



INTERNATIONAL FORUM REPORT

# WOMEN AND SUSTAINABLE DEVELOPMENT IN AFRICA

8–10 March, 2018 held at the  
**Julius Nyerere International  
Convention Centre**  
*Dar es Salaam, Tanzania*



BILL & MELINDA  
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INSTITUT DE FRANCE  
Académie des sciences

ACACIA  
UNEARTHING AFRICA'S POTENTIAL

## **International Forum Report: Women and Sustainable Development in Africa**

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# ACRONYMS AND ABBREVIATIONS



<b>AU</b>	African Union
<b>AFD</b>	Agence Française de Développement
<b>CBOs</b>	Community-based Organisations
<b>COPED</b>	Comité pays en développement
<b>EEE</b>	Enabling Economic Empowerment
<b>FAS</b>	Forum of African Scientists
<b>FAWE</b>	Forum for African Women Educationists
<b>FGM</b>	Female Genital Mutilation
<b>GYS</b>	Global Young Scientists
<b>HDPF</b>	Hope for Destitute People Foundation
<b>HIV &amp; AIDS</b>	Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome
<b>IAP</b>	InterAcademy Partnership
<b>IRD</b>	Institute de Recherche pour le Développement
<b>NASAC</b>	Network of African Science Academies
<b>NGO</b>	Non-Governmental Organisation
<b>OECD</b>	The Organisation for Economic Co-operation and Development
<b>SDG's</b>	Sustainable Development Goals
<b>SPEC</b>	Science for Poverty Eradication
<b>SSA</b>	Sub Saharan Africa
<b>TAAS</b>	Tanzania Academy of Science
<b>TECMN</b>	Tanzania Ending Child Marriage Network
<b>TOT</b>	Trainer of Trainers
<b>UNEP</b>	United Nations Environmental Programme
<b>WHO</b>	World Health Organisation
<b>WISWB</b>	Women in Science Without Borders
<b>YPP</b>	Young Peace Performers
<b>YWCA</b>	Young Women of Catholic Association

# EXECUTIVE SUMMARY

This International Forum was organised in collaboration with the Tanzania Academy of Sciences and the French Academy of Sciences in partnership with the Bill and Melinda Gates Foundation, the French Development Agency, the French Institute for Development Research, the Sanofi Espoir Foundation and the Inter Academy Partnership. In attendance were 170 male and female participants from 24 countries; amongst them academicians, scientists and experts working on sustainable development and the role of women in realisation of the Sustainable Development Goals (SDGs) in Africa. The Forum's official languages were French and English.

The Forum set out to highlight the central place of women's contribution and leadership to achievement of sustainable social and economic progress, especially in Sub Saharan Africa where the role of women in development had been neglected over time. The novelty of this approach was the emphasis on the role of science in resolving issues using an African scientists' perspective. The conference highlighted how accelerated sustainable development is possible by proactively engaging women in policy and decision-making processes.

The challenges encountered by women in caring for and educating their families; improving access to water, energy and healthy food; combating the negative effects of climate change; sustaining a growing, young and underemployed population; and contributing to the political, social and economic development in Africa were considered in perspective.

The Forum thus provided a platform for scientists to dialogue with and, provide evidence-informed advice to policy makers on the value of women's participation and inclusion in national frameworks for realisation of the SDGs; in particular, SDG 5 on 'Gender Equality'. The science community present at the Forum also marked the World Women's Day.

The broad programme consisted of power point presentations, panel discussions, question and answer sessions and plenary discussions. The major outputs of the Forum were the Dar es Salaam Declaration, adopted at the end of the event and, this Report produced with the input of participants.

# INTRODUCTION



The International Forum on Women and Sustainable Development in Africa was held from 8th to 10th March 2018, at the Julius Nyerere International Convention Centre in Dar es Salaam, Tanzania. The objective of the Forum was to provide a platform for scientists to dialogue and provide evidence-informed advice to policy makers on the importance of women's participation and inclusion in national frameworks aimed at fast tracking realisation of the Sustainable Development Goals (SDGs) in Africa. One hundred and seventy (170) participants attended the event from 24 countries including: Benin, Botswana, Burkina Faso, Burundi, Cameroon, Egypt, Ethiopia, France, Ghana, Kenya, Mauritius, Mozambique, Niger, Nigeria, Rwanda, Senegal, South Africa, Sudan, Swaziland, Tanzania, Tunisia, Uganda, United Kingdom and Zambia.

The Forum's official opening was presided over by Hon. Prof. Joyce Ndalichako, MP, Minister of Education, Science and Technology of the United Republic of Tanzania. H.E. Aïcha Bah Diallo, Former Chair of the Forum of African Women Educationalists (FAWE) and, Former Minister of Education in Guinea Conakry delivered the opening keynote address. The closing keynote address was delivered by Prof. Akiça Bahri from the National Agricultural Institute in Tunisia and the Conference was officially closed by Prof. Faustine Kamuzora, the Permanent Secretary for Policy and Coordination in the Prime Minister's office, Tanzania.



**Left to Right:** Hon. Prof. Joyce Ndalichako (Ministry of Education, Science and Technology, Tanzania), H. E. Amb. Frédéric Clavier (Embassy of France, Tanzania), Catherine Bréchnignac (French Académie des sciences, France)

## Background

The international forum delved on the contribution by women to social and economic progress in the African countries. It served to highlight the challenges encountered by women in their pursuits to care for their families, to educate, improve access to water, energy and healthy food; combat the negative effects of climate change and sustain a growing, young and under-employed population. The Forum as well focused on establishing women's contribution to the Africa's political, social and economic development and enabled the science community present to mark the International Women's Day.

African countries are executing the United Nations SDGs Agenda 2030 and the African Union Agenda 2063. A paper by Casazza, (2015) '*The Sustainable Development Goals and the African Union's Agenda 2063: A Comparative Analysis*', has pointed out that social development, inclusive economic prosperity, peaceful societies and institutions and, sustainable environments are issues in both the SDGs' 2030 and the Africa Agenda 2063. Sustainable consumption, production and management of ecosystems are in Agenda 2063 only.

Science Academies and the Network of African Science Academies (NASAC) therefore have a critical role to play in providing evidence-based advice to achieve sustainable development and, in designing solutions to the challenges entailed in executing gender policies and strategies. If this happened then the possibility of Africa reaching its potential could be realised.

The need for women's empowerment was thus emphasised even though the responsibility to raise awareness, encourage participation and assist women rested with governments, civil society and other actors. Women's empowerment was described as a process requiring an enabling environment for women devoid of discrimination, and the capability for women to own and control their lives and contribute to societal changes. To empower women, provision of education, capacity development, financial support and changes in the legal frameworks would be required to facilitate property rights and fair treatment at family level.



## SESSION 1: OPENING CEREMONY



Prof. Yunus Magaya, opened the Forum, acknowledged all the dignitaries present and introduced the guests that were scheduled to speak during the session.



**Left to Right:** Prof. Yunus Magaya (Tanzania Academy of Science – TAAS), Jackie Kado (Executive Director, Network of African Science Academies – NASAC), Prof. Yousuf Mauderhocus (Mauritius Academy of Science and Technology – MAST), Prof. Esther Mwaikambo (President, Tanzania Academy of Science – TAAS), Hon. Prof. Joyce Ndalichako (Ministry of Education, Science and Technology, Tanzania), H.E. Amb. Frédéric Clavier (Embassy of France, Tanzania), Catherine Bréchnignac (French Académie des sciences, France), H.E. Prof. Aïcha Bah Diallo (Forum of African Women Educationalists – FAWE, Guinea)

### 1.1 Tanzania Academy of Sciences (TAAS)

In her remarks, the President of Tanzania Academy of Science (TAAS), Prof. Esther Mwaikambo thanked the Minister for accepting TAAS' invitation to preside over the Forum as the guest of honor. She introduced the Tanzanian Academy of Sciences as being established in 2004 and registered officially in June 2005, with a mission to promote and localise scientific and technological learning for national development. She indicated that all other academies had adopted similar characteristics, missions and goals. She stated that TAAS was a member of both the InterAcademy Partnership (IAP) and NASAC whose overarching goal was to provide policy statements and evidence-based advice to national governments through the academies.

The speaker indicated that the declaration and Science policy statement agreed upon by the Forum would provide policy advice on the issue of women's inclusion to the African Union (AU) and the African governments respectively. The Forum was thus a platform for scientists to dialogue and provide advice on inclusion of women in the sustainable development agenda and SDG 5 in particular. The central place of women to overcoming major development challenges was emphasised.

The TAAS President cited the Global Gender Gap Report of 2017 on ‘Women and Gender Parity’ which called for progress on the commitments made. He noted that celebration of the International Women’s Day represented the expansion of freedom of choice and actions and, an increase in women’s authority over the decisions that controlled their lives. To achieve the demographic dividend, the Forum aspired to provide insights on how to deal with the challenging issues of realising the sustainable development agenda. Prof. Mwaikambo concluded by thanking NASAC, the French Academy of Sciences and the sponsors for hosting the *International Forum on Women and Sustainable Development in Africa* in Tanzania.

## 1.2 Network of African Science Academies (NASAC)

Speaking on behalf of Prof. Mostapha Bousmina, President of NASAC, Dr. Yousuf Maudarbocus thanked the various organisations that had provided the human and financial resources to realize hosting of the Forum and specifically, the Tanzanian Academy of Sciences for being a gracious host. He noted that mainstreaming gender in Science education was an important strategy in increasing women’s participation in development and poverty alleviation.

Dr. Maudarbocus noted that the Forum had provided an avenue for championing women’s inclusion in implementation of the sustainable development agenda in the African continent. Participants were reminded that the IAP had recently instituted a Science for Poverty Eradication Committee (SPEC) he and Prof. Michieka represented NASAC and committed to realise SDG 1 and SDG 10. He observed that at the first meeting of the committee in Beijing, China some critical recommendations had been made and these should inform the Forum’s proceedings. These were that:

- Poverty affects women more than men since women spent more time and money in search of food, water or energy; and
- The most pressing problems of our time tend to affect women more than men yet women were endowed with special qualities to enable them tackle these challenges.

The Vice President concluded by wishing the participants a happy International Women’s Day and a successful Forum.

## 1.3 The French Academy of Sciences

The Secrétaire Perpétuel of the French Academy of Sciences, Prof. Catherine Bréchignac, observed that the current world population was 7.2 billion and scientific research indicated that there are fewer men than women. She noted as Galileo did that knowledge progressed quickly, leading to many technological advances. The growth of both populations and scientific knowledge had thus led to a divide between those who know and those that do not know as the latter lacked the base, time or access to learning. She noted that a large proportion of the world’s population therefore remained illiterate thereby creating a cohort of citizens without access to knowledge.

The complexity of this situation had led to questions regarding demography and scientific growth. There was thus a need to regulate demographic growth and, to stabilise knowledge and population growth to avert the possibility of disaster. There was also a need to invest more in education to enable populations to own knowledge and avoid retrogression. Fast tracking progress towards sustainable development would facilitate timely response to the needs of the present without compromising future generations. The women’s role was well defined and the International Forum would help to promote dialogue on the issue.

## 1.4 Comité pays en développement (COPED)

The Former President of the COPED and member of the French Academy of Sciences, Professor Francois Gros conveyed his best wishes to the Forum through a video message which highlighted the great opportunities the speaker had, to work with African scientists and NASAC in particular. He identified NASAC as an asset for Africa, with a solid foundation for the future of the continent, noting that the most pressing issue of the 21st century was inequality, which had resulted from old mindsets that needed abolishment. Fighting inequality, he emphasised, was not a question of modernity but of human dignity. Inequality was universal and not just a problem in Africa hence justifying the need for solidarity on the matter. The Forum was thus important in tackling the issue of inequality amongst the various actors involved.

## 1.5 Overview of the International Forum

The Executive Director of NASAC, Mrs. Jackie Olang Kado, acknowledged the guests and participants present and narrated the two -year journey that NASAC and the French Academy had taken to realise the International Forum.

Mrs. Kado indicated that the two organisations had envisioned an African continent where participation and inclusion of women in shaping the development agenda was the norm, considering gender equity as a human right. The international forum was thus agreed upon as an avenue where views and ideas on the topic of “Women and Sustainable Development in Africa” would be harvested. The Forum would have both men and women at the heart of the deliberations. The NASAC Board and General Assembly supported the idea and urged the secretariat to seek funding opportunities for its hosting.

In 2017, the French Development Agency introduced NASAC to the Bill and Melinda Gates Foundation. Consequently, the Sanofi Espoir Foundation and the French National Research Institute for Sustainable Development (IRD) developed interest and before long, the French Embassy in Tanzania was involved, bringing along several other Tanzanian organisations in making the conference a reality. Through the NASAC Women for Science Working Group, NASAC members had developed a publication that documented simple stories of the scientific journeys of African women scientists. The publication sought to inspire young girls and women to pursue careers in science. Copies of this publication, *‘Women in Science: Inspiring stories from Africa’*, would be availed for circulation at the Forum.

In closing, Mrs. Kado indicated that the Forum was organised in an interactive format to allow for exchange of ideas, sharing experiences and deliberations on the way forward. A mix of presentations, panel discussions and a parallel session on critical topics had been designed to allow for maximum exchange among the participants. It was what each participant did in their spheres of influence that would realise the change required to envision the desired Africa.

## 1.6 French Embassy in Tanzania

The French Ambassador to Tanzania, Mr. Frédéric Clavier, acknowledged all the guests and participants. He pointed out that the Forum would be of great value to the Embassy since Science was at the heart of Africa’s development and France regarded scientific cooperation highly. The place of women in achievement of the SDGs was emphasised considering that only 4% of women had access to higher education and less than 35% continued with higher education in Africa. The speaker noted with appreciation that the Government of Tanzania had enhanced her efforts in this regard and pledged the French Government’s support for the initiative.

He observed that Science academies would be required to jointly work with other institutions for France to provide financial and intellectual support. The vision of the scientists had to translate into concrete commitments such as the French President had done by ensuring ease in securing visas for students and scientists travelling to France. It was further revealed that France's cooperation with other institutions entailed support for intellectual development through award of scholarships for Masters and PhD programs and was particularly geared towards promoting women candidates with an interest in Science.

Greater mobility of students between France and Tanzania was encouraged so as to realise greater capacity for both countries. The need for French researchers in Africa (e.g. through the African Research Council) as well as advocacy for multi-linguism in the Tanzanian education system was emphasised, for increased mobility, employability, publication possibility and cultural identity. France was committed to offer support regardless of the language barrier and, French schools were available where instruction was facilitated in both English and French.

## 1.7 Formal Opening by the Minister of Education, Science and Technology of the United Republic of Tanzania

The Minister, Hon. Prof. Joyce Ndalichako, acknowledged all in attendance and observed that the United Republic of Tanzania was working in a coordinated manner to realise the SDGs. She indicated that in the past, women were discriminated against as families invested more in boys (particularly in education) while girls were engaged in household chores and other times, viewed



The Opening Ceremony



as commodities and sources of dowry. Agriculture, which is the main economic activity in most of Sub-Saharan Africa, was the duty of women while land ownership remained solely for men.

