



*African Ministerial Conference on the Environment*

**African Ministerial Conference on the Environment**

**Seventh special session**

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**Innovative environmental solutions: moving from policy-level concept to implementation**

**Note by the secretariat**

**I. Introduction**

1. In order to be successful, innovative environmental solutions in Africa need to contextualize environmental action in terms of the prevailing development challenges and the priorities and realities of the continent. A predominant scenario in the region is that whenever environmental/climate interests clash with economic/development interests, the latter always seem to prevail.
2. One sustainable way of ensuring that environmental interests succeed is by demonstrating how they can unlock the achievement of the priority socioeconomic interests of the continent, namely ensuring food security, the creation of income opportunities and the expansion of macroeconomic growth. Accomplishing those aspects is the main aim of innovative environmental solutions, with environment and climate actions seen as accelerators towards the realization of these leading socioeconomic priorities as opposed to being silo environmental obligations as they have been viewed historically.
3. At its sixteenth regular session, the African Ministerial Conference on the Environment (AMCEN) highlighted the importance of climate actions as accelerators of socioeconomic transformation through the adoption of a ministerial decision, entitled “Libreville Declaration on Investing in Innovative Environmental Solutions”, and decision 16/1 on investing in innovative environmental solutions for accelerating implementation of the Sustainable Development Goals and Agenda 2063 in Africa.
4. The concept of innovative environmental solutions was carried forward to the global policy level at the third session of the United Nations Environment Assembly of the United Nations Environment Programme (UNEP), at which the Group of African States sponsored a draft resolution which was subsequently adopted as resolution 3/5 on investing in innovative environmental solutions for accelerating the implementation of the Sustainable Development Goals. The reasoning behind the resolution, as emphasized by the African Group, was that the environment should be treated as a sector providing new solutions rather than an object of human manipulation, which aligns with the postulation of AMCEN at its sixteenth session that environmental action provides a solution to socioeconomic challenges as opposed to being a silo obligatory regulation.
5. Countries are increasingly grappling with mounting socioeconomic challenges, such as poverty, food insecurity, youth unemployment, climate change, unsustainable production and consumption practices, and increasing socioeconomic inequalities, all of which threaten the attainment of the Sustainable Development Goals. Framing the environment as a provider of practical solutions to such fundamental challenges is an important strategy to ensure that it is prioritized.
6. It is now vital to move beyond the concept of innovative environmental solutions at the strategic level, as highlighted at the sixteenth regular session of AMCEN and the third session of the United Nations Environment Assembly, to actualizing the concept through the implementation of practical innovative instruments and measures. At its seventh special session, AMCEN should aim to leverage successful practical examples of activities under way on the continent for the implementation of the decisions adopted by AMCEN at its sixteenth regular session. The present note is intended to

highlight innovative tools and examples of practical implementation covering four key enablers of innovative environmental solutions – policy innovation, market-driven innovation, financial innovation and partnership innovation.

## **II. Africa’s reality check: operationalizing innovative environmental solutions for wealth creation**

7. In Africa, over 240 million people go to bed hungry every night and over 50 per cent of children die of malnutrition before they reach the age of 5. The depletion of ecosystems that are the foundation of food production through the provision of goods and services, including water, healthy soils and pollinators, costs the continent some \$68 billion annually, while up to 6.6 million tonnes of potential grain harvest, capable of meeting the calorific needs of up to 31 million people, are lost every year. One third of all food is lost in post-harvest losses costing some \$48 billion annually. To cover the deficits, the continent is spending \$35 billion annually on food imports.

8. Curbing inefficiencies to reverse these losses could translate not only to enhanced food security but to an injection of \$83 billion into the regional economy in addition to jobs, highlighting the urgent need for sustainable consumption and production practices and resource efficiency. Furthermore, considering the finite nature of factors of production, reversing current losses is an imperative in bridging deficits and further underscores the urgent need for sustainable consumption and production practices.

9. Economic productivity is low – an estimated 1,900 per cent lower or 20 times less productive than that of the developed regions that are Africa’s competitors in the global and regional markets. This is primarily due to a lack of value addition to commodities for which the region holds a comparative advantage. As a result, the manufacturing sector has stagnated, accounting for just 10 per cent of annual GDP on average since the 1970s.

