

**The 4th Memorial Lecture on the Life and times of Prof. G. O. P. Obasi on Stepping Up Climate Action
for Resilience Economies in Africa: A Race We Must Win**

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The Geopolitics of Global Warming and The Implications For Africa's Development

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Prof. Godwin Olu Patrick Obasi Secretary General of WMO (January 1984 – December 2003)

1. Introduction

I feel humbled and greatly privileged and honoured to be here today at the 8th Climate Change and Development in Africa (CCDA-VII) Conference, convened by the African Union Commission (AUC) in collaboration with the United Nations Economic Commission for Africa (UNECA) and the African Development Bank (AfDB) in partnership with the Pan African Climate Justice Alliance (PACJA) and the UN Environment and hosted by the Federal Democratic Government of Ethiopia. I am informed that this session serves as a Special Edition of the CCDA convened to prepare for the African inputs into the UN Secretary General's **Climate Action Summit** scheduled for the 24 September 2019 in New York, United States of America (USA). I have great pleasure to present **Prof. Godwin Olu Patrick Obasi Memorial Lecture** on this occasion on behalf of the Secretary General of the World Meteorological Organization (WMO), Prof. Peterri Taalas, who would have loved to be here today but could not make it because of medical reasons – he, however, sends his profound regards and apology.

I wish to thank the convenors of the CCDA-VIII who continue to honour Prof G.O.P. Obasi in their programmes. It is worthwhile to mention at the outset that Prof Godwin Olu Patrick Obasi, a Nigerian citizen, was the Secretary General of the World Meteorological Organization (WMO) for five consecutive four-year terms (1984-2003). As Secretary-General of WMO, Prof Obasi was at the forefront of promoting global solutions to environmental problems, with special attention to the atmosphere, fresh water and the oceans, as well as to related issues that have implications for the environment. He would have loved attending the CCDA meetings to help define solutions to Africa's resilience to the adverse impacts of climate change.

In this special CCDA edition, you have chosen a theme under the clarion call of "*Stepping Up Climate Action for Resilience Economies in Africa: a Race We can (must?) Win.*" And I am very categorical that Prof. G.O.P Obasi would have emphasized that Africa must win this race in Resilience building against the vagaries of climate change. I am sure he would have stated that, "*We either build resilience through adaptation to the adverse impacts of climate change or we destroy, not only Africa, but planet earth as a whole and also perish as a species*".

In your concept note, you highlight the loud call from the UN Secretary General, Antonio Guterres, who cries out to the world with the words, "*We are losing the fight against climate changeTechnology is on our side....We need the Political Will to tackle climate change....If we fail in climate change, we fail in everything...*". This means that in trying to solve the issue of climate change, we need the *political will* and support of Countries, States and Territories that make up the UN Members – the whole globe must be involved.

2.0 The Geopolitics of Global Warming and the Implication for Africa's Development.

2.1 Geopolitics of Global Warming - Climate Change

It is now being recognized that Climate Change is taking centre stage in the world's geopolitics. It is indicated that the disruption to the earth's climate will ultimately command more attention and resources and have a greater influence on the global economy and international relations than other forces visible in the world today. Climate change is ceasing to be taken as a faraway threat that can be wished away easily – this is because the devastating impacts due to continuing shifts in climate around the world are driving up costs, putting new strains on short-term emergency response measures but also on long-term investments and economic growth and development. These devastating impacts are calling for immediate remedial action.

While attending the meeting with G7 Leaders in Biarritz, France, to mobilize their support ahead of his **Climate Action Summit** next month in New York, the UN Secretary General Mr. Antonio Guterres told reporters that, ".....We are now facing a dramatic climate emergency. Last month was the hottest month on record. We are on track for 2015 to 2019 to be the five hottest years on record. At the same time, according to the World Meteorological Organization, the level of CO₂ in the atmosphere is the highest during human

life and we need to move back three or five million years to get similar concentrations, and on that time, temperatures were higher and the level of the seas were 10 to 20 metres higher. On the other side, if one looks at Greenland, the second largest ice cap, Greenland is melting dramatically – 179 billion tonnes of ice melted during the month of July. If we see the fires in Siberia, in Alaska, in Canada, and in Greenland in the Arctic Circle, we had in June 50 megatonnes of CO₂ issued. In July, 79 megatonnes, and now we see what’s happening in the Amazon.....”. Thus the UN Secretary General stated that the Climate Action Summit to be held in September 2019 — comes against the backdrop of a “dramatic climate emergency,” with the UN World Meteorological Organization (WMO) reporting that the period 2015 to 2019 is on record as constituting five hottest years ever recorded, and historically high concentrations of Carbon Dioxide (CO₂) in the atmosphere – and this situation calls for immediate concrete action.