However, a lot of progress had been made as currently; there were more women in leadership thus breaking the historical barriers. Women were encouraged to work hard so as to demonstrate their capabilities. The Government of the United Republic of Tanzania had acknowledged the key role of women in Science, technology, health and education variously, including through assignment of women to the leadership of the delicate dockets of Health and Education.

## 1.8 Opening Keynote Address

Her Excellency Aïcha Bah Diallo, the former Minister of Education in Guinea Conakry and former Chair of the Forum for African Women Educationalists (FAWE) observed that women were the guardians of value and therefore played a critical role in sustainable development.

The speaker stressed that women empowerment was a social issue and the power for decision making with regards to property, access to resources or who wielded the power was critical. Education was vital (from nursery to the higher levels) and literacy was important in the formal as well as the informal sectors; for innovation of new technologies, hence the need to strengthen women's education and ensure integration of Science. She demanded the implementation of international legal instruments such as AU 2063 and UN 2030 summits that committed to enable women's empowerment.

The speaker indicated that participation of women at an equal level in the political, economic and social fields was an essential ingredient to development. Women's integration in policy development and action would reduce poverty and assure them of unlimited economic power through gender equality, access to land, credit and entrepreneurial opportunities. Her Excellency Aïcha Bah Diallo observed that the non-remunerated work done by women and girls was an obstacle to their economic empowerment as it was not appreciated. For instance, women in Africa spent 270 million hours collecting water; were highly exposed to violence; denied all the economic benefits deserved and these constituted serious impediments to achieving the SDGs.

It was observed that women's qualifications ranged from illiterate to highly educated and only 20% had access to bank accounts depending on their level of education. Participation of women in the labor market varied from region to region and, Africa manifested the highest population growth rates in the world. In the political realm, there were no women in high-level political positions and, women were excluded from conflict resolution and peace building even though they paid the highest price in conflicts. However, after the Beijing Conference of 1990, women had begun to occupy key positions and required greater solidarity with each other. Women trade unionists were thus urged to be proactive, to ensure an end to violence against women and inequality in business boards, as had continued to manifest in Sub Saharan Africa (SSA).

Her Excellency Aïcha Bah Diallo asserted that the time was rife for greater efficiency and an end to injustice. Women issues were complex and compounded with lack of political will and, there was a need to use a vast inter-sectorial approach inclusive of youth, business, and Government intervention so as to guarantee gender equality. She emphasised the need to evaluate progress and, for country specific action plans to guide achievement of Agenda 2063. Participants were urged to consider the realities and to formalise a declaration and commitments that would influence at the national and regional levels. Beyond the Forum, there was need to integrate women's voices and scientific expertise so as to move the agenda forward with courage and, with men as privileged partners who will accompany women on the implementation path.

## SESSION 2: CONTRIBUTION TO DEVELOPMENT BY SCIENCE

The session was chaired by Prof. Nelson Sewankambo, the President of the Uganda National Academy of Sciences, also, the Vice President of NASAC. Professor first sought to understand the meaning of science and then proceeded to introduce the speakers for the session.

### 2.1 Demographic Data and United Nations Forecasts

Prof. Henri Leridon (Académie des Sciences) and Jean-Pierre Guengant (IRD) made their presentations through charts and graphs. They provided historical data on the population before, during and after colonialism indicating that SSA currently had 1.0 billion people and manifested higher fertility rates compared to Asia and Latin America. The region's population would continue to grow in the next decades under all fertility assumptions envisioned in the United Nations (UN) Population Projections as illustrated in the figure below.

The current SSA population growth was attributed to increase in life expectancy and reduction of infant mortality (currently at 50 out of 1000 children before age five, as was the case some fifty years ago). According to the medium scenario of the last UN projections, the population of SSA would rise considerably up to 1.4 billion people by 2030 and 2.2 billion in 2050 and possibly, 4.0 billion in 2100. Therefore, the population of school age (5–14 years) cohort would continue to increase by 30 million every 5 years under the medium scenario up to 2040.

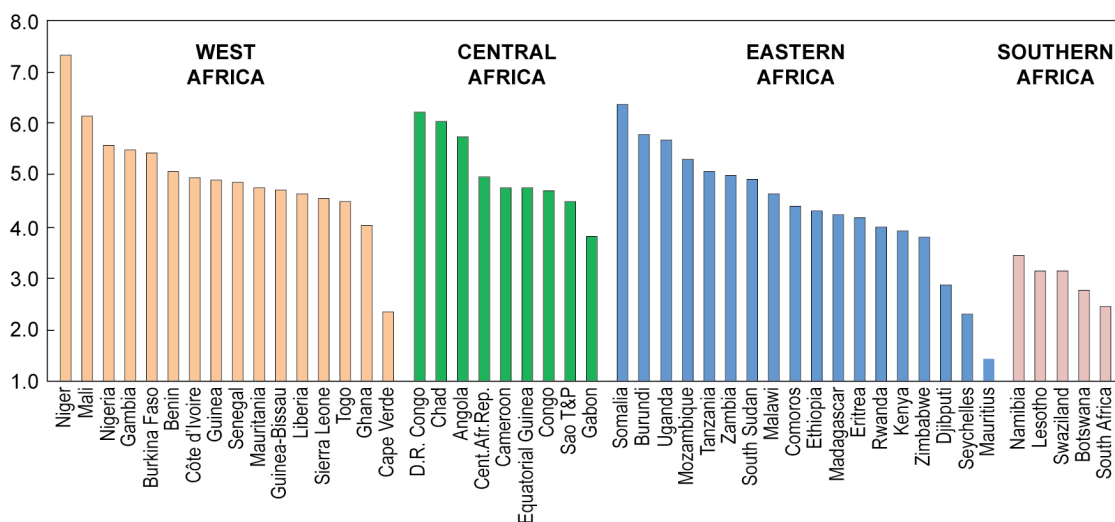
However, under the “low” scenario (fertility declining faster than in the medium scenario) the population would start to diminish sharply by 2020. Education was thus important in Africa as elsewhere on matters of population growth. In order to reduce fertility, families would be required to sire fewer children and women would need access to counseling, contraceptives and a positive attitude on their use.

Prof. Jean-Pierre Guengant from the Institute de Recherche pour le Développement (IRD-France) presented charts and diagrams on demographic data illustrating the differences in population, across the Eastern, Western, Central and Southern Africa sub-regions.

He observed that with the exception of Southern Africa, there were more than four children per woman across the regions. The UN had projected a decrease to 2–3 children per couple in most countries by 2050 although this would depend largely on the future course of fertility. There was thus a need to encourage large contraceptive use so as to yield a contraception revolution as was the case in Latin America (where at least 60% of the women in a union adopted a contraceptive method). To achieve similar levels in SSA by 2050, it would require multiplying by six the number of couples using contraceptives in East Africa and by three in West Africa.

The speaker emphasised a need to empower women and increase their access to the labour market to alleviate the burden of high fertility and lower the number of children. He summarised by stating as Prof. Henri Leridon did, that the population would increase in SSA under all hypothesis to such a magnitude as had not been witnessed in other continents. A large fraction of economic growth was presently

## There are differences in fertility levels between countries and regions in 2015

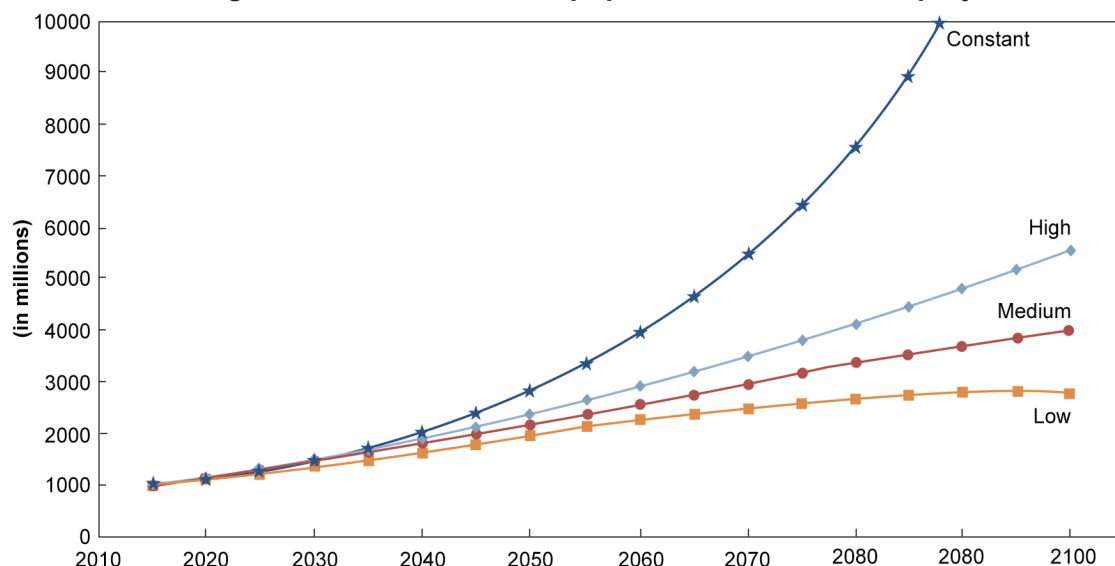


**CHART 1:** Difference in fertility levels between countries and regions in Africa  
 > 55% of the population live in countries with 5 children and more per woman, and 75% in countries with 4 children and more. Levels are lower in Southern Africa and Islands.

being and would continue to be absorbed by this continued demographic growth and declining fertility. To reduce the social negative impacts of these trends, there was a need to decrease fertility as demonstrated in the chart below.

The need to encourage equal participation of African women as well as to recognise their sexual and reproductive rights and, their right to education was emphasised. Both formal and informal education was cited as pertinent as even illiterate women required the motivation to participate in the social, economic and political arenas.

## The growth of the SS African population in the last UN projections



**CHART 2:** Population of Sub Saharan Africa (2015–2100) according to fertility assumptions (UN 2017)

## PLENARY DISCUSSION

In the 1990s HIV and AIDS was thought to decrease the population in some countries. Currently however, countries such as South Africa and Cote d'Ivoire still manifested high although declining HIV and AIDS infection rates but with a minimal impact on population growth.

Many SSA populations had not accepted oral contraceptives because of the alleged side effects. Besides the traditional methods (which were much less effective) however, there were no alternatives and the population therefore continued to increase despite the economic burden imposed on families.

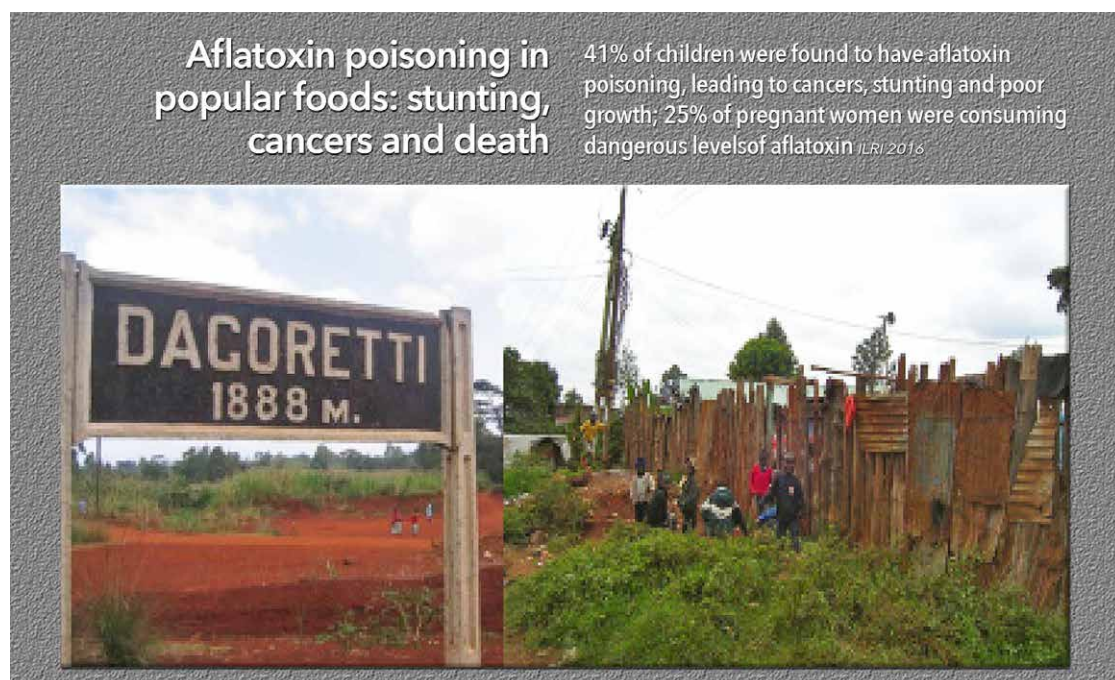
Studies indicated that pregnancies occurring too early, too close, too late and too numerous were the major causes of maternal mortality. Traditional contraceptive methods (including abstinence and long-term breast feeding) were still in use in many countries as they were perceived to have fewer side effects although these were not very effective in preventing pregnancies.

Migration did not appear to significantly affect population growth in many countries. The quote "Black is beautiful" was right but "small was beautiful" was right as well.

Contrary to widespread belief, countries and island nations that did not have very large populations were often better off than countries with large populations as they had generally succeeded in reducing their population growth.

## 2.2 Engaging Scientists and Academies in National Planning for Demographic Dividend

In her address, Prof. Jacqueline McGlade (formerly, Chief Scientist at the United Nations Environmental Programme – UNEP) sought to make a case for engaging national academies in the national planning processes. She observed that countries such as Rwanda with chief scientific advisors had achieved demographic dividend and advised the Academies of sciences in Africa to focus on the benefits of the demographic dividend.





To address this, populations would need to maintain healthy families by tackling the challenges of hunger, nutrition, communicable and non-communicable diseases and substance abuse. She further highlighted the need to fight hunger that was accelerated by weather and spread toxins that affected crops. These in turn contaminated the food chain and spread Aflatoxin which was linked to stunting and cancer. Population studies were observed as necessary although research was challenged by poor infrastructure and low faith in science, among other factors.

Prof. McGlade indicated that besides the minimal food quantity, nutrition was as well responsible for Kwashiorkor and Marasmus and, the effects of under nutrition were intergenerational. This constituted a threat to development of cognitive and executive powers thereby leading to more violence and less ability to deal with an uncertain future. The first 1000 days provided a window period in which to measure the interventions. Environmental conditions in Africa were changing as the ozone layer in the Antarctic was repairing and there was more heat from the top as there was from the core. Unfortunately, exposure of young people to new ideas that could contribute to Science was limited to medicine and engineering.

It was revealed that, in Kenya's Masaai Mara, women were engaged in some form of employment despite their not having attended school, an indication that if such women were successfully empowered with education they would improve their families. There was thus a need to consider demographic dividend, faster dividend transition, investment in youth, creation of decent jobs and gender aspects. The demographic dividend was attributed to a No of factors including high fertility rate, the decrease in dependency ration, increase in share of active population and increased possibility to invest in human capital (health, education, etc.).