10. As an example, although the largest producer of cocoa in the world is in Africa, out of the over \$100 billion global annual revenue from chocolate alone, Africa receives a dismal 2 per cent. Similarly, up to 90 per cent of the global income from coffee goes to rich consuming countries.

11. Energy poverty is related to this low productivity with 620 million – about 67 per cent of the population – lacking access to electricity. These energy bottlenecks cost African economies 2–4 per cent of their GDP annually, undermining sustainable growth, wealth creation and the investment required to unlock urgently needed employment and income.

12. The consequences of this low productivity are extreme, especially in terms of escalating unemployment. At present, up to 12 million young people join Africa’s labour markets annually to compete for just 3 million jobs that become available every year. That figure is projected to exceed the figure for the rest of the globe combined with more than 350 million young people entering the labour force annually by 2035, all competing for far fewer jobs, and to continue increasing to the end of the century. This scenario has been christened “a ticking time-bomb” by some, alluding to its potential to fuel unrest and political violence. Illegal immigration is also closely related to unproductive economies in the region. An unprecedented 70 per cent of illegal immigrants from Africa leave the continent for economic reasons.

13. Climate change – the elephant in the room - is projected to shrink developing country economies, the majority of which are located in Africa, by a whopping 75 per cent, to compound the above-mentioned challenges. In line with the objectives of the Sustainable Development Goals, there is an urgent need for inclusive wealth creation to safeguard the socioeconomic well-being of all segments of the population while taking care of the environment. Actualizing such wealth creation requires innovative instruments both at the policy and operational levels.

14. Such instruments will enable innovative environmental solutions to make progress, transforming the strategic-level propositions that were adopted by AMCEN at its sixteenth regular session and the United Nations Environment Assembly at its third session, into tangible implementation capable of unlocking inclusive wealth creation. Prioritizing this tangible implementation paradigm will provide a sound launch pad for Africa’s positioning at the global level at the fourth session of the United Nations Environment Assembly, whose theme of “Innovative solutions for environmental challenges and sustainable consumption and production” is consistent with moving towards implementation.

### **III. The logic of innovative environmental solutions for inclusive wealth creation**

15. The logic of innovative environmental solutions for inclusive wealth creation is premised on environmental action as a source of wealth creation opportunities and, hence, an accelerator of socioeconomic transformation to address the leading challenges for African countries of food insecurity, poverty and unemployment, among others. Innovative environmental solutions will incentivize country-led environmental action to catalyse a global shift towards a low-emissions development pathway, moving away from environmental action as a silo regulatory obligation as classically pitched. The convergence of the environmental, economic and social pillars towards sustainable development embodies the Sustainable Development Goals.

16. The essence of innovative environmental solutions for sustainable wealth creation is environmental action as a source not only of environmental benefits, but social, economic and financial dividends as well. Such environmental action would provide incentives for country-led, market-driven efforts for achieving a low emissions development pathway, representing a longer-term and more sustainable approach as opposed to actions driven by regulations as at present.

### **IV. Unlocking innovative environmental solutions for inclusive wealth creation: from concept to practical implementation**

17. Wealth is the accumulation of capital, both human and physical, and is at the centre of accelerated socioeconomic transformation. Environmental action can play a leading role in such transformation through targeted actions to maximize the productivity of catalytic sectors, as underscored at the sixteenth session of AMCEN. In addition to these sectors being economically inclusive, Africa holds a comparative advantage in terms of resources in these sectors. Most importantly, these sectors can drive the simultaneous realization of leading socioeconomic priorities – especially food security, the creation of income opportunities and the expansion of macroeconomic growth for real wealth creation – at the same time as mitigating carbon emissions and enhancing ecosystems resilience in line with the objectives of the Paris Agreement on climate change.

18. In this regard, two sectors, namely clean energy and nature-based agriculture, stand out and have been endorsed by Agenda 2063 of the African Union. With regard to Africa's comparative advantage in agricultural resources, 65 per cent of the world's uncultivated arable land and 10 per cent of its inland fresh water resources are located on the continent. In terms of energy, Africa is endowed with diverse clean and renewable energy resources, including hydropower estimated at 1852 terawatt hours (TWh) annually or 3 times the continent's current annual demand. With regard to solar resources, the Sahara constitutes the best solar resource on planet Earth; a mere 0.3 per cent of the sunshine received in the Sahara could supply nearly all of Europe's energy needs. The continent is also endowed with substantial wind and geothermal resources estimated at 110GW and over 15GW, respectively.

