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Analysis for catalytically implementing Africa's climate obligations*

Note by the Secretariat

I. Introduction

1. Africa joined the rest of the world in Marrakech in November 2016 for the twenty second conference of the parties to the United Nations Framework Convention on Climate Change (UNFCCC-COP22) a follow up to the historic adoption of the Paris Agreement. Dubbed the "implementation COP", UNFCC- COP22 culminated in the adoption of the Marrakech Action Proclamation - a re-commitment by parties including in Africa, to full implementation of the Paris Agreement.

2. At the inter-sessional meeting in Bonn in May 2017 parties gathered to advance work on implementation modalities especially negotiating key implementation tools/procedures/guidelines - the "rule book" set for completion by COP24 in November 2018.

3. Developing countries where Africa was represented, reiterated the call to ensure balanced implementation of all elements of the Agreement - including adaptation, mitigation and means of implementation (finance, technology transfer and capacity-building). They further resisted any attempt to renegotiate the agreement nor re-interprete its provisions. The cumulative implication is that implementation of the Paris Agreement is now urgent, irreversible and unstoppable. Consequently, charting optimal policy trajectories for Africa to implement this Agreement is an urgent imperative.

II. Africa's place and apace in the Paris agreement

4. While progress is encouraging, Africa continues to face mounting socio-economic development challenges. For example, climate vulnerability is high and threatens up to 40 per cent reduction in agriculture. A vital socioeconomic sector that is not only a source of food but livelihoods employing on average up to 64 per cent labour and with women producing up to 80 per cent of the food. This is an inclusive sector that will foster economic participation of a majority in the continent including women to reduce social inequalities and enhance gender equality. An estimated 621 million Africans are without electricity and the gap keeps expanding, energy poverty is high, constricting Africa's growth on multiple levels.

5. With such looming challenges, implementation of the Paris Agreement cannot be silo to these realities. Premising it as a solution to these priority challenges could incentivize country-driven and prioritized implementation actions.

6. Within the agreement, Africa's priorities cover six broad areas - Mitigation Ambition, Nationally Determined Contributions (NDCs) support, Adaptation, Means of implementation, Residual damage and Enhanced action prior to 2020. Consequently, policy trajectories to achieve implementation in these areas could align with solving the continent's pressing challenges. It is the basis of the following analysis.

^{*} The present document is being issued without formal editing.

A. Ambition (Article 2) and Mitigation (Articles 4)

The science and current state:

7. The early entry into force of the Paris Agreement signifies strong collective global commitment to limit emissions. However, the 2016 UN Environment Emissions Gap Report notes that achieving the central aim of the Paris Agreement to limit increase in the global average temperature by 2100 to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels will require more drastic emissions cuts than previously thought.

8. While Business as Usual (BAU) policy trajectories will lead to worst case of a "below 3.6° C" warming scenario by 2100 with a >66% chance, a scenario of full implementation of the unconditional Intended Nationally Determined Contributions (INDCs) will result in a "below 3.2° C" increase while the best case of full implementation of conditional INDCs will yield a "below 3.0° C" warming scenario by 2100 with a >66% probability. So a significant gap to achieve the ideal cases of "way below 2° C" exists. These findings are further corroborated by sectorial studies.

9. While data shows that 2016 was the hottest year in recorded history, in early 2017, new data from the U.K Meteorological Office, the US National Aeronautics and Space Administration (NASA) and the US National Oceanic and Atmospheric Administration (NOAA) shows the earth's temperature has increased to about 1.1°C above pre-industrial levels. This is dangerously close to the 1.5°C threshold ambition of Article 2.

10. In April 2017, the world breached yet another climate change milestone, as atmospheric CO_2 levels hit 410 parts per million (ppm) for the first time in human history, once again bringing the world alarmingly close to hitting the 450ppm. Scientists view the 450ppm as the danger level at which chances of keeping global temperature rise to the 2°C threshold shrink to 50 per cent. The consequence of these trends is that the world risks breaching the Paris Agreement centre piece as per Article 2 by hitting the 2°C temperature increase threshold.