This could as well result from physical capital with the consequence of greater economic development and the possibility to invest and reduce the fertility rates. Reduction in the burden of child bearing on women was dependent on women's autonomy as in the case of South Asia where a 15% per year to 56% increase was realised due to dividend. There was therefore a need for SSA to harvest the dividend by fast tracking the uptake of contraception which had tended to remain very low in West and Central Africa; medium in East Africa and high in South Africa. Equally, there was need for most SSA countries to elevate their marriage age for women as was the case with the men (25 years). Tunisia was cited as an example of a Country that had achieved the demographic dividend through legalising safe medical abortion.

It was further observed that, the perceptions of abortion in Cape Verde or Tunisia were managed through investment in youth human capital, education and improvement of the terms of labour (although, the quality of education had remained low, especially in Mathematics). Except for South Africa and Lesotho, most SSA Countries still manifested low informal employment and high unemployment. The possible solutions to achievement of the demographic agenda included use of contraception (to prevent early childbirth); higher education and allocation of more time to the labour market. Lower mortality rate could as well be attained through safe abortions of high-risk pregnancies. In conclusion, proactive and coherent policies were required for SSA to realise the urgency of the issue and to benefit from the demographic dividend.

## PLENARY DISCUSSIONS

It was observed that traditional knowledge in Africa was available in form of information on waste management, training and transformation of the waste produced, which would create employment. National Academies could act on material science, combating aflatoxin and be more involved in national planning strategies.

## 2.3 Panel Discussion on Demographic Dividend: *The generation that could transform Africa has already been born*

Ms. Halima Sharif from Advance Family Planning in Tanzania chaired the session by introducing all the speakers. She began by observing that a working population should be able to support its dependents; *'our children should have their children at the right time'*. She further emphasised that more investment was needed in youth skills, quality education and job-creation. The youth were passionate, had zeal for productivity and potential to be useful to their families and nations. However, contribution of the youth to Africa's transformation could only materialise through quality and relevant education; health; skills; conducive systems, policies and good governance. Appropriate action was therefore required to facilitate this.

Mr. Michael Asudi from the Organisation of African Youth in Kenya observed that Africa was at crossroads although the choice was between a future where the youth were tapped into and, a future of business as usual. 70% of Kenya's population was 29 years and below, yet the majority of production was outside this segment of the population. If this percentage could be put into productive use, then transformation could be realised.

Prof. Jean-Pierre Guengant (IRD) observed that Kenya initiated family planning at the same time as Mauritius and Korea but today, Kenya still had 4 children per woman, an indication that the Country had not harvested the demographic dividend. There was need to ensure that the current generation adopted a new family norm where every child born could access education. At the current pace however, the change from 4 to 2 children norm would take 100 years to realise.

Mr. Stephen Obiro of the Federation of Kenyan Employers opined that what made the agenda of dividend very special in Africa now was the fact that 200 million Africans were aged 20 to 24 years; being the critical population to facilitate the demographic dividend. Stakeholders were urged to move the agenda forward through action; invest in health and education; create job opportunities and facilitate good governance. The speaker indicated that there had been a lot of discussion around the dividend and youth in the last AU summit. There was however need to simplify the scientific language and unpack the discussion around the dividend to enable the youth take up the mantle and mobilise themselves to approach policy makers and demand for action. Tunisia was cited as a country where women had fewer children but economic growth was low due to lack of job opportunities and Zimbabwe as having many well educated people, but characterised by poor dividend harvesting as a result of the lack of employment.

It was noted that the value of education could not be achieved without job opportunities as most young people were in informal employment and could not therefore be self-sufficient. This unemployment increased the likelihood of their being a burden in the future. In addition, high education without jobs enhanced insecurity and the risk of our youth enlisting into terrorist gangs. The speaker observed that "a country or continent was as good as its people" so if 70% of the population was below 29 years, then Africa was as good as this 70% and if education and opportunities were not provided there would be no transformation.

There was a need for SSA to re-consider its education system with a view to providing skills to the population at all levels (besides University) and mentoring job creators instead of job seekers. Focus should be on the 15 to 30 age group, to break the poverty cycle; discourage school drop outs and early marriages. Africans should drift away from the idea of child spacing and instead focus on having the number of children they could take care of adequately. Fertilities in the urban and rural areas were differentiated mostly by economic empowerment and empowering the rural populace with education and information was thus

likely to precipitate change. African Governments were further urged to implement the good policies that were developed.

### *PLENARY DISCUSSIONS*

- The support of family members was a noble and African social obligation that required strengthening with regards to the possibility of making education accessible according to children's abilities.
- There was need to improve life in view of the effects of having women spend long hours away from their homes, families and children's development.
- There was need to strengthen policies to enjoy the dividend. The Tanzanian policy on contraception was aimed at reduction of maternal mortality and not fertility, and so the message needed to be communicated clearly.
- Numerous reforms were on-going, including expansion of higher education to enhance access for young people to educational opportunities. The advent of Young Academies was specifically lauded as a great opportunity in giving young scientists a voice.
- Studies revealed that it was nearly impossible to reduce the high maternal mortality rates without reducing fertility and many women were not interested in having fewer children. However, greater attention was required, to help the current generation to have fewer children.
- Everyone should be sensitive to cultural realities and especially so in the way that communication on fertility issues was disseminated, as culturally insensitive messages would not yield change. There was also need to link the education review to the business environment so as to raise a generation that could contribute to the economy.
- Transformation in Africa would be a reality only through access to relevant and quality education. There was also need to ensure retention of girls in school to enable them attain higher education levels with a focus on technical skills.
- Towards provision of job opportunities policy coherence was key in ensuring the four wheels/cogs worked together. As such, youth organisations should work together with policy makers and academicians to get reproductive health messages to the young people.
- There was a need for more action by Governments to ensure that data was used for decision making and counselors were stationed at health centres to advise women on birth control. Participants were urged to believe in the possibility for Africa's transformation through the current generation.

## SESSION 3: THE ROLE OF RESEARCH INSTITUTES FOUNDATIONS FUNDING AGENCIES AND INDUSTRY

This session was chaired by Prof. Mohamed Hassan, the former President of NASAC.

### 3.1 Bill and Melinda Gates Foundation

Mr. Joseph Fitchett of the Bill and Melinda Gates Foundation noted that gender equality builds lives with equal value and reduces inequity. He observed that, the Bill and Melinda Gates Foundation focused on the areas of Africa and Asia with greater needs with regards to chronic disease, accessibility and, making drugs, vaccines and technology reach the poor. He indicated that the organisation worked in 121 countries, with investments averaging US\$ 1000 grants; of which, US\$ 40 billion had been utilised on humanitarian work since 2000.

The Foundation sought to ensure survival through education, empowerment of the poorest women and girls; combating infectious diseases and inspiring people into action. Some of the projects undertaken included eradication of polio and communicable diseases and, agricultural development. The foundation had realised a high impact on investing in women, having spent US\$ 170 million on women's economic empowerment; financial inclusion and access to economic markets. They believed that every person deserved a healthy and productive life.

### 3.2 Sanofi Espoir Foundation

Ms. Valérie Faillat presented the role of Sanofi Espoir Foundation in supporting women. The organisation's rationale was to increase evidence that the economy was more resilient if there was no gender gap and women were more vulnerable in the context of poverty and violence. The Foundation's mission was to ensure reduction of health inequalities through response to emergencies and, to enable access to health care for victims and displaced persons; support to development; maternal and, newborn health care in poor countries.

Through the Foundation's initiative, 17 projects had been funded, 3 million women were monitored and 7000 health workers trained. Amongst these were the Midwives for life project (in collaboration with international confederation of midwives) and some long term programmes which sought to promote a multidisciplinary approach to maternal health issues.

The foundation encouraged partnerships and since 2013 had implemented a project that provided service delivery for safe motherhood and support for midwifery. Specifically, in partnership with the Tanzania and Carnegie Midwifery Association, Sanofi had spear headed training in obstetric emergencies where 300 people, 20 ToT's and 24 community health workers were trained to link between the formal and traditional sectors. The project had encouraged social innovation and philanthropy and was instrumental in shaping development.

Later surveys by the Organisation for Economic Co-operation and Development (OECD) showed that philanthropy had spent US\$ 20.4 billion from 2013–2015 with the reproductive health sector receiving more that 50% of this, followed by the education sector. The two sectors were perceived to play a major role in ensuring sustainable development and achievement of SDG 1 to 4. Africa received 16.28%



of this funding with Nigeria, Ethiopia, Kenya, South Africa and Tanzania being the biggest beneficiaries. Majority (68%) of the funds went to Non-Governmental Organisations (NGOs), Universities and Civil Society Organisations and, 8% to multi-lateral agents such as the World Health Organization (WHO).

The lessons learnt in implementing these projects relate to maternal and new-born health; multi-sectoral collaborations (entailing health multi-dimensional issues), ease of transportation and road access; equipment of health facilities and training of health workers; cultural, women and community empowerment; education, nutrition and sanitation provision.

### 3.3 French Development Agency (FDA)

Ms. Marie-Pierre Nicollet from the French Development Agency (FDA) noted that the agency's main challenge was to mainstream gender as it was not a usual practice to integrate the social dimension into their programmes. In 2014, the agency had their first cross cutting strategy that sought to reduce inequality and support community development; nonetheless a bit too ambitious. They were compelled to respect the indicators of OECD through inclusion of a secondary objective on the social dimension or totally dedicated to gender. In 2017, they successfully implemented 50% of the projects on the gender dimension mainly due to partnering with NGO's. However the results were not very clear on how to achieve gender inclusion.

FDA worked with feminist diplomatic agenda such as the UN's and therefore adopted a human rights-based approach; nonetheless challenging to implement in some of the project countries. The agency conducted an audit which revealed that they had assessed the salary differences by gender, hence they decided to invest in 50% the volume of projects to address the gender dimensions and to encourage the 3 P's (to (i) Identify the potential of men and women; (ii) whether prevented from reaching their potential (empowerment), and (iii) their participation in political rights, through involvement as stakeholder or partners).

FDA focused on ensuring gender inclusion in primary education; access to all professions for women and, elimination of salary disparities. The agency had five initiatives but Ms. Nicollet mentioned only three that were relevant to the Forum. These included:

- Professional equality, e.g. imposing the gender aspect on our financial beneficiaries,
- Digital Africa and women engagement, and
- Demographic transition through projects that included sexual and reproductive health and, sexual and adolescent health in schools.

### 3.4 The French National Research Institute for Sustainable Development (IRD)

Ms. Elisabeth Barbier from the French National Research Institute for Sustainable Development (IRD) introduced the institute as having a 70 years' experience with multi-disciplinary approach; a network in 50 countries; a community of over 800 researchers and 1000 engineers with 50 research units. The institute generated data for decision making and innovative solutions in realising the SDGs to mobilise actors with research information.

Examples of successful projects implemented by the IRD included the EU NOPOOR and zero poverty 5 year project in developing countries, to develop poverty reduction policies aimed at addressing governance, empowerment, inequality and education. The IRD's collective research project focused on Female Genital Mutilation (FGM) and violence against women and highlighted the economic conditions that could affect gender issues such as reduction of early marriage and domestic violence.

The institute conducted seminars and dialogues to disseminate research findings for policy change although there was need to monitor the SDG targets. Governance was noted as imperative in ensuring institutionalisation of the SDGs and surveys were therefore ongoing to monitor the governance indicators. From the UNESCO report of 2015 on research and women, the speaker observed that a good proportion of women worked in academia although there were very few at doctoral level and the specific proportion of female researchers in the science academies was less than 30%.

She emphasised that the gender dimensions of social science; biomedical research; women access to work and services; research work; gender and development; maternal mortality and infant mortality; women and development all highlighted the important role of women in achievement of their political rights and economic empowerment. At the **IRD**, females constituted 50% of the staff although there were only 28% at the senior research level. Research played a key role in ensuring gender equality; funding was available for research on gender issues and there was a great need for more women in the research domain.

### *PLENARY DISCUSSION*

- In the last 15 years' period, less than 20% funding had been assigned to women in the United Kingdom, with 70% of these being in the medical sector only.
- The Bill and Melinda Gates foundation integrated dimensions of at least 2 or 3 SDGs. Practically, it was impossible to integrate all dimensions due to the challenge of coordination. For instance, the educational projects were integrated into the social dimension. In Paris, housing, employment and health interventions for the homeless people had been integrated. Results showed that 14% vs. 47% positive integration was possible with a multi-sectoral approach compared to none. However, there was need to establish and fund a backbone to coordinate all the sectors.

## SESSION 4: EDUCATION AND ADVOCACY



The session was chaired by Prof. Ghislain de Marsily, a Member of the French Academy of Sciences.

### 4.1 Education and Empowerment of Women in Development

In his introductory remarks, Prof. Oyewale Tomori commended Tanzania for being one amongst the few African countries with human images in their coat-of-arms. He revealed that his father was 'multigamous' (with many children), of which he was the 39th. Of these, only one girl had gone through school compared to 15 boys. He on the other hand had one wife and had educated all his children. He further explained that sex determination in humans yielded roughly equal numbers of males and females (50/50), as reflected by the world's populations. However, the percentage of women to men starting and completing education to tertiary level was skewed heavily in favour of males. In particular, global and country level statistics showed a very high dropout rate for girls in SSA, a factor termed, the "global education diminishing returns".

The speaker noted that there was a need to celebrate the women in Africa's leadership as history had shown that women heads-of-state in Africa performed better than their male counterparts as did those in the private, corporate and social sectors. However, of Africa's 17 female heads-of-state, only one had received a Mo Ibrahim commendation for good leadership compared to two men. Nonetheless, the SDGs provided a framework that could encourage African governments to ensure effective participation of women in public life. African countries thus needed to focus on good governance as a prerequisite for achievement of development goals in education, health and other sectors. Unfortunately, the AU had only one resolution on good governance in comparison to the high number of resolutions on health.

### 4.2 Education and Society

Speaking via video, Pierre Lena, Michele Gendreau-Massaloux and Yves Quéré pointed out that education was essential for Africa. One of the programmes of the French Academy of Sciences (La Main à la Pâte) was focused on hands-on science education from elementary to university, considering human development from birth to university to establish how the brain developed over time as people learnt. In their research, the Academy had demonstrated that a child was born with curiosity which as well motivated them to pursue Science. This curiosity of children was present in all cultures although expressed in a unique way through specific languages and practices. African culture was urged to take advantage of this curiosity to develop Science.

The Dakar declaration by the President of France, Emmanuel Macron was a move in the right direction and the French Government's pledge to support the teaching of Science in Africa commendable. Girls had aspirations which, if imparted with education would give them liberty to think independently and to make decisions, based on their culture and context. Girls in Africa would develop their continent if they were well educated and the Science Academies' solidarity to enable greater engagement of women in science was thus commended. It was emphasised that, even though men still held onto leadership positions in academia, there was need to support women to take up such positions by addressing the gender inequality at the primary schooling level.