19. In order to maximize the productivity of these sectors, they must be developed in complementarity for greater synergy rather than in sectorial silos as has been the traditional approach. Specifically, clean energy investments in Africa must be targeted to power value-added agricultural enterprises, moving away from the current focus on domestic electrification. Decentralizing electricity to power value-added agricultural enterprises would reverse the continent's \$48 billion's worth of post-harvest losses, converting those losses into income opportunities and enhanced food security and thereby driving Agenda 2063. The return on investment for clean energy is much higher than for domestic electrification, achieving social, economic and financial returns rather than just social returns.

20. Studies show that investment in clean energy is a strategic thrust area for building a globally competitive industry, which is projected to pump up to \$1 trillion into the regional economy and create no less than 17 million assorted jobs along the entire clean energy powered agro-industrial value and supply chain and in ancillary sectors like logistics, information and communication technology (ICT), marketing and financial services, among others. This approach will garner economic competitiveness to create inclusive wealth opportunities for the majority, reduce climate vulnerability, for which poverty is a major causative factor, minimize emissions, especially from energy generation and use which is a leading source of emissions in Africa, and cumulatively drive the realization of the Sustainable Development Goals.

21. In terms of economic inclusivity – a key determiner of inclusive wealth – agriculture stands out as the most inclusive sector. In Africa, which is the most disadvantaged and vulnerable region in the

world, the sector is the most accessible economic sector, employing a majority of Africa's workforce at an average of 64 per cent across the continent. Maximizing its productivity will result in enhanced income and economic opportunities for the continent's majority, boosting inclusive wealth creation. The World Bank reports that in Africa, a 10 per cent increase in crop yields translates to an approximately 7 per cent reduction in poverty. Growth in the agriculture sector is at least two to four times more effective in reducing poverty than growth in other sectors. Poverty reduction opportunities are not created only at the farm level, but along the entire supply and value chain.

22. In Kenya, for example, for every hectare of vegetable crops that are exported, six jobs are created, including three positions in the field, two in packing houses and one in an exporting firm. In Nigeria, for every 10 metric tons of catfish exported, eight jobs are created – one on a fish farm and the rest in the supply chain, including in marketing and in eateries.

23. Drawing on examples outside Africa that demonstrate the critical socioeconomic importance of the agriculture sector, in Latin America, leaders at the World Economic Forum on Latin America, while calling for action to make Latin America the bread basket of the world and as such unlock opportunities for environmental sustainability and inclusive economic growth, highlighted the path to achieve that end. They agreed that although agriculture cannot operate in a silo, additional enabling investments are required to increase productivity, including investment in technology, trade, science and innovation, and partnerships, emphasizing the need to focus on the entire value and supply chain to actualize inclusive wealth creation and climate resilience.

24. Overarchingly, the World Bank highlights the implication, which lies at the heart of inclusive wealth creation, that a large proportion of future jobs will be created not only on farms, but also in positions connected to the food service industry and delivery. With agriculture and other inclusive sectors providing the engine for economic growth, inclusive income opportunities will emerge, not only in agriculture but in ancillary related sectors critical to maximizing its productivity, including clean energy to power agricultural processing, ICT, and transport and logistics for efficient linkages to markets. Ensuring that nature-based agriculture – which can increase yields by up to 128 per cent at a lower environmental and financial cost – and clean energy are prioritized to drive these developments provides a direct entry point for the environment into inclusive wealth creation.

25. Actualizing inclusive wealth and climate resilience requires innovative instruments whose efficacy has been proven by countries. It builds on the strategic provisioning adopted by AMCEN at its sixteenth regular session and the United Nations Environment at its third session aimed at ensuring the sustained prioritization of urgently needed innovative approaches that will unlock practical solutions. In this way, Africa can move from the concept of innovative environmental solutions to intrinsic implementation that unlocks inclusive wealth and simultaneously builds climate resilience, while supporting the achievement of multiple targets of the Sustainable Development Goals.

