and joint planning and management of the development and utilisation of our shared resources is of paramount importance.

6. The Protocol on Trade

As stated earlier, a two-way relationship exists between trade and climate change. Trade may have a negative effect on the greenhouse gas status, for example, by increasing emissions through production and transportation; while climate change, on the other hand, may affect production patterns and international trade flows, for example, by giving rise to water shortages or extreme weather events. Climatic or geophysical conditions which might constitute a comparative advantage for specific countries today may in future alter as a result of climate change and lead to shifts in the pattern of international trade. Furthermore, climate change may "increase the vulnerability of the supply, transport and distribution chains upon which international trade depends".[93] As such, trade and climate-change-related policies need to be drafted and implemented in a mutually supportive way. So far, climate change has not explicitly been anchored in the primary legal trade instruments – neither within the legal framework of the World Trade Organisation (WTO)[94] nor by the SADC Protocol on Trade.[95]

The primary objective of the latter is to liberalise intraregional trade in goods and services to ensure efficient production within the SADC, reflect-

---

sadc.int/files/1013/1678/2942/REMARKS_BY_DES_AT_SADC_MINISTERS_OF_WATER_MEETING_and_DONORS_CONFERENCE_MASERU_SEP_2011_22h00.pdf, last accessed 16 September 2012.

93 WTO & UNEP (2009).

94 "The WTO does not have a specific agenda on climate change per se, though several of its provisions and work in some of its Bodies overlaps with steps required to address climate change", stated by WTO Deputy Director-General Harsha V. Singh in his opening address at the at the Trade and Climate Change Symposium, organised jointly by the International Centre for Trade and Sustainable Development (ICTSD), the WTO and the South African Department of Trade and Industry, in Durban, South Africa on 5 December 2011. See http://www.wto.org/english/news_e/news11_e/envir_05dec11_e.htm, last accessed 29 August 2012.

95 Text available at http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/20060623_protocol_on_trade.pdf, last accessed 28 April 2013.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

ing the dynamic comparative advantages of its members states, contributing towards the domestic, cross-border and foreign investment climate, and enhancing the development, diversification and industrialisation of the region. Environmental conservation in general, however, is integrated (in comparable style as it has been done within GATT Article XX) in that the protocol provides for general exceptions from the protocol's principles in order to ensure the conservation of exhaustible natural resources and the environment (Article 9(h)). Furthermore, member states undertake to make compatible their respective standards-related measures, so as to facilitate trade in goods and services within the SADC – however, without reducing the level of protection of human, animal or plant life or health, or of the environment (Article 17).

Regional trade can be a powerful source of economic growth. But trade does not automatically mean economic growth, let alone poverty reduction or sustainable development. The ability to benefit from regional trade and foreign investment is dependent on a number of factors, particularly the quality of the policies and institutions on the ground. Thus, trade should be considered as a means to an end, but not as the end in itself: an effective SADC trade regime must first and foremost be friendly to the environment, reduce poverty and sustain development. Indeed, sustainable development is an objective of the Doha Development Round, the latest multilateral round of negotiations to further open up world trade. The negotiations aim to help remove environmentally harmful trade-distortionary measures and promote greater access to environmental goods and services at a cheaper cost.[96] Yet, after more than 10 years of repeated negotiation failures, the Doha Development Round is unlikely to be concluded in the near future. It has even been contended that the "WTO risks its future by keeping Doha alive".[97]

7. The Protocol on Transport, Communications and Meteorology

Considering that transport, communications and meteorology are a prerequisite for economic growth and development, the Protocol on Transport,

96 WTO (2011).

97 See http://www.taipeitimes.com/News/editorials/archives/2011/12/31/2003522031, last accessed 20 May 2012.

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

Communications and Meteorology[98] aims to establish efficient, environmentally and economically sustainable, fully integrated infrastructures for the transport, communications and meteorology sectors.

Member states acknowledge that they are members of the World Meteorological Organisation (WMO) and, through its national meteorological services, they constitute an integral part of the regional and global system or network of the WMO's programmes and structures, in particular the World Weather Watch Programme (Article 12.1). Within the regional and international cooperative system of the WMO, members are encouraged to provide adequate legal frameworks and appropriate financial support to the national meteorological services to establish an integrated network of observation, data processing and communications systems, and to enhance the provision of meteorological services for general and specialised applications in the region and internationally (Article 12.2). Such a cooperation framework obliges member states to strengthen, inter alia, their weather and climate monitoring systems, improve public and specialised weather services, promote sustainable development with the emphasis on climate change and protection of the environment, and strengthen meteorology research capacity in the region.

The protocol provides that sustainable development is to be promoted with an emphasis on climate change and protection of the environment. These aims are to be achieved by means of strengthening the capabilities of national meteorological centres in climate applications and advice; enhancing existing environmental monitoring activities; optimising the use of regional structures; and fostering an awareness of the contributions which can be made by national meteorological centres to planning sustainable development in agriculture, forestry and related areas (Article 12.7). The SADC Climate Service Centre is placed under the SADC Secretariat in Gaborone, Botswana.