The speakers observed that culture was good although some cultural practices were obstacles to women's development. To tackle some of the known cultural challenges, doctors in SSA had promoted awareness to reduce infant mortality and provide sex education. The Science academies had supported these activities within the framework of the Dakar declaration on the importance of girl education through vocational training and life-long learning. Children had an in-born capacity for scientific knowledge and talent that should not be abandoned. "Beauty and marvel is part of the scientific journey" – it was stated.

Statistics showed that access to education for girls improved economies and, gender equality could therefore improve life in Africa as educated women also trained their families. The French Academy of Sciences could support the building of centres of education in Africa and a Nobel Prize for female academicians, for greater visibility of women. Studies indicated that girls were in fact more imaginative than boys, a virtue required for freedom of spirit. To emphasise this, a study conducted in Togo showed that girls provided more imaginative answers during a science experiment compared to the boys. This went to prove that through inquiry and investigation Science was manageable, important and advantageous to young girls.

Prof. Gendreau-Massaloux presented the GID (Groupe Inter-académique pour le Développement), a Euro-African structure created in 2007, gathering 30 national Academies from the Mediterranean and SSA with the aim of "marshaling knowledge in the service of genuine euro-African co-development". The GID-AGRI was introduced as a GID programme focused on promoting women's employment. The project assisted in creation of decent and attractive employment opportunities for young Africans in agriculture and the agro-food sectors. This was achieved through the support and dissemination networks as well as promotion of successful examples of innovative, sustainable, value chain enhancing projects taken from the field, with endorsement of GID's European and African Academies.

The target audiences comprised young farmers, rural and urban migrants in search of employment; association and co-operative managers and women, especially those involved in processing and distribution of the products.

### 4.3 Impact to Development when Women pursue Science

In her presentation, Dr. Pacificah Okemwa from the Kenya National Academy of Sciences explained the difference impacted by women when they studied Science. She indicated that through the Women for Science Working Group, NASAC had published stories of 30 female scientists from across Africa highlighting their experiences in life and work as scientists. The stories indicated that women's experiences were different from men and therefore, women perceived Science differently as it was mostly informed by their experiences. From the stories, it was obvious that women showed extra attention to detail, sensory awareness and imagination. The women in the stories also used their unique experiences to inform their approach to Science.

The speaker elaborated that majority of women scientists tended to respond to specific issues within their communities that they could relate to; they were inclined to implement their findings even if it was not in their mandate; and, they addressed other emerging livelihood issues which were not necessarily within the focus of their specific research. A critical lesson learned was the need for career mentorship to enable women at undergraduate level to pursue postgraduate studies. All scientists in the stories were mentored by both male and female faculty and all the women pointed to interactions with male mentors. This implied that many fields were still dominated by men although, men and women could collaborate. Moving forward, research teams should have gender balance to ensure application of a gender lens in their perspectives.

Power relations in the family sometimes forced women to choose career over family just as much as cultural taboos and beliefs tended to hold them back from pursuing certain scientific fields. Women scientists were thus in need of social support from their families, to enable their



careers flourish and for resources to support and mentor them to pursue Science. The quote “A bird does not fly on one wing” was referred to, an indication that men and women needed to collaborate to assert an impact on their communities. Wangari Mathaai’s quote; “We work together for a better world with men and women of good will” was interpreted to indicate the need to focus on women’s contribution so as not to lose sight of their achievements. Both quotes were given as evidence of the importance of gender mainstreaming in development.

### PLENARY SESSION

- Training of trainers was considered crucial to development. An example was given of Niger Government’s evaluation of teachers which revealed that the teachers had very poor qualifications.
- To tackle the problem of training, French agencies had in the past provided scholarships for excellent students from countries such as Niger and these had positively impacted the training of trainers in the country and the region respectively. Going forward, there was need for Africa to take advantage of virtual learning given the continent’s high mobile penetration rate. The French academy also committed to providing supportive educational infrastructure through collaboration.

## 4.4 Panel Discussion on SDGs Accountability and Advocacy: The role of womens’ organisations in realising the sustainable development goals in Africa

Prof Amal Amin Ibrahim, a founder of Women in Science Without Borders (WISWB) movement and co-founder of the Global Young Academy (GYA) noted that women are change drivers in the world. She indicated that when women’s rights were acknowledged, their needs were met and their voices heard thus driving the change process. Statistics showed that there were more males than females in Science and Engineering, a scenario characterised by a ‘leaky pipe phenomena’ where women registered for undergraduate degrees in Science and Engineering but decreased over time as they moved to the higher levels. Such evidence was corroborated by statistics from the National Science Academies which indicated that there were only 6% women amongst their board members. With respect to female Nobel laureates; two out of 111 of these were in Physics; 4 out of 109 in Chemistry and, 12 out of 108 in Medicine. Further, 70 percent of the total papers in Elsevier’s were contributions from men; women made only 14% of the world’s innovators and 6% of the researchers.

The objectives of GYA and then WISWB are to:

- Empower young scientists, to be future leaders;
- Enhance societal involvement of science (to reverse brain drain to brain gain);
- Empower women to be future leaders;
- Highlight success stories to empower mentorship of younger scientists;
- Increase cooperation between males and females in view of sustainable development and particularly, in addressing the challenges around food, water, energy, the environment and other sustainable development goals.

Participants were informed that WISWB was launched where its first conference was in Egypt. Two hundred and fifty applications were accepted from 2500 applications from different countries with 70% of these from women. Parallel sessions were organised for students to promote cooperation between women and men. Entrepreneurs, Government, policy makers,

media, and senior academicians attended the conference. WISWB ensured that only cutting edge research was conducted and research teams comprised 50% women and 50% men. The speaker concluded by sharing her dream which was to serve education to all girls. “Life is not easy for all of us, but we must have confidence in ourselves. We have to achieve our goals by ourselves”, she stated. Ms. Rose Manumba, the National Youth Coordinator at the Young Women Catholic Association (YWCA), lawyer and leader within the ruling party’s Youth League of Tanzania noted that YWCA had championed women’s rights since its establishment. YWCA was a non-partisan; women-led volunteer association that provided service to all community members regardless of age, sex, religious affiliation or nationality. The organisation’s commitment to achieving the SDGs was emphasised. It was further revealed that a five year strategic plan for 2017–2021 was in place to guide the organisation in:

- Eliminating gender based inequality that tended to disadvantage females;
- Reduction of poverty levels and prevention of human rights violations;
- Addressing vulnerability caused by HIV/AIDS prevalence and SRHR violations;
- Creation and support of youth in policy making, programme design and implementation; decision making and economic activities.

Participants were informed that several programmes were being implemented by the YWCA towards realisation of the SDGs in Tanzania. These included:

- **SDG1:** Enabling Economic Empowerment and Justice for Women and Girls (EEE) Programme and the Wajibika (be accountable) Programme;
- **SDG 3:** SRHR and HIV/AIDS programme; Stop Child Marriage and Early Pregnancies Programme and, the HIV/AIDS Prevention Programme;
- **SDG 5:** Gender-based Violence Advocacy Programme; Ambassadorial Programme against Child Marriage and the Know Your Rights Programme;
- **SDG 16:** Young Peace Performers (YPP) Programme;
- **SDG 17:** YPP Programme and the Ambassadorial Programme against Child Marriage.

The YWCA-Tanzania collaborated with like-minded organisations to leverage both accountability for and realisation of the SDGs. Such was the partnership with the Women Fund Tanzania Sextortion Coalition to address SDGs 5 and 17 respectively; with the Tanzania Ending Child Marriage Network (TECMN) to eliminate child marriages and establish a gender coalition in Tanzania and with the Women Thrive Alliance (USA) to advocate against gender inequality. Collaborations was as well on-going with the Government departments of Health, Community Development, Gender, Elderly and Children; aimed at realisation of SDGs 3 and 5 respectively. Internationally, the YWCA worked with Myanmar, Nepal, South Sudan, Mozambique and Tanzania in realisation of SDGs 8, 1 and 5 respectively.

Mr. William Johnson the founder and executive Director of the Hope for Destitute People Foundation (HDPF) introduced the HDPF as a CBO registered in Mwanza region, Tanzania. The Foundation’s mission was to empower impoverished women, children and youth living in rural areas through education and support to live a dignified life. The HDPF implemented the following activities with due regard to realisation of the SDGs:

- Support and facilitation of education access for the less fortunate children;
- Supply of educational resources, repair, furnishing and/or building new school infrastructure;
- Drilling wells and providing training on water treatment to facilitate enhance access by rural communities to clean and safe water and, to therefore reduce the suffering of women and children in their search for water and on water-related illnesses;
- Mobilisation and empowerment of women to create self-help groups and, provide a platform to discuss and exchange ideas on issues affecting them and to plan on the actions to take as rewarding solutions;

- Creation of awareness amongst Secondary school boys and girls on gender equality, early marriages and pregnancies, sex education and reproductive health rights;
- Advocacy and promotion of gender equality in accordance with all its targets;
- Collaboration with the Government through Magu District Council Administration, Women Thrive Alliance International (USA) and IDAY International (Belgium).

The speaker emphasised the need to invest in tackling the specific challenges affecting women so as to create a just world for all and especially so, the provision of resources for implementation of planned activities. He pointed out that CBOs usually did not have access to as much opportunity as the NGOs had, even though they were both in touch with the people at the grass root level hence the need for collaboration in pushing the women's empowerment agenda. There was a further need for enhanced capacity building and advocacy to enable NGOs implement their activities, in relation to the SDGs.

### *PLENARY DISCUSSIONS:*

- The new skills and experiences brought on board by the collaborating organisations were usually multidisciplinary and beneficial to the YWCA's expertise. Most women employed at YWCA started as volunteers but had moved on to acquire skills through experience; thus the association empowered women to better their competitive advantage for employment. The YWCA closely supervised, conducted monitoring and evaluation to establish the effects and achievements of their projects, relative to the projected plans.
- YWCA undertook to actively mentor the youth so as to enhance their involvement in politics. Specifically, the association's leadership provided networking, advocacy trainings, capacity building, motivational and inspirational talks, to empower the youth to take up leadership and decision making challenges.
- Usually, the project's beneficiaries identified the problem areas and were subsequently involved in design and implementation of possible solutions. Collaboration with NGOs on thriving projects was key although, sometimes the NGO's did not acknowledge the community's involvement; in the process failing to accommodate ideas from the CBOs.
- The HDPF prioritised enablement of participants to identify and implement solutions to their needs. Community members benefited from the implemented solutions, whose access went beyond those identified as needy. However, in some instances (i.e. critical issues) priority was given only to the needy.
- There was need for scientists to move beyond laboratories and transfer science into the society. The high illiteracy levels across SSA illustrated the need to raise awareness and transfer knowledge in a language that society could understand, for its betterment. There was a need as well to generate proper data on different competences and expertise to facilitate networking. However, funding was unavailable to facilitate broader participation, especially by the youth.
- Botswana's Council for NGOs was an umbrella body comprising 11 different sectors in the country (Health and HIV/AIDS, Human Rights, Media, Science Technology and Training, Agriculture and Environment, Development Arm of the Church and Microfinance). The Council ensured an enabling environment for a strong and vibrant NGO sector through coordination, facilitation, advocacy and capacity building of members. Organisations that joined under the umbrella were trained and maintained good relationships with the Government. They were thus enabled to access some funding from the Government and private sectors as well as assisted to maintain focus.

## SESSION 5: EXAMPLES OF SUCCESSFUL ACTIONS

### 5.1 Talk show on the value of educating and including women in Africa's development agenda

The session was moderated by Mr. Akin Jimoh of the Development Communication Network of Nigeria and panelists were drawn from various countries and sectors; to illuminate their views and life experiences on the value of educating and including women in the development agenda.

Prof. Chinedum Babalola of the University of Ibadan and a fellow of the Nigeria Academy of Science was a first born, empowered and supported through education. She was exposed to early childhood development education and was the first female to become a fellow of the African Academy of Sciences; the first female professor and first female dean to give the inaugural lecture. She had been able to innovate and solve problems at her work place although it was initially challenging for her to write proposals to solicit for grants. Nonetheless, she guided a team to develop a proposal and they went on to receive a US\$ 1 million grant. The speaker observed that there was a need for programmes to support rural dwellers to read, write and, to encourage families to support students to study Science.

Prof. Esther Mwaikambo, the President of the Tanzania Academy of Sciences stressed the importance of educating women, to facilitate their inclusion in their country's development agenda. She shared experiences of her upbringing and the realisation at the very tender age of 8 years that her mother had died from cancer although it was believed to have resulted from witchcraft. She worked at the National hospital and had been involved in the immunisation programme to reduce the prevalence of infectious diseases among children and, had initiated the cancer awareness campaign in the country. As a Vice Chancellor, she had championed for equality in student enrolment at HKMU and had received acknowledgement and awards because of her contribution towards women's empowerment. The speaker emphasised that there was a need to encourage inquiry based learning at the earliest stages of education.

Prof. Roseanne Diab, the Executive Officer of the Academy of Science of South Africa had been a teacher and lecturer of Mathematics although currently focused on engineering. She stressed the importance of women in innovation but decried their low involvement in Science, Technology and Engineering. She particularly observed that the women's involvement ratio was not changing across Africa and beyond and there was thus an urgent need to address the issue. The speaker further acknowledged on-going efforts to remedy the situation although she castigated the quality of education provided.

She encouraged participants to apply the gender lens when considering research findings. Specific reference was made to the research discovery that the post-menopausal disease was not only a women's disease, with an emphasis that the discovery was facilitated only through a gender perspective to Science. A suggested way forward was to see gender in its diversity in terms of location, race and other dimensions. The critical need for women to access education and to be provided



with information to enable them make the right choices was further emphasised and, teachers were urged to encourage students to pursue Science.

Prof. Flora Fabian, Professor of Biomedical Sciences at the University of Dodoma, Tanzania was introduced as a founder of a gender mainstreaming group at the University. She was the only professor in her family, having been mentored by Prof. Mwaikambo. She noted that there was a lot of gender disparity at the University level although, through seed-money from INASP a gender mainstreaming group had been initiated. The group had been enabled to empower many girls to improve their income and/or attend school in Dodoma and had as well mentored other budding academicians to develop proposals for funding by the University.

The speaker re-lived her encounters with teachers who perceived Mathematics and Physics as subjects not meant for women and emphasised the need to influence teachers to assist the girls. Having conducted research that established parental inability to read and write she concluded that there was a need to empower teachers as well as parents. The need to empower teachers to encourage students to study Science was emphasised, based on empirical evidence which showed that early grade learners performed well when their parents collaborated with the teachers.

