

# Sustainable Development Statistical Booklet

A Guide for African Citizens



THE AFRICA-EU PARTNERSHIP  
LE PARTENARIAT AFRIQUE-UE



African Union Commission





# Sustainable Development Statistical Booklet

## A Guide for African Citizens

2018 Edition

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## Foreword

The aim of sustainable development is to balance economic, environmental and social needs and thereby improve the quality of life and well-being in the world, for both present and future generations. Sustainable development is therefore not an abstract concept – it affects our everyday lives and defines the world that we will hand on to our children and grandchildren.

In September 2015, Sustainable Development Goals (SDGs) were adopted by world leaders at the United Nations Sustainable Development summit. These SDGs mark an important milestone in the progress towards sustainable development. In the same year Africa's Agenda 2063 was adopted by African leaders. The two agendas will shape the development pathway of Africa for the foreseeable future.

The African Union Commission (AUC), through its statistics division, is committed to providing high-quality statistics on Africa not only for professionals but also for all African citizens. This first booklet on SDGs and Agenda 2063 goals presents statistical data with several daily-life scenes. The stories refer to the everyday life of different people and link them to Agenda 2063 and SDGs corresponding indicators to better understand the meaning of several SDGs in the context of Africa.

We wish you an enjoyable reading experience ! May you also discover that statistics are a helpful and powerful tool that can be used to make important decisions about our future.



## Acknowledgements

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Eurostat, the Statistical Office of the European Union, based in Luxembourg, is managing this programme which is being carried out by Expertise France, a French Government Organisation based in Paris, France.

The objectives of the PAS Programme are to assist the African Union in improving its statistical operations, and those of the Regional Economic Communities (RECs) and National Statistical Institutes (NSIs). One primary aim of the PAS is to help the African Union monitor SDG indicators in Africa.

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## Abbreviations

<b>AfDB</b>	African Development Bank
<b>AU</b>	African Union
<b>AUC</b>	African Union Commission
<b>AUSTAT</b>	Statistics Division of the African Union Commission
<b>CO<sub>2</sub></b>	carbon dioxide
<b>EU</b>	European Union
<b>FAO</b>	Food and Agriculture Organisation of the United Nations
<b>IRENA</b>	International Renewable Energy Agency
<b>MDG</b>	Millennium Development Goals
<b>PAS</b>	Pan African Statistics Programme
<b>SDG</b>	Sustainable Development Goals
<b>ST&amp;I</b>	Science, Technology and Innovation
<b>UN ECA</b>	United Nations Economic Commission for Africa
<b>UNDP</b>	United Nations Development Programme
<b>WMO</b>	World Meteorological Organisation

## Data sources

Unless otherwise specified, the stories are illustrated with the latest data available on the Global SDG Indicators Database<sup>(1)</sup>, the dissemination platform of the United Nations Statistical Division. Although some data are provided for certain countries, those presented focus mainly on how Africa and its regions have developed over the past 10 to 15 years. Data from the Global SDG Indicators Database are complemented by additional information from the Joint AfDB-AU-ECA-UNDP<sup>(2)</sup> 2017 Africa Sustainable Development Report entitled 'Tracking Progress on Agenda 2063 and the Sustainable Development Goals<sup>(3)</sup>', data from the World Bank and other pertinent analytical works, especially on goals for which data availability is limited<sup>(4)</sup>.

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<sup>(1)</sup> The Global SDG Indicators Database provides access to data compiled through the UN System, available at: <https://unstats.un.org/sdgs/indicators/database>. Data extraction have been made between November 2017 and January 2018.

<sup>(2)</sup> AfDB: African Development Bank. AU: African Union. ECA: Economic Commission for Africa of the United Nations. UNDP: United Nations Development Programme.

<sup>(3)</sup> Available at: <http://www.africa.undp.org/content/rba/en/home/library/reports/africa-sustainable-development-report.html>

<sup>(4)</sup> Sources of data used in infographics illustrations: Data of the infographic untitled «Modern renewable energy in Africa» on page 28 are from IRENA (2017), Renewable Energy Statistics 2017, The International Renewable Energy Agency, Abu Dhabi. Other infographics use data mentioned in the text and are from the UN/SDG database unless otherwise specified.





# Welcome to the first Sustainable Development Statistical Booklet – a Guide for African Citizens

*‘The capacity of policymakers to effectively implement and track performance will hinge on the availability, timeliness and quality of data. In this context, strengthening the data ecosystem in general, and the capacity of National Statistics Offices in particular, is vital.’<sup>(5)</sup>*

This booklet examines statistics on sustainable development issues and tries to make sense of them in terms of people’s lives in Africa.

Recently, sustainable development has become more important, in particular with the adoption by the United Nations of the Agenda 2030 for Sustainable Development <sup>(6)</sup> and Africa’s Agenda 2063 <sup>(7)</sup>, both in 2015<sup>(8)</sup>.

The booklet focuses on a selection of Sustainable Development Goals (SDGs) in the Agenda 2030 and corresponding Agenda 2063 goals with everyday life events. Five short stories are presented together with indicators and additional statistics to put the data into context and strengthen its explanatory power. All the stories and characters are fictitious but present realistic adventures in daily life, seen from the perspective of a diverse range of African citizens.

In Story 1, we explore issues covered in SDG 4 ‘Quality Education’ and SDG 8 ‘Decent Work and Economic Growth’ by learning about the experience of Boitumelo, a 15-year-old teenager who is trying to identify what studies and type of job she would like.

Genevino, a young adult, is the main character of Story 2. She will help us to understand SDG 3 ‘Good health and well-being’.

Next, we follow the trip of Ms Malika, a well-known activist on gender equality, and we learn about SDG 5 ‘Achieve gender equality and empower all women and girls’.

Story 4 takes us to Burkina Faso where Mr Sakho and Ms Emelia talk about energy issues and making their business more sustainable as defined in SDG 7 ‘Affordable and clean energy’.

Finally, in Story 5, we visit a rural area with Terence, very knowledgeable of climate change and food security, where issues related to SDG 13 ‘Climate Action’ and SDG 2 ‘Zero Hunger’ as well as SDG 15 ‘Life on Land’ are at the centre of the discussions.

This booklet has been prepared by the African Union Statistics Division within the framework of the Pan African Statistics Programme (PAS) which is a European Union cooperation project providing support to the African Statistical System.

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<sup>(5)</sup> 2017 Africa Sustainable Development Report: Tracking Progress on Agenda 2063 and the Sustainable Development Goals.

<sup>(6)</sup> United Nations (2015), ‘Transforming our World: the 2030 agenda for sustainable development’, A/RES/70/1, 25 September 2015.

<sup>(7)</sup> See: African Union 2015, ‘Agenda 2063: The Africa we want’, available at [https://au.int/en/Agenda2063/popular\\_version](https://au.int/en/Agenda2063/popular_version)

<sup>(8)</sup> Further information on Agenda 2030/SDGs and Agenda 2063 is given on page 9.



## Are you new to sustainable development statistics ?

If your answer is 'yes', take a few minutes to check the following frequently asked questions.

### What are the Sustainable Development Goals (SDGs) of the United Nations's Agenda 2030 ?

The 17 Sustainable Development Goals (SDGs) and their related 169 targets, which are at the heart of the UN's Agenda 2030 for Sustainable Development, are an array of global development targets adopted by the member countries of the United Nations (UN) in September 2015. The SDGs will guide the global development agenda through 2030.

The SDGs follow up on the Millennium Development Goals (MDGs), which formed the UN development agenda from 2000 to 2015. The Agenda 2030 and its 17 SDGs provide a new world-wide policy framework towards «ending all forms of poverty, fighting inequalities and tackling climate change, while ensuring that no one is left behind».

### What is Africa's Agenda 2063 and its First Ten-Year Implementation Plan ?

Africa's Agenda 2063 is a strategic framework for the socio-economic transformation of the continent over the next 50 years. It builds on and seeks to accelerate the implementation of past and existing continental initiatives for growth and sustainable development. Africa's Agenda 2063 was adopted in January 2015. Its guiding vision is 'An integrated, prosperous and peaceful Africa, driven by its own citizens and representing a dynamic force in international arena'.

The First Ten-Year Implementation Plan for Agenda 2063 builds upon the Agenda 2063 Framework Document adopted in January 2015 and seeks to accelerate Africa's political, social, economic and technological transformation while continuing the Pan African drive for self-determination, freedom, progress and collective prosperity. Covering the period 2014-2023, it is the first of a series of five ten-year implementation plans to be developed to realise the vision of the 'Africa We Want By 2063'.

### What are the synergies between Agenda 2063 and Agenda 2030 ?

The two agendas will shape the development pathway of Africa for the foreseeable future, particularly its aspirations for sustained and inclusive economic growth, poverty eradication and structural transformation. The two agendas have much in common but Agenda 2063 is specific to Africa. The UN's Agenda 2030 can be seen as a milestone to the longer-term objectives of the Agenda 2063.

### Why are indicators and statistics for sustainable development so important ?

Achieving the SDGs' objectives requires new and better policies in many areas and sectors. To design such policies, we need to know more about people's lives. The results of these policies and subsequent expected progress towards SDGs will also need to be assessed. This will be achieved through 232 quantifiable indicators, called sustainable development indicators (SDIs), associated to each of the 169 targets that are to be reached by 2030<sup>(\*)</sup>. Agenda 2063 objectives are also associated with indicators, many of which are the same as indicators for Agenda 2030.

To compute the SDIs, effective and reliable official statistics are needed in many economic, social and environmental sectors. A robust follow-up and review mechanism for implementing Agenda 2030 and Agenda 2063 therefore, requires a solid framework of indicators and statistical data to monitor progress, inform policy and ensure accountability of all stakeholders.

<sup>(\*)</sup> The global indicator framework was adopted by the General Assembly on 6 July 2017 and is contained in the Resolution adopted by the General Assembly on Work of the Statistical Commission pertaining to the Agenda 2030 for Sustainable Development (A/RES/71/313).



## Why is it imperative to strengthen statistical systems in Africa ?

Approximately 6 out of every 10 SDG indicators cannot be tracked in Africa due to severe data limitations. Strengthening statistical systems in Africa is imperative for a successful implementation the SDGs and Agenda 2063 as it underpins evidence-based policy-making.