III. The Regional Indicative Strategic Development Plan

Apart from the treaty and protocols, the SADC also provides other instruments at different levels. These are not binding, and do not require ratifica-

98 The protocol entered into force on 6 July 1998. Text available at http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/20060629_protocol_comm_transport_met.pdf, last accessed 28 April 2013.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

tion by the SADC member states. In March 2001, the Heads of State and Government approved the restructuring of SADC institutions by means of a Regional Indicative Strategic Development Plan (RISDP)[99]. The RISDP reaffirms the commitment of SADC member states to good political, economic and corporate governance entrenched in a culture of democracy, full participation by civil society, transparency and respect for the rule of law.

The focal point of the RISDP is thus to provide strategic direction with respect to SADC programmes and activities, and to align the strategic objectives and priorities of the SADC with the policies and strategies for achieving its long-term goals. The role of the RISDP is indicative in nature, merely outlining the necessary conditions that should be realised towards achieving those goals. The purpose of the RISDP is to deepen regional integration in the SADC. The plan has identified gaps and challenges in existing policies and strategies, and used them to reorient those policies and strategies. In the light of the identified gaps and challenges, Chapter 4 of the RISDP focuses on a number of priority intervention areas of both cross-sectoral and sectoral nature that are critical for the achievement of SADCs objectives, in particular in promoting deeper regional integration, integrating the SADC into the world economy, promoting equitable and balanced development, eradicating poverty and promoting gender equality, protecting the environment and strengthening sustainable development.

In order to attain these goals, the SADC will, inter alia, need to harmonise policies, legal and regulatory frameworks for the free movement of production factors, and to implement policies to attain macroeconomic stability and build policy credibility. The RISDP has identified environment and development as cross-sectoral priority intervention areas, as these present opportunities for the region to advance its programme of action in environment and natural resources management and forge harmonisation of and compliance with environmental policies, standards and guidelines by pursuing the strategic objectives outlined in the RISDP.

In Chapter 2 of the RISDP, which deals with the socioeconomic situation in the SADC, the link between poverty and climate change is acknowledged:

> Apart from lack of adequate capital assets, the rates of return on the physical, human and social capital of the poor are generally low due to low physical productivity and low prices for their goods and services, which are the by-prod-

99 Text available at http://www.sadc.int/english/key-documents/regional-indicative-strategic-development-plan/ or http://www.tralac.org/2011/03/24/sadc-legal-texts/#RISDP, last accessed 20 August 2012.

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access - (cc) BY

ucts of: … Climate change and desertification, soil erosion and degradation, water pollution and scarcity, and depletion of forests and other natural resources caused by inappropriate agricultural practices, urban development and growth of population.

IV. The Declaration on Agriculture and Food Security

With the 2003 Declaration on Agriculture and Food Security,[100] Heads of State and Government gave substantial means to some specific objectives laid down in Article 5 of the SADC Treaty, namely the promotion of sustainable and equitable economic growth and socioeconomic development to ensure poverty alleviation, with the ultimate objective of its eradication and the achievement of sustainable utilisation of natural resources and effective protection of the environment. With this declaration, SADC member states committed themselves to promote agriculture as a pillar of strength in national and regional development strategies and programmes, in order to attain their short-, medium-, and long-term objectives on agriculture and food security.

Climate change has not been explicitly formulated as part of the declaration. However, the declaration covers a broad range of issues relevant to human rights, including the sustainable use and management of natural resources and the protection and promotion of human health. And rightly so, because increasing temperatures and declining precipitation in the region resulting from climate change are likely to reduce yields of primary crops in the next decades – changes which will have a substantial impact on food security in the SADC, although the extent and nature thereof is still uncertain.[101]

G. Institutional Framework

Aside from the sector specific institutions that are established by the various SADC protocols, one important cross-sectoral entity with regard to climate change within the SADC institutional framework is the Food, Agriculture

100 Text available at http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/20060629_declaration_agric.pdf, last accessed 28 April 2013.

101 Boko et al. (2007).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

and Natural Resources (FANR) Directorate under the umbrella of the SADC Secretariat. Its functions include the coordination and harmonisation of agricultural policies and programmes in the SADC region, in line with priorities in the RISDP. Focus areas of the FANR are agricultural research and development; environment and sustainable development; food security; and natural resources management.