Prof. Yaye Gassama, Vice President of the Senegalese Academy of Science and Technology was introduced as a Professor of Biotechnology. She hailed from a family of ten well educated children and attributed her current status to pressure from her father to excel in the Academy. Prof. Yaye Gassama believed in women's empowerment for Africa's transformation through sustainable development and solidarity. She noted that women had mental capability for innovation and, Science and education liberated them from family responsibilities and roles. She further indicated that Senegal's policy of Science and technology encompassed a paradigm shift in which Science was perceived as an important aspect of education.

In her early childhood development programme, training in research was undertaken through short courses although, there was need for informal training to support people to acquire literacy skills. An ICT integrated programme for young children (3–6 years) was cited in which kindergarten school children were supported to learn about hygiene. Reference was made to research which showed that students were uncomfortable with the way Science was taught. However, with improved teaching methodologies, students, and especially the girls tended to perform better.

Dr. Godfrey Tangwa from the University of Yaoundé in Cameroon held a PhD in Philosophy (Bioethics) although; he referred to himself as having the mindset of a villager. He noted that many people had failed to accept the truth that human beings were equal, despite their gender differences. He noted that, the most important identification mark of any culture was its language although; some languages such as French could be engendered.

The speaker asserted that emancipation and empowerment of Africa had a solid foundation in culture and there was thus a need to empower women as well as to establish a solid and sustainable foundation to move Africa to its future and, to impart professional ethics on teachers and families. Parents were urged to treat children equally with due regard to education and women to exercise power equally as was the case in Rwanda.

## PLENARY DISCUSSIONS

- Women's involvement in politics and decision-making had improved as illustrated by the number who held high positions in organisations and Government. The Government had continued to encourage women to progress to higher academic degree levels although their progress was bound to be curtailed by various existing factors.
- Women's progress in the academic arena was prone to be challenged by various family-related responsibilities. However, there was need to encourage women to work and, to be assigned with leave; with the possibility that they could continue with their studies

- Women were also encouraged to take advantage of the available opportunities and, to make personal effort to progress in their careers through self-belief and determination.
- African traditional education had addressed issues that were pertinent to Africans as a starting point. Going forward however, there was a need to conduct empirical studies to identify strategies for resolving the women's empowerment issues as well as for their monitoring and evaluation. There was a specific need to push women to study Science.

## 5.2 Parallel Session I: Local and National Roles of Women in Development

Prof. Constancia Rugumamu of the Tanzania Academy of Sciences chaired the plenary session that discussed Local and National Roles of Women in Development. She gave an overview of the objectives of the session, stating that it would explore the local and national role of women in development and, highlight the initiatives that had empowered women across the continent.

The panelists were:

- Mrs. Ini Damien-Youl (Burkina Faso)
- Prof. Ruth Meena (Tanzania)
- Prof. Mouna Aminami (Niger)
- Dr. Gloria Asare (Ghana)
- Ms. Alexia Hountondji (Benin)
- Dr. Gada Kadoda (Sudan)

The session sought to discuss the issues related to women's rights and implementation; the role of the media; empowerment of women in local economic development; the role of traditional leaders, as well as the role of men.

Mrs. Ini Damien-Youl gave a historical perspective on the role of women in the society, stressing the significance of education in expanding women's traditional roles. She explained that an initiative to financially empower women in rural Burkina Faso in 1992 had assisted 1000 women annually; to access income generation opportunities, training and credit. Systems were established for processing of locally sourced raw materials into products for sale and, the project was currently managed by the women. The project supported activities that were already of interest to the women and whose implementation was progressive. Training was provided on diversification of activities; funds were managed prudently; the produce was consumed within the local community and there was thus no need for transport.

Health issues were addressed and advocacy was conducted to tackle FGM and to increase support for family planning particularly among the community's men. The advocacy was particularly instrumental in allaying fears and misconceptions related to family planning. The lesson learnt was that there was need for political buy-in and systems to defend the rights of women as well as, effective implementation of measures for their empowerment.

The dual role of women in the African society was reproductive as they bore the burden of producing the workforce. Over time, this burden had some detrimental effects on the women's lives, in some cases resulting into death. Women also played the role of caretakers for up to 14% of their day compared to the men's (5%). Women as well formed a large part of the work force in the agricultural sector although they did not receive commensurate compensation.

In Tanzania, efforts had been made to enact more progressive laws, to ensure equity for women in this sector. However, the absence of women in positions of leadership was evident and lack of diversity and adequate representation across all sectors of government and politics in Tanzania was clear as well. Consequently, equality of rights was absent and under-

utilisation of human resources was evident, resulting into the country's inability to realise her developmental goals.

Lack of integrity in politics, religious doctrine and cultural perceptions of women had certainly hindered their participation by creating barriers. Demographic information cited the prevailing challenges faced by women in the country as early marriages, sexual violence and discrimination. To address these, efforts had been made to mobilise the rural women to participate in income generating activities and to sensitise men, particularly the policy makers. Religious and traditional leaders were as well encouraged to change the negative perceptions against women and, about 52% of women had since been emancipated.

A national policy on gender was put in place in Niger to support women in the various sectors including politics. A recommendation was made, for continued empowerment of women and mainstreaming of international laws through national policies. However, it was observed that financial support was an impediment to women's political aspirations as campaigns were cost intensive and more often than not, women were unable to participate due to the lack of supportive funding. The need to combine formal and religious education for girls was noted, to empower them to interpret religious text for themselves.

Dr. Asare's presentation focused on the roles of women in the Ghanaian society as well as the country's efforts in women's development. She explained that historically, the role of women in Ghana was acknowledged as ensuring the society's stability and progress, and this had been integrated into all of the country's sectors. Over the years, Ghana had bought into international laws and initiatives that sought to protect and strengthen the rights of women. As a result, a lot of documents and frameworks had been prepared to ensure women's development. Successive Ghanaian Governments had taken action towards placement of women into decision-making positions as well as their economic empowerment.

Despite this, there were still some challenges related to unpaid labor, non-child friendly learning institutions and unfriendly work places, subtle discrimination, the balance between



Panel discussion and participants

work and home commitments and, lack of mentorship due to limited opportunities. A lot was therefore required to improve the plight of the girl child and teachers were called upon to follow-up on girls that missed school citing patrilineal and matrilineal lines of inheritance in Ghana, which had nonetheless changed in the recent times.

Ms. Alexia Hountondji stated that the hope of the younger generation of women was a taste of the power and influences that characterised life's different sectors. She championed the need for total adherence to international human rights equality-based laws; advocacy, provision of evidence for policy making by the scientific community and, engagement of stakeholders at all levels. A suggestion was made to have the women who had successfully served as champions of women's rights advocate for other less fortunate women. The need to enhance efforts to address poverty and to ensure that women thrived in the formal and informal sectors was underscored. The speaker concluded by stressing the need for women's financial independence; for men to serve as allies in women's development; for gender sensitive statistics to provide evidence for policy making and establishment of a data bank to support policy making.

In her presentation, Dr. Kadoda sought to demonstrate how society sub-consciously reinforced gender stereotypes in children at a young age. She explained that, women were subjected to the worst of the issues currently affecting human kind such as poverty, climate change and conflict. Although measures had been taken to empower women, Africa seemed not to fare well. There was need to rethink the empowerment discourse; for a closer look into the movement's evolution as well as the surrounding factors and trends. Different case scenarios were shared, including that of Ahfad University which had focused on preparing women to change the society and, the Barefoot College in Nubu – India, which had focused on changing people. There was a need to establish the cause of women's disempowerment.

## 5.3 Parallel Session II: Reproductive health and development

In his introductory remarks, the Parallel session's chair Dr. Deoraj Caussy of the Mauritius Academy of Sciences pointed out that the MDGs and SDGs focused on women who undertook a lot of unpaid work. The session's panelists were:

- Dr. Hadari Zeinabou (Niger)
- Prof. Isabella A. Quakyi (Ghana)
- Marie-Pierre Nicollet (France)
- Bridgitte Syan (Burkina Faso)
- Prof. Maria Musoke (Uganda)
- Dr. Koheleth Winani (Tanzania)

Dr. Hadari Zeinabou's presentation focused on the experience of Niger in promoting funding for the health sector. She explained that since 1960 when Niger gained her independence, the state had always recognised the need to provide care for the vulnerable and reduce poverty levels. Free health care was thus available in Niger although, the state (third party) recovered this through imposing tariffs on other goods and services. Further, the World Bank's structural adjustment programme had resulted in reduction of funding for health care and, highlighted a need for alternative sources of funding. Niger had since signed and committed to implement the New York declaration which sought to promote equitable health care for all and a policy on national health care had been developed to guide the declaration's implementation. As such, caesarean surgeries, contraceptives, cancer treatment and health care for children under 5 years were free. In addition, the 3S intervention had been successfully implemented in partnership with the ADB.



The speaker attributed success of Niger's health care system to on-going dialogue amongst the stakeholders. She emphasised the crucial need for sharing of the lessons learnt from government interventions that were supported by other partners to informing policy decisions.

Prof. Isabella Quakyi from Ghana shared Ghana's perspective on the provision of reproductive health services by the Ghana Health Service and indicated that a healthy nation was indeed a wealthy nation. The speaker explained that Ghana was a signatory to many international laws on health although she did not fully achieve to MDGs 4 and 5. The state provided medical insurance to its citizens inclusive of free ante and post-natal care and health cover up to 18 years of age.

This was built upon the CHPS strategy whose implementation was spear headed mainly by community health officers, supported by community health volunteers. All of Ghana's presidents had been supportive of policies promoting maternal health, with an example shared about the EMBRACE program of collaboration between Ghana and Japan. This went to emphasise the value of volunteers in the provision of health care in developing countries and their specific contribution to realisation of the prevailing 22% ease of access to contraceptives.

Marie-Pierre Nicollet from AFD focused on the scope and discharge of her organisation's mandate, noting that AFD was well known for maternal health and strengthening of health systems. However, she attributed the limited access to health services to the population's lack of trust in the systems and the weak health systems at community level. She explained that the AFD's new strategy focused on health issues that look at intergenerational demographic transitions in communities. AFD did not impose policies on countries but rather promoted a rights based approach for reproductive and maternal health whereby people made choices that suit them. The speaker emphasised that beyond family planning and quality health care the AFD pillars of work included:

- (a) Research on target populations in their countries of focus, to understand the demographic dividend;
- (b) Intervention through sexual education in the family and schools; and
- (c) Empowerment of women and teenagers, e.g. in the Sahel region where young people were not, legally speaking, incapacitated, but more and more responsible particularly in urban areas.

Participants were informed that French women were amongst the highest reversible contraceptive users in the world an outcome that had resulted from a rights-based approach. Mass media had played an important role in facilitating the outcome and a comedy show named "C'est la vie" in West France that focused on health and sexuality issues was cited. The rights-based approach allowed for a global and political perspective of the sexual and reproductive health of women which integrated both (i) care for women and (ii) the fight against gender inequality through their education, training, and emancipation.

Brigitte Syan from Burkina Faso presented the experience of an NGO christened Equilibre et Population and its contribution to family planning. She explained that in 2006, Burkina Faso's population was 14.7 million and was projected to reach 20 million in 2018. Prevalence of contraceptive use was 20%; each woman had five children on average; health centers were far and health care workers few besides the nurses and doctors. The country lacked qualified personnel to offer family planning services. However, the political situation in Burkina Faso had presented challenges in provision of family planning services to women since the Government's decentralisation took effect.

Nonetheless, after 4 years of advocacy by Equilibre et Population policy makers were able to understand the implications of the lack of qualified personnel who could provide family

planning services and this enabled the decentralisation of family planning services. Equilibre et Population raised funds for the provision of family planning services and this were used to facilitate trainings for community health workers and distribution of contraceptives to people in remote rural locations. As a result, the prevalence of family planning use had risen from 15% in 2010 to 22% currently with, 33 out of 350 districts boasting of access to family planning services. However, data was required to determine the prevalence of early and unwanted pregnancies.

Prof. Maria Musoke from Uganda focused on the access and use of information which had enhanced Uganda's health structure. Participants were informed that in Uganda, the issues of provision of health information were mainly related to access, cost and quality of information. An example was given of how Elsevier had funded Prof. Musoke's project and enabled her to write a book titled *Informed and Healthy*. The value of information was such that it could have immediate benefits in terms of reduced costs and provision of health services and in the long-run, lives were prolonged. The speaker made the following recommendations:

- Knowledgeable and skilled information providers were important due to the rapid advances in ICT;
- ICT infrastructure needed to be provided in rural areas;
- Strengthen, scale up and sustain successful initiatives;
- Improve health literacy among girls and women.

In his presentation, Dr. Koheleth Winani from Tanzania highlighted three important relationships; Reproductive Health (RH) and human capital development, RH and labour force participation and RH and income/assets. He cited the factors contributing to poor Reproductive Health as:

- Poor infrastructure and lack of supplies;
- Insufficient and poor training of health workers;
- Poor patient and health service provider interaction;
- Low expectations and knowledge of clinical care by patients;
- Insufficient health workers;
- Lack of support, mentorship and supervision of junior health workers.

He indicated that there was a global strategy for improvement and prevention of maternal mortality whose aim was to remove barriers that limited access to quality maternal health services. In conclusion, the speaker stated, 'We know what works but do not use the knowledge'.

# SESSION 6: CONCLUSION AND CLOSING CEREMONY



## 6.1 Closing Keynote Address

The closing keynote address was delivered by Prof. Akiça Bahri from the National Agricultural Institute of Tunisia. She first noted that there is no 100% fair and gender equality in the whole world yet. She underlined the centrality of gender equality (SDG 5) in the achievement of the 17 SDGs. She stressed that inequalities in Africa between men and women are among the greatest in the world with African women and girls among the world's poorest, and with the highest rates of illiteracy. She indicated that the gender gap costs sub-Saharan Africa US\$ 95 billion a year. In sub-Saharan Africa, women bear 71% of the water collection burden and produce 90% of all food. African women constitute around 50% or more of the agricultural labour force in many African countries. They dominate subsistence rain-fed agriculture, which puts them more at risk of a changing and variable climate. Existing national policies and regulations exclude women from benefiting equally from water and land resources, and access to finance and credit and other vital inputs. Access to education is still a challenge in Africa, with 24% of the girls out of school compared to boys. 12 million girls (as compared to 7 million boys) in sub-Saharan Africa are never expected to attend school. Important regional disparities between females and males regarding the average number of years of schooling, the wages, or the political representation have been underscored.

She also reflected on the status of her country's achievements in equality and the implementation of the SDGs. The following points were noted:

- The long struggle of women in Tunisia became more effective when the Government took an effective step to eliminate inequality from the Head of the State with the issuance of the Code of Personal Status in 1956.
- Head of the State ensured the right laws and regulations, in support of women equality, were in place and also ensured a means of implementation: the Code of Personal Status granted women equal rights in marriage and divorce, abolishing polygamy and repudiation, enacted a minimum age for marriage and ordered the consent of both spouses before marriage. Right to vote was obtained by women in 1957, access to birth control in 1962 and by 1965 abortion was legalised.
- The high level of women empowerment in Tunisia was depicted during the Tunisian up-rise against dictatorship and corruption. Women had an effective participation in this up-rise and demonstrations that lead to the change of Government.
- Laws and regulations continued to flow in support of women equality. While marriage between a Muslim woman and a non-Muslim man is now permitted, a high controversial Law supporting equal inheritance for daughters is yet to be passed.
- Tunisia had also followed closely international initiatives of Sustainable Development and implemented it using the indicators and targets as given in the SDGs.
- Tunisia had also followed other international initiatives for climate change.