Development practitioners and other actors have noted that deficiencies in statistical information hamper Africa's development and transformation processes. Although some progress has been made in statistical development, it is uneven and the national statistical systems still face a number of challenges (financial, institutional and technical) .









## How does the Pan African Statistics (PAS) programme come in ?

The Pan African Statistics Programme (PAS) is a statistical cooperation project funded by the EU. The overall objective of the PAS Programme is 'to support African integration through better availability and quality of statistical information facilitating decision-making and policy monitoring'. The specific objectives are to 1) 'improve the production and dissemination of good quality statistics in Africa'; and 2) 'support the AU in strengthening its institutional capacity to provide comparable official statistics needed to underpin the AU integration process and measure African progress towards global goals'.

Under the specific objective 1, the PAS Programme contributes to enhancing capacity and a more harmonised approach for producing good quality statistics in five priority domains – National Accounts, International Trade, Labour, Sustainable Development Goals (SDGs) indicators, and Migration. It also provides limited support to governance, peace and security, and climate change statistics.

## Africa's Development Agendas — side by side

	Agenda 2030 Goals	Agenda 2063 Goals
	<b>Goal 1:</b> End poverty in all its forms everywhere.	<ul style="list-style-type: none"> <li>1. A high standard of living, quality of life and well-being for all</li> <li>5. Modern agriculture for increased productivity and production</li> <li>7. Environmentally sustainable climate resilient economies and communities</li> <li>17. Full gender equality in all spheres of life</li> </ul>
	<b>Goal 2:</b> End hunger, achieve food security and improved nutrition and promote sustainable agriculture.	<ul style="list-style-type: none"> <li>1. A high standard of living, quality of life and well-being for all</li> <li>3. Healthy and well-nourished citizens</li> <li>4. Transformed economies and job creation</li> <li>5. Modern agriculture for increased productivity and production</li> <li>7. Environmentally sustainable climate resilient economies and communities</li> </ul>
	<b>Goal 3:</b> Ensure healthy lives and promote well-being for all at all ages.	<ul style="list-style-type: none"> <li>3. Healthy and well-nourished citizens</li> <li>7. Environmentally sustainable climate resilient economies and communities</li> <li>17. Full gender equality in all spheres of life</li> </ul>
	<b>Goal 4:</b> Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	<ul style="list-style-type: none"> <li>1. A high standard of living, quality of life and well-being for all</li> <li>2. Well educated citizens and skills revolution underpinned by science, technology and innovation</li> <li>16. African cultural renaissance is pre-eminent</li> <li>17. Full gender equality in all spheres of life</li> <li>18. Engaged and empowered youth and children</li> </ul>
	<b>Goal 5:</b> Achieve gender equality and empower all women and girls.	<ul style="list-style-type: none"> <li>3. Healthy and well-nourished citizens</li> <li>5. Modern agriculture for increased productivity and production</li> <li>10. World class infrastructure crisscrosses Africa</li> <li>17. Full gender equality in all spheres of life</li> </ul>
	<b>Goal 6:</b> Ensure availability and sustainable management of water and sanitation for all.	<ul style="list-style-type: none"> <li>1. A high standard of living, quality of life and well-being for all</li> <li>7. Environmentally sustainable climate resilient economies and communities</li> </ul>
	<b>Goal 7:</b> Ensure access to affordable, reliable, sustainable and modern energy for all.	<ul style="list-style-type: none"> <li>1. A high standard of living, quality of life and well-being for all</li> <li>6. Blue/ ocean economy for accelerated economic growth</li> <li>7. Environmentally sustainable climate resilient economies and communities</li> <li>10. World class infrastructure crisscrosses Africa</li> </ul>
	<b>Goal 8:</b> Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.	<ul style="list-style-type: none"> <li>1. A high standard of living, quality of life and well-being for all</li> <li>4. Transformed economies and job creation</li> <li>12. Capable institutions and transformed leadership in place at all levels</li> <li>16. African cultural renaissance is pre-eminent</li> <li>17. Full gender equality in all spheres of life</li> <li>18. Engaged and empowered youth and children</li> </ul>
	<b>Goal 9:</b> Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.	<ul style="list-style-type: none"> <li>1. A high standard of living, quality of life and well-being for all</li> <li>4. Transformed economies and job creation</li> <li>5. Modern agriculture for increased productivity and production</li> <li>6. Blue/ ocean economy for accelerated economic growth</li> <li>8. United Africa (federal or confederate)</li> <li>10. World class infrastructure crisscrosses Africa</li> <li>19. Africa as a major partner in global affairs and peaceful co-existence</li> </ul>

	<b>Goal 10:</b> Reduce inequality within and among countries.	1. A high standard of living, quality of life and well-being for all 8. United Africa (federal or confederate) 16. African cultural renaissance is pre-eminent 20. Africa takes full responsibility for financing her development
	<b>Goal 11:</b> Make cities and human settlements inclusive, safe, resilient and sustainable.	1. A high standard of living, quality of life and well-being for all 7. Environmentally sustainable climate resilient economies and communities 10. World class infrastructure crisscrosses Africa 12. Capable institutions and transformed leadership in place at all levels 16. African cultural renaissance is pre-eminent
	<b>Goal 12:</b> Ensure sustainable consumption and production patterns.	1. A high standard of living, quality of life and well-being for all 4. Transformed economies and job creation 5. Modern agriculture for increased productivity and production 7. Environmentally sustainable climate resilient economies and communities 12. Capable institutions and transformed leadership in place at all levels 16. African cultural renaissance is pre-eminent
	<b>Goal 13:</b> Take urgent action to combat climate change and its impacts*.	5. Modern agriculture for increased productivity and production 7. Environmentally sustainable climate resilient economies and communities 12. Capable institutions and transformed leadership in place at all levels
	<b>Goal 14:</b> Conserve and sustainably use the oceans, seas and marine resources for sustainable development.	4. Transformed economies and job creation 6. Blue/ ocean economy for accelerated economic growth 7. Environmentally sustainable climate resilient economies and communities
	<b>Goal 15:</b> Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.	7. Environmentally sustainable climate resilient economies and communities
	<b>Goal 16:</b> Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.	11. Democratic values, practices, universal principles of human rights, justice and the rule of law entrenched 12. Capable institutions and transformed leadership in place at all levels 13. Peace, security and stability are preserve 17. Full gender equality in all spheres of life 18. Engaged and empowered youth and children
	<b>Goal 17:</b> Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development	1. A high standard of living, quality of life and well-being for all 4. Transformed economies and job creation 10. World class infrastructure crisscrosses Africa 12. Capable institutions and transformed leadership in place at all levels 19. Africa as a major partner in global affairs and peaceful co-existence 20. Africa takes full responsibility for financing her development

\* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.





## Story 1: Education – Better education and ST&I skills revolution for better jobs in Africa

Boitumelo is a 15-year-old student nearing the end of her secondary school education. She lives with her father who is a traditional cattle farmer in the growing town of Palapye, Botswana. The young Boitumelo is overjoyed on hearing that her father has made an appointment for her to see Ms Helen Nguti, a careers' counsellor at a local university. She had previously searched the internet for possibilities but to no avail.

Arriving at the University, Boitumelo receives a warm welcome:

- **Helen:** 'Good morning, Boitumelo. Have you been to this university before?'
- **Boitumelo:** 'No. It's my first time. The university is so big and beautiful. I would like to take a tour before I go back home, if I have time.'
- **Helen:** 'Your father told me you are concerned about making the right career choices?'
- **Boitumelo:** 'Yes, indeed. And I am so pleased that you agreed to meet with me. I searched the internet at my school for some guidance on what I could do when I've completed secondary school, so I can make the right choices in upper secondary.'
- **Helen:** 'Have you found any options that interest you so far? I learned from your dad that you are an all-round student'.
- **Boitumelo:** 'Yes and no. Based on my past, careers in law, accounting and medicine seem very interesting to me, but the current buzzwords all seem to have to do with sustainability, information technology (IT), data revolution, big data and so on. It's all rather confusing'.
- **Helen:** 'Yes, indeed. Nowadays we use information and data extensively in all domains so IT skills are therefore very important. You are so right to visit me since an important element for providing employment for all is education. It is not surprising that the African Agenda 2063 calls for educated citizens and a skill revolution based on science, innovation and technology.'

Reducing youth unemployment by providing education and training is also a specific Sustainable Development Goal of Agenda 2030. When people get quality education they can break out of the cycle of poverty. It also helps to reduce inequality and to improve gender equality. But do you know where we stand on employment and education in Africa?'

### The topics of education and jobs are covered in SDG 4 'Quality Education' and SDG 8 'Decent Work and Economic Growth'

AGENDA 2030 GOAL	AGENDA 2063 GOALS	AGENDA 2030 GOAL	AGENDA 2063 GOALS
<b>4</b> QUALITY EDUCATION 	1. A high standard of living, quality of life and well-being for all 2. Well educated citizens and skills revolution underpinned by science, technology and innovation 16. African cultural renaissance is pre-eminent 17. Full gender equality in all spheres of life 18. Engaged and empowered youth and children	<b>8</b> DECENT WORK AND ECONOMIC GROWTH 	1. A high standard of living, quality of life and well-being for all 2. Well educated citizens and skills revolution underpinned by science, technology and innovation 12. Capable institutions and transformed leadership in place at all levels 16. African cultural renaissance is pre-eminent 17. Full gender equality in all spheres of life 18. Engaged and empowered youth and children

The topics of education and jobs are covered in SDG 4 'Quality Education' and SDG 8 'Decent Work and Economic Growth'

- **Boitumelo:** 'Not exactly, but I can research this when I get back home. Or I will need to use the library which has internet connection'.
- **Helen:** 'You are welcome to use our library facilities. We have good internet access. Thanks to international sponsors, it is installed in all public libraries. The government has done so well by continuing to maintain and upgrade these facilities. In Africa, not all universities and schools have this chance.

**Botswana: Highest share of access to computers in secondary schools.**



By the way, one of the SDG targets is to build and upgrade education facilities. Already in 2012, all secondary schools in Botswana had access to computers for pedagogical purposes and 86% had access to the internet. Although these figures do not tell us about the quality of equipment installed, this is the best performance in Africa according to the data. For the sake of comparison, secondary schools in Mauritius, Egypt and Sao-Tome also have quite good access to computers for pedagogical purposes (98% in 2014, 92% in 2016 and 71% in 2013, respectively) whereas many other countries still have much progress to make. For example in Madagascar and

Nigeria, only 3% and 9% of secondary schools, respectively, had access to computers according to 2013 data.