It is unfortunate and a missed opportunity that France’s G7 document left out any discussion on the climate crisis and instead focused on trade and Iran – but not considering climate change as a crucial issue to discuss does not make it go away – it only emboldens its position as a number one contender on the world stage that requires urgent attention.

Indeed, records show that the atmospheric concentration of Carbon Dioxide (CO₂), the main greenhouse gas (GHG), now exceeds 410 parts per million, the highest level in 800,000 years. On the other hand, the global average surface temperatures are one-point-two degrees Celsius (1.2^oC) higher than they were before the Industrial Revolution. The consensus scientific estimate is that the maximum temperature increase that will avoid dangerous climate change is two degrees Celsius (2^oC). Humanity still has around 20 years before stopping short of that threshold, but most plausible projections show that the world will exceed it.

Rising temperatures on the earth’s surface are causing Wildfires, Hurricanes / Tropical Cyclones, Floods, Lightning, Droughts, Melting of Polar Ice, Sea Level Rise, Heat Waves and Cold Chills, among other hazards. These hazards impact Sectors like agriculture, water, health, energy, the economy as well as ecosystems and human livelihoods with devastating results.

Media reports have shown that wildfires for example in the western United States, Australia and Brazil are mostly *caused by dry and hot conditions that make lightning strikes exceptionally dangerous*. Also, the *hurricanes* on the East Coast of United States, *tropical cyclones* in the Bay of Bengal in India as well as Japan and over the Philippines are occurring with much higher intensities caused by more moisture from warmer sea surface temperatures – and these increased intensities result in more Losses and Damage with costs averaging in millions of dollars. *Extreme heat* can also affect the aviation industry, by grounding planes not able to operate at temperatures above 118 degrees Fahrenheit (or 48^oC). Indeed throughout 2018, weather events had devastating *humanitarian consequences* in developing countries, from immense *floods* in the Indian state of Kerala to an intense *drought* in Afghanistan that affected millions. We can also recall recent devastations in Mozambique, Zimbabwe and Malawi by Tropical Cyclone Idai and Kenneth.

Academics and policymakers have debated the question of whether climate *change poses a security threat*, with particular emphasis on whether it can cause internal conflict. Connections are complex but exist and adverse impacts of climate change bring several *risk factors* that make some countries more vulnerable than others to the consequences of climate change. Four stand out in particular:

- A high level of dependence on *agriculture* and the attendant climate change induced food insecurity, which can be a risk factor that could trigger political instability due to famine. Similar impacts can also occur on sectors like water resources, energy, health and transport, etc ;
- A recent history of conflict – could be further exacerbated or inflamed by a severe impact of climate change like drought or flood which would play the role of a multiplier to the risk factor that jump-starts instability or conflict due to a sudden economic downturn; and
- Discriminatory political institutions or situation, which can be compounded by a sudden climate change impact like wildfires or a tropical cyclone.
- Sea level rise, due to melting polar ice puts low-lying countries and coastal zones at the risk of submerging with loss to ecosystems including human life. Therefore, small island developing states (SIDS) like Kiribati, Maldives, Bangladesh, Vanuatu, Fiji, etc are in serious trouble of being swallowed by the sea – and may trigger mass migration of citizens owing to displacement – this will cause a humanitarian.

Research suggests that in countries that display some or all of four risk factors, climate extremes are especially likely to trigger disastrous outcomes, including violence, food crises, and the large-scale displacement of populations – “climate change refugees”.

There has been growing popular pressure around the world, to halt GHG emissions to stop surface temperature rise and reverse the trends in polar ice melt, sea level rise and attendant impacts. The concerted pressure by the public has forced politicians to respond to *the threat of* ecological disaster that could potentially breed overwhelming repercussions. The response by politicians has enabled major diplomatic breakthroughs, most notably the 2015 Paris Agreement. In that pact, 195 countries pledged to adopt increasingly stringent regulations to make significant reductions in their greenhouse gas emissions. The negotiators reached a nominal agreement on nonbinding **Intended Nationally Determined Contributions (NDCs)**, which would result in temperatures surpassing three degrees above preindustrial levels before the end of this century. “*We’ve shown what’s possible when the world stands as one,*” proclaimed U.S. President Barack Obama after the talks concluded.