In order to achieve gender equality and empower all women and girls in Africa, a 'nothing about them without them' approach should be adopted. There is also a need to:

- i. Educate public officials and policy makers and raise their awareness on the central role played by women in green growth and sustainable development.

- ii. Economically, legally and politically empower women and girls to participate and lead through the creation of laws, policies and social awareness programmes.
- iii. Emulate best practices and provide women role models to serve as mentors and champions to ensure the retention and success of young women in their careers.

As a way forward, an agenda for action was proposed.

## 6.2 The Closing Remarks and Vote of Thanks

The closing remarks were made by Dr. Francoise Driver on behalf of the NASAC Women for Science Working Group, Prof. Pierre Auger on behalf of the French Academy's COPED, Prof. Barney Pityana, on behalf of the NASAC Board and, the French Ambassador, Mr. Frederic Clavier on behalf of the French Embassy in Tanzania. The highlights of the remarks captured the following sentiments:

- The French Academy of Science special committee for Development in Africa, COPED, would continue its fruitful partnerships and collaboration in Africa;
- COPED would promote scientific conferences as well as share in the issues of community health, infectious diseases, biodiversity and implementation of the SDGs which remained a priority;
- Mathematics and Chemistry had been major scientific disciplines supported by COPED in the previous years;
- The youth were key elements of resources that needed to be encouraged and supported;
- In 2019, meetings, conferences and forums in Africa that would address the interests of the French Academy's COPED would take place in Senegal. These would cover Mathematics, applied epidemiology, water management and energy; in Congo – Chemistry, and in Gabon – Forestry. The latter would be implemented in collaboration with the French Museum of Natural History.
- To follow-up on the milestones so far achieved in Africa, participants were encouraged to visit the COPED website in link with the French Academy of Sciences Website.
- Women were urged to seek role models in all sectors of society, and not only in Science.
- Attention towards education quality was urged in important developmental fields including; water management, epidemiology, health and biodiversity. These were perceived as instrumental in unlocking the potential of women in different fields especially in Africa;
- The need for partnerships between credible institutions in Africa to achieve effective change and maintain linkages with grassroots was emphasised;
- There was a need to address the challenges faced by countries through collaborations and linkages with the African Academies of Sciences and Academic institutions, for their effective prioritisation;
- There was a need to link and integrate all actions related to women's empowerment to the SDGs as a crucial first step towards emancipating African women, especially through the fields of science and technology. A proper system of follow-up and monitoring should be established and good governance be strengthened.

Finally, the Permanent Secretary (Policy and Co-ordination) in the Prime Minister's office of the United Republic of Tanzania, Prof. Faustine Kamuzora's speech was read.

He congratulated the International Forum's participants and organisers; NASAC, TAAS and the COPED. He thanked the meeting's sponsors; Bill and Melinda Gates Foundation, the French Embassy in Tanzania, French Development Agency, French Institute for Development Research, Sanofi Espoir Foundation, Inter-Academy Partnership; ACACIA, Tanzania Commission for Science and Technology and Tanzania Communication and the Regulatory Authority.



‘The international forum focused on the contribution by women’s social and economic progress in African countries. It also served to highlight the challenges encountered by women in their pursuits to care for the family, educate, improve access to water, energy, healthy food, combat negative effects of climate change and sustain a growing, young and under employed population. The Forum also enabled the Science community present to mark the International Women’s Day’. SSA countries are executing the UN’s SDGs, Agenda 2030 and the AU’s Agenda 2063. In a paper by Casazza, (2015)’ The Sustainable Development Goals and the African Union’s Agenda 2063: A Comparative Analysis’ pointed out that social development; inclusive economic prosperity; peaceful societies and institutions; and sustainable environments, are issues in both SDGs 2030 and Africa Agenda 2063. Sustainable consumption, production and management of ecosystems are in Agenda 2063 only.

Tanzania has ratified SDGs 2030 and Africa Agenda 2063. Tanzania has started to integrate the SDGs, Agenda 2063, into national plans, policies and practice. Kida (2017) in a paper named. ‘Implementing the 2030 Agenda in Tanzania: Towards a Participatory, Inclusive and Knowledge driven agenda’, the paper identifies three key needs for Tanzania to effectively implement the SDGs by 2030. These were: (i) effective participation of local government authorities and stakeholders to define how SDGs should be adapted in Tanzania (ii) increased, and innovative, financing to support the agenda, and (iii) adequate resources for developing a statistical system to monitor and evaluate progress.

In domesticating the SDGs in the future, one must get a comprehensive and quality baseline data and further collection of data done so one can do monitoring and evaluation. Institutional capacity building and training is essential to achieve this. Tanzania realised that to deal with the gender issue one needs a Women and Gender Policy and a National Strategy for Gender Development. Tanzania developed and executed these documents. From strategy’s inception, the challenges were seen to be:

- Empowerment of both women and men equally based on merit,
- Ensuring that macro and micro policies are gender sensitive,
- Ensuring that the Legal Framework is gender sensitive,
- Strengthening institutional mechanisms for gender development;
- Ensuring sustainable partnerships and collaboration;
- Ensuring that adequate resources are available to address gender inequalities and inadequate capacities for coordination, monitoring, evaluation, advocacy and follow-up of implementation of policies, strategies, plans and programmes.

This line of thought and approach is relevant to all countries in Africa. Science Academies and the Network of African Science Academies (NASAC), as think tanks, have a critical role to play in giving evidence-based advice, to achieve sustainable development and to provide solutions to challenges in executing gender policies and gender strategies, which need to have incorporated the SDGs. This is in African countries, African Union and Regional Economic Commissions so that Africa can realise its potential. The participants must distribute the deliberations and a conference declaration widely and provide necessary evidence-based advice to push for execution of these documents so that the impact can be reached for the sake of the future African population.

According to African Development Bank report on ‘Empowering Women: Africa Gender Equality Index 2015’, action areas should include enhancing African women’s producers to access land, financial services, and infrastructure connections. In the area of human development, they should get education and skills. Health and reproductive rights should be guaranteed. As citizens and leaders they should get equal treatment before the law, get an opportunity to get their voice heard and get equal representation in government, parliament and in the work place.

In conclusion, Women should empower themselves. However, governments, civil society and all actors must work on raising consciousness, participation, and helping them organise

themselves. Women's empowerment is a process requiring an enabling environment for women without discrimination and capability for women to own and control their own lives and contribute to society changes. To empower them, provision of education, capacity building, training and other measures such as financial support and legal frameworks changes to provide property rights and fair treatment in family laws are required. These include:

- **Education** — Women education guarantees empowerment, improves economic position through employment or self-employment, and generates confidence. The numbers of women in primary school, secondary school, colleges and in the population with certain level of education should equal the men. One should remove obstacles to reach this parity.
- **Gender Entrepreneurship Gap:** Economic inclusion of women will reduce gender inequality and promoting sustainable economic growth. Equal access to human, financial and social capital as well as networks for women needs government effort. As well equal access to credit, banking and financial services; tools, technologies, innovations and agricultural extension services will empower women economically and reduce the gender parity gap.
- **Building Women's Capacity:** Women's empowerment will be possible if all obstacles to women participation in sustainable development are removed. As well, provide training and skills, knowledge and information for women so they can empower themselves.
- **Good Governance:** Equal participation of men and women in decision-making and an unbiased involvement of women and men at family, local, national, regional and global levels is necessary in addressing the voice and needs of women. Equal involvement in all policy documents and at all implementation levels will result in sustainable development.

With the foregoing, the International Forum was declared closed by Prof. Esther Mwaikambo. Professor Godwin Ndossi from the Tanzania Academy of Sciences thanked all actors that contributed to its success through a vote of thanks.



Participants registering at the forum



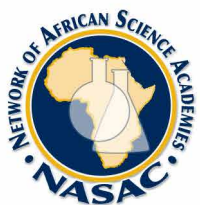
# ANNEXES

International Forum Report

## WOMEN AND SUSTAINABLE DEVELOPMENT IN AFRICA

8–10 March, 2018, held at

Julius Nyerere International Convention Centre  
Dar es Salaam, Tanzania



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# ANNEX 1: Declaration (English)



## Women and Sustainable Development in Africa

Dar es Salaam Declaration, 10th March 2018

### A call for action

Concluding the International Forum on "Women and Sustainable Development in Africa", held from 8 to 10 March 2018, in Dar es Salaam, Tanzania, which was organised by the **Network of African Science Academies (NASAC)**, we, the participants, make the following declaration and call for action to enhance the role of women in sustainable development in Africa:

### Observing:

- Africa's assets in the form of natural resources, particularly agricultural resources, energy and mining resources, human potential, and progress in primary and higher education,
- the rapid demographic and varying economic growth on the African continent,
- the persistence of political instability in some regions,
- the risks associated with climate change,
- the increase in the number of young people,
- the persistence of gender inequalities in various sectors,
- the persistence of poverty and inequality in the absence of good governance.

### Considering that:

- the African scientific community must play its part in the development of expertise to implement economic growth,
- equality of rights between women and men implies free access to comprehensive education about sexuality, health care, employment and economic and financial resources, political and economic responsibilities,
- the role of women in social and economic life is vital, and that their involvement in the process of economic, social and environmental development of nations is obvious and necessary,
- the massive demographic growth in sub-Saharan Africa raises concerns among the states of how to avoid mass unemployment of the upcoming generation,
- violence and discrimination against women persist despite numerous initiatives.

### Call on policymakers and international institutions to:

- provide better access to water and energy resources to alleviate the burden on women,
- foster efforts of appropriate education and empowerment for all, especially girls, in pre-primary, primary, secondary, and technical schools, universities and research centres as well as in vocational training and life-long learning,
- include age-appropriate gender, sexual and reproductive health education in school curricula and in public information programmes,
- improve the training and employability of young people, in particular that of girls and women,
- to provide an enabling environment for industry and employers to provide resources and determine mechanisms that promote education, training and research capacities of women in Africa,
- ensure access to quality gender responsive family planning services,
- ensure equal pay and equal employment, and put in place, especially in rural areas, innovative credit systems to ensure financial empowerment of women and access to land and water,
- take all necessary measures to strengthen local initiatives already in existence and implement all measures to allow women to participate in economic, social and environmental development, improve their legal status by adopting effective legislative and policy reforms and encourage their participation in democratic, egalitarian and inclusive policy development, and put in place mechanisms to establish and support good governance.

Signed on behalf of NASAC by:



President: Prof. Mostapha Bousmina



Secretary General: Prof. Barney Pitanya

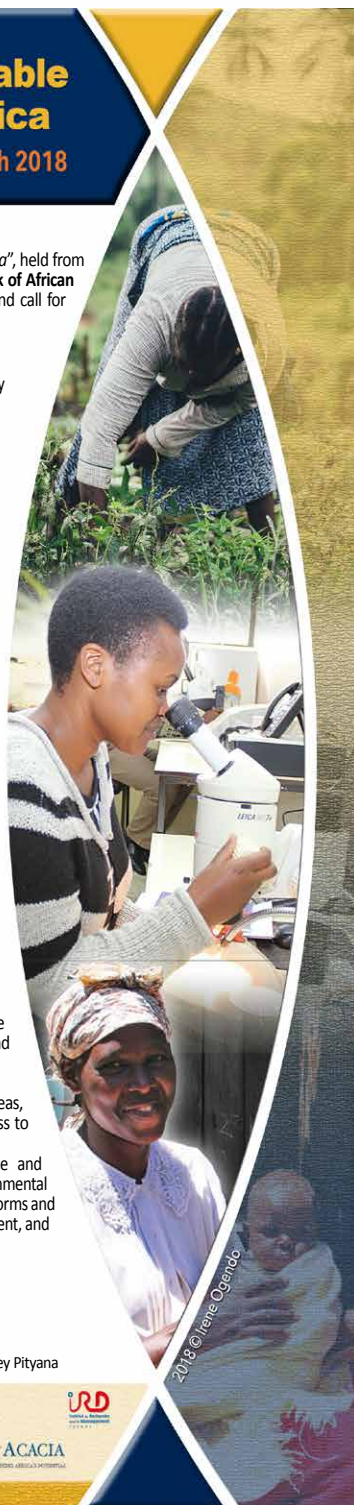


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# ANNEX 1: Déclaration (French)



## Femmes et Développement Durable en Afrique

Déclaration de Dar es Salaam, 10 Mars 2018

### Un appel à l'action

À l'issue du Forum international « Femmes et développement durable en Afrique » organisé du 8 au 10 mars 2018 à Dar es Salaam (Tanzanie) par le Réseau des académies scientifiques africaines (NASAC), les participantes et les participants ont tenu à présenter la déclaration suivante et lancer un appel à l'action afin de renforcer le rôle des femmes pour le développement durable en Afrique:

### Constatant:

- les atouts dont dispose l'Afrique sous forme de ressources naturelles, particulièrement agricoles, énergétiques et minières, de capital humain et d'avancement en éducation primaire et supérieure,
- la croissance démographique rapide et les croissances économiques différenciées du continent africain,
- la persistance de foyers d'instabilité politique dans certaines régions,
- les risques liés aux changements climatiques,
- l'augmentation du nombre de jeunes,
- la persistance d'inégalités de genre dans différents secteurs,
- qu'en l'absence de bonnes gouvernances, la pauvreté et les inégalités vont se maintenir.

### Considérant que:

- la communauté scientifique africaine doit s'engager dans l'élaboration d'expertises pour favoriser la croissance économique,
- l'égalité des droits entre les femmes et les hommes implique un libre accès à une éducation globale de la sexualité, aux soins médicaux, à l'emploi, aux ressources économiques et financières, ainsi qu'aux responsabilités politiques et économiques,
- le rôle des femmes dans la vie sociale et économique étant vital, leur implication dans le processus de développement économique, social et environnemental des Nations est une évidence et une nécessité,
- la forte croissance démographique en Afrique subsaharienne génère des questionnements des États sur les meilleures options pour éviter le chômage de masse des générations montantes,
- les violences et les discriminations envers les femmes persistent malgré de nombreuses initiatives.