**(a) Policy innovation**

26. While agriculture is uniquely positioned to drive inclusive wealth creation and climate resilience simultaneously, this cannot be achieved by considering it, and other similarly inclusive sectors, in silos. The agriculture sector will, for example, need to work closely with the energy sector, specifically clean energy, to ensure that sufficient power is available to power agricultural processing and preservation in order to reduce postharvest losses and food waste. This, in turn, will create jobs and incomes along the downstream value chain and bolster food security while avoiding adding to aggregate emissions.

27. The agriculture sector will need to work with the environment sector for the adoption of resilient food production approaches through ecosystems-based adaptation techniques in order to stave off food losses caused by ecosystems (which underpin production with critical goods and services like water, soils and pollinators) that are degraded, while minimizing the land-based emissions that are responsible for most of Africa's emissions, adapting to climate change and building climate resilience. Equally, the agriculture sector needs to work with the transport sector to ensure that transport policy prioritizes investment in the roads that link agricultural production areas with markets and collection points, ensuring that what is produced can be transported efficiently to markets to maximize incomes. Working with trade is necessary to secure markets for the goods that are produced. Such complementarity will require that policies are developed and implemented in a harmonized manner for policy coherence across line ministries and sectors towards a shared objective.

28. Operationalizing this novel approach to policy implementation will call for a realignment of policy implementation structures in government, requiring institutions and implementers that traditionally operate in sectorial silos to realign and harmonize their processes for coherent operation.

Such realignment is critical for supporting the long-term investment, resource allocation and activities needed to ensure coherence in policy implementation.

29. The establishment of the structure for this realignment is already under way across the continent with the implementation of existing policies across different complementary ministries representing diverse sectors being harmonized according to the leading government socioeconomic priorities and climate objectives. The drive for greater coherence in policy implementation is being led by interministerial policy harmonization task forces hosted centrally by state agencies. UNEP is providing technical backstopping for these task forces, which comprise members from across the different line ministries.

30. In Nigeria, the UNEP-facilitated inter-agency policy task force is hosted under the Ministry of Budget and National Planning. The task force provides an enabling policy environment for the establishment of sustainable agro-industrialization as the engine for accelerating the realization of Nigeria's socioeconomic aims as captured in the country's Vision 2020 and implementing its nationally determined contributions. The task force is building on the implementation of the 40 per cent cassava-wheat bread policy, the feed-in tariff system, to sustainably industrialize the country's cassava value chain.

31. A similar approach is also being applied by the Kenyan Ministry of Agriculture-hosted task force, which is connecting the implementation of the country's Climate Smart Agriculture Strategy, under the Ministry of Agriculture, Green Economy Strategy under the Ministry of Environment, National Industrialization Policy under the Ministry of Industry, provisions of the Finance Act, especially exemptions on inputs for manufacture of pesticides, under the National Treasury, for joint actions in the local manufacture and use of organic fertilizers and pesticides. This approach is hastening the realization of three of Kenya's leading socioeconomic development priorities described as the "Big Four", namely affordable housing, food security, universal healthcare and manufacturing. As a result, Kenya is on track to achieve shared prosperity while building climate resilience and reversing environmental degradation by scaling up the use of organic fertilizers.

32. Similarly, in Ghana, the UNEP-facilitated inter-agency policy task force is combining the implementation of the National Climate-Smart Agriculture and Food Security Action Plan under the Ministry of Food and Agriculture with feed-in tariffs under the Ministry of Power with the objective of incentivizing decentralization of clean energy to power agro-industrial applications towards realizing the aims of the One-District-One-Factory programme – Ghana's flagship initiative for accelerating socioeconomic transformation in line with Ghana's Vision 2020.

33. Such policy coherence task forces should now be established in all African member States as permanent organs in government responsible for intragovernmental coherence in policy implementation across ministries for the accelerated realization of national socioeconomic priorities and climate objectives. This approach would help to ensure that progress is achieved in terms of innovative environmental solutions, making the transition from the concept adopted by AMCEN at its sixteenth session and the United Nations Environment Assembly at its third session, towards intrinsic implementation actions that will unlock inclusive wealth opportunities. UNEP will leverage its convening power to build inclusive partnerships, including with non-State actors as underscored in part V of decision 1/CP.21, by which the Conference of the Parties to the United Nations Framework Convention on Climate Change adopted the Paris Agreement, to bridge implementation gaps and will provide technical backstopping to that end.