Although the agreement is not an international legally binding treaty, it does represent a comprehensive attempt to follow through on the commitments, made in the 1990s through the United Nations Framework Convention on Climate Change, to prevent dangerous anthropogenic changes to the climate system. By most accounts, December’s international climate conference in Paris was an unexpected and landmark success because virtually every nation on earth now understands what’s at stake and all have reached common understanding about what needs to be done to slow the advance of unmitigated planetary warming.

In spite of overwhelming scientific evidence that dangerous levels of planetary warming and human-induced climate change are real, hard-core resistance to well-established science remains a challenge. Particularly disconcerting is the fact that the ranks of the “**climate deniers**” include too many influential political and policy leaders. But inaction from influential leaders on climate change will cause serious economic and diplomatic strain between nations and waste precious time in the race to save the planet. Sticking with the deal would mitigate the potential loss and damage and is clearly in everyone’s interest. I believe, Prof G.O.P. Obasi would have agreed with President Obama that the world can accomplish much if it stands as one on a crucial issue like climate change whose adverse impacts are not only global but are also regional as well as local and cascade to household level.

2.3 The Implications of Global Warming on Africa’s Development

It is worth mentioning here that during his tenure as Secretary General of WMO, Prof G.O.P. Obasi exercised a key leadership role together with Dr. Mostafa Kamal Tolba (Egypt), the then Executive Director of the United Nations Environmental Programme (UNEP), to jointly establish the WMO/UNEP Intergovernmental Panel on Climate Change (IPCC) in 1988 as a mechanism and platform to provide policymakers with regular assessments of the scientific basis of climate change, its impacts and future risks including options for adaptation and mitigation. It is worth noting that Tolba, another illustrious African, promoted a philosophy of “**Development Without Destruction**”, or “Sustainable Development” which helped anchor these two great minds to work together for the good of the world at large and the continent of Africa in particular.



The Implications of Global Warming on Africa’s Development can therefore be understood from the IPCC Special Report 2018 titled “*Global Warming of 1.5 °C, an IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.*”

The IPCC special report notes that the consequences of 1 °C of global warming are being witnessed through more extreme weather, rising sea levels and diminishing Arctic sea ice, among other changes. The report projects that under 1.5/2.0 degrees warming, Africa will warm faster than any other continent and attain 2.0 degrees warming by 2050, with evidence that this will increase the intensity of extreme precipitation events

over the continent. The report further notes that limiting global warming to 1.5°C would create greater chances for economies, ecosystems and societies to adapt and remain below relevant risk thresholds, making it easier to achieve the Sustainable Development Goals. If, however, the temperature is allowed to reach the 2°C threshold or more, adaptation would become increasingly difficult to achieve, and the risk of irreversible damage to the climate system would increase.

3.0 What the IPCC Special Report Means to Africa

The IPCC report indicates that the impacts of climate change are being felt everywhere globally and are having very real consequences on people's lives. However, with a focus to Africa, the report indicates that the continent will continue to experience increased temperature rise and variable rainfall with yield losses of staple crops. Further, climate change is disrupting national economies, with increasing costs and negative impacts on health, livelihoods and ecosystems.

As a person coming from the continent of Africa, Prof G.O.P. Obasi would have expressed his pain in the knowledge that most African countries have contributed the least to the global emissions of greenhouse gases (GHGs), but yet they are already being severely punished by the adverse impacts of climate change, through exposure to severe droughts, heatwaves and floods and lightning strikes, which cause loss of lives and damage to infrastructure and profound disruption in hydropower production in many countries with serious economic consequences as well as climate-related food insecurity, loss of natural habitats and dwindling natural resources including other related conflicts.