Furthermore, the work of the SADC Climate Service Centre (CSC) should be particularly mentioned in terms of an institutional climate change structure in the SADC. The CSC is placed under the SADC Secretariat and has the mandate to contribute to mitigating adverse impacts of extreme climate variations on socioeconomic development. Through the CSC, the SADC organised the 15th Southern Africa Region Climate Outlook Forum (SARCOF-15) in Windhoek, Namibia, in August 2011. The SARCOF process is continuing to transform into an effective and reliable source for climate information and prediction services in order fully to exploit the potential for enhancing multisectoral, social and economic development. SARCOF-15 is a collaborative effort between the CSC, the SADC Disaster Risk Reduction Unit, the World Bank's Global Facility for Disaster Reduction and Recovery, the World Meteorological Organisation (WMO), the Food and Agricultural Organisation (FAO), the International Strategy for Disaster Reduction (ISDR), the Office of Coordination of Humanitarian Assistance (OCHA), and other partners.[102] However, although the CSC organises the Climate Outlook Forum (SARCOF), it is still very weak in terms of capacity, lacking resources to carry out its mandate adequately.[103]

H. Gaps and Challenges

One major challenge within the legal framework of the SADC in respect of climate-change-related issues is the fact that there is no climate change agenda per se. Although some relevant provisions can be found in various sectoral legal instruments, there is at this stage no clear legally binding

102 See http://www.sadc.int/news/sarcof-15-announcement/, last accessed 25 September 2012.

103 Such was the message of SADC official B. Garangonga at the First Climate Change and Development in Africa (CCDA-1) Conference organised by the United Nations Economic Commission for Africa, the African Union Commission and the African Development Bank in Addis Ababa, Ethiopia, 17–19 October 2011.

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access - (cc) BY

roadmap focusing on climate change, nor a consolidated climate change strategy or action plan. Some important topics related to the effects of climate change are not covered by the protocols at all. The legal gap concerning the group of themes around environmentally induced cross-border migration must be pointed out in this context.

One further challenge with regard to implementation is the lack of financial and human resources. National forest assessments, for example, as encouraged by Article 9 of the Protocol on Forestry, which would be supportive in terms of climate change adaptation and mitigation, are subject to the availability of funds and human resources. This unfortunately makes it rather unlikely that such measures will ever be taken. The non-binding character of legal instruments, other than the SADC Treaty and the protocols, is a further obstacle. With regard to climate change, this is particularly true for the provisions contained in the RISDP and the Declaration on Food Security. This leads further to the problem of enforcement. Given that, in the legal sense, only provisions of a binding nature can be enforced, the SADC Treaty and its protocols are pivotal to enforcing environmental provisions within the SADC. The supreme judicial institution within the SADC is the SADC Tribunal, which was established in 1992 by Article 9 of the SADC Treaty. The inauguration of the tribunal and the swearing in of its members took place on 18 November 2005 in Windhoek, Namibia. The judicial body began hearing cases in 2007. The Tribunal has the mandate to adjudicate disputes between states, and between natural and legal persons in SADC. Furthermore, it has jurisdiction over all matters provided for in any other agreements that member states may conclude among themselves or within the community, and that confer jurisdiction to the tribunal.[104] In this context, the SADC Tribunal also has jurisdiction over any dispute arising from the interpretation or application of protocols relevant to climate change. The Tribunal was primarily set up to resolve disputes arising from closer economic and political union.[105] However, recent cases before the Tribunal[106] have demonstrated that it can also be called upon to consider other implications of economic policies and programmes.[107]

104 See Article 15(2), Protocol on the Tribunal and Rules of Procedure thereof.
105 Viljoen (2007:503).
106 See *Mike Campbell and Another (PVT) Limited v The Republic of Zimbabwe* SADC (T) 2/2007.
107 Ruppel (2012).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

In 2010, however, the SADC Tribunal was dissolved by SADC Heads of State and Government. Moreover, at the 2012 32nd Session of the Summit of the Heads of State and Government of the SADC, which was held in Maputo, Republic of Mozambique, on 17 and 18 August 2012, it was concluded, inter alia, as follows:[108]

> Summit considered the Report of the Committee of Ministers of Justice/Attorneys General and the observations by the Council of Ministers and resolved that a new Protocol on the Tribunal should be negotiated and that its mandate should be confined to interpretation of the SADC Treaty and Protocols relating to disputes between member states.

The aforementioned resolution limits the competence of the SADC Tribunal, as it was initially provided with the competence to deal with proceedings initiated by private parties against either the community or member states. Without the competence to deal with proceedings initiated by private parties, the SADC Tribunal will in future only operate (if at all) with its wings cut, because up to that point basically all proceedings had been initiated by natural or legal persons. The aforementioned developments – which not only infringe the SADC Treaty,[109] but most probably also the African Charter[110] – were linked to the continued Zimbabwean non-compliance[111] with the

108 SADC (2012).

109 According to Article 4 of the SADC Treaty, its Member States are required to "act in accordance with the following principles: … (c) human rights, democracy and the rule of law; … and (e) peaceful settlement of disputes"; Article 6 (1) of the SADC Treaty requires Member States to "adopt adequate measures to promote the achievement of the objectives of SADC, and [to] refrain from taking any measure likely to jeopardise the sustenance of its principles, the achievement of its objectives and the implementation of the provisions of this Treaty". Moreover, according to Article 6(2) of the same Treaty, SADC Member States "shall not discriminate against any person on grounds of gender, religion, political views, race, ethnic origin, culture or disability".