11. Such weak mitigation means both adaptation and residual damages cost will be unprecedented for Africa, currently the most vulnerable region. According to the 2015 Adaptation Gap Report, inadequate mitigation translates to astronomical adaptation costs of \$50 – 100bn annually by 2050 and residual damages exploding to reach 2% of gross domestic product by 2050.

12. <u>Take on COP23</u>: Article 2, the centre piece of the Paris Agreement, provides for ambitious global mitigation efforts in line with Article 4 to limit the temperature increase to 1.5°C above pre-industrial levels. Recognizing that this would significantly reduce the risks, impacts hence cost of climate change, Africa as the most vulnerable region should urge enhanced pre-2020 action as critical to achieve this universally agreed objective of the Paris Agreement that is key to reducing climate risks in the continent.

13. In addition, since the results are not likely to change in the next two years with the mounting risks, the 2016 emissions gap notes that enhanced action need not wait for the facilitative dialogue in 2018 and Africa's position should be similarly aligned.

14. <u>Policy Trajectory</u>: The sixteenth session of AMCEN should capture Africa's internal response to the above. Africa's emissions are negligible. The consequence of no or minimal transition costs to an emissions abatement pathway therefore represent an incentive to energize Africa's transition to low emissions development that should be leveraged. In light of prevailing socioeconomic challenges, Africa's transition should target catalytic sectors that maximize synergy and complementarity with achievement of the sustainable development goals.

15. Such catalytic sectors include Ecosystems Based Adaptation driven agriculture and its amalgamation with clean energy powered value addition towards climate proofing and maximizing productivity of Africa's agro-value chains. This amalgamation is spurring economic opportunities along the entire value chain and also offsetting carbon and conserving ecosystems to cumulatively catalyse achievement of multiple sustainable development goals.

B. Intended Nationally Determined Contributions (INDCs) - Article 3

The science and current state:

16. Africa is among regions that have most ratified the Agreement with 37 ratifications as of mid-May, representing about 68 per cent ratification rate. This leadership is a demonstration that the region has taken cue of the opportunities inherent in the agreement. Among pointers is the formulation

of their Nationally Determined Contributions (NDCs) of which all the 54 African countries have submitted.

17. A majority of these NDCs are land based, prioritizing climate proofing developments in agriculture as well as restoration of ecosystems. They also focus to unlock Africa's clean energy potential. These stand out as the fundamental economic sectors in the region capable of accelerating socio-economic transformation as captured in national development agendas and the AU Agenda 2063. In light of prevailing socioeconomic challenges, implementation of the NDCs should be tagged with unlocking of multiple sustainable development goals.

18. <u>Take on COP23</u>: At the May 2017 inter-sessional talks in Bonn, a divide between developing and developed countries on the scope of NDCs was apparent. While developing country parties representative of Africa consider the scope of NDCs to cover mitigation, adaptation and means of implementation (finance, technology transfer, capacity building) which is consistent with Article 3, developed countries only focus on the mitigation component of the NDCs. This implies that the means of implementation to be provided by developed countries to assist developing countries implement their NDCs may not be readily forthcoming.

19. Africa as a region, while pushing for full implementation of Article 3, including the responsibility of developed country parties, should also target in specifying their needs, and prioritize interventions directly aligned with maximizing productivity of their catalytic sectors. Hence any small support received should target catalytic areas that amplify socioeconomic transformation impacts.