On considering the Implications of Global Warming on Africa's Development, Prof G.O.P. Obasi would have commended that global warming causes a big disruption in Africa's development since the continent is home to 34 of the 48 Least Developed Countries (LDCs) in the world with the weakest GDPs and hence most vulnerable to the shocks of climate change impacts. He would have supported the loud call from the Secretary General of the UN Organization, Antonio Guterres, which comes at a time when the world's ecosystem balance is on the brink of collapse as extreme weather and climate related events play havoc on the global platform: – the Arctic and Antarctic snow melt is occurring at an alarming rate than anticipated and this owing to the ever-rising temperatures; snow on mountains like Kilimanjaro, Kenya and Ruwenzori are fast disappearing affecting the flow of water in streams down the mountain catchments and affecting the ecological systems therein; the Small Island Developing States (SIDS) like Seychelles, Mauritius, Comoros, Sao Tome and Principe, Cabo Verde and as well as low-lying countries like Mozambique and The Gambia among others are experiencing loss of their land swallowed by water due to sea level rise; frequent and prolonged droughts have been noted to cause population displacements, human-animal conflicts and insecurity due to strive over dwindling resources like water and grazing lands; and torrential rains, tropical cyclones and lightning come with increased intensity and ferocious destructive forces that cause a lot of loss and damage, which include disrupting livelihoods, causing food insecurity resulting in hunger–malnutrition–diseases and poverty and environmental degradation. The earth and its eco-system balance is thus on the brink of collapse and it needs healing and man should provide this healing because the cause is man-induced, or anthropogenic.

3.1 What Needs To Be Done By Africa – Resilience Building To Climate Change Impacts

Africa must also note the urgent call by the UN Secretary-General H.E. António Guterres for a **Climate Action Summit** in September 2019. The UN Secretary General is concerned about the unfolding climate crisis and lackluster action and commitments by countries to ensure full implementation of the Paris Agreement to keep global warming at bay. He warns that non-implementation of the Paris Agreement due to inaction brought on due to what may be described, as “climate change amnesia” will be catastrophic to the world and its citizens. He says, “I want to hear about how we are going to stop the increase in emissions by 2020, and dramatically reduce emissions to reach net-zero emissions by mid-century i.e. 2050”.

Africa must therefore consider the unfolding climate crisis and also the prevailing lackluster action. The continent should then fully commit itself as one to the implementation of the Paris Agreement to maintain the average global temperature at 1.5°C and keep global warming at bay.

Noting that the threat of floods, droughts and heatwaves is indicated in the IPCC report to be amplified in Africa with increasing climate change and variability in the future, Prof G.O.P. Obasi would have advised that the best response strategy for Africa is one that improves the resilience of economies, infrastructure, ecosystems and societies to climate variability and change. Such a strategy is necessarily pivoted around an overall development approach, which seeks to mitigate the risks posed by climate change and variability to the attainment of the UN Sustainable Development Goals (SDGs) at the global level and the ideals of Africa's Agenda 2063.

He would have urged Governments of Members States in Africa to take this issue seriously and commit themselves fully by:

- Updating their Nationally Determined Contributions (NDCs) by 2020 with realistic plans and bold ambitions to reduce GHG emissions by 45% over the next decade and to 0% by 2050 as called for by the IPCC and echoed by the UN Secretary General;
- Formulating response strategies and actionable policies geared towards improving the resilience of economies, infrastructure, ecosystems and societies to climate variability and change through adaptation and mitigation of the impacts of 1.5 °C and 2 °C warming on key sectors such as agriculture, water, energy, disaster risk management and health in order to achieve the aspirations of the Paris Agreement on Climate Change, the UN Sustainable Development Goals (UNSDGs), the Sendai Framework of Action on Disaster Risk Reduction (DRR) and the ideals of the AU Agenda 2063 on "The Africa We Want". This requires human resources with requisite expertise, skills and competencies; finance and technology.
- Implementation of the resilience strategy to climate change impacts would minimize risk factors due to climate change including food insecurity, conflicts over water and pasture, population displacement and internal migration due to droughts and floods, etc.
- Garner Africa's Common positions and concerns on climate change and its impacts.
- Establish an annual publication on the State of Climate over Africa by ACMAD as a technical arm of AU in liaison with WMO
- To increase reviews of the IPCC Assessment Reports (ARs) in RAI (Africa) from 1% value through collaboration with institutions in Africa dealing with research for development planning and climate information services (CIS), like Climate Research for Development (CR4D) in Africa initiative, the African Adaptation Initiative (AAI) and the African Climate Risk Assessment (ACRA) FCFA, etc.

Sequel to the above, Prof GOP Obasi would have called on the world to note that in order to build resilience to loss and damage for climate related disasters, there is need for:

- Capacity development in infrastructure and human resources with requisite expertise, skills and competencies;
- Finance for projects and services;
- Technology for various adaptation options.

Prof G.O.P. Obasi would have called on the countries with developed economies to assist Africa with resources for projects on Resilience Building since 34 out of the 48 countries are listed as Least Developing Countries (LDCs) with weak GDPs.