110 Article 7(1) of the African Charter provides, among other things, that "[e]very individual shall have the right to have his cause heard", which also comprises "(a) the right to an appeal to competent national organs against acts of violating his fundamental rights as recognized and guaranteed by conventions, laws, regulations and customs in force …". According to Article 26 of the African Charter, "States Parties to the present Charter shall have the duty to guarantee the independence of the Courts and shall allow the establishment and improvement of appropriate national institutions entrusted with the promotion and protection of the rights and freedoms guaranteed by the present Charter".

111 See Ruppel (2012); (2009a); and (2009b).

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access - (cc) BY

Tribunal's judgment(s) in the *Campbell* case.[112] In 2007 Mike Campbell and other white commercial farmers had challenged violations brought about by the expropriation of agricultural land in Zimbabwe by that country's government. The SADC Tribunal ruled in the farmers' favour, holding that the Republic of Zimbabwe was in breach of its obligations under the SADC Treaty. The Tribunal directed the Zimbabwean government to take all necessary measures to protect the possession, occupation and ownership of the lands of those applicants who had not yet been evicted from their lands, and to pay fair compensation to those who had already been evicted. To date, Zimbabwe has failed to adhere to the judgment; and, instead of taking steps against Zimbabwe for its defiance, the SADC Summit of Heads of State and Government chose instead to dissolve the Tribunal and review its mandate. In so doing, the SADC Summit undermined the regional court's judicial authority and affronted the rule of law, the explicit division of powers created under the SADC Treaty.

It is noteworthy in this context that, in March 2012, the African Commission on Human and People's Rights decided to register and consider a complaint about the dissolution of the SADC Tribunal submitted to it on behalf of Zimbabwean farmers Luke Tembani and Ben Freeth. The claimants requested the African Commission to refer their communication to the African Court of Justice so that it could order the SADC Summit and its member states to reactivate, with immediate effect, the Tribunal; to reappoint the Tribunal's judges; and to give the Tribunal the funding it needed to get on with its work.

I. The EAC-COMESA-SADC Tripartite Initiative

In October 2008 the leaders of the East African Community (EAC), the Common Market for Eastern and Southern Africa (COMESA) and SADC held the first COMESA-EAC-SADC Tripartite Summit of Heads of State and Government. The First Communiqué[113] was signed, in which the participants agreed to deepen the cooperation between the three African Regional Economic Communities (RECs). The vision is the creation of a single market. To achieve this goal the Tripartite Summit agreed on a programme

112 *Mike Campbell & Another (PVT) Limited v The Republic of Zimbabwe*, SADC (T) 2/2007.

113 See COMESA-EAC-SADC (2008).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

of harmonisation of trading arrangements amongst the three RECs, free movement of business persons, joint implementation of inter-regional infrastructure programmes, as well as institutional arrangements on the basis of which the three RECs would foster cooperation. The development of the merger will be based on three pillars, namely market integration based on the Tripartite Free Trade Area; infrastructure development to enhance connectivity and reduce costs of doing business; and industrial development to address the productive capacity constraints.[114] If successful, a single market will integrate "26 Countries with a combined population of nearly 600 million people and a total Gross Domestic Product (GDP) approximately US $1,0 trillion".[115] Today's Tripartite Initiative members represent more than half of the AU population and GDP.

The establishment of a Tripartite Free Trade Area is envisaged by 2016. The negotiations are expected to take place in two phases: in the first phase, trade in goods and free movement of business people will be addressed; in the second phase, trade in services, intellectual property rights, competition policy, trade development and competitiveness will be discussed. The outcomes of both phases have greatest significance for the environment in the single market and it will be seen whether the Tripartite Initiative will also bring prosperity to the people that have so far been left behind in sub-Saharan Africa. Transforming society will require comprehensive legal, political, social and economic reforms and development initiatives, such as investing more in education, public services and infrastructure, enhancing participation in trade and protecting the environment for present and future generations. Moreover, it will be seen whether the Tripartite Initiative will push the regional integration agenda to empower the poor and reduce pressures such as underdevelopment, unemployment, environmental neglect, health emergencies, and strife.

The approach of the 2010 draft Agreement Establishing the COMESA, EAC and SADC Tripartite Free Trade Area[116] to protect the environment is congruent to that followed by the WTO. Environmental interests are considered within the system of general exceptions. Article 40 of the draft agreement provides for a number of general exceptions to the basic principle

114 See COMESA-EAC-SADC (2011).

115 (ibid).