**(b) Financial innovation**

34. Africa's financing needs for climate-resilient, wealth-creating, socially inclusive accelerated socioeconomic transformation, as embodied in the Sustainable Development Goals, is astronomical, with some estimates totalling up to \$1.2 trillion annually. A conservative figure puts this amount at \$600 billion each year – an amount that equates to almost one third of Africa's aggregate gross national income.

35. The more alarming estimate puts the figure at \$1.2 trillion annually in additional investments to meet just Sustainable Development Goal 1 (end poverty in all its forms everywhere), assuming an annual GDP growth rate of 16.6 per cent and that savings, official development assistance (ODA), and foreign direct investment remain at 2016–2017 levels. The reality is that projected GDP growth for 2018 is relatively low, at 3.2 per cent, meaning that Africa needs much more in terms of financial resources. The continent's financing needs are set against a backdrop of growing external and domestic debt and declining ODA, which has dropped to a mere 1 per cent of all capital inflows to the continent. Bridging the gap in financing calls for innovative approaches, leveraging on both direct and indirect financing.

36. Africa offers examples that demonstrate how innovative environmental approaches can bridge financing gaps. For example, bridging the clean energy financing gap will require a minimum of \$25 billion annually. Considering this astronomical investment, energy efficiency – which results from resource efficiency and sustainable consumption and production, the leading themes of the fourth session of the United Nations Environment Assembly – is emerging as a least-cost option for bridging demand. In Ghana, for example, estimated peak energy savings of over 120 megawatts (MW) drawing on effective energy efficiency programmes have displaced the need for \$105 million in new energy generation investment and reduced carbon dioxide emissions by over 110,000 tonnes annually.

37. On average, reforming power utilities to reduce inefficiencies could save Africa \$3.3 billion annually. Enhancing energy efficiency is therefore a viable strategy in bridging Africa's energy gap in powering the region's industrialization efforts – an urgent imperative to create income and job opportunities for the growing youthful population while mitigating carbon emissions – to drive inclusive wealth creation.

38. In addition, market-driven risk diversification facilities at the economy-wide and grassroots levels provide another potent strategy for bridging financing gaps in Africa. The strategy of leveraging risk-sharing facilities to convert social finance into investment finance at economy-wide scale is based on moving beyond the socially driven financing of development actions to investment financing, with financial and economic as well as social target returns. It is based on the idea of channelling all development finance – both domestic and international – through risk-sharing facilities that ensure the mobilized funds are used as cash guarantees in a de-risking facility aimed at incentivizing affordable private sector financing of enterprises based on the catalytic sectors. This de-risking facility comprises a cash guarantee used to compensate private financiers in case of loan repayment defaults from enterprises engaged in the catalytic sectors, thereby reducing their lending risks and incentivizing them to lend more. Such risk-sharing facilities build on the concept behind the Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL), through which an investment of 45 billion naira in non-private resources unlocked up to 10 times that amount – some 450 billion naira – in private/commercial finance.

39. On the basis of that success, national social development and climate funds, no matter how small, should be invested in such risk-sharing facilities in order to unlock additional private sources. Africa can take such action right away with current investments in domestic climate finance, for instance. The Economic Commission for Africa reported in 2017 that Africa already generates 20 per cent of its total current annual adaptation needs, which are estimated at \$15 billion, from internal sources, meaning a domestic contribution of \$3 billion. Combining that amount with additional domestic sources of financing, which could total up to \$3 billion every year according to analysis in the *Africa's Adaption Gap 2* report, means that the region is capable of mobilizing a domestic fund of up to \$6 billion, which could be invested in risk-sharing facilities. According to the Nigerian success, the return could total ten times the amount invested or some \$60 billion annually for subsequent investment in enterprises with the aim of maximizing the catalytic sectors to create inclusive wealth and strengthen climate resilience.

40. The strategy of leveraging on cooperatives to finance at community level translates, for instance, to on-farm ecosystem-based adaptation enterprises pooling their resources to acquire clean energy systems that are then used communally in powering value addition enterprises. In other cases, the pooled resources are used as security to acquire loans towards purchasing capital-intensive assets critical to productivity enhancement. The use of ecosystem-based adaptation-driven agriculture approaches known to lower climate-induced crop failure risk is also applied as a risk averter to lower interest payable where loans are involved. The result is that ecosystem-based adaptation and clean energy upscaling is financed to meet climate aims, but in a market-driven paradigm where financial, social and economic returns are achieved simultaneously.