And with regards to the above, Prof Obasi would have delved into ways to convince governments to invest in **systematic observation** to collect data for weather and climate (meteorological) as well as hydrological (water) and environmental (pollution) data at country level and the exchange of the data sets regionally and globally to enhance real-time forecasting for early warning services and for climate change analysis.

3.2 Benefits of Meteorological Services to Social-Economic Development

In order to draw attention to the benefits of meteorological services to the socio-economic development, Prof G.O.P Obasi would point to the records, which show that over 90% of all natural disasters are weather and climate related. He would want African policy and decision makers to know that weather and climate related disasters can destroy the GDP of a country by 10 – 20% (and sometimes more) and reverse the economic gains in growth and development. Prof G.O.P Obasi would have advised governments to invest more in the National Meteorological and Hydrological services (NMHSs) to strengthen systematic observations and early warning services to save lives, protect property and get data required for conservation of the natural environment and for enactment of adaptation strategies and policies that help to build resilience against the adverse impacts of weather and climate extremes. In order to persuade policy and decision makers to increase funding of the infrastructure and capacity of NMHSs, Prof G.O.P. Obasi would tell them to consider the funds provided by governments to their NMHSs as an investment where 1 USD invested in NMHS produces 10 USD as a return to the investment (i.e. 1:10). This means that for each dollar you put in to enhance the infrastructure and capacity of NMHSs, the improved or value-added services generated will boost the productivity of key sectors of the economy (e.g. agriculture, water, health, energy, DRR, etc) by a factor of 10 - This is an enormous contribution of NMHSs to socio-economic development, which is not fully tapped by governments at the moment. For instance, with this example, an acre of land, which was producing 2 bags of maize during harvest, now produces 20 bags after using meteorological services from a NMHS with better infrastructure and manpower.

4.0 Making Professional in agriculture, health, water, energy and economic sectors Climate-Smart.

Kofi Atta Anan (1938 – 2018), a native of Ghana and former UN Secretary General, who knew Prof G.O.P. Obasi well, and supported *systematic observation and early warnings services* commented thus in his July 2016 article on **The poor needs alerts too: Kofi Annan** that“The overall threat that climate change poses to human health is huge. The 2015 Lancet Commission on Health and Climate Change was unequivocal that “*Climate change has the potential to undermine the last 50 years of progress in public health and development Climate change will magnify and multiply existing health threats – in many cases dramatically. The effects will be felt hardest in low and middle-income countries in Africa and South Asia..... The Paris Agreement, which has focused unprecedented government attention on climate change, underlines the climate threat to health. Now we need a comprehensive programme of action that places people and their health at the centre of the global response to climate change.....The threat from the harmattan (in West Africa) shows us a good place to start: by improving collection of climate and weather information, preparation of forecasts — including forecasts of dust and sand storms — and distribution of weather warnings to those who need them..... How can we change this? We need to support weather and climate services in developing countries so that rather just collecting and providing data, they can become trusted suppliers of information and knowledge to the public.....and health professions need to become climate smart...” and apply climate data to their work.*



5.0 WHO is this man Prof Godwin Olu Patrick Obasi?

He was known to his peers and colleagues as G.O.P Obasi. His legacy in human capacity development in Africa can be seen in his former students who are themselves eminent scientists and distinguished scholars in their fields of specialization – I am talking about three namely, Prof. L.A. Ogallo, Dr. B.S. Nyenzi and Prof. F. Semazzi, who were students and colleagues of Prof GOP Obasi and who are still with us and have previously provided a vivid account of the legacy of this great man in championing past and present climate services pioneers in Africa. He was a mentor to many more. Prof Obasi was fundamental in the development and growth of the African National Meteorological and Hydrological Services (NMHSs), as well as many related institutions is crystal clear. His contributions to science and technology in Africa span beyond the fields of meteorology and operational hydrology.

Godwin Olu Patrick Obasi was born on 24 December 1933 in Ogori, Kogi State, Nigeria. After a B.Sc. (Honours) in Mathematics and Physics (1959) from McGill University, Montreal, Canada, and an MSc and PhD in meteorology from the Massachusetts Institute of Technology, USA, he joined the National Meteorological Service of Nigeria where he worked for a period of four years later. He then moved to join the University of East Africa as lecture, which became the University of Nairobi, where he rose to become Chairman of the Department of Meteorology and Dean of the Faculty of Science.