### En appellent aux responsables politiques et aux institutions internationales à:

- fournir un meilleur accès à l'eau et aux ressources énergétiques pour alléger le fardeau qui pèse sur les femmes,
- favoriser les efforts d'éducation et d'autonomisation appropriées pour tous, en particulier les filles, à l'école maternelle, au primaire, au secondaire, dans les écoles techniques, dans les universités et les centres de recherches, ainsi que dans l'apprentissage professionnel et la formation permanente,
- inscrire, aux âges appropriés, le genre, l'éducation sexuelle et la santé de la reproduction dans les cursus scolaires et dans les programmes d'information du public,
- améliorer la formation et l'employabilité des jeunes, en particulier celles des filles et des femmes,
- offrir un environnement favorable à l'industrie et aux employeurs pour fournir des ressources et déterminer des mécanismes de nature à promouvoir les capacités d'éducation, de formation et de recherche pour les femmes en Afrique,
- assurer l'accès à des services de planification familiale dédiés au genre,
- assurer l'égalité des salaires et de l'emploi et mettre en place, particulièrement dans les zones rurales, des systèmes de crédit innovants pour garantir l'autonomisation financière des femmes et l'accès à la terre et à l'eau,
- prendre toutes les mesures nécessaires pour renforcer les initiatives locales déjà existantes permettant l'insertion des femmes dans le développement économique, social et environnemental, améliorer leur statut légal, par des mesures législatives efficaces, des réformes politiques et encourager leur participation à l'élaboration de politiques démocratiques, paritaires, ouvertes à toutes et tous, et
- mettre en place des mécanismes pour établir et soutenir de bonnes gouvernances.

Signé au nom de NASAC par:

Président: Prof. Mostapha Bousmina

Secrétaire général: Prof. Barney Pityana



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## ANNEX 2: PROGRAMME

### "WOMEN AND SUSTAINABLE DEVELOPMENT IN AFRICA"

8–10 March 2018 in Dar es Salaam, Tanzania  
The Julius Nyerere International Convention Centre

### OBJECTIVE

To provide a platform for scientists to dialogue with, and provide evidence-informed advice to policymakers on the importance of women's participation and inclusion in national frameworks that tackle the realisation of the Sustainable Development Goals (SDGs) in Africa.

### PROGRAMME

Day 1: Thursday, 8th March 2018

08:00 – 09:30

Registration

Secretariat Staff

### SESSION 1: OPENING CEREMONY

09:30 – 11:40

CHAIR: **Yunus Mgaya** (TAAS)

RAPPORTEUR: **Christian Acemah** (UNAS)

#### Welcome addresses:

1. Tanzania Academy of Sciences – **Prof. Esther Mwaikambo** (President)
2. Network of African Science Academies – **Dr. Yousuf Moudarbocus** (Vice President)
3. French Academy of Sciences – **Prof. Catherine Bréchnignac** (Secrétaire Perpétuel)
4. French Academy of Sciences (COPED) – video **by Prof. Francois Gros**
5. Conference Overview – **Mrs. Jackie Kado** (Executive Director, NASAC)
6. French Embassy in Tanzania – **Mr. Frédéric Clavier** (Ambassador)
7. Formal Opening of the conference by the Minister of Education, Science and Technology of the United Republic of Tanzania – **Hon. Prof. Joyce Ndalichako**, MP

#### Opening Keynote Address:

8. Development and Women: What can Africa do differently by 2030?  
**H.E. Aïcha Bah Diallo**, Former Chair, Forum of African Women Educationalists (FAWE) and Former Minister of Education in Guinea Conakry

11:40 – 12:20

**REFRESHMENT BREAK AND GROUP PHOTO**

## SESSION 2: CONTRIBUTION TO DEVELOPMENT BY SCIENCE

	<b>CHAIR: Nelson Sewankambo</b> (NASAC) <b>RAPPORTEUR: Stanley Maphosa</b> (Academy of Science of South Africa)	
12.20 – 12.55	Demographic Data and the United Nations Forecasts (25 mins talk + 10 mins discussion)	<b>Henri Leridon</b> , French Academy of Sciences <b>Jean-Pierre Geungant</b> , Institute de Recherche le Développement (IRD)
12.55 – 14.00	<b>LUNCH BREAK</b>	
	<b>CHAIR: Henri Leridon</b> (French Academy of Sciences) <b>RAPPORTEUR: Connie Nshemereirwe</b> (GYA)	
14.00 – 14.20	Engaging Scientists and Academies in National Planning for Demographic Dividend	<b>Jacqueline McGlade</b> , (Former UNEP Chief Scientist)
14.20 – 14.40	Necessary conditions for obtaining Demographic Dividend and the question of ageing	<b>Mathias Kuepie</b> , French Development Agency (AFD)
14.40 – 15.00	<b>Question and answer session / plenary discussion</b>	
15.00 – 15.30	<b>REFRESHMENT BREAK</b>	
15.30 – 17.00	Panel Discussion on Demographic Dividend <b>Title: THE GENERATION THAT COULD TRANSFORM AFRICA HAS ALREADY BEEN BORN</b> <ul style="list-style-type: none"> <li>• <b>Halima Sharif</b>, Advance Family Planning – Tanzania</li> <li>• <b>Stephen Obiro</b>, Federation of Kenyan Employers</li> <li>• <b>Michael Asudi</b>, Organization of African Youth in Kenya</li> <li>• <b>Catherine Sekwao</b>, TEN/Met – Tanzania</li> <li>• <b>Jean-Pierre Guengant</b>, Institute de Recherche pour le Développement (IRD – France)</li> </ul>	
17.00 – 18.00	<b>Transportation to the hotel and free time for participants</b>	
18.00 – 19.00	<b>Transportation to the Cocktail location</b>	
19.00 – 20.30	<b>Welcome cocktail reception</b>	

**Day 2: Friday, 9th March 2018**

## SESSION 3: THE ROLE OF RESEARCH INSTITUTES, FOUNDATIONS, FUNDING AGENCIES AND INDUSTRY

	<b>CHAIR: Mohamed Hassan</b> (NASAC) <b>RAPPORTEUR: Mary Mayige</b> (Tanzania Young Science Academy)	
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08.30 – 08.45	Bill and Melinda Gates Foundation <b>Joseph Fitchett</b> ( <i>Programme Officer, Global Policy and Advocacy</i> )	
08.45 – 08.55	Sanofi Foundation <b>Valérie Faillat</b> ( <i>Head of Sanofi Espoir Foundation</i> )	
08.55 – 09.05	French Development Agency <b>Marie-Pierre Nicollet</b> ( <i>Director, Demographic and Social Transition Department</i> )	
09.05 – 09.15	French Institute for Development Research <b>Elisabeth Barbier</b> ( <i>Deputy Executive Director</i> )	
09.15 – 09.30	Question and answer session / plenary discussion	
SESSION 4: EDUCATION AND ADVOCACY		
	CHAIR: <b>Ghislain de Marsily</b> (French Academy of Sciences) RAPPORTEUR: <b>Lorraine Amollo Ambole</b> (University of Nairobi, Kenya)	
09.30 – 09.50	Education and empowerment of women in development	<b>Oyewale Tomori, Network of African Science Academies, Nigeria</b>
09.50 – 10.20	Education and Society	<b>Pierre Lena, Michèle Gendreau-Massaloux and Yves Quéré, French Academy of Sciences</b>
10.20 – 10.40	Impact to development when women pursue careers in science	<b>Pacificah Okemwa, Kenya National Academy of Sciences</b>
10.40 – 11.00	Question and answer session / plenary discussion	
11.00 – 11.30	REFRESHMENT BREAK	
11.30 – 13.00	Panel Discussion on SDGs Accountability and Advocacy CHAIR: <b>Sesae Mpuchane</b> (Botswana Institute for Technology Research and Innovation)  RAPPORTEUR: <b>Keneiloe Sikhwivhilu</b> (DST/Mintek Nanotechnology Innovation Centre)  TITLE: THE ROLE OF WOMENS' ORGANISATIONS IN REALISING THE SUSTAINABLE DEVELOPMENT GOALS IN AFRICA • <b>Amal Amin Ibrahim</b> , Women in Science Without Borders (WISWB), Egypt • <b>Rose Manumba</b> , Young Women's Christian Association (YWCA) of Tanzania • <b>William Johnson</b> , Hope for Destitute Peoples Foundation, Tanzania	
13.00 – 14.00	LUNCH BREAK	



## SESSION 5: EXAMPLES OF SUCCESSFUL ACTIONS

14.00 – 15.30	<p>TALK SHOW: The value of educating and including Women in Africa's Development Agenda</p> <ul style="list-style-type: none"> <li>• <b>Yaye Gassama</b>, Senegalese Academy of Science and Technology</li> <li>• <b>Roseanne Diab</b>, Academy of Sciences of South Africa</li> <li>• <b>Godfrey B. Tangwa</b>, University of Yaounde 1, Cameroon</li> <li>• <b>Chinedum Babalola</b>, Nigeria Academy of Science</li> <li>• <b>Prof. Esther Mwaikambo</b>, President, Tanzania Academy of Sciences</li> <li>• <b>Prof. Flora Fabian</b>, University of Dodoma</li> </ul>	<p>HOST: <b>Akin Jimoh</b> (Development Network)</p> <p>WRITER: <b>Declan Okpalaeke</b> (The Conversation Africa)</p>
15.30 – 16.00	<b>REFRESHMENT BREAK</b>	
16.00 – 18.00	<p><b>PARALLEL SESSION 1: LOCAL AND NATIONAL ROLES OF WOMEN IN DEVELOPMENT</b></p> <p>SESSION CHAIR: <b>Prof. Constancia Rugumamu</b> (TAAS)</p> <p>RAPORTEURS: <b>Angie Olanipekun</b> (Nigerian Ac. Sc.) and <b>Mame Gaye Binta</b> (Sénégal ANSTS)</p>	
(Parallel Sessions)	<ul style="list-style-type: none"> <li>• <b>Alexia Hountondji</b> (Benin)</li> <li>• <b>Gloria Quansah Asare</b> (Ghana)</li> <li>• <b>Mouna Aminami</b> (Niger)</li> <li>• <b>Ruth Meena</b> (Tanzania)</li> <li>• <b>Ini Damien-Youl</b> (Burkina Faso)</li> <li>• <b>Gada Kadoda</b> (Sudan)</li> </ul> <p><i>This session will tackle issues related to international women's rights and implementation; role of the media; empowerment of women in local economic development; role of traditional leaders; role of the Diaspora; and the role of men.</i></p>	
	<p><b>PARALLEL SESSION 2: REPRODUCTIVE HEALTH AND DEVELOPMENT</b></p> <p>SESSION CHAIR: <b>Dr. Deoraj Causey</b> (Mauritius)</p> <p>RAPORTEURS: <b>Phyllis Kalele</b> (ASSAf) and <b>Rahab Gitahi</b> (NASAC)</p> <ul style="list-style-type: none"> <li>• <b>Hadari Zeinabou</b> (Niger)</li> <li>• <b>Isabella A. Quakyi</b> (Ghana)</li> <li>• <b>Marie-Pierre Nicollet</b> (France)</li> <li>• <b>Brigitte Syan</b> (Burkina Faso)</li> <li>• <b>Maria Musoke</b> (Uganda)</li> <li>• <b>Koheleth Winani</b> (Tanzania)</li> </ul>	

	<i>This session will tackle issues related to improving health infrastructure; providing adequate funding for sustainable urban and rural structures; improving the training of personnel in contact with women on reproduction and sexuality matters; and ease of access to contraception.</i>
18.00 – 19.00	<b>Transportation to the hotel and then to the local restaurant</b>
From 19.00	<b>Group Dinner (Venue: Local Tanzanian Restaurant)</b>
<b>Day 3: Saturday, 10th March 2018</b> <b>SESSION 6:</b> <b>CONCLUSIONS AND CLOSING SESSION</b>	
09.00 – 09.30	<b>Closing Keynote Address:</b> <i>CHAIRS: Robin Crewe (NASAC) and Yunus Mgaya (TAAS)</i> <i>RAPPORTEUR: Hanan Abdelkarim (Sudan National Academy of Sciences)</i> Mainstreaming gender in Africa's policymaking to deliver Agenda 2030 • <i>Akiça Bahri (National Agricultural Institute, Tunisia and Former Coordinator of the African Water Facility at the African Development Bank)</i>
09.30 – 10.15	General Rapporteur's report (30 mins highlights + 15 mins discussion)
10.15 – 11.00	<b>REFRESHMENT BREAK</b>
11.00 – 11.20	Presentation of the Conference Declaration by Science Academies in Africa by Yousuf Maudarbocus (Vice President, NASAC)
11.20 – 12.30	<b>Closing remarks and Vote of Thanks:</b> <ul style="list-style-type: none"> <li>• NASAC Women for Science Working Group <b>Francoise Driver</b> (Vice Chair)</li> <li>• French Academy of Sciences <b>Pierre Auger</b> (COPED President)</li> <li>• Network of African Science Academies <b>Barney Pityana</b> (Secretary General)</li> <li>• Speech read: Tanzanian Government official (Permanent Secretary for Policy and Coordination, Prime Minister's Office, Tanzania), <b>Faustine Kamuzora</b></li> <li>• Vote of Thanks by <b>Godwin Ndossi</b> and <b>Esther Mwaikambo</b> (TAAS)</li> </ul>
12.30 – 13.30	<b>Press Conference (by invitation only)</b>
From 13:00	<b>FAREWELL LUNCH</b>

## Annex 3: List of Participants

### “WOMEN AND SUSTAINABLE DEVELOPMENT IN AFRICA”

8–10 March 2018 in Dar es Salaam, Tanzania | The Julius Nyerere International Convention Centre