20. <u>Policy Trajectory</u>: The sixteenth AMCEN session should highlight the need for Africa to be targeted in its mobilization of technology and capacity building means of implementation, prioritizing support towards maximizing productivity of its catalytic sectors. The sixteenth AMCEN session should underscore the need for cross-ministerial policy harmonization towards maximizing productivity of catalytic sectors. These are inclusive sectors that foster participation of a majority in the continent, enhance achievement of priority socioeconomic priorities of food security, creation of income and job opportunities and expanding macro-economies, while simultaneously offsetting carbon and enhancing ecosystems to meet provisions of the Paris Agreement as specified in majority of the NDCs. By this they catalyse achievement of multiple sustainable development goals.

21. Amalgamation of clean energy with ecosystem-based adaptation driven agriculture to unlock clean energy powered agro- value addition presents a catalytic trajectory of implementing the NDCs, where climate and socioeconomic objectives, including creation of up to 17 million jobs can be actualized simultaneously to unlock multiple sustainable development goals. For example, in Kenya, on farm value addition of an ecosystem-based adaptation farm using solar powered, efficient micro-irrigation is saving farmers over \$10,000 annually in operating costs relative to using conventional fossil fuel powered, non-efficient farrow systems. Cumulatively farmers are generating up to \$30,000 per acre annually. This is combating community level poverty while enhancing food security (SDGs 1and 2). For climate action, this system is conserving up to 1.9 billion litres of water annually to conserve ecosystems and enhance climate resilience (SDG 13, 15, Article 7) while offsetting carbon by generating up to 64,499kWh of clean energy (SDG 13, Article 4).

22. Consequently, Africa's mobilization of finance, capacity building and technology transfer should prioritize clean energy technologies specialized for agro-value addition and agro-industrial applications – including solar powered pumps for irrigation, decentralized solar powered small power systems of 1-30MW capacity to effectively and economically power agro-value addition in rural Africa where over 80 per cent agro-producers reside.

C. Adaptation (Article 7)

The science and current state:

23. Under current global emission trajectories, the best case scenario puts the globe on an "under 3.0° C" warming trajectory by 2100 with a >66% probability. According to the UN Environment 2015 Africa Adaptation Gap Report, the implication is that adaptation costs for Africa will rapidly outpace those implied in ideal case of holding warming below 2°C, and will be 50 per cent higher at \$50bn annually by 2050. If policies fail, and the world is heading towards 4°C warming, adaptation costs for Africa may approach at least twice the level that would be needed below 2°C by 2050, which is \$100bn annually by 2050. Closing the funding gap will be extremely challenging in a 4°C scenario. This will severely impact on the region's growth, and being a negligible emitter, adaptation is a high continental priority.

24. <u>*Take on COP23:*</u> Among contentions at the Bonn inter-sessional talks was lack of support for adaptation in the adaptation communication submissions of developed countries. This is counter to Article 7 which affirms the global responsibility for adaptation and underscores need for provision of continuous and enhanced financial support and other means of implementation to developing countries to enable them implement adaptation actions.

25. So at COP23, once again, adaptation support to Africa may not be readily forth-coming. To counter this, Africa should stick to position established under the AMCEN decision SS.VI/5 on climate change and Africa's preparations for the twenty-second session of the Conference of the Parties to the United Nations Framework Convention on Climate Change as well as UNEA-2 decision 2/6 on supporting the Paris agreement which calls for international cooperation in response to climate change.

26. There should be particular focus on the push for adequate monitoring mechanisms for effectiveness and adequacy of global adaptation support provided to developing countries within the context of Article 2 on global response. Hence the need to push for operationalization of Article 13 on transparency framework; Article 14 on global stock-take and Article 3 on NDCs, emphasizing critical need for balance in submissions.

27. <u>Policy Trajectory</u>: At sixteenth session of AMCEN, given likelihood that adaptation support to Africa may not be readily forth-coming, Africa as a region should act in its best interests and pursue a two-track approach. First, continue lobbying at COP23, for the full implementation of Article 7, including the responsibility of developed country parties to provide continuous and enhanced financial support and other means of implementation to developing countries to enable them implement adaptation actions.