41. In Kenya, for example, a farmer's cooperative is working with clean energy actors to develop flexible and affordable clean energy financing products for cooperative members so that they can power value addition. For now, the focus is on solar powered micro-irrigation to minimize losses in potential yields and solar driers to cut postharvest losses with socioeconomic, financial and climate returns. Socioeconomically, the clean energy actors are expanding markets to enhance business and the farmers have strengthened their revenue and community food security by means of reduced crop failure and reduced postharvest losses due to the solar irrigation and drier kits. Financially, farmers have improved their revenue, enabling them to promptly pay back their cooperative dues to enhance the cooperative's fiscal stability. In terms of climate, clean energy is sustainably financed and therefore scaled up thereby contributing to the mitigation aims of Kenya's nationally determined contributions. The reduced post-harvest losses also enhance value chain efficiency towards recouping

the over \$40 billion currently lost which can then be invested in driving development in other sectors, also contributing to resource efficiency and sustainable consumption and production.

42. In order for these examples to become the norm in development across the continent, States' central banks need to implement risk-sharing facilities at the economy-wide scale drawing on the NIRSAL example in Nigeria, where, leveraging the reserves in central banks, a fund is set aside and used for cash guarantees in a de-risking facility aimed at incentivizing affordable private sector financing of enterprises based on the catalytic sectors.

43. Beyond economy-wide measures, at the small and medium scales, the cooperatives structure in countries needs to be incentivized to diversify the financial risks of small-scale enterprises. To that end, countries need to leverage synergistic implementation of relevant policies, especially cooperative development policies, financial policies (fiscal incentives e.g., tax exemption on income earned by financial institutions lending to agriculture; income tax exemptions for new rural value-added agricultural investments; zero rating for value added tax on relevant inputs, spares and services in agriculture and clean energy), energy policies (especially feed-in tariff policies), and climate-smart agriculture policies. The approach should be to incentivize cooperatives to target financing clean energy acquisitions for agro-value addition in target areas to be delivered through the inter-agency policy task forces for which UNEP provides technical backstopping.

**(c) Market-driven innovation**

44. The African Continental Free Trade Agreement, which has been signed by 49 African countries to date, is a deal characterized by some pundits as the largest free trade agreement since the formation of the World Trade Organization and is set to consolidate a 1.2 billion people-strong market with a combined GDP of over \$3.4 trillion. The agreement, as a pull factor to drive climate action, provides an entry point for innovative environmental solutions for inclusive wealth creation as it will create continental demand to fuel the rise of local sustainable manufacturing and industrialization. In particular, it is projected to have a significant impact in terms of industrializing agriculture leveraging clean energy power, a priority area underscored at the highest level by the African Union.

45. This demand for various products and services along the agro-value chain is apparent and urgently needs to be harnessed. The African middle class, currently totalling some 300 million people representing a local urban food market worth \$150 billion annually, continues to expand rapidly. Overall consumer spending is projected to reach \$1.4 trillion by 2020, business-to-business spending, including in agriculture and its ancillary sectors, is projected to total \$3.5 trillion by 2025 and the continental food markets are projected to amount to \$1 trillion by 2030. Converting this potential demand into a tangible market that is able to fuel climate actions, thereby bridging the gap between the concept of innovative environmental solutions and the implementation of such solutions for wealth creation, will require operational instruments to consolidate that market.

46. Accordingly, market standards driven through a climate action lens that can be universally applied across the continent stand out as highly potent instruments. UNEP is working with national standards regulators in supporting countries to establish such standards, which are aimed at regularizing sustainable, ecosystem-based adaptation agricultural approaches and clean energy powered agro-value addition in Africa. This will ensure that sustainable agricultural produce can compete in the market on a par with conventional produce, which has hitherto been the focus of market standards, thereby providing a market incentive for scaling up both ecosystem-based adaptation and clean energy. Given that ecosystem-based adaptation and clean energy are catalytic sectors, this will support the achievement of environmental and inclusive wealth aims.