116 Text available http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/Draft_Tripartite_FTA_Agreement_Revised_Dec_2010.pdf, last accessed 28 April 2013.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

of non-discrimination to allow countries in certain circumstances to take account of economic and/or noneconomic interests and values that compete with free trade. Amongst others, these exceptions justify measures necessary to protect human, animal or plant life or health, as well as measures relating to the conservation of exhaustible natural resources, provided that "such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade".

With regard to climate change, EAC, COMESA and SADC have initiated discussions towards the establishment of the COMESA-EAC-SADC Tripartite Climate Change Programme to facilitate their long-term vision of working together.[117] In December 2011, in the course of the COP17 United Nations Climate Change Conference in Durban, South Africa, the EAC, COMESA and SADC launched a joint five-year Programme on Climate Change Adaptation and Mitigation.[118] In order to enhance economic and social resilience, the programme aims to address the impacts of climate change in the region through successful adaptation and mitigation actions and to harmonise existing climate change programmes.

Key issues of the programme[119] include the increase of investments in climate-resilient and carbon-efficient agriculture and its linkages to forestry, land use and energy practices, and vulnerability assessment and disaster risk reduction, amongst others.

J. Conclusion

Africa as a continent is considered to be one of the most vulnerable continents to climate variability and change because of multiple stresses and low adaptive capacity. It is probably fair to say that this also applies to the SADC

117 This was announced by the EAC Deputy Secretary General, Productive and Social Sector, Mr Jean Claude Nsengiyumwa, at the 4th Special Africa Ministerial Conference on Environment (AMCEN), held in Bamako, Mali on 15–16 September 2011. See http://www.inamibia.co.na/news-and-weather/15-africa/2528-comesa-eac-sadc-tripartite-climate-change-programme.html, last accessed 8 July 2012.

118 See http://www.eac.int/about-eac/eacnews/878-tripartite-climate-change-initiative.html, last accessed 20 August 2012.

119 The programme has received $20 million funding from the Royal Government of Norway, the European Union Commission and UK Department of International Development (DfID).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

region. It is beyond doubt that the direct and indirect impacts of climate change constitute a risk to various aspects of human security in the SADC. The impacts of global warming on the agricultural sector are probably of a most direct and profound nature. Water scarcity has a direct impact on many economic development initiatives in the agricultural sector – which is still one of the most important sectors in the economies of the SADC. Climate change has economic impacts on crop and livestock farming systems: warmer and drier climates adversely affect net farm revenues translating into a worsening food security situation in the region.

Increasing temperatures and declining precipitation resulting from climate change are likely to reduce yields for primary crops in the next two decades – changes which will have a substantial impact on food security, although the extent and nature thereof are still uncertain. Periods of droughts and floods will have an impact on food availability and food access. The impacts of climate change, such as sea-level rise, droughts, heat waves, floods and rainfall variation, could push even more people into malnutrition and increase the number of people facing water scarcity.

Increased environmental migration due to the effects of climate change is considered a new phenomenon, unprecedented in its scale and scope, but closely related to the concept of human security. Besides low-lying islands, coastal and deltaic regions are expected to be affected by climate-change-induced migration. This in turn is expected to trigger serious repercussions socially, economically and politically. In this sense, it is worth examining further the implications that such displacement may have for international trade and regional integration.[120]

Climate change and human security are most relevant for regional integration in the SADC. Regional cooperation has the potential and the responsibility to contribute more to climate change mitigation and adaption and to enhance human development and poverty reduction in all countries of the region. Although the primary objective of RECs like SADC might be to liberalise intraregional trade, this cannot be done without addressing the diverse aspects of climate change. That this aspect is increasingly being realised is reflected by numerous statements and speeches of SADC officials in the run-up to and during the recent United Nations Climate Change Conferences, as well as by the last Communiqué of the SADC Summit. Within the legal and policy framework, however, a more sustained commitment

120 Leal-Arcas (2012).

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

with regard to climate change is needed so as to promote a more person-based process of regional integration.

Although some programmes to combat climate change are being initiated on SADC level, for example in the forestry sector, these may be insufficient with regard to future changes in climate. The SADC legal framework provides for a broad bandwidth of provisions with high relevance for environmental protection in general. With regard to climate change, in particular, a clear and consolidated climate change agenda addressing pressing issues such as cross-border migration is still lacking, however. The various SADC protocols eventually offer some foundations; however, the lack of financial and human resources seems to hamper effective implementation, not to mention the current lack of judicial enforcement due to the suspension of SADC's only judicial body, the SADC Tribunal.

It is therefore all the more commendable that on the level of the Tripartite Initiative between the EAC, COMESA and SADC, activities focusing on climate change adaptation and mitigation seem to have come increasingly to the fore. These activities will hopefully soon contribute to the attainment of more human security and regional integration in the wider region.

References

Abass, Ademola, 2010, An Introduction to Protecting Human Security in Africa, in: Abass, Ademola (Ed.), *Protecting Human Security in Africa*. Oxford, Oxford University Press.