Anyway, in your research, I advise you to look at the United Nations SDGs' website as well as the African Union reports. Come back to me in two hours' time and tell me what you found out. I will be more than happy to answer any additional questions you may have'.

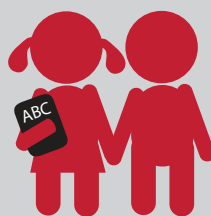
Boitumelo went to the library where IT personnel helped her with the task. Back in Helen's office, she explained her findings.

- **Boitumelo:** 'My main conclusions from my research are the following:

- The chance for children to be enrolled at the appropriate age in the first grade of primary education has significantly improved in Africa since the beginning of the century. In 2000, only 60% of children were enrolled in primary schools, compared with 79% in 2014!

- The learning outcomes achieved in mathematics and reading varies greatly for different countries. Some show very good performance with more than 80% of children achieving at least a minimum proficiency level in mathematics or reading at the end of primary school (Burundi, Kenya, Mozambique, Seychelles, Tanzania, Botswana, Lesotho, Namibia, South Africa, Swaziland and Côte d'Ivoire). In others, such as Zambia, Cameroon, Chad, and Niger, serious learning gaps were observed.

**Children enrolled in the first grade of primary education in Africa**



**79%** in 2014

**60%** in 2000

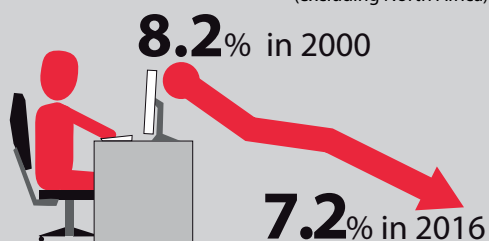




There is also encouraging news concerning unemployment. The unemployment rate was 8.2% in the year 2000 in Africa (excluding North Africa) but decreased to 7.2% in 2016! However, the youth unemployment rate is higher: 11% in 2016 in Africa (excluding North Africa) and extremely high in Southern Africa and North Africa (50% and 29%, respectively).

I also looked at the proportion of youths and adults with information and communication technology (ICT) skills. Apparently, this indicator is very new which is probably why I found little data, although it is based on an internationally agreed definition. I found statistics for Morocco, Egypt and Zimbabwe and it appears that only 1.6%, 0.7% and 0.6% (respectively) of youth and adults have skills to write a computer programme. I now understand why the African agenda put an emphasis on information technology. For instance, in Singapore, 4.3% of the population know how to write a computer programme, and even more so in Northern European countries where 10% of the population can write computer programmes. I should definitely be learning computer languages in my studies!

### Unemployment in Africa (excluding North Africa)



Helen is very impressed by Boitumelo's findings. She adds to her conclusions by explaining that in a country like Botswana (and in Africa in general) many vacancies require specific skills that people do not possess. Education and training are critical to reverse this skill shortage.

Boitumelo comes up with one more question:

● **Boitumelo:** 'What about this idea of 'decent' work? The SDGs talk a lot about it but what exactly does it mean?

● **Helen:** 'Education, as well as an end in itself, is also a means of getting a decent job, especially for young people. The meaning of 'decent' is equal pay for work of equal value, an end to forced labour, protection of labour rights and promotion of safe and secure environment for all workers. Progressing towards decent work is, for instance, to 'take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms'. Child labour<sup>(1)</sup> is an issue since a child trapped in this situation compromises their individual future. In 2012, 21.4% of children (5 to 17 years old) were engaged in labour in Africa (excluding North Africa).'

### Child labour (5-17 years) in Africa (except North Africa)



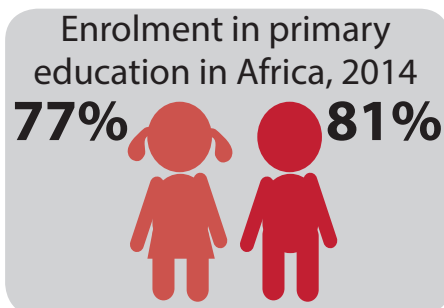
● **Boitumelo :** 'I think it is time for me to thank you so much for explaining all of this to me.'

● **Helen:** 'You are welcome, Boitumelo. You have demonstrated that you will be an outstanding candidate to enter university. In a broader sense, never forget that education is the key that will allow many other SDGs to be achieved. That is why for instance, you would also find improving education on climate change as a target of goal 13<sup>(2)</sup>, actions to combat climate change.'

<sup>(1)</sup> The term 'child labour' refers to the subset of children's activities that is injurious, negative or undesirable to children and that should be targeted for elimination.

<sup>(2)</sup> To learn more about climate change and its impacts, go to Story 5 'Consequences of environmental and climate change on food production and security'.

Education empowers people everywhere to live more healthy and sustainable lives. It is also crucial to fostering tolerance between people and contributes to creating more peaceful societies. Not surprisingly, Agenda 2063 also aims at eliminating all barriers to quality education, health and social services for women and girls by 2020. As you can see from the figures you found, despite impressive progress since 2000, there are still gaps when it comes to providing equal education for boys and girls. For instance, 77% of girls were enrolled in primary education in 2014 versus 81% for boys<sup>(3)</sup>.



Boitumelo concludes from this afternoon at the university that the employment situation in Africa is not optimal. However, she hopes that efforts to develop and provide better education will help improve the situation and increase the number of young people encouraged and motivated to remain in the education system as long as they can. She is seriously considering majoring in IT as she is especially interested in this field. Furthermore, there are many decent jobs available for young people in the sector. Perhaps in the future she could even teach IT in schools and universities.

<sup>(3)</sup> To learn more about the gender issue, go to Story 3 'The Gender Gap, Why does it matter?'.



## Story 2: Maternal health – Healthy mothers and children

Genevino is a student at the Universidade Katyavala Bwila in the Benguela province, Angola. The University campus only opened in 2010, although the city of Benguela dates back to 1617. Her parents resettled in Benguela during the 1980s from a rural village to escape the hardship endured by many villagers following the 1975-2002 Angolan Civil war. She was the last born of her parents' seven children a few years before the civil war ended.

She had always been happy to be of service at home, at school and in community activities even at a tender

age. When she heard of the African Union's Pan African Youth Parliament (PAYP) programme, she did not hesitate to apply. She is over-excited today as she has just learned that her application has been accepted! Her family, school and community too were over-joyed to hear that she would represent her country.

Just after her selection, she came across an article in which the author expressed deep concern about the high number of teenage pregnancies in the country and its impact on school dropouts and girls' dreams. In the article, the Minister promised to engage parents, school teachers, religious leaders and other stakeholders to undertake education campaigns to reduce this phenomenon. It was excellent news to read that the Minister herself wants to do something to avoid teenage pregnancies and reduce the number of school dropouts she thought.

Genevino was no stranger to teenage pregnancy and the resulting need to drop out of school. The majority of her friends had left school early. Several could not continue school because they had become involuntarily pregnant (!).

Following up the links in the article, she found out that the high level of teenage pregnancy is not limited to her district but that it is a national and continental problem. More than 50% of girls aged 15-19 years already have one or more children in Angola. The article went deeper, explaining that the consequences of adolescent pregnancy on both the mother and child are serious. These include unsafe abortions and its associated consequences, anaemia, malaria, HIV and other sexually transmitted infections, postpartum haemorrhage, mental disorders such as depression, and obstetric fistula.



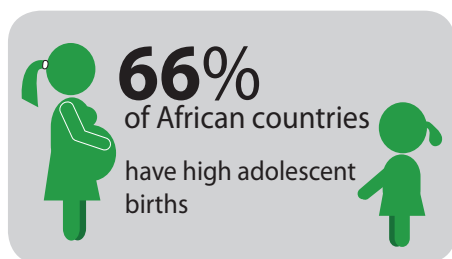
# 50%

of girls aged 15-19 have  
1 or more children in  
Angola

(!) If you want to learn more about education, go to Story 1 'Better education and ST&I skills revolution for better jobs in Africa?.'

**The topics related to the health of mothers and children are covered in particular in SDG 3 'Good health and well-being'**

AGENDA 2030 GOAL	AGENDA 2063 GOALS
<b>3</b> GOOD HEALTH AND WELL-BEING 	3. Healthy and well-nourished citizens 7. Environmentally sustainable climate resilient economies and communities 17. Full gender equality in all spheres of life



On top of that, high numbers of school dropouts result in disadvantages in education and translate into lack of access to skills and therefore limited opportunities on the labour market. Given that the majority (66%) of African countries still have high adolescent births, the impact on mothers and children have far-reaching consequences for socioeconomic development<sup>(2)</sup>.

She had started preparing an article to be presented during the PAYP conference, intending to talk about maternal

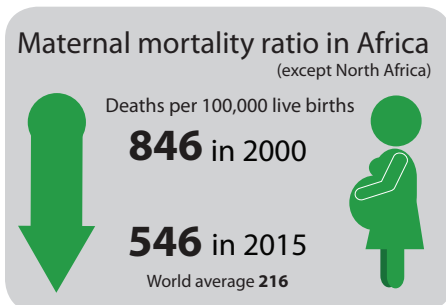
mortality in Africa. After reading these articles, she decided to enlarge her topic by considering not only teenager pregnancy but other issues related to the health of mothers and children.

While collecting information to highlight a continental dimension to her article, she soon discovered that the Sustainable Development Goals (SDGs) provide a good framework for an evidence-based advocacy paper.

Genevino started to look at the maternal mortality issue. In her country, people see death primarily as a consequence of the civil war but its link to teenage and adult pregnancy is not well understood. From reading the Africa Sustainable Development Reports, she learnt that preventable problems during pregnancy and childbirth are among the leading causes of death of and disability in women of reproductive age (between 15 and 49 years) in developing countries. Not surprisingly, one of the SDG targets is to reduce the global maternal mortality ratio to less than 70 per 100,000 live births by 2030; the Agenda 2063 objective is to reduce 2013 maternal mortality rates by at least 50% in 2023.