47. With UNEP support, countries are merging existing standards covering clean energy, organic products, ICT, quality, safety and health, among other key areas which have traditionally been addressed in sectorial silos, so that they can be applied in a cascade. The objective of such action is to benchmark products, processes and services that are critical to establishing sustainable, agriculture-led, clean energy-powered industrialization enterprises to ensure that such sustainable enterprises can compete on a par with conventional enterprises in the market. This will then lead to climate aspects of ecosystem-based adaptation and clean energy being incentivized for upscaling through market forces. With UNEP support, this approach will ensure that existing country standards are enforced for the evaluation of agro-products along the entire supply chain, from on-farm production, to processing, to distribution and marketing.

48. The focus of UNEP support will be three main criteria. The first, climate and environment compliance, aims to ensure that nature-based approaches that enhance ecosystems are used at the primary production level, thereby protecting and enhancing ecosystem goods and services during production; that any processing is powered by clean energy to minimize the risk of escalating

emissions; and that marketing and supply chain processes are ICT-enabled to reduce the high carbon footprint associated with conventional paper copies and physical processes. The second criteria, health compliance, aims to ensure that nature-based approaches and non-chemical inputs are used in production. The third, quality and safety compliance, covers quality, safety and ergonomics aspects along the entire production process and supply chain.

49. As noted above, UNEP will provide support to countries in enforcing their existing standards by means of a holistic cascade that incentivizes the establishment of sustainable, agriculture-led, clean energy-powered industrialization enterprises. This paradigm will provide an instrument by means of which market standardization in countries will consolidate the African market, currently worth \$150 billion, in order to fuel the scaling up of clean energy and ecosystem-based adaptation-driven agriculture with the objective of actualizing sustainable, agriculture-led, clean energy-powered industrialization enterprises, ensuring that inclusive wealth opportunities are created in tandem with environmental action. As the African Continental Free Trade Agreement takes root, this cascade of standards enforcement will also provide an operational mechanism by which continental trade can create market-driven pull factors to drive the scaling up of nature-based, ecosystem-based adaptation approaches and clean energy uptake. As previously noted, the convergence of climate, economic and financial objectives in a trajectory of inclusive wealth creation will drive the attainment of the Sustainable Development Goals.

**(d) Partnerships: leveraging human capital to drive innovation**

50. Human capital is the most important component of wealth globally. Interdisciplinary collaboration will be required to achieve innovative environmental solutions for inclusive wealth creation, where State and non-State, individual and institutional stakeholders drawn from complementary sectors convene mutually beneficial, market-driven partnerships to drive all the enablers discussed – i.e., policy, financial and market innovations. Such inclusive partnerships, driven by people and referred to in part V of decision 1/CP.21, by which the Paris Agreement was adopted, as well as Goal 17 of the Sustainable Development Goals, are already proving workable as exemplified in UNEP interventions in the Kingdom of Buganda, Uganda.

51. The Ministry of Lands, Agriculture and Environment in the Buganda Kingdom has secured cassava supply contracts for its farmers worth \$141 million with the Uganda Breweries. UNEP is providing support to the ministry in convening the partnerships necessary to ensure that the cassava supply chain is stabilized. The UNEP intervention is in response to shortages faced by the brewery of the raw material, cassava, which is a crucial ingredient in its beer production. With UNEP technical backstopping, ecosystem-based adaptation approaches that are climate resilient are being adopted as the preferred method to produce cassava and ensure that yields can be enhanced in the context of a changing climate.

52. In addition, clean energy actors have been mobilized to partner with the farmers and supply various clean energy interventions critical to maximizing productivity. Among such critical systems are solar-powered microirrigation to enhance yields and solar driers to preserve surplus crops and buffer the supply chain. A total of 10 acres under cassava have been developed in Busiro county, which will provide cuttings for cultivation across all the 18 counties of the kingdom. The collaboration between UNEP and the ministry is ensuring that ecosystem-based adaptation, which is critical to meeting Uganda's nationally determined contributions for adaptation, and clean energy, which is crucial in meeting its nationally determined contributions for mitigation, can be scaled up in the framework of an economic and market-driven programme with the aim of creating inclusive wealth opportunities in the kingdom.

53. UNEP stands ready to support all African member States to convene similarly inclusive partnerships, as highlighted in part V of decision 1/CP.21, by which the Paris Agreement was adopted, to bridge gaps in turning the strategic provisions of innovative environmental solutions into practical implementation actions by actioning the enablers, i.e., policy, financial and market innovations and create inclusive wealth opportunities, while ensuring environmental sustainability.