Bantekas, Ilias, 2010, Environmental Security in Africa, in: Abass, Ademola (Ed.), *Protecting Human Security in Africa*, Oxford, Oxford University Press.

Barrios, Salvador, Luisito Bertinelli & Eric Strobl, 2006, Climatic Change and Rural-Urban Migration: The Case of Sub-Saharan Africa, *Journal for Urban Economics* 60, 357–371.

Bates, Bryson C., Zbigniew W. Kundzewicz, Shaohong Wu & Jean P. Palutikof (Eds), 2008, *Climate Change and Water*, Technical Paper of the Intergovernmental Panel on Climate Change, Geneva, IPCC Secretariat.

Boko, Michel, Isabelle Niang, Anthony Nyong, Coleen Vogel, Andrew Githeko, Mahmoud Medany, Balgis Osman-Elasha, Ramadjita Tabo & Pius Yanda, 2007, Africa, in: Parry, Martin L., Osvaldo F. Canziani, Jean Palutikof, Paul J. Van der Linden & Clair E. Hanson (eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge, Cambridge University Press.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

Chishakwe, Nyasha E., 2010, *Southern Africa Sub-Regional Framework on Climate Change Programmes Report*, First Draft Working Document, available at http://www.unep.org/roa/amcen/docs/AMCEN_Events/climate-change/southAfrica/SADC_Report.pdf, last accessed 25 April 2012.

COMESA/Common Market for Eastern and Southern Africa, EAC/East African Community & SADC/Southern African Development Community, 2008, Final Communiqué of the COMESA-EAC-SADC Tripartite Summit of Heads of State and Government, available at http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/FinalCommuniqueKampala_20081022.pdf, last accessed 23 June 2011.

COMESA/Common Market for Eastern and Southern Africa, EAC/East African Community & SADC/Southern African Development Community, 2011, Second Communiqué of the COMESA-EAC-SADC Tripartite Summit of Heads of State and Government, available at http://www.tralac.org/wp-content/blogs.dir/12/files/2011/uploads/Communique_2nd_Tripartite_Summit.pdf, last accessed 23 April 2012.

EC/European Commission, 2008, Commonucation on Regional Integration for Development in ACP Countries, available at http://ec.europa.eu/development/icenter/repository/COMM_PDF_COM_2008_604_F_EN_REGIONAL_INTEGRATION.PDF, last accessed 22 July 2012.

FAO/Food and Agriculture Organization of the United Nations, 1996, Rome Declaration on World Food Security, available at http://www.fao.org/docrep/003/w3613e/w3613e00.htm, last accessed 28 April 2013.

FAO/Food and Agriculture Organization of the United Nations, 2011, *The State of Food Insecurity in the World*, Rome, FAO.

Gemenne, Francois, 2011, Climate-induced Population Displacements in a 4°C+ World, *Philosophical Transactions of the Royal Society* A 369, 182–195.

Grote, Ulrike & Koko Warner, 2010, Environmental Change and Migration in Sub-Saharan Africa, *International Journal of Global Warming* 2 (1), 17–47.

Haensler, Andreas, Stefan Hagemann & Daniela Jacob, 2010, Climate History of Namibia and Western South Africa, in: Schmiedel, Ute & Norbert Jürgens (Eds), *Biodiversity in Southern Africa. Volume 2: Patterns and Processes at Regional Scale*, Göttingen and Windhoek, Klaus Hess Publishers, 2–5.

Hope, Kempe, 2011, Climate Change in the Context of Urban Development in Africa, in: Yuen, Belinda & Asfaw Kumssa, *Climate Change and Sustainable Urban Development in Africa and Asia*, Dordrecht, Springer, 37–56.

IDMC/Internal Displacement Monitoring Centre, 2011, *Displacement Due to Natural Hazard-induced Disasters. Global Estimates for 2009–2010*, Geneva, Internal Displacement Monitoring Centre and Norwegian Refugee Council.

IPCC/Intergovernmental Panel on Climate Change, 2007a, Summary for Policymakers, in: Martin L. Parry, Osvaldo F. Canziani, Jean Palutikof, Paul J. Van der Linden & Clair E. Hanson (Eds), *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge, Cambridge University Press, 7–22.

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

IPCC/Intergovernmental Panel on Climate Change, 2007b, Summary for Policymakers, in: Susan Solomon, Dahe Qin, Martin Manning, Zhenlin Chen, Melinda Marquis, Kristen B. Averyt, Melinda Tignor & Henry L. Miller (Eds), *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge, Cambridge University Press, 1–18.

IPCC/Intergovernmental Panel on Climate Change, 2007c, *Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Core Writing Team: Pachauri, Rajendra K. & Andy Reisinger (Eds), Geneva, IPCC, available at http://www.ipcc.ch/publications_and_data/publications_ipcc_fourth_assessment_report_synthesis_report.htm, last accessed 13 January 2013.