Looking at the data in detail, she noted that:

- Africa has made remarkable progress in reducing maternal mortality over the years as all countries strived to meet the MDG targets. The maternal mortality ratio dropped from 846 deaths per 100,000 live births in 2000 to 546 in 2015 (excluding North Africa). However, it is still high compared to the world average (216).
- The maternal mortality ratio varies substantially throughout the African continent. Angola registered 477 maternal deaths per 100,000 live births in 2015, and thus remained slightly below the African (excluding North Africa) average (standing at 546) but much higher than the one in North Africa. With an average rate of 70, North Africa as a whole has already achieved the SDG target.
- All African countries except the Central African Republic and Zimbabwe registered progress in reducing their maternal mortality ratios between 2013 and 2015.



This progress is good news and shows how important commitment to international targets such as MDGs and SDGs is in addressing the challenges that the continent faces. However, Genevino cannot forget that in Africa and other developing regions, the risk of a woman dying from a maternal cause is approximately 23 times higher than for a woman living in a developed country. She is not the kind of person who can live without getting explanations on why progress is not faster.

Following her mother's suggestion to talk to someone who knows more about the topic, she managed to find and interview a doctor working in the public health service system in her city.

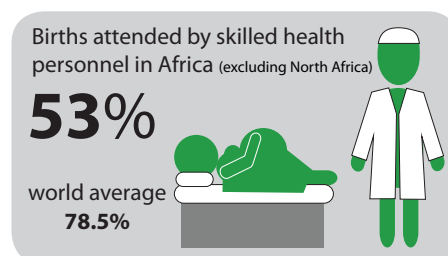
<sup>(2)</sup> 2017 Africa Sustainable Development Report: Tracking Progress on Agenda 2063 and the Sustainable Development Goals.

According to him, there are various reasons that the progress on the continent is so slow: the persons attending to the delivery of a child are often low-skilled, family planning is not as common as it should be, adequate emergency obstetric and neonatal care are often unavailable, sexual and gender-based violence is persistent, modern contraceptives are not the norm and adolescent fertility rates are high. He also added that in the Southern Africa region, HIV/AIDS remains a major cause of maternal deaths<sup>(3)</sup>.

Back home, she immediately made the connection to the SDG target 3.7 which aims at 'ensuring, by 2030, universal access to sexual and reproductive health-care services, including family planning, information and education and integrating reproductive health into national strategies and programmes'.

The doctor had also told her that 13 to 33% of maternal deaths could be averted by the presence of skilled health personnel. So where are we in Africa with the proportion of births attended by skilled health personnel? She found the following answers in the latest statistical publication of the African Union:

- 53% of births were attended by skilled health personnel in 2016 in Africa (excluding North Africa). While this is significant progress compared to 2000 (when the rate was 39.3%), it is relatively low compared to the world average (78.5%).
- In her country, Angola, only 47.6% of births were attended to by skilled health workers in 2006. It is better than in 1996 where it was only 22.5%, but as there is no updated data, it is difficult to compare with other countries.
- On the entire continent, 11 African countries recorded at least 90% of live births being attended to by skilled health workers in 2013. Among these is Rwanda, which has made impressive strides in recent years after also coming out of a vicious civil war like Genevino's own country: The proportion of live births attended to by skilled health workers increased from 69% in 2010 to 90.7% in 2015.



The doctor also told her that if all unmet needs for family planning were satisfied, unintended pregnancies would drop by 83% and unsafe abortions would decline by 84%<sup>(4)</sup>. She reasoned that it would be nice to know more about the proportion of women of reproductive age (15-49 years) whose family planning needs are met using modern contraceptive methods<sup>(5)</sup>. She found out that in Africa (excluding North Africa) in 2015, less than half of women married or in a union had their family planning needs satisfied with modern methods. This is lower than in all other regions in the world, but progress has been significant since 2000 when it was only 30%. North Africa and Southern Africa are nevertheless close to the European level (78% in Europe, 73% in North Africa and 84% in Southern Africa).

Genevino is now certain of at least one recommendation that she can put in her presentation at the conference:

'Governments must make strong efforts to invest in family planning and other reproductive health services given that they are cost-effective, save lives and are cornerstones of sustainable development'.

<sup>(3)</sup><sup>(4)</sup><sup>(5)</sup> 2017 Africa Sustainable Development Report: Tracking Progress on Agenda 2063 and the Sustainable Development Goals.

<sup>(5)</sup> Definition: the proportion of women of reproductive age (15-49 years) who desire either to have no (additional) children or to postpone the next child and who are currently using a modern contraceptive method. 2017 Africa Sustainable Development Report: Tracking Progress on Agenda 2063 and the Sustainable Development Goals.

She is also clear on the relevance of the Agenda 2063 objective to increase the 2013 levels of access to sexual and reproductive health services to women by at least 30%. If asked to provide more solid evidence, she would quote the doctor's very last comment and text from a medical brochure:

'If the full provision of modern contraception were combined with integrated and improved care, including HIV-related services for all pregnant women and newborns, maternal deaths would drop by 69%, from 183,000 to 58,000 annually; new-borns deaths would drop by 82%, from 1.2 million to 213,000; and HIV infections among new-borns would decline by 93%, from 115,000 to 8,000.'

Under 5 mortality rate in Africa, 2015  
(except North Africa)

**83**  
per 1,000 live births  
developed countries  
**3.2**



This last thought prompted her to look for information from the angle of babies and children. The corresponding SDG is to reduce under-five mortality to at least as low as 25 per 1,000 live births. Agenda 2063 also contains the objective of reducing 2013 levels of under-five mortality by at least 50% in 2023. Progress in reducing mortality of under-five-year-old children in Africa (excluding North Africa) has been faster than in all other regions of the world: Africa reduced this rate by 46%, from 154 deaths per 1,000 live births in 2000 to 83 in 2015. However, Africa (excluding North Africa) remains the region with the highest under-five mortality globally.

Many children who die under the age of five are less than 28 days old, which is called neonatal mortality. Such deaths are directly related to the quality of antenatal and post-natal care and of the skills of health-care workers assisting at births. Genevino found neonatal mortality rate chart in Africa very disturbing. While neonatal mortality in developed countries stands at 3.2 children per 1,000 live births, Angola had the highest rate in Africa in 2015 – about 50 babies in every 1,000 are still losing their lives within 28 days of birth.

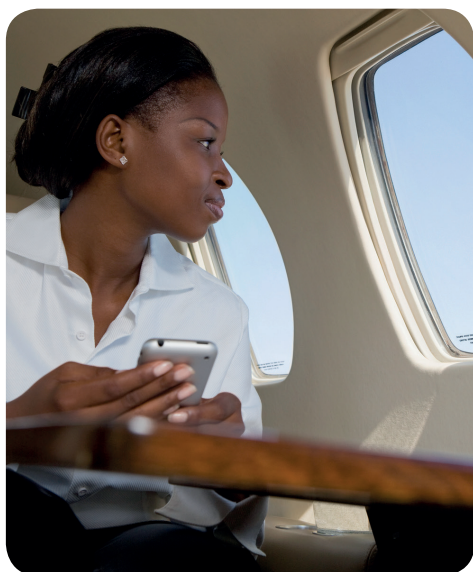
She sadly remembered the story of a teenage girlfriend who fell pregnant, just 'because she did not know', was excluded from school only to lose the baby to a preventable cause within a month. She can imagine the traumatic suffering such young mothers will endure for the rest of their lives. This reminded her of another comment made by the doctor she interviewed: The rates of pre-term birth, low birth weight and asphyxia are higher among the children of adolescents, all of which increase the chances of death and future health problems for the baby.

Since infant and under-five mortality is a general indicator of child health and of the socioeconomic, environmental and nutritional status of children, she knows undernutrition is an important issue as children face a high risk of low mental development if not adequately nourished up to five years of age.

She concludes that low and inequitable access to skilled health personnel at birth, high adolescent birth rates and access to family planning remain challenges to addressing maternal health in Africa. Apart from her recommendations, she decided to put emphasis on (i) the need to scale up essential interventions that are critical to improving reproductive health and reducing maternal and child deaths and (ii) the need to better educate, inform and explain to teenagers and women in all aspects related to pregnancy. Achieving these needs will go a long way to ensuring that all African women in the future will be able to make informed decisions.

Genevino's speech at the PAYP conference was a real success and allowed a very fruitful debate. But she feels frustrated to just be talking and feels like she needs to take some action. After all, she sees herself as an activist. That is why she is now involved with a local NGO in her city in a national campaign to eradicate teenage pregnancy and to reduce the number of school dropouts.





## Story 3: Gender equality – The gender gap: why does it matter

Today, Malika is on her way to Nairobi where she will participate in the African Union High Level Panel on Gender Equality and Women's Empowerment. She has been a well-known activist on gender equality in her country for almost three decades. When Malika boards the flight, she struggles to find space in the overhead lockers, a cheerful young man gets up to help. To Malika's pleasant surprise, he is seated next to her. He introduces himself as Kaptue and reveals that he is on his way to study abroad at a prestigious institute providing high-level mathematics, statistics and computing skills to young Africans aspiring to undertake PhD in Sciences.

- **Malika:** 'Tell me more about your institute!'
- **Kaptue:** 'It is open to young African graduates in sciences. All those accepted are given full a bursary. There is a focus on gender parity on annual enrolments, and an obligation to work in Africa after eventually completing their higher education. I think it's fair and my wish is to contribute to the development of our continent'.
- **Malika:** 'I am quite impressed! You are going to a great institute with a convincing and progressive educational vision and foresight to insist on gender parity in its enrolment. This is truly how gender equality should be mainstreamed in public and scientific institutions.'

Malika introduces herself and the reason for her trip. She then asks if he has learned anything about gender equality, as she does with any young men and women she meets.

- **Kaptue:** 'Yes, actually I have. At university, many of us were influenced by the late Thomas Sankara's views that women's emancipation is central to economic development on the continent. I remember he gave a famous speech around 1983, two years before the Beijing conference, which was at the Fourth World Conference of Women and a milestone for fostering gender equality. As a student, I realised that certain gender roles are becoming harmful even to males who used to benefit from gender inequality. Most male students could not cook their own meals or iron their own clothes. This had a real negative impact on their self-esteem and academic performance.'