28. Secondly, internally, Africa should channel domestic resources – physical (finance, technology etc.) and non-physical (policy processes, intellectual capacity etc.) - as well as internationally mobilized support and resources, to intervention areas directly aligned with maximizing productivity of catalytic sectors. Hence all resources available to the continent including any small support received should target catalytic areas that amplify socioeconomic transformation impacts to actualize multiple sustainable development goals.

D. Residual damage (Article 8)

The science and current state:

29. Researchers revealed at the Bonn 2017 inter-sessional talks that globally, an estimated \$50bn annually is needed by 2020 which will rise to at least \$300bn annually by 2030, for loss and damage. The issue was however not explicitly on the agenda. Going forward, a weak global mitigation regime leading to a 3.5°C scenario and weak adaptation means that the cost of damages will explode across Africa, rising to reach 2% of gross domestic product by 2050.

30. However, even if global warming is held below 2° C and adaptation across Africa is effective over the next few decades, residual damages still rise rapidly – faster than expenditures in adaptation, and costs are projected to double the adaptation cost in 2030 - 2050 period. Hence, loss and damage remains an important element for Africa. Accordingly in Bonn, vulnerable developing countries continued to emphasis importance of loss and damage as an issue in COP23 and beyond.

31. <u>Take on COP23</u>: the executive committee of the Warsaw Mechanism on loss and damage is set to meet in October, a month before COP23, to refine plans for the coming years. COP22 adopted a decision on loss and damage which has however been faulted as being "an agreement on procedures rather than on substance". Considering loss and damage is already happening and will continue to increase given the current low levels of mitigation ambition, with the greatest impact being on Africa, at COP23, Africa should leverage Article 8(3) and lobby for prioritization of financing the implementation of loss and damage activities, ensuring clear pathways and indicators.

32. <u>Policy trajectory</u>: Given the ambiguity of the COP22 decision, at sixteenth session of AMCEN, Africa should act in its own best interests and proceed on a two track response. First, stick to the position established under the AMCEN decision SS.VI/5 on climate change and leverage UNEA-2 decision 2/6 to foment a joint continental position on strengthening the Warsaw International Mechanism and call for provision of finance, technology development and transfer and capacity building by developed countries to enable African countries adequately address loss and damage.

33. Second, internally, Africa should leverage the targeted implementation of NDCs tagged to the potential of its catalytic sectors to build both biophysical and socioeconomic resilience to common loss and damage issues, especially frequent droughts. Hence unlock multiple sustainable development

goals. For example, among many countries NDC objectives is upscaling both sustainable, resource conserving agriculture and clean energy.

34. To ensure these objectives simultaneously contribute to building bio-physical and socio-economic resilience to droughts, AMCEN endorsed Ecosystems Based Adaptation for Food Security Assembly (EBAFOSA) policy action and implementation framework is supporting about 40 countries in Africa. For example in Kenya which is one of the countries, upscaling use of efficient solar powered irrigation is been done in Turkana County which is an epicentre of frequent droughts in the country. Through EBAFOSA, stakeholders drawn from private sector are working with government and local farmers to establish an Ecosystems Based Adaptation farm complete with market and supply chain links.

35. And to ensure this paradigm is integrated into policy for replication across the country, EBAFOSA is convening partnerships at policy level to establish inter-ministerial policy task forces. These are to harmonize environment, water, agriculture policies at both the national and county levels to ensure uptake of this paradigm into mainstream policies of these relevant line ministries.

E. Means of implementation

(i) Finance (Article 9)

The current state:

36. At the inter-sessional meeting in Bonn, negotiations on the finance section of the Paris Rulebook focused on how to account for and track the climate finance that countries have given or received. The result was informal notes that will be basis for discussions in COP23. It was also revealed that the \$100bn a year by 2020 pledge by developed country parties is "unlikely" to be met given recent changes in policy priorities by key funding sources.