In 1978, Prof G.O.P. Obasi joined the Secretariat of WMO as Director of Education and Training. In this capacity, he organized major international seminars in Madrid, Spain, in March 1979 and in San José, Costa Rica, in December 1982, which made him known to the meteorological community around the world.

In 1983, the World Meteorological Congress (WMC) elected him as Secretary General of WMO for a normal four-year term. He was the first member of the WMO Secretariat to be so elected; he was also the first African to be elected head of a UN body. In office from 1 January 1984, he began to use his former Nairobi title of Professor, which he believed helped him do his job better.

Africa was always close to his heart, and it was at this time that he conceived the need for an all - Africa centre of excellence in meteorology, which he helped establish jointly with UNECA in 1985 as the African Centre of Meteorological Applications for Development (ACMAD) in Niamey, Niger. Subsequently re-elected for four more consecutive four-year terms, he was declared Secretary-General Emeritus by the 2003 World Meteorological Congress (WMC) from the date of his retirement.

During Professor Obasi's watch, WMO actively promoted global solutions to problems of the atmosphere, fresh water and the oceans. Along with Dr Tolba of the United Nations Environment Programme (UNEP), he energetically drew the world's attention to anthropogenic climate change. UNEP and WMO together initiated the Intergovernmental Panel on Climate Change (IPCC), whose secretariat is hosted by WMO. Under his leadership, WMO convened the Second World Climate Conference (SWCC) in Geneva in 1990.

Following the SWCC, in the late autumn of 1990, the UN General Assembly created an Intergovernmental Negotiating Committee (INC) that produced a Framework Convention on Climate Change. In parallel with meetings of the INC, two-year-long negotiations were preparing the UN Conference on Environment and Development (UNCED) – dubbed the 'Earth Summit'. The atmosphere between Member States of the UN was highly charged. Industrialized nations recognized that they had initiated the increase in greenhouse gases, that they continued to do so, and that a continued increase put the future of civilization at risk on a time-scale of centuries; less developed nations saw their own development at risk if they agreed to limit their own future use of fossil fuels and sought a transfer of funds and technology as compensation. WMO sent representatives to the bodies making policies for UNCED, which affect all our lives today (such as the need to recycle the planet's resources and to ensure that 'the polluter pays') and also sent staff members to serve in the secretariat of the INC. At the "Earth Summit" {UNCED}, in Rio de Janeiro in June 1992, Prof G.O.P. Obasi was on the podium when the host President of Brazil was the first to sign the UN Framework Convention on Climate Change (UNFCCC). WMO continued to contribute to the work of its secretariat, including work following the convention's Kyoto Protocol. The IPCC continues to be the main source of scientific information for the Conferences of the Parties (COPs) of the Convention, and is still hosted by WMO. Since 1992, under Obasi's leadership of its secretariat, WMO played important roles in other international and inter-UN-agency negotiations. These included the:

- UN Convention to Combat Desertification;
- World Climate Research Programme;
- Global Climate Observing System; and
- UN International Strategy for Disaster Reduction.

Meanwhile, WMO continued to benefit the whole of humankind (one of Obasi's favourite words), to be the worldwide forum in which National Meteorological and Hydrological Services (NMHSs) arrange to exchange data for their mutual benefit and, to some extent, to redress the differences in ability between rich and poor countries by maintaining an equal standard of observing and a supply of meteorological products to sustain and improve human and economic development.

Throughout his years of service to WMO, Obasi worked to ensure the free and unrestricted flow of meteorological data between Members and to ensure that scientists of merit from developing countries took their place in WMO activities (which were often initiated by scientists from North America and Europe who did not know where the talent lay).

He was honoured by many professional meteorological and hydrological societies, academies of sciences, universities and other bodies around the world. In December 2003, for example, the International Jury of the Zayed International Prize for the Environment, aiming to represent the highest-valued environmental award worldwide, awarded a prize of US\$300,000 (plus a trophy and prize diploma) for scientific and/or technological achievement in the environment to be shared by Prof GOP Obasi (Nigeria and WMO), Professor Mostafa Kamal Tolba (Egypt and UNEP) and Professor Bert Bolin (Sweden and IPCC).

Prof G.O.P Obasi was Secretary-General of the World Meteorological Organization for a period of 20 years from 1 January 1984 to 31 December 2003. He served for five consecutive 4-year terms. He was appointed WMO Secretary- General Emeritus after his retirement.