#### LIST OF PARTICIPANTS

<b>Prof. Thérèse Agossou</b> <i>National Academy of Sciences Arts and Letters of Benin (ANSALB), BENIN</i>	<b>Ass. Prof. Dr. Amal Amin Ibrahim</b> <i>Global young academy (GYA) &amp; Egyptian Young Academy of Sciences (EYAS), EGYPT</i>	<b>Mr. Jean-Pierre Guengant</b> <i>Institute de Recherche pour le Développement (IRD), FRANCE</i>
<b>Prof. Ambaliou Sanni</b> <i>National Academy of Sciences Arts and Letters of Benin (ANSALB), BENIN</i>	<b>Dr. Aster Tsegaye Abebe</b> <i>Ethiopian Academy of Science (EAS) ETHIOPIA</i>	<b>Mr. Mathias Kuepie</b> <i>French Development Agency (AFD) FRANCE</i>
<b>Ms. Carine Alexia Sourou Houtondji</b> <i>Youth Parliament of the Benin BENIN</i>	<b>Prof. Meaza Demissie Wondimagegnhu</b> <i>Ethiopian Academy of Science (EAS) ETHIOPIA</i>	<b>Mrs. Marie-pierre Nicollet</b> <i>French Development Agency (AFD) FRANCE</i>
<b>Mr. Banyaladzi Paphane</b> <i>Botswana Academy of Sciences (BAS) BOTSWANA</i>	<b>Prof. Abebe Getahun Gubale</b> <i>Ethiopian Academy of Science (EAS) ETHIOPIA</i>	<b>Dr. Pierre Auger</b> <i>Institute de Recherche pour le Développement (IRD), FRANCE</i>
<b>Prof. Sesae Mpuchane</b> <i>University of Botswana BOTSWANA</i>	<b>Prof. Yalemtehay Mekonnen Tadesse</b> <i>College of Natural Sciences, Addis Ababa University, ETHIOPIA</i>	<b>Ms. Valérie Faillat</b> <i>SANOFI Hope Foundation FRANCE</i>
<b>Sarah Rebaone Dibe</b> <i>Botswana Academy of Sciences (BAS) BOTSWANA</i>	<b>Prof. Henri Leridon</b> <i>French Académie des sciences (FAS) FRANCE</i>	<b>Mrs. Anastasia Gestkoff</b> <i>French Académie des sciences (FAS) FRANCE</i>
<b>Brigitte Syan</b> <i>Advanced Family Planning (AFP) BURKINA FASO</i>	<b>Prof. Francois Gros</b> <i>French Académie des sciences (FAS) FRANCE</i>	<b>Mr. Jean-Luc Maslin</b> <i>French Académie des sciences (FAS) FRANCE</i>
<b>Mrs. Ini Damien</b> <i>Association for the Promotion of Women of Gaoua in Burkina Faso, BURKINA FASO</i>	<b>Prof. Yves Quéré</b> <i>French Académie des sciences (FAS) FRANCE</i>	<b>Prof. Bernard Surugue</b> <i>French Institute for Development Research (IRD), FRANCE</i>
<b>Prof. Anastasie Gasogo</b> <i>University of Burundi/ Burundi Academy of Sciences and Technology (BAST), BURUNDI</i>	<b>Ghislain De Marsily</b> <i>French Académie des sciences (FAS) FRANCE</i>	<b>Prof. Pascale Cossart</b> <i>French Académie des sciences (FAS) FRANCE</i>
<b>Prof. Godefroid Gahungu</b> <i>University of Burundi/Burundi Academy of Sciences and Technology (BAST), BURUNDI</i>	<b>Elisabeth Barbier</b> <i>French Institute for Development Research (IRD) FRANCE</i>	<b>Dr. Gloria Quansah Asare</b> <i>Ghana Health Service, Ministry of Health GHANA</i>
<b>Prof. Therese Mungah-Shalo Tchombe</b> <i>Cameroon Academy of Sciences (CAS) CAMEROON</i>	<b>Catherine Bréchnignac</b> <i>French Académie des sciences (FAS) FRANCE</i>	<b>Prof. Isabella Akyinbah Quakyi</b> <i>Ghana Academy of Arts and Sciences (GAAS) GHANA</i>
<b>Prof. Godfrey Banyuy Tangwa</b> <i>University of Yaoundé / African Academy of Science (AAS), CAMEROON</i>	<b>Michèle Gendreau-Massaloux</b> <i>French Académie des sciences (FAS) FRANCE</i>	<b>H.E. Prof. Aïcha Bah Diallo</b> <i>Forum of African Women Educationalists (FAWE), GUINEA</i>

## LIST OF PARTICIPANTS

<b>Mrs. Violet Mundia</b> <i>Access Education International</i> KENYA	<b>Stephen Obiro</b> <i>Federation of Kenyan Employers</i> KENYA	<b>Prof. Oyewale Tomori</b> <i>Nigerian Academy of Sciences (NAS)</i> NIGERIA
<b>Dr. Luna Kamau</b> <i>Kenya Medical Research Institute/Kenya National Academy of Sciences (KNAS), KENYA</i>	<b>Mr. David Williamson</b> <i>French Institute for Development Research (IRD)</i> KENYA	<b>Ms. Anjolaoluwa Oluwaseyi Olanipekun</b> <i>Nigerian Academy of Sciences (NAS)</i> NIGERIA
<b>Fatuma Achieng</b> <i>Network of African Science Academies (NASAC)</i> KENYA	<b>Dr. Santally Mohammad Issack</b> <i>Mauritius Academy of Science and Technology (MAST), MAURITIUS</i>	<b>Mr. Akinlabi Kazeem Jimoh</b> <i>Development Communications Network</i> NIGERIA
<b>Ms. Jaqueline McGlade</b> <i>Maasai Mara University</i> KENYA	<b>Dr. Françoise Driver</b> <i>Mauritius Academy of Science and Technology (MAST), MAURITIUS</i>	<b>Mr. Fortunate Muyambi</b> <i>East African Science and Technology Commission</i> RWANDA
<b>Prof. Ratemo Michieka</b> <i>Kenya National Academy of Sciences (KNAS)</i> KENYA	<b>Dr. Yousuf Maudabocus</b> <i>Mauritius Academy of Science and Technology (MAST), MAURITIUS</i>	<b>Mrs. Mame Bineta GAYE</b> <i>Academy of Sciences and Technology of Senegal (ANSTS), SENEGAL</i>
<b>Philbert Okello</b> <i>Network of African Science Academies (NASAC)</i> KENYA	<b>Dr. Deoraj Caussy</b> <i>Mauritius Academy of Science and Technology (MAST), MAURITIUS</i>	<b>Dr. Ababacar Sadikh Ndoye</b> <i>Academy of Sciences and Technology of Senegal (ANSTS), SENEGAL</i>
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<b>Dr. Pacificah Okemwa</b> <i>Jomo Kenyatta University</i> KENYA	<b>Prof. Sunita Facknath</b> <i>Mauritius Academy of Science and Technology (MAST), MAURITIUS</i>	<b>Prof. Igle Gledhill</b> <i>Academy of Science of South Africa (ASSAf)</i> SOUTH AFRICA
<b>Lorraine Ambole</b> <i>University of Nairobi</i> KENYA	<b>Prof. Amalia Uamusse</b> <i>Academy of Sciences of Mozambique (ASM)</i> MOZAMBIQUE	<b>Prof. Roseanne Diab</b> <i>Academy of Science of South Africa (ASSAf)</i> SOUTH AFRICA
<b>Rahab Gitahi</b> <i>Network of African Science Academies (NASAC)</i> KENYA	<b>Mrs. Afagnibo Mouna Aminami</b> <i>Presidents Office</i> NIGER	<b>Prof. Barney Pityana</b> <i>Academy of Science of South Africa (ASSAf)</i> SOUTH AFRICA
<b>Wilson Ndung'u</b> <i>Forum Tech Consulting</i> KENYA	<b>Dr. Zeinabou G. Hadari</b> <i>Prime Ministers Office</i> NIGER	<b>Phyllis Kalele</b> <i>Academy of Science of South Africa (ASSAf)</i> SOUTH AFRICA
<b>Edmund Juma</b> <i>Forum Tech Consulting</i> KENYA	<b>Prof. Chinedum Babalola</b> <i>Nigerian Academy of Sciences (NAS)</i> NIGERIA	<b>Stanley Maphosa</b> <i>Academy of Science of South Africa (ASSAf)</i> SOUTH AFRICA
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<b>Jacques Muganza</b> <i>Forum Tech Consulting</i> KENYA	<b>Prof. Obioma Nwaorgu</b> <i>Nigerian Academy of Sciences (NAS)</i> NIGERIA	<b>Prof. Robin Crewe</b> <i>University of Pretoria</i> SOUTH AFRICA



## LIST OF PARTICIPANTS

<b>Mr. Michael Owino</b> <i>Organization of Africa Youth</i> KENYA	<b>Prof. Francisca Okeke</b> <i>Nigerian Academy of Sciences (NAS)</i> NIGERIA	<b>Prof. Mohamed Hassan</b> <i>Sudanese National Academy of Science (SNAS)</i> SUDAN
<b>Hanan Mohamed A. Karim Abbas</b> <i>Sudanese National Academy of Science (SNAS)</i> SUDAN	<b>Prof. Godwin Ndossi</b> <i>Tanzania Academy of Sciences (TAAS)</i> TANZANIA	<b>Dr. Blandina Kilama</b> <i>Policy Research for Development (REPOA)</i> TANZANIA
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<b>Dr. Maseko Rejoice</b> <i>Ministry of Information, Communications and Technology (ICT), SWAZILAND</i>	<b>Prof. Flora Masumbuo Fabian</b> <i>University of Dodoma (UDOM)</i> TANZANIA	<b>Dr. Eugenia Kafanabo</b> <i>University of Dar es Salaam</i> TANZANIA
<b>Prof. Costancia Rugumamu</b> <i>Tanzania Academy of Sciences (TAAS)</i> TANZANIA	<b>Dr. Deborah Sumari</b> <i>Young Science Academy</i> TANZANIA	<b>Mrs. Frédérique Frédérique Reynès</b> <i>Embassy of France</i> TANZANIA
<b>Dr. Lucy Andrew Namkinga</b> <i>University of Dar es Salaam</i> TANZANIA	<b>Halima Salim Shariff</b> <i>Advanced Family Planning (AFP)</i> TANZANIA	<b>Mrs. Hanifa Mohamed Selengu</b> <i>Ministry of Health, Community Dev., Gender, Elderly and Children (MoH CDGEC), TANZANIA</i>
<b>Dr. Asifa Petro Nanyaro</b> <i>Tanzania Academy of Sciences (TAAS)</i> TANZANIA	<b>H.E. Amb. Frédéric Clavier</b> <i>Embassy of France</i> TANZANIA	<b>Dr. Lucy Massoi</b> <i>Dar Campus of Mzumbe University</i> TANZANIA
<b>Dr. Koheleth Winani</b> <i>Ministry of Health</i> TANZANIA	<b>Emma Boki</b> <i>Tumaini University</i> TANZANIA	<b>Ms. Pascale Camy</b> <i>Embassy of France</i> TANZANIA
<b>Prof. Esther Daniel Mwaikambo</b> <i>Tanzania Academy of Sciences (TAAS)</i> TANZANIA	<b>Adv. Victoria B. Mandari</b> <i>Authentic Attorneys</i> TANZANIA	<b>Ms. Rebecca Stephen</b> <i>Acacia Mining</i> TANZANIA
<b>Dr. Mary Mayige</b> <i>Tanzania Young Science Academy</i> TANZANIA	<b>Dr. Jean Kokulamuka Mujumba</b> <i>University of Dar es Salaam</i> TANZANIA	<b>Ms. Theodora Modest Tibaikana</b> <i>Tanzania Community Based Option for Protection and Empowerment (TACOPE), TANZANIA</i>
<b>Prof. Yunus Daud Mgya</b> <i>UDSM/Tanzania Academy of Sciences (TAAS)</i> TANZANIA	<b>Mr. William Ilembo Johnson</b> <i>Hope For Destitute People's Foundation (HDPF)</i> TANZANIA	<b>Mr. Victor Mollel</b> <i>Embassy of Sweden</i> TANZANIA
<b>Dr. Julie Bob Makani</b> <i>MUHAS/Tanzania Academy of Sciences (TAAS)</i> TANZANIA	<b>Rose Manumba</b> <i>Young Women's Christian Association (YWCA)</i> TANZANIA	<b>Ms. Joyce Onesiphorus Tesha</b> <i>Embassy of Sweden</i> TANZANIA
<b>Dr. Japhet Z. J. Killewo</b> <i>MUHAS/Tanzania Academy of Sciences (TAAS)</i> TANZANIA	<b>Ms. Sophia Nyamianda Donald</b> <i>Sauti ya Wanawake</i> TANZANIA	<b>Mrs. Marcela Francis</b> <i>Foundation for Civil Society</i> TANZANIA

## LIST OF PARTICIPANTS

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<b>Prof. John Shao</b> <i>Tanzania Academy of Sciences (TAAS)</i> TANZANIA	<b>Dr. Ayam Ramadhani Kalingoji</b> <i>Tanzania Academy of Sciences (TAAS)</i> TANZANIA	<b>Mr. Philippe Boncour</b> <i>Embassy of France</i> TANZANIA
<b>Prof. Ruth Meena</b> <i>University of Dar es Salaam/Tanzania Gender Networking Programme (TGNP),</i> TANZANIA	<b>Dr. Connie Vivien Nshemereirwe</b> <i>Global Young Academy (GYA)</i> UGANDA	<b>Prof. Nelson Sewankambo</b> <i>The Uganda National Academy of Sciences (UNAS),</i> UGANDA
<b>Mrs. K. Kariuki</b> <i>Kariuki Health and Education Network</i> TANZANIA	<b>Prof. David Justin Bakibinga</b> <i>The Uganda National Academy of Sciences (UNAS),</i> UGANDA	<b>Mr. Andrew McGowan Tuttle</b> <i>Bill &amp; Melinda Gates Foundation</i> UNITED KINGDOM
<b>Dr. Aphos Nungu</b> <i>COSTECH</i> TANZANIA	<b>Dr. Mary Goretti Nakabugo</b> <i>The Uganda National Academy of Sciences (UNAS),</i> UGANDA	<b>Dr. Joseph Robert Fitchett</b> <i>Bill &amp; Melinda Gates Foundation</i> UNITED KINGDOM
<b>Hon. Prof. Joyce Ndalichako</b> <i>Ministry of Education, Science and Technology</i> TANZANIA	<b>Prof. Maria Musoke</b> <i>The Uganda National Academy of Sciences (UNAS),</i> UGANDA	<b>Dr. Judith C. N. Lungu</b> <i>Zambia Academy of Sciences (ZaAS)</i> ZAMBIA
<b>Prof. Akiça Bahri</b> <i>National Agricultural Institute of Tunisia</i> TUNISIA	<b>Christian Acemah</b> <i>The Uganda National Academy of Sciences (UNAS),</i> UGANDA	<b>The Forum was also attended by over 50 students from Universities in Tanzania</b>





**The Network of African Science Academies (NASAC)** was established on 13th December 2001 in Nairobi, Kenya, and is currently the affiliate Network for Interacademy Partnership (IAP) in Africa.

NASAC is a consortium of merit-based science academies in Africa and aspires to make the “voice of science” heard by policy and decision makers within Africa and worldwide. NASAC is dedicated to enhancing the capacity of existing national science academies and champions the cause for creation of new academies where none exist.

***As at November 2017, NASAC comprised of the following twenty-five members:***

Académie Nationale des Sciences et Technologies du Sénégal (ANSTS)  
Académie Nationale des Sciences du Burkina (ANSB)  
Académie Nationale des Sciences et Technologies du Congo (ANSTC)  
Académie Nationale des Sciences, Arts et Lettres du Benin (ANSALB)  
Académie Nationale des Sciences, Arts et Lettres du Togo (ANSALT)  
Academy of Science of South Africa (ASSAf)  
Academy of Sciences of Mozambique (ASM)  
African Academy of Sciences (AAS)  
Algerian Academy of Science and Technology (AAST)  
Botswana Academy of Science (BAS)  
Burundi Academy of Sciences and Technology (BAST)  
Cameroon Academy of Sciences (CAS)  
Ethiopian Academy of Sciences (EAS)  
Ghana Academy of Arts and Sciences (GAAS)  
Hassan II Academy of Science and Technology, Morocco  
Kenya National Academy of Sciences (KNAS)  
Madagascar National Academy of Arts, Letters and Sciences  
Mauritius Academy of Science and Technology (MAST)  
National Academy of Côté d'Ivoire  
Nigerian Academy of Science (NAS)  
Sudanese National Academy of Science (SNAS)  
Tanzania Academy of Sciences (TAS)  
The Uganda National Academy of Sciences (UNAS)  
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