37. For example, the likely failure by the US to pay the \$2bn promised to the Green Climate Fund as well as stoppage of any future payments as a result of shifting policies was highlighted. In addition, adaptation finance continues to trail mitigation funding by as much as 75 per cent. Progress towards the \$100bn commitment by 2020 remains far off. Pledges by developed countries to the Green Climate Fund totalling \$10.1bn are still well below the 2012 pledge. The Bonn talks also ended with the future of the Adaptation Fund to support implementation of the Paris Agreement still uncertain.

38. Given the slow pace and unpredictability of international funds, relying on international public finance alone is a risky strategy and Africa needs to also look internally to complement international sources. The 2015 Africa Adaptation Gap Report concluded that Africa could raise up to \$3bn annually domestically for adaptation by 2020 through a series of national and regional measures, such as targeted levies, though this will still not be enough as the continent needs \$50 billion if the temperatures hit the likely 2°C. Combining current international funding with a medium levy scenario in raising domestic resources puts the adaptation funding gap at approximately \$5bn annually by 2030 under a 2°C warming scenario and approximately \$15bn under a 4°C warming scenario. The adaptation funding gap rises rapidly in a 2°C pathway and much more so in a 4°C pathway. Rapidly scaling up international funding to levels far above current levels is therefore absolutely critical. Hence, lobbying for international support will still need to continue.

39. <u>Take on COP23</u>: Given the ambiguity on finance at the Bonn inter-sessional talks, in COP23, Africa should re-affirm the AMCEN decision SS.VI/5 on climate change which underscores obligations of developed country partiers and UNEA-2 decision 2/6 which calls for international cooperation in responding to climate change to push for measurable, reportable and verifiable climate finance assistance in line with the \$100bn annually by 2020 commitment.

40. In addition, given the need to accelerate socioeconomic transformation and achieve the sustainable development goals as crucial to incentivize country prioritization of climate action, lobbying international climate financing should be tagged to implementing catalytic areas in NDCs. Clean energy amalgamation with powering ecosystem-based adaptation agro-value addition as earlier expounded is a catalytic NDC area prioritized by UN Environment.

41. <u>Policy trajectory</u>: Given the increasingly unpredictable terrain of international climate sources and rising prominence of domestic innovative financing tools, at the sixteenth session of AMCEN, ministers should adopt a two track financing approach. First, leverage Article 9 of Paris to buttress the position of the AMCEN decision SS.VI/5 on climate change underscoring urgent need for international finance.

42. Second, leverage Article 9(2) to push for country prioritization of policy trajectories to unlock innovative domestic financing tools aimed at the catalytic areas that unlock multiple sustainable

development goals. For example, *fintech*, the combination of the Information Communication technology (ICT) and financial services is currently enhancing accessibility of off grid communities to clean energy domestic options that offset carbon while driving socioeconomic transformation.

43. For example in Kenya, M-Kopa, a pay-as-you-go decentralized solar solutions company is leveraging on the M-Pesa mobile money solution to provide flexible payment options based on client financial transaction records for acquisition of domestic solar lighting solutions thus bridging financing gaps on clean energy. Through this model, M-Kopa has electrified up to 400,000 rural homes across East Africa in direct fulfilment of SDG 7 and indirectly SDG 3 by reducing indoor pollution to enhance health, and SDG 4 by facilitating clear lighting for children to study. This provides a test case to build on towards maximizing this model to finance off-grid energy for industrial applications targeted for powering agro-value addition. Hence optimally implement NDCs across Africa.

(ii) Technology transfer (Article 10)

The current state:

44. At COP22, 47 of the world's poorest countries, a significant number of which are in Africa, committed under the Climate Vulnerable Forum, committed to generating 100 per cent of their energy from renewable sources as soon as possible.

45. <u>Take on COP23</u>: In light of the need to acquire appropriate clean energy technologies to power sustainable agro-industries and accelerate socioeconomic transformation simultaneously with implementation of the Paris Agreement, Africa should leverage on Article 10 and push for transfer of relevant and applicable technologies aligned with the strategic thrust to establish clean energy powered agro-industries.