Kolmannskog, Vikram, 2010, Climate Change, Human Mobility, and Protection: Initial Evidence from Africa, *Refugee Survey Quarterly* 29, 103–119.

Leal-Arcas, Rafael, 2012, On Climate Migration and International Trade, *Vienna Journal of International Constitutional Law* 6 (3 and 4), 410–440.

Lecocq, Franck & Zmarak Shalizi, 2007, *How Might Climate Change Affect Economic Growth in Developing Countries? A Review of the Growth Literature with a Climate Lens*, The World Bank Development Research Group Sustainable Rural and Urban Development Team Policy, Research Working Paper 4315.

Mosha, Aloysius, 2011, Climate Change in the Context of Urban Development in Africa, in: in Yuen, Belinda & Asfaw Kumssa, *Climate Change and Sustainable Urban Development in Africa and Asia*, Dordrecht, Springer, 69–102.

Nhemachena, Charles, Rachid Hassan & James Chakwizira, 2010, Economic Impacts of Climate Change on Agriculture and Implications for Food Security in Southern Africa, available at http://climsec.prio.no/papers/Economic%20Impacts%20of%20Climate%20Change%20on%20Agriculture%20and%20Implications%20for%20Food%20Security%20in%20Southern%20Africa.pdf, last accessed 18 February 2012.

Rogner, H.-Holger, Dadi Zhou, Rick Bradley, Philippe Crabbé, Ottmar Edenhofer, Bill Hare, Lambert Kuijpers & Mitsutsune Yamaguchi, 2007, Introduction, in: IPCC/Intergovernmental Panel on Climate Change, *Climate Change 2007: Mitigation of Climate Change. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Bert Metz, Ogunlade R. Davidson, Peter R. Bosch, Rutu & Leo A. Meyer (Eds), Cambridge, Cambridge University Press, 95–116.

Ruppel, Oliver C., 2009a, The SADC Tribunal, Regional Integration and Human Rights: Major Challenges, Legal Dimensions and Some Comparative Aspects from the European Legal Order, *Recht in Afrika* 2, 213–238.

Ruppel, Oliver C., 2009b, The Southern African Development Community (SADC) and its Tribunal: Reflexions on Regional Economic Communities' Potential Impact on Human Rights Protection, *Verfassung und Recht in Übersee* 2, 173–186.

Ruppel, Oliver C., 2011a, Climate Change and Human Vulnerability in Africa, in: Ruppel, Oliver C. & Katharina Ruppel-Schlichting (Eds), *Environmental Law and Policy in Namibia*, Windhoek, Orumbonde Press, 308–316.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

Ruppel, Oliver C., 2011b, International Environmental Law from a Namibian Perspective, in: Ruppel, Oliver C. & Katharina Ruppel-Schlichting (Eds), *Environmental Law and Policy in Namibia*, Windhoek, Orumbonde Press, 33–78.

Ruppel, Oliver C., 2011c, The International, African and Regional Institutional, Legal and Policy Framework of Climate Change, in: African Union, AMCEN & United Nations Environment Programme, *Addressing Climate Change Challenges in Africa; A Practical Guide Towards Sustainable Development*, Nairobi, African Union, AMCEN & United Nations Environment Programme, 170–202.

Ruppel, Oliver C., 2012, Land Issues Before the Southern African Development Community Tribunal: A Case for Human Rights?, in: Chigara, Ben (Ed.), *Southern African Development Community Land Issues – Towards a New Sustainable Land Relations Policy*, Abingdon, Routledge, 89–120.

Ruppel, Oliver C. & Shirley Bethune, 2007, *Review of Namibian Policy and Legislative Support to the Sustainable Use of Wetlands in the Zambezi Basin*, Report for the World Conservation Union, available at http://www.ramsar.org/features/features_namibia_review.pdf, last accessed 14 November 2012.

Ruppel, Oliver C., Sven Grimm & Sanita Van Wyk, 2011, COP 17: Addressing Climate Change in a Changed World – Chinese and African Positions, Commentary available at http://www.ccs.org.za/wp-content/uploads/2011/12/COP17.pdf, last accessed 7 February 2012.

Ruppel, Oliver C. & Katharina Ruppel-Schlichting, 2012, Climate Change and Human Security: Relevant for Regional Integration in SADC?, in: Hartzenberg, Trudi, Gerhard Erasmus & André Du Pisani (Eds), *Monitoring Regional Integration in Southern Africa Yearbook 2011*, TRALAC, Stellenbosch, 32–71.

Ruppel-Schlichting, Katharina & Oliver C. Ruppel, 2011, Applicable Law and Jurisdiction on the Local, National and Regional Level: Facets of Legal and Judicial Pluralism in Namibia, in: Ruppel, Oliver C. & Gerd Winter (Eds), *Justice from Within: Legal Pluralism in Africa and beyond*, Liber Amicorum Manfred O. Hinz in Celebration of his 75th Birthday, Hamburg, Kovač, 287–314.