**The topics related to gender equality are covered in SDG 5 'Achieve gender equality and empower all women and girls'**

AGENDA 2030. GOAL	AGENDA 2063 GOALS
<b>5</b> GENDER EQUALITY 	3. Healthy and well-nourished citizens 5. Modern agriculture for increased productivity and production 10. World class infrastructure crisscrosses Africa 17. Full gender equality in all spheres of life

- **Malika:** 'Oh, I am pleased to hear you support and understand the benefits of gender parity. I am the mother of two boys and a girl who are about your age. When they were young, each one took part in all the different household chores. Despite cultural pressures, there were no gender-based roles in our household.'

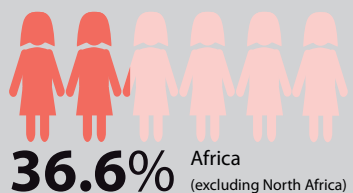
Malika's wide smile reveals her pride in how her kids have adopted these lessons into their own homes. Malika also adds that the wider vision of Sankara is still valid and that unless gender disparities are addressed urgently, women's potential contributions to economic growth will remain untapped. Social mores and traditions, traditional gender roles, violence against women and many structural factors (weak infrastructure, law enforcement, etc.) dictate that women carry a heavier burden of work and have poorer access to resources and opportunities, compared with men. This poses major obstacles to women's empowerment and progress on gender equality. That is why the Agenda 2063 Goal 17 is to 'Achieve full gender equality in all spheres of life' and the two priority areas are 'Women's empowerment' and 'Violence and discrimination against women and girls'. It is fully consistent with Agenda 2030 Goal 5 to 'Achieve gender equality and empower all women and girls'.

A few hours later, as the plane lands, Kaptue asks if Malika would mind sending him highlights from the workshop. Malika of course agrees, and shortly thereafter, they separate and she makes her way to the conference hall.

During the first half an hour of the conference, Malika becomes edgy during the uninspiring introductory speeches given in the noisy hall. The atmosphere however soon changes as the first speaker approached the podium. She is from an NGO and announces a figure: 36.6%. Silence then returns to the room as the participants wait with curiosity for the rest of the presentation.

The speaker resumes:

Women between 20-24 years married by 18 or earlier, 2015



'36.6 is the percentage of women in Africa (excluding North Africa) in 2015 who were aged between 20-24 years old and had already married by 18 or even earlier. Early marriage is still highly practised in Africa and affects girls far more than boys'. It has a debilitating impact on growth and the development prospects of young girls, undermines their ability to realise their optimal potential (dropping out of school is a classical aspect) and puts them at risk of various types of violence and abuse.

- ▣ Many countries still fail to provide legal protection and even in countries that have some legislation, child marriages continue illegally. The negative impacts are often irreversible and likely to continue in future generations, even if the situation is more reassuring in North Africa where the rates dropped from 19.1% to 12.7% between 2000 and 2015. Trends show that the decline in child marriage has been slow in both regions (North Africa and Africa (excluding North Africa)).
- ▣ We should all be aware of the importance of the Agenda 2063 target to reduce by 50% all harmful social norms and customary practices against women and girls and those that promote violence and discrimination against women and girls.'

The presentation was short but straight to the point, to Malika's delight. The next speaker, a presenter from the African Union Commission reviewed African (excluding North Africa) legal frameworks based on an index and score system. Although the idea of a technical talk on an index does not initially appeal, she was very positively surprised by the clear explanation of the figures presented and simplicity of the index:



'The index measures whether a country has laws on equal remuneration, non-discrimination in hiring, paid or unpaid maternity leave, domestic violence, criminalised marital rape and sexual harassment. A score of six indicates that a country has adopted all six laws and zero if it has none. It's not as complicated as it might sound:

- ▣ Most countries have adopted at least one or more gender-equal laws that protect women's rights to some extent. However, out of 47 countries, only two have adopted all six gender egalitarian laws – Namibia and Zimbabwe.

- ▣ 14 countries have adopted four of the six laws and 12 have adopted three out of six<sup>(1)</sup>.

Malika whispers towards the man sitting next to her:

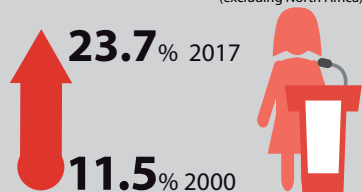
- **Malika:** 'These results suggest that, while progress has been made, a number of countries still have laws that discriminate against women in the private and public spheres.'
- **The man:** 'Indeed, and, in my opinion, progress should happen quicker in this area if we are to achieve SDG goal 5.5: to 'ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.'

I haven't seen data clearly showing that, except for South Africa, access to a financial institution is consistently lower among women – 25.1% in 2014 compared with 32.7% for men<sup>(2)</sup>. Low levels of access to finances limit women's access to resources and their opportunities for economic empowerment. There are only a few data on the female share of employment in senior and middle management, but they all show participation lower than 20% (except for South Africa and Mauritius). I am not aware of the situation regarding the political participation of women but I believe it's probably worth making it a prime political target'.

Access to financial institutions, 2014  
(except South Africa)



Women in national parliaments  
(excluding North Africa)



Malika knows from her own work that it is not all gloom and doom. As a passionate person on these topics, she is all too aware women continue to be underrepresented in the political sphere but encouraging progress is evident. The proportion of seats held by women in African (excluding North Africa) national parliaments increased from 11.5% in 2000 to 23.7% in 2017. Tremendous progress was seen in North Africa during the subsequent 17 years: from 4.5% to 23.8%.

As Malika began to give more details, the chair of the session interrupted her to ask, while looking in her direction, if someone would like to share a comment with the rest of the room. Malika, a little embarrassed, had realised that she might have been talking too loud with her neighbour. Malika takes the microphone:

<sup>(1)</sup> <sup>(2)</sup> Source: 2017 Africa Sustainable Development Report: Tracking Progress on Agenda 2063 and the Sustainable Development Goals.

- **Malika:** 'My neighbour and I were discussing the lack of women's representation in policymaking and governance has implications for the advancement of gender equality in countries. Research shows that women in politics raise issues that others overlook, pass bills that others oppose, invest in projects others dismiss, seek to end abuse that others ignore and are more likely to reach peace agreements.'

She then warmly thanks the speakers for the very clear messages they delivered and asks if she may add a few words on the topics of physical and/or sexual violence experienced by women:

- **Malika:** 'Such violence not only has a debilitating psychological impact on its victims and future generations but has also been found to be associated with poor health outcomes during pregnancy and a higher risk of acquiring diseases such as HIV.'

In Africa, excluding North Africa, 22.3% of women aged 15 to 49 years have been subject to physical, sexual or psychological violence by a current or former intimate partner in the previous 12 months, which is higher than the world average (19%).

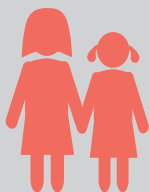
Physical, sexual or psychological violence against women in Africa 2014  
(except North Africa)



Female genital mutilation in Africa  
Girls and women 15 to 49

2000 **37%**

2016 **26%**



Female genital mutilation or cutting also remains contentious and problematic in several African countries even if there has been progress on the continent. The proportion of girls and women aged 15-49 years who have undergone female genital mutilation or cutting is estimated to be 26% in 2016 whereas it was 37% in the year 2000. The change is slow and complex.

Some prominent women who had themselves undergone this practice still believe that it is a private affair; even some very educated women are still sending their girls to participate in the practice.'

Malika's intervention kicked off the beginning of a long debate on options to improve the situation. Feeling exhausted she went back to her hotel room for a rest. While taking off her jacket, she noticed a small piece of paper fall from her pocket. It was the paper Kaptue had written his email address on. She grabbed her smartphone and wrote him a quick message:

Dear Kaptue,

*I hope you have travelled safely. As promised, here are a few outcomes from my conference. The presentations confirmed what I told you in the plane: Although much progress has been made towards attaining gender equality in Africa, much more remains to be done to empower women and reduce gender disparities. Translating policy commitments of the Agenda 2063/Agenda 2030 into action remains a challenge. Greater efforts are needed to strengthen laws, improve public services and enhance women's representation in leadership and their access to resources.*

*Don't forget that gender equality is a fundamental human right and it is also a development issue. Advancing gender equality is critical to all areas of a healthy society, from reducing poverty to promoting the health, education, protection and the well-being of girls and boys. I kindly encourage you to do something at your level. You can work together closely with women and girls to achieve gender equality and embrace healthy, respectful relationships. Feel free to contact me if you need information from the ground to feed your future research.*

Best wishes,

Malika



## Story 4: Energy & Infrastructure – The challenge of infrastructures and energy in facilitating sustainable business activities in Africa

Mr Sakho has a flourishing business in Yako, Burkina Faso. He buys food products from small rural farms across the country and sells them from his shop. One of his main products, gari, is enjoying increasing domestic and international demand. Today he is going to meet Ms Emilia and her team, one of his regular suppliers.

She manages a rural women's cooperative in her village which grows cassava and produces several food items from the legendary tuber, including gari<sup>(1)</sup>.

Emilia has been supplying Sakho for a long time but he is concerned that she cannot meet the increased demand using her traditional production methods. Emilia has assured him on the phone that her team recently obtained a grant to buy a cassava processing mill for grating the tubers. Using this, they can significantly increase their gari production. However, Sakho knows that the bigger challenge is the frying process. They currently use traditional fireplaces that consume a lot of energy, produce intense heat and smoke, and hence are very unhealthy. Wood is becoming very scarce and expensive as well, driving up production costs.

Sakho arrives earlier than planned and calls Emilia but the number is unavailable. What could be the problem, he wonders? Could her phone battery have gone flat given the problems of electricity still being experienced here?

<sup>(1)</sup> Gari is the main export product obtained from cassava. Its other products are for home consumption or for sale in the local market. Gari (sometimes spelt Garri) is a legendary flour-like food that is believed to have first been produced by the Hausas in Northern Nigeria. It gained popularity in ancient times because it was the favourite meal for travellers. It can be eaten as it is, or soaked in water, or prepared as "fufu". When soaked in water, it can be fortified by adding milk, honey, roasted ground nuts, coconut milk, and fruit or sugar. Nutritionally, gari is rich in carbohydrates, and the cassava from which it is produced is also very rich in fibres, copper and magnesium. With a shelf life of several years, gari is also popular in drought prone areas or places where food production is mainly seasonal. The resurgence in demand for gari is related to climate change as well as demand by West African migrants in different regions on the continent and overseas. The production process of gari involves several steps: After the cassava tubers have been harvested, they are peeled immediately and then grated. The pulp is put in bags and tied, both to allow it to ferment as well as to dry. Once dry, the flour is sieved properly to produce fine grains. The grains are then dry-fried in high heat to produce gari.