5.1 Prof G.O.P Obasi's Advise For Incoming Secretary General

When introducing Michel Jarraud of France who succeeded him from midnight on 1 January 2004, Godwin Olu Patrick Obasi summarized those qualities he saw needed by the Secretary General of WMO:

- Knowledge of meteorology, hydrology and related sciences;
- Experience in operational aspects at the national, regional and international levels;
- The ability to make good use of the many opportunities the position provided to realize the purposes and goals of the Organization to advance the science of meteorology, operational hydrology and related disciplines;
- To ensure their application for the benefit of society; and
- To enable the fields of interest of WMO to be better appreciated and applied for socio-economic development.

During his own watch, Prof G.O.P Obasi consciously set out to personify these qualities. His identification with WMO paralleled the personification of a ship and its captain. Obasi's pride in WMO, and his deep wish to work on its behalf, meant that he felt this identification constantly. He would never allow his personal behaviour to fall below the high standards he expected of himself on behalf of the Organization.

Prof Godwin Olu Patrick Obasi, WMO Secretary General Emeritus, passed away on 3rd March 2007 and the funeral took place in his native country of Nigeria in June 2007. His wife Winifred and their children and Africa have every reason to be very proud of Prof G. O. P. Obasi (1933–2007).



5.2 What Are The Lessons Learnt From The Life and Times of Prof. G.O.P Obasi?

5.2.1 He Commanded Great Respect Amongst His Colleagues and Peers

G.O.P Obasi was elected five times to the position of Secretary-General of WMO serving from 1984 - 2003, a period of 20 years in which his last election in 1999 still had him garner two-thirds of the votes from a group of three prospective candidates and making that in the first round of voting This shows that the Professor was special and unique in many ways, a person worthy of emulation who commanded such great respect amongst his colleagues and peers and those who worked under him;.

5.2.2 He Was An Amazing Achiever

He first earned a BSc in Mathematics and Physics in 1959 then went to Massachusetts Institute of Science and Technology (MIT) where he excelled with a distinction M.Sc. and then a rare D.Sc. (Doctor of Science) in Meteorology in 1960 and 1963 respectively winning a Rosby Award for the best Doctoral Thesis.

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5.2.3 He Served Africa with Distinction

When he returned to Africa, he first went home to serve his country in the National Meteorological and Hydrological Service of Nigeria before moving to manage the Meteorological Department at the University of Nairobi as Chair and rising to the position of Dean of the Faculty of Science from 1967 to 1976. He thus belonged to the breed of seemingly Pan-Africanists who used their talents to help other Africans to flourish.

He is among extraordinary achievers and geniuses like Mostafa Kamal Tolba of Egypt, Kofi Atta Annan of Ghana and Prof. Wangari Maathai of Kenya, who through professional etiquette, they displayed a resolute integrity and drew praise and accolades from their peers and leaders but none of these accolades went to their heads. They understood that their talents were for service and were untouched by pursuit of wealth and hedonism. They were driven by principles, values and dignity. These role models are few and many are now gone, however, they will not be forgotten because people will always seek to find out what gem of wisdom made them men and women of honour, achievement and bestowed with great respect.

Lastly, Prof G.O.P. Obasi epitomized the best of what a human being can do in serving humanity in his field of competence. He is worth of emulation as a role model for those youth aspiring to become professionals as well as leaders in positions of power.

Prof Wangari Muta Maathai – Climate Change Threatens Humanity’s Support System

In conclusion, it is worth noting the counsel of Prof Wangari Muta Maathai (1 April 1940 – 28 March 2011)



another eminent African scientist and Nobel Laurette of the Greenbelt Movement on geopolitics of climate change. She stated: “Today we are faced with a challenge that calls for a shift in our thinking, so that humanity stops threatening its life-support system. We are called to assist the Earth to heal her wounds and in the process heal our own - indeed to embrace the whole of creation in all its diversity, beauty and wonder. Recognizing that sustainable development, democracy and peace are indivisible is an idea whose time has come.....I’m very conscious of the fact that you can’t do it alone. It’s teamwork. When you do it alone you run the risk that when you are no longer there nobody else will do it.....We all share one planet and are one humanity; there is no

escaping this reality.....*We have a responsibility to protect the rights of generations, of all species, that cannot speak for themselves today. The global challenge of climate change requires that we ask no less of our leaders, or ourselves”.*

I thank you all for your kind attention

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