SADC/Southern African Development Community, 2009, Technical Report: Review of the Southern African Development Community (SADC) Energy Sector Activity Plan, available at http://www.satradehub.org/energy-sector/sath-content/activities/regional-integration/energy-sector/review-sadc-energy-activity-plan, last accessed 28 October 2012.

SADC/Southern African Development Community, 2011a, Communiqué of the 31st SADC Heads of State and Government Summit held in Luanda, Republic of Angola 17–18 August 2011, available at http://www.sadc.int/english/current-affairs/news/communique-of-the-31st-sadc-heads-of-state-and-government-summit/, last accessed 28 October 2012.

SADC/Southern African Development Community, 2011b, State of Vulnerability to Food Insecurity and Poverty in the Southern African Development Community (SADC), April 2010 to March 2011, available at http://www.sadc.int/fanr/aims/rvaa/Documents/VAA_Dissemination/2010/2010%20SADC%20Regional%20Vulnerability%20Assessment%20and%20Analysis%20Report.pdf, last accessed 28 October 2012.

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

SADC/Southern African Development Community, 2011c, Climate Change Adaptation in SADC – A Strategy for the Water Sector, available at www.sadc.int/REDD/index.php/download.../93/, last accessed 28 October 2012.

SADC/Southern African Development Community, 2011d, Southern African Vision For Water, Life and Environment In the 21st Century, available at http://www.sadc.int/water/downloads/, last accessed 28 October 2012.

SADC/Southern African Development Community, 2012, Final Communiqué of the 32nd Summit of SADC Heads of State and Government, held in Maputo, Mozambique, 18 August 2012, available at http://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Communique_32nd_Summit_of_Heads_of_States.pdf, last accessed 23 May 2013.

Scheffran, Jürgen & Antonella Battaglini, 2011, Climate and Conflicts: The Security Risks of Global Warming, *Regional Environmental Change* 11, 27–39.

Scholtz, Werner, 2010, The Promotion of Regional Environmental Security and Africa's Common Position on Climate Change, *African Human Rights Law Journal* 10 (1), 1–25.

Smith, Christopher, Dominic R. Kniveton, Sharon Wood & Richard Black, 2011, Climate Change and Migration: A Modelling Approach, in: Williams, Charles & Dominic Kniveton, *African Climate and Climate Change – Physical, Social and Political Perspectives*, Advances in Global Change Research Volume 43, Dordrecht, Springer, 179–201.

Twerefu, Daniel K., 2009, Mineral Exploitation, Environmental Sustainability and Sustainable Development in EAC, SADC and ECOWAS Regions, UNECA, African Trade Policy Centre Work in Progress No. 79, available at http://www.uneca.org/atpc/Work%20in%20progress/79.pdf, last accessed 12 January 2013.

UN-Habitat and UNEP/United Nations Environment Programme, 2010, *The State of African Cities 2010 – Governance, Inequalities and Urban Land Mark*, Nairobi, UN-Habitat and UNEP.

UNDP/United Nations Development Programme, 1994. *Human Development Report*, New York, UNDP, available at http://hdr.undp.org/en/reports/global/hdr1994/chapters/, last accessed 13 March 2012.

UNDP/United Nations Development Programme, 2008, *Fighting Climate Change: Human Solidarity in a Divided World,* New York, UNDP.

UNEP, 2005, *Environment and Trade – A Handbook*, nairobi, UNEP, avaliable at http://www.unep.ch/etb/areas/pdf/envirotrade_handbook_2005.pdf, last accessed 17 September 2011.

Viljoen, Frans, 2007, *International Human Rights Law in Africa*, Oxford, Oxford University Press.

Warner, Koko, 2010, Global Environmental Change and Migration: Governance Challenges, *Global Environmental Change* 20, 402–413.

WTO/World Trade Organisation, 2011, Harnessing Trade for Sustainable Development and a Green Economy, available at http://www.wto.org/english/res_e/publications_e/brochure_rio_20_e.pdf, last accessed 16 January 2012.

https://doi.org/10.5771/9783845242781_505 - am 18.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -

WTO/World Trade Organisation & UNEP/United Nations Environment Programme, 2009, *Trade and Climate Change Report*, Geneva, WTO, www.unep.org/pdf/UNEP_WTO_Trade_and_CC_June_09.pdf, last accessed 13 December 2012.

Ziervogel, Gina, Anthony O. Nyong, Balgis Osman, Cecilia Conde, Sergio Cortés & Tom Downing, 2006, Climate Variability and Change: Implications for Household Food Security, AIACC Working Paper No. 20, available at http://www.aiaccproject.org/working_papers/Working%20Papers/AIACC_WP_20_Ziervogel.pdf, last accessed 13 December 2012.

https://doi.org/10.5771/9783845242781_505 - am 16.01.2026, 15:33:41. https://www.inlibra.com/de/agb - Open Access -