46. <u>Policy Trajectory</u>: In line with Article 10 of the Paris Agreement, the sixteenth session of AMCEN should push for technology transfer relevant to unlocking clean energy powered agro-industrialization as critical to ensure NDCs implementation simultaneously actualizes priority socioeconomic development needs – especially food security, creation of income and job opportunities and expansion of macro-economies.

(iii) Capacity building (Article 11)

47. <u>Take on COP23</u>: The AMCEN decision SS.VI/5 on climate change re-affirmed need for the establishment of the Paris Committee on capacity-building to enhance coordination across different mechanisms under the Convention at the multilateral level, and facilitate the implementation of adaptation and mitigation obligations and reporting at the national level, while creating space for assessment. In light of the need to focus on catalytic sectors in NDCs implementation, Africa should leverage on Article 11 and push for demand driven, capacity building support aligned with the strategic thrust to establish clean energy powered agro-industries.

48. <u>Policy Trajectory</u>: At sixteenth session of AMCEN, there is the need to ensure the Paris Agreement unlocks socioeconomic priorities, leverage Article 11 to push for demand driven, capacity building support to be channelled to the strategic thrust of establishing clean energy powered agro-industries. This through already existing framework initiatives should ensure complementary, synergized, harmonized and optimized progress, as opposed to supply driven interventions done in silos.

F. Enhanced Action Prior to 2020 (section 4)

The current state:

49. The 2016 UN Environment emissions gap report notes that to achieve the objective of the Paris Agreement under Article 2 to keep warming well below 2 and 1.5°C requires more significant emission reductions before 2020 than earlier assessed. The report further notes that this enhanced action need not wait for the facilitative dialogue in 2018. At the Bonn inter-sessional talks, negotiators underscored need for enhanced action to cover both reducing emissions and adaptation actions.

50. <u>Take on COP23</u>: Africa should leverage Section 4 on enhanced action in combination with Articles 9, 10 and 11 to push for enhanced international support to Africa to implement NDCs in a manner that offsets carbon and enhances ecosystems resilience while simultaneously meeting key socioeconomic priorities of food security, job creation and expansion of macro economies to cumulatively actualize multiple sustainable development goals.

51. <u>Policy Trajectory</u>: The sixteenth session of AMCEN should build on the AMCEN decision SS.VI/5 on climate change which underscored the need for enhanced pre-2020 action and chat policy trajectories that will ensure adaptation, mitigation and means of implementation are targeted at the catalytic areas that will ensure synergy between the Paris Agreement and achievement of the sustainable development goals.

52. UNEA-2 requested UN Environment to build relevant partnerships towards implementation of pre-2020 actions. Accordingly, AMCEN endorsed EBAFOSA fomenting inclusive partnerships involving both state and non-state actors as called for under section 5 of the Paris Agreement to catalyse a country-driven process in implementing NDCs in a trajectory that ensures synergy between the Paris Agreement and the sustainable development goals.

53. These mutual partnerships are bridging policy and operational gaps towards amalgamating catalytic sectors of ecosystem-based adaptation driven agriculture with clean energy for value addition. This is ensuring objectives of the Paris Agreement are achieved simultaneously with key socioeconomic priorities of food security, income and job creation and expansion of macro economies to unlock multiple sustainable development goals. The sixteenth session of AMCEN should adopt this trajectory in its pre-2020 decision.

III. Questions

54. The following questions are intended to elicit discussion on this topic

(a) Which policies are needed to ensure Africa's catalytic sectors are prioritized in implementation of NDCs in the continent?

(b) What types of partnerships does Africa really need to foster to ensure catalytic implementation of its NDCs?

(c) Which policies are needed to ensure Africa effectively mobilizes means of implementation for the NDCs domestically and from international sources?