**The issues Sakho and Emilia have to discuss today are covered by SDG 7 'Affordable and clean energy' and SDG 9 'Industry, innovation and infrastructure'.**

AGENDA 2030 GOAL	AGENDA 2063 GOALS	AGENDA 2030 GOAL	AGENDA 2063 GOALS
<b>7 AFFORDABLE AND CLEAN ENERGY</b> 	1. A high standard of living, quality of life and well-being for all 6. Blue/ocean economy for accelerated economic growth 7. Environmentally sustainable climate resilient economies and communities 10. World class infrastructure crisscrosses Africa	<b>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</b> 	1. A high standard of living, quality of life and well-being for all 4. Transformed economies and job creation 5. Modern agriculture for increased productivity and production 6. Blue/ocean economy for accelerated economic growth communities 8. United Africa (Federal or Confederate) 10. World class infrastructure crisscrosses Africa 19. Africa as a major partner in global affairs and peaceful co-existence

Thankfully, Emilia is a serious and punctual businesswoman and Sakho does not wait long. Once villagers saw a car parked by the baobab, news quickly spread and Emilia knew it must be Sakho and she sends somebody to go and invite him to the house.

Her colleagues and she had prepared a special meal to welcome Sakho. Although not yet lunch time, Sakho is served gari fufu and a delicious sauce comprising of vegetables, egusi (blended dry pumpkin seeds) and dried meat. Everyone else present is served their share as tradition dictates. Thus Sakho gets a first-hand taste of the quality of gari he will be getting.

Emilia then takes Sakho for a tour, knowing he needs to be reassured about her ability to supply gari. Emilia proudly shows him the new cassava processing mill for grating the tubers and tells Sakho some good news that they had decided to keep until his visit:

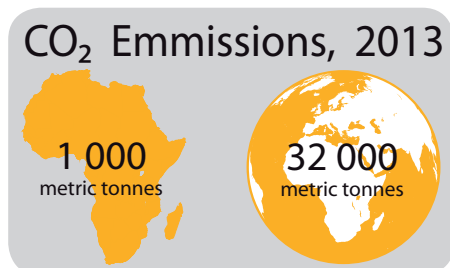
- **Emilia:** "We have just received a quote to construct a modern oven for frying gari thanks to a fruitful cooperation with an NGO. We have already partially found the money needed and hope to find the remaining amount soon. The new oven will be very efficient in energy consumption; it uses much less fuelwood – which can be replaced by modern renewable fuels. It does not produce much smoke and several basins of gari can be fried in a single oven, without producing so much associated air pollution (CO<sub>2</sub> emissions<sup>(2)</sup>). Above all, the ovens are safe and even children can play around them".

Sakho is impressed by the changes at Emilia's cooperative and sees that these women mean business. He hopes they can build this new oven soon. There is still some concern but he feels optimistic and is in a cheerful mood as he drives back to Yako. As usual, he tunes in to the radio. He is just in time for a popular talk show programme renowned for covering business issues in Burkina Faso and around the world.

Today, the show is focusing on sustainable energy and infrastructures to foster green business in Burkina Faso and Africa. A green energy investor has been invited to answer questions and provide his views on the recent developments.

The first question raised by the journalist gets straight to the point and asks

- **The journalist:** 'Can you tell us what the Agenda 2030 target to upgrade infrastructure and retrofit industries to make them sustainable for the African business community means, and what CO<sub>2</sub> emissions have to do with that? This is not understood by ordinary people!'
- **The green energy investor:** 'Good question! This refers mainly to the quality of production systems, especially in the manufacturing sector, and assesses the extent to which they are polluting. Given that Africa is at a very early stage in its industrial development process, it is the right time to critically examine its capacity to promote sustainable industries and sustainable development.'



In 2013, all African countries combined produced slightly more than 1,000 metric tonnes of CO<sub>2</sub>, a negligible fraction of the global emissions equivalent of more than 32,000 metric tonnes. With respect to carbon dioxide emissions per unit of GDP (purchasing power parity), Africa contributes some 0.2 units, compared with the global 0.3 units per unit of GDP. Although low emissions in Africa may appear to be a positive development, it obviously stems from the low level of industrial development of the continent.

<sup>(2)</sup> CO<sub>2</sub> is the main greenhouse gas emitted by human activities responsible for global warming and climate change. To know more about climate change impacts, go to story 5 The Consequences of Environmental and Climate Changes on Food Production and Security.

Nevertheless, as a latecomer to the industrialisation process, there is room to find ways of accelerating industrial development without significantly increasing emissions, by adopting new technologies and renewable energies<sup>(3)</sup>. The issue also concerns local pollution and that is why the Agenda 2063 also targets to recycle at least 50% of urban waste and meet air quality standards in all cities by 2025. The negative health impacts of using open fireplaces for frying gari, for instance, should not be neglected either.'

The word 'gari' made Sakho even more attentive; as Emilia had said two advantages of her new oven are low CO<sub>2</sub> emissions and reduced local smoke. The green investor continues:

- **The green energy investor:** 'In terms of electricity production, there are several good examples in the field of developing affordable energy without increasing air pollution, such as the recently opened mega solar power plant at Zagtoui on the outskirts of Ouagadougou. This is the largest solar power plant in the region<sup>(4)</sup> and the electricity from the plant will supply thousands of homes. The energy produced will be much cheaper – estimated at less than one-third of the current cost per kilowatt-hour on the national grid. Investment in solar energy is hoped to have a similar net effect in developing Burkina Faso as the Akosombo dam has had for Ghana for many decades now<sup>(5)</sup>. In general, renewable energy is also a way for countries to be less dependent on international price fluctuations with fossil energy.'

The low price for solar energy really surprises Sakho who like most people, has always viewed solar as an expensive energy source. The expert also adds:

- **The green energy investor:** 'Roughly 10% of the 600 million people living off-grid on the African continent are supplied with energy through individual or local renewable energy systems which generate and distribute services independently of any centralised system<sup>(6)</sup>.'

Sakho immediately thinks about Emilia and her cooperative located in an area not connected to the grid. A stand-alone solar system could significantly help them. Using solar lighting, the processing of gari could be done in the evening when the air is cooler. The solar lights would include provision for charging phones, listening to the radio and even powering a small TV to provide entertainment for young people. Emilia could then be easily reachable.

There was a new locally developed app that monitors market prices of the main commodities in the country, such as gari. Emilia could use it to negotiate future prices and reach agreements more rapidly than before. He would tell Emilia about the possibilities.

Sakho's attention switched back to the radio where the speakers were talking about electricity access:

- **The journalist:** 'In 2014, only 38% of the population had access to electricity in Africa and only 19% in Burkina Faso. The population with primary reliance on clean fuels and technology was only 7% of the Burkinabe, compared with 12% of Sub-Saharan Africa and a world average of 57%. So do you believe that solar power plants can really solve the African and Burkinabe electricity access problems which are a clear constraint to human and economic development?'

Access to electricity in Africa, 2014



**38%** of the population

<sup>(3)</sup> 2017 Africa Sustainable Development Report: Tracking Progress on Agenda 2063 and the Sustainable Development Goals.

<sup>(4)</sup> The plant has a capacity of 33 megawatts which will contribute about 5% of the energy on the national grid. Source: <https://phys.org/news/2017-11-burkina-faso-sahel-region-largest.html#jCp>.

<sup>(5)</sup> The Zagtali plant is sometimes described as Burkina Faso's Akosombo Dam, located in Ghana. This is the largest man-made dam in the entire region with its hydroelectric plant being an important origin of Burkina Faso's imports of energy. The Zagtoui plant is also the largest solar power plant in the region, hence the analogy.

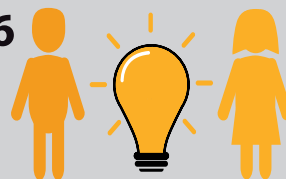
<sup>(6)</sup> Renewables 2017 Global Status Report and International Renewable Energy Agency (IRENA), 'International off-grid renewable energy conference highlights changing energy access narrative', 10 January 2016, <https://irenanewsroom.org/2016/10/01/international-off-grid-renewable-energy-conference-highlights-changing-energy-access-narrative/>.

- **The green energy investor:** 'Indeed! It's not enough to talk about renewable energy. A critical question is whether people can access energy, particularly electricity. The major challenge is providing electrification rapidly enough to outpace growing populations. Progress has been made since 2000 when only 26.2% of Africans (North Africa excluded) had access to electricity. But a lot of investment is still needed to progress quickly in this area.'

About 612 million people still lacked access to electricity in 2014 in Africa<sup>(7)</sup>, more than the entire population of the 28 Member States of the European Union together (512 million in 2017). Furthermore, the reliability of the power supply is also a challenge.




About your question – I am ready to bet that, yes, given the amount of sunshine on our continent, solar is definitively a promising solution. It is already a fast-growing market. In Burkina Faso, the Zagtoouli solar plant is going to be complemented by other schemes, such as the future solar plants at Koudougou (producing 20 MW) and Kaya (10 MW), which will obviously contribute to improving the situation. Of course, solar is not the only option and the challenge is to ensure the right energy mix.

**612** million people in Africa still lacked access to electricity in **2016**



### Modern renewable energy in Africa

Electricity capacity (MW)

2016	<b>2 973</b>	<b>3 862</b>	<b>32 431</b>
			
2000	<b>23</b>	<b>133</b>	<b>21 909</b>

Other renewable technologies will also play a role (modern solid biofuel, wind and hydroelectricity, for instance). Agenda 2063 also has a target that at least 10% of renewable energy will stem from wave energy.'

A very interesting talk thinks Sakho as the green energy investor goes on:

- **The green energy investor:** 'We talk a lot about Burkina Faso, but one could also cite many other African countries like Morocco. Electricity access increased from 67% in 2000 to 92% in 2014. This country is making significant efforts towards the promotion of renewable energy, which will help to make industries more sustainable, with increased resource-use efficiency'

The journalist interrupts him:

- **The journalist:** 'Non-expert listeners may not understand the meaning of resource-use efficiency. Can you explain?'

<sup>(7)</sup> Global tracking framework 2017, <http://gtf.esmap.org/>.



- **The green energy investor:** 'When we talk about energy use, the sustainable objective is to try to produce the same amount while using less energy. Smart business owners monitor this aspect very carefully since it is important for reducing their energy bill. At the level of countries, we look at energy intensity. This measures the amount of energy needed per unit of economic output. The energy intensity in Africa (excluding North Africa) decreased from 10.2 in 2000 to 7.3 in 2014, suggesting that energy is being better used<sup>(8)</sup>. Such an improvement can lower demand growth for energy, lighten the environmental footprint of energy production and make energy more affordable.

### Energy intensity in Africa

(excluding North Africa)

10.2 in 2000

7.3 in 2014

That is why this is also an Agenda 2030/Agenda 2063 objective. However, the energy-intensity improvements partly reflect movements in global oil prices which boosted the GDP of oil-producing nations, particularly between 2000 and 2010. In Africa, energy intensity declines are inhibited by the high share of traditional solid biofuels consumption, which is not amenable to large energy efficiency gains. But declines are expected as countries switch from traditional biomass to modern fuels<sup>(9)</sup>.

Sakho has never really looked at his shop's energy bill and the cost of his generator in detail, something he should do in future. The journalist asks:

- **The journalist:** 'Do you want to add a few words before we take questions from our listeners?'
- **The green energy investor:** 'Yes, let me add that one limitation of renewable energy statistics is that they are not able to distinguish whether renewable energy is being sustainably produced. For example, a substantial share of today's renewable energy consumption in Africa comes from households using wood and charcoal, which is frequently associated with unsustainable forestry practices<sup>(10)</sup>.

In Africa, 57% of total final energy consumption in 2014 came from renewable energy, the highest share in the world. This is mostly due to the use of traditional biomass. The share of modern renewable energy consumption (such as electricity from wind-mill energy or solar panels) as total final energy consumption was 8% in 2014<sup>(11)</sup>. Africa's high share of renewable energy therefore reflects high yet falling reliance on traditional biomass.

### Renewable energy consumption, 2014

57%

<sup>(8)</sup> The figure for Africa in 2014 is 6.0 MJ/2011 PPP \$ (mega joules per 2011 purchasing power parity dollar). Note that Energy intensity improvements partly reflect movements in global oil prices, which boosted GDP of oil-producing nations, particularly between 2000 and 2010.

<sup>(9)</sup> Global tracking framework 2017, <http://gtf.esmap.org/>.

<sup>(10)</sup> Each country is a unique case. The renewable energy share in the total final energy consumption for Burkina Faso was very high (76% in 2014) because it was a result of imports of hydro-electricity, mainly from Ghana. This was even higher than the 70% average for Sub-Saharan Africa. In contrast, the world average in 2014 was only 18% renewable energy, and the European average was not more than 13%.

<sup>(11)</sup> Global tracking framework 2017, <http://gtf.esmap.org/>.

Sakho remembers that Emilia's new oven uses less energy so allows more gari to be produced, and at the same time, reducing her environmental footprint by using less wood! She is definitely one of those smart business owners which the man on the radio was talking about!

- **The journalist:** 'It's now the time for our radio listeners ask us questions or share their business experiences, so please feel free to call us now'.

During the commercial break, Sakho stops his car at the side of the road, takes out his mobile phone, and is happy to see that there is a network available. He dials the radio station and immediately gets connected live. The journalist invites him to talk:

- **Sakho:** The rural women's cooperative who produces cassava for my gari business is going greener. However, the owner looking for extra money to meet her investment budget. Do you have any suggestions what she could do?'
- **The green energy expert:** 'Why don't you consider offering the cooperative an interest-free credit loan to construct the new oven if they would pass on some of the reduced production costs by offering lower prices for future sales?'

While another radio listener talking, Sakho does not even believe he has made this call. He had even mentioned the name of his business. Maybe some of his clients and suppliers will be happy to learn that he cares about the way his products are made!

Once Sakho is home, he decides that he will call Emilia and offer to contribute to funding the oven, based on the green investor expert's idea. No doubt Sakho and Emilia will do great business together in future!





## Story 5 : Food production & climate change – The consequences of environmental and climate changes on food production and security

Terence is a native of the Kingdom of Fausoh<sup>(1)</sup> in Cameroon but is now living in Yaoundé, the capital city. He is back in his kingdom for a few days to attend Fausoh's annual cultural festival. It is entirely rural and has no road network that can carry vehicles. The road sections where motorcycles can pass through are mainly hand-dug or dug using hired bulldozers.

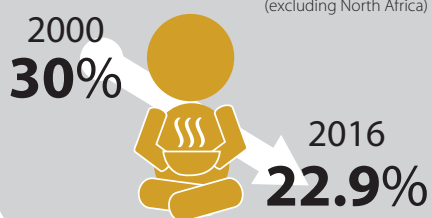
The poor road situation is compounded by the many small streams and rivers running through this mountainous kingdom.

Passionate about climate change issues and their impact on rural livelihoods, Terence has been providing advisory services to NGOs nationally and within the continent for several years.

Terence's work topics are covered by the Sustainable Development Goal (SDG) 2 'Zero Hunger' which aims to end hunger, achieve food security, improve nutrition and promote sustainable agriculture and SDG 13 'Climate action' which aims to take urgent action to combat climate change and its impacts.

On the morning following the festival, and before leaving, Terence is enjoying his traditional breakfast and reflecting on a wonderful, fun-filled cultural event. He enjoyed the cultural dances, varieties of traditional food from different villages in the kingdom, colourful attires, masquerades, traditional music, wonderful drummers, etc. Terence is almost in a trance reflecting on the contrast between the challenges of agriculture compounded by rough terrain, poor infrastructure and declining opportunities for sustainable livelihood in this kingdom on the one hand, and the exceptional festival he has just witnessed on the other.

### Undernourished People in Africa (excluding North Africa)



### Hunger and food insecurity

Overall, Africa has made notable progress in reducing hunger over the years. Undernourished people dropped from 30 to 22.9 % between 2000 and 2016 (North Africa excluded) and is below 5% in North Africa.

But, food insecurity remains high. 161 million people experienced severe food insecurity in 2015, almost all from rural areas (96%). 57.2% of the population experienced food insecurity at moderate or severe levels (against 54.3% in 2014).

<sup>(1)</sup> The Kingdom of Fausoh and the Nchen river are fictious names.

### 'SDG 2. Zero hunger' and 'SDG 13 Climate action'

AGENDA 2030 GOAL	AGENDA 2063 GOALS	AGENDA 2030 GOAL	AGENDA 2063 GOALS
<b>2</b> ZERO HUNGER 	1. A high standard of living, quality of life and well-being for all 3. Healthy and well-nourished citizens 4. Transformed economies and job creation 5. Modern agriculture for increased productivity and production 7. Environmentally sustainable climate resilient economies and communities 8. United Africa (Federal or Confederate)	<b>13</b> CLIMATE ACTION 	5. Modern agriculture for increased productivity and production 7. Environmentally sustainable climate resilient economies and communities 12. Capable institutions and transformed leadership in place at all levels

## Population experienced food insecurity in 2015

# 57.2%



While reflecting on the additional impacts of climate change in rural regions of Africa and extra pressure on agriculture and food insecurity, he notices some agitation in the street.

A man is sharing the news of an extreme flooding that took place the night before in Assoh, a village about 15 km from the Palace – the venue of the festival. It looks like that a sudden, strong and fast flow of water destroyed the traditional market and several houses and left at least one person missing.

On hearing the news, Terence decides to reschedule his departure from the Kingdom to visit Assoh for a first-hand appraisal. He wishes to make his own assessment of what transpired since part of his work with the NGOs is, after all, to document climate-related disasters and collect feedback from people living in the affected areas. He negotiates a fee with a biker to take him to Assoh.

The ride is bumpy and when they reach the site of the devastation, the water was not there anymore but the consequences are visible. The road is very damaged and the biker is struggling to progress. Terence asks to stop at the site of the Nchen bridge, where the flooding began. He quickly looks around and takes some pictures. The biker reminds Terence:

- **The biker:** 'In the past, the village regularly experienced heavy rains, some lasting up to a week, yet the River Nchen never overflowed into the village. Do you remember?'
- **Terence:** 'Indeed, but it appears that this kind of flash flood and extreme rain may become more and more violent and frequent, according to scientists working on climate change. The bridge looks rather low and would need to be adapted.'

The biker explains that local people have been trying to bring roads into the village through community labour, levies and contributions from the diaspora community. He indicates that this bridge is one of several recently constructed on the same model and realises that the same risk can occur.

Terence continues to observe and comments:

- **Terence:** 'It's a long time since I have been here but I am surprised not to see any cultivation other than food crop for animals and not to see animal around. I also see that many homes appear to have been abandoned.'
- **The biker:** 'Most youths leave the village at the earliest opportunity, especially after several bad harvests in a row. It looks as if the number of abandoned houses keeps increasing. Farming is now mainly in the hands of the elderly, who can only cultivate around their homes and in nearby river banks, where soil fertility is better. The maintenance of fences needed to raise livestock is too heavy job for the elderly. So, they are forced to get rid of livestock.'
- **Terence:** 'I suggest we go to the village and try to meet the chief.'

On his arrival, Terence is surprised that news of 'some stranger taking pictures at the site and on the road', had reached the Chief before his arrival. The Chief really does have many eyes and ears! After exchanging greetings, Terence explains to him how he happens to be in the village and his desire to discuss with him and the other elders, including women, about what happened.

He added that as an activist and expert in climate change, feedback from them would help him compile the story about the disaster and more extensively about the consequences for people and the local community.

The quarter Chief agrees and invites other inhabitants of the village to join them. As people gather, Terence informs them:

- **Terence:** 'I have seen a lot of change in the region and farming that has now spread very close along the river banks. I have noticed tree felling, ploughing near the river and soil erosion have accelerated and the forest has almost disappeared; In general, all these factors combined with low bridges and more frequent heavy rains often lead to sudden floods like yesterday and increases local risks. How is the situation of the village?'

The Chief responds by recounting the problems that led the villagers to farm along the river banks. With much nodding and acclamation by his subjects, he outlined what had changed in the village over the years:

- **The Chief:** 'In the old days, we had fish in the rivers, we had wild animals in the bush, we cultivated crops in the fields far from our homes. This allowed us to raise domestic animals such as goats, sheep and pigs as well as chicken in fences space around houses.

We were used to practice shifting cultivation; each planting season, I or another chief would demarcate the new sections of the land to be cultivated by women for food crops. These practices ensured that the fertility of land was also maintained since we do not use chemical fertilisers for food crop cultivation in our cultures. Above all, we knew when to clear the fields for cultivation, when to start planting, when to weed and when to harvest. We planned other activities around these dates.

Then the gods started playing tricks on us! Sometimes the rains now begin in February and persist, sometimes we have a few spells, and nothing happens again for a month or two. We can no longer rely on the natural rain cycles, and we do not know what will happen the following year or the year after.

For example, this year no-one in the village cultivated the traditional July-August crops such as groundnuts and maize because there was just no break in the rainfall during this period. The March rains lasted longer than usual and affected planting. Additionally, at times like last night, we have a sudden and unexpected large amount of rain in a short amount of time and the river expands. There just seems to be more and more problems that we have no control over!

Many of our indigenous crops have been wiped out because when crops fail, and they have failed many times in the last 20 years, we lose seeds for the next year. That is how households started boiling green bananas for food and cultivating near the river banks to guarantee crops. Now there is no space to keep domestic animals near houses, wildlife numbers have been greatly reduced and hunting of several animal species is prohibited because they are in danger of disappearing<sup>(2)</sup>. Our soil lost its fertility and food crops that used to be cultivated to feed animals are now the only reliable items in our meals!

One elderly man, who was clearly not amused, took to the floor to voice his objection he had regarding cutting down trees along the river banks and ploughing around the floodplains:

<sup>(2)</sup> However, in Africa, the known level of risk of extinction of local breeds remains moderate, compared with other regions of the world. For example, in 2017, the proportion of local breeds classified as being at risk is 2% for Africa (excluding North Africa), compared with 19.6% at the global level.

- **Elderly man:** 'The village must have a regulation that specifies how far away from the river someone can plough, and that anyone who ploughs near the river must plant and maintain new trees.'

A woman then complained bitterly that because of the destruction of the forest upon the hills, the stream that she used to carry draw drinking water from had vanished:

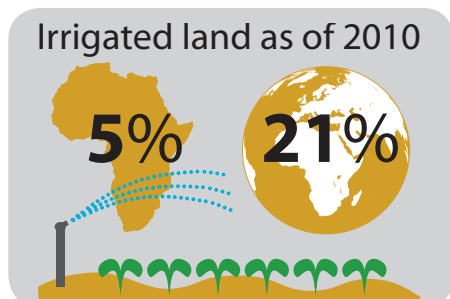
- **Woman:** 'Now I must fetch water from the stream that passes alongside a neighbour's house that has so far only been used for bathing and washing clothes. Forest areas from which the springs rose need be protected and well managed.'

A lot of trees and vegetation have been lost in the village due to the practice of cutting and burning trees on the farmlands before ploughing. Villages from where we now buy seeds do not burn before ploughing.'

These concerns did not go unchallenged though. Some women protested against the candid and frank assessments of their way of farming.

The Chief gives the floor to Terence who concludes from the valuable contributions of the Chief:

- **Terence:** 'I understand from this discussion that the biggest problem you encounter is the changing timing and patterns of rain which are no longer as regular and predictable as before. Agricultural practices have evolved to adapt and ceased immediate advantages by using the river bank while infrastructures like bridges and road have developed at the same time. But changes in rain patterns are fast and it is going to be very difficult to anticipate and adapt spontaneously. In my opinion, the current situation seems to be largely a consequence of climate change – which is caused by human activities – and not a punishment from gods.'



### Key actions: Irrigation and investment in agriculture

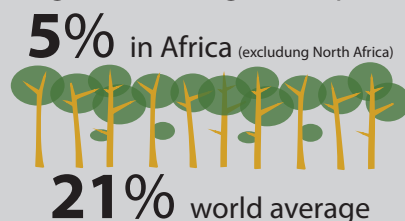
One of the key actions identified for Africa in agriculture to improve the situation is to set up irrigation systems. As of 2010, irrigated land was only 5% of agricultural land in Africa, compared with 41% in Asia and 21% at the global level. It should help to increase agricultural productivity (a key objective of Agenda 2063) which is currently well below the rest of the world.

Investment in agriculture is needed to achieve this objective but data available do not show the higher orientation of government spending towards the agriculture sector; international aid to agriculture in Africa, which is another source of financing, increased since 2002.

### Sustainable agriculture and use of resources (soils, ecosystems, forest, etc.)

An increase of productivity in agriculture should occur in a way that is compatible with long-term development and should consider sustainable use of water and soil as well as ecosystems. That is why SDGs also put emphasis on combating desertification, restoring land and soil, freshwater ecosystems and their forests. According to estimates, Africa has 25% of wasteland (the highest proportion of any continent), 12% lightly or moderately degraded land and 4% extremely degraded land (also the highest proportion).

### Proportion of forest areas with long-term management plan



The main type of degradation by far is the loss of topsoil (76% of the degraded area) followed by the loss of soil nutrients (9%). Forest areas are generally more and more protected but in Cameroon for instance, forest areas dropped from 51% of total area in 1990 to under 40% in 2015. The proportion of forest areas with a long-term management plan is only 15 % in Africa (excluding North Africa) and 23% in North Africa against a world average of 53%.

Africa has been facing one of its worst food crises since the onset of the effects of El Niño. While El Niño-like impacts were felt in the Sahel in 2015, they especially affected Mauritania and Senegal, which experienced their worst droughts in two decades. The most recent effects were seen in the Horn of Africa, particularly in Ethiopia and Somalia and most countries in Southern Africa, but more so in Zimbabwe. In Ethiopia, 10.2 million people were food insecure in early 2016 (FAO 2016), tripling the humanitarian needs within a year owing to successive crop failures and widespread livestock deaths. Similar conditions were seen in Somalia and South Sudan, affecting an estimated 7.5 million people. Most Southern African countries were also affected by the effects in the latter part of 2015, with the most severe drought conditions in decades witnessed in Madagascar, Malawi, South Africa, Swaziland and Zimbabwe. Almost 40 million people were affected.

### El Niño effects threaten Africa's food security

El Niño and La Niña are climatic phenomena that originate from a significant temperature anomaly in the surface waters of the South Pacific Ocean. They occur every 2 to 7 years and typically last for 9 to 12 months, and have widespread impacts on weather around the world. The 2015/2016 El Niño was one of the strongest on record. It is likely that climate change is increasing the impacts, especially, of El Niño, in terms of more intense heat and heavier precipitation. 2015 was the hottest year on record because of the combined effects of climate change and El Niño.

Sources: World Meteorological Organisation (WMO) and 2017 Africa Sustainable Development Report: Tracking Progress on Agenda 2063 and the Sustainable Development Goals.

The effects of El Niño throughout Africa point to several policy issues:

- 1. Large-scale humanitarian support is required to assist food-insecure populations, institutional arrangements and coordination
- 2. They highlight the need for all countries to be well prepared for such emergencies, including strengthening climate-smart agricultural practices, investing in irrigation and building emergency food reserves.
- 3. Adapting to climate effects and taking proactive steps to mitigate human contributions to climate change could go a long way in addressing climate-related disasters in the long run.
- 4. Sustained and sustainable economic development could always act as a buffer to such crises by providing the resources required to affected populations from within to build greater resilience to shocks.

Terence thinks that the particular issues in this region demonstrate very well the general situation found in several African countries, the policy issues surrounding them and answers provided by SDGs (see text box regarding the effects of El Niño).

The Chief then interrupts Terence and states:

- **The Chief:** 'I have already heard from our government that they have plans to help us cope with our problems and that funding should be available. We will bring our experiences to the table. I also fully agree with your assessment of the situation, but in our village we have to deal with the present situation immediately. Do you have any information on that?'

- **Terence:** 'The situation cannot be resolved ad-hoc. Besides dealing with the current urgency, minimising vulnerability and consequences of erratic climates will require the community to define new rules and adopt new practices in the long term.'

Governments of all countries are mobilising. In 2015, they signed an agreement called 'the Paris Agreement on climate change', in which all countries committed to take action to address climate change in a wider Sustainable Development Agenda also adopted by all countries in 2015.

Several African countries have regulatory provisions for disaster risk management (32 in 2015), and have a national plan to adapt to climate change (34 in January 2018) and are eligible for adaptation funding<sup>(3)</sup>.

Terence offers to assist the village if they wish to apply for support from such funds and to identify specific options to cope with climate change, adapt the bridges and improve agricultural sustainability and productivity. It will not be easy but as a native, he knows the region and can help to ensure support will meet the needs.

## 34 African countries have regulatory provisions for:

- Disaster risk management
- Climate change



The Chief closed the meeting and thanked Terence and all participants, before emotions went out of hand, and confides in Terence.

- **The Chief:** 'I feel assured there is an opportunity to approach the higher authorities for seeking both immediate and long-term support to prevent our village from similar disasters in the future. I will also be in touch with your NGO to create concrete solutions together with the population.'

On his way back, Terence feels satisfied that he had decided to visit the site. He would ensure that the event receives wide attention and hopefully spur national discussion leading to a greater involvement of various government departments and the public at large.

It will be one more case for advocating his usual message: 'additional investments in agriculture, adoption of climate-smart agriculture and overall agricultural efficiency improvements will be necessary if Africa is to offset the negative effects of climate change while still increasing agricultural productivity<sup>(4)</sup>'.

<sup>(3)</sup> Achieving Sustainable Development in Africa through Inclusive Green Growth, UNEconomic Commission for Africa, 2015. Note that the Paris Agreement is also about reducing greenhouse gases emissions responsible for global warming (look at story 4 for an illustration).

<sup>(4)</sup> 2017 Africa Sustainable Development Report: Tracking Progress on Agenda 2063 and the Sustainable Development Goals.