## **V. What bridging gaps will mean for Africa**

54. At the sixteenth session of AMCEN, UNEP provided analysis and timely proposals on ways in which environmental activities in Africa can make the transition away from the traditional silo approach to become solutions to the leading socioeconomic challenges on the continent. At that session, AMCEN adopted the Libreville Declaration on Investing in Innovative Environmental Solutions and the foundational decision 16/1 on investing in innovative environmental solutions for accelerating implementation of the Sustainable Development Goals and Agenda 2063 in Africa. This similar logic of divesting from silo environmental and climate obligations to premising environmental

action as a means to achieve socioeconomic development was highlighted at the global level at the third session of the United Nations Environment Assembly, when the Group of African States sponsored a draft resolution which was subsequently adopted as resolution 3/5 on investing in innovative environmental solutions for accelerating the implementation of the Sustainable Development Goals, thereby cementing the policy logic of environmental action from a solutions perspective. With strategic level levers in place, the priority for AMCEN at its seventh special session should be to provide tools and instruments for, and examples of, practical implementation of solutions-oriented environmental action.

55. Policy coherence task forces constitute the main means of implementation in terms of policy innovation. These task forces would bring together policy implementation programmes from across complementary ministries for a more coherent implementation aimed at the realization of shared Government-wide socioeconomic development visions and nationally determined contributions by means of sustainable, agriculture-led, clean energy-powered industrialization. With technical backstopping support provided by UNEP, policy coherence task forces are already being established and operating in a number of African countries, including Ghana, Kenya, Nigeria and Uganda. Once established, such task forces can ensure that policy silos across are broken down, resulting in policy implementation programmes across related ministries working synergistically for enhanced implementation. Gaps of any kind that exist in one ministry with the potential to lead to implementation failure can be bridged by another ministry as they strive together to achieve the national socioeconomic objectives and nationally determined contributions.

56. The enforcement of relevant standards in a cascade rather than in sectorial silos is the main instrument in terms of market-driven innovation towards achieving the shared objective of establishing sustainable, agriculture-led, clean energy-powered industrialization as the engine for meeting national socioeconomic priorities and nationally determined contributions. Such market-driven innovation is set to mobilize the \$150 billion African market for value-added produce in the creation of inclusive wealth, while scaling up ecosystem-based adaptation and clean energy to achieve environmental aims. It will also provide a ready tool for domestication of the African Continental Free Trade Agreement, which represents an important instrument for inclusive wealth creation in Africa.

57. The proposed financial innovation instruments align with the principle of risk diversification both at the economy-wide scale and at the small- and medium-sized enterprise scale. At the economy-wide scale, leveraging the financial resources that African countries can mobilize for climate action annually – which is about \$6 billion – and investing that amount in risk-sharing facilities has the potential to unlock up to \$60 billion annually for investment in for-profit enterprises in Africa's catalytic sectors, thereby maximizing the catalytic sectors for the creation of inclusive wealth and building of climate resilience.

58. At the small- and medium-enterprise scale, incentivizing cooperatives to finance small and microenterprises to acquire clean energy for agro-value addition will go a long way in reversing the post-harvest losses that currently cost the continent over \$40 billion. Cumulatively, risk-sharing facilities and cooperatives that prioritize the financing of clean energy for agro-value addition constitute innovative financial instruments that could enable Africa to mobilize up to \$100 billion equivalent finance for the creation of inclusive wealth and building of climate resilience and to operationalize the innovative finance component of innovative environmental solutions.

59. Under partnerships, as demonstrated in Buganda Kingdom, it is crucial that African countries mobilize the different actors needed to bridge gaps and operationalize the above-mentioned policy, market and financial innovation to ensure inclusive wealth creation and climate resilience at the national and regional levels.

## VI. Conclusion

60. In order for the role of environmental action to be defined and prioritized in the context of increasingly demanding socioeconomic needs, such action should be understood as facilitating the achievement of socioeconomic objectives as opposed to being a silo environmental obligation that does not demonstrate any socioeconomic benefit. Environmental action can enable inclusive wealth creation, providing social, economic and environmental gains.

61. Innovative environmental solutions that cover the aspects of sustainable consumption and production and resource efficiency can be particularly effective. As noted above, the agriculture sector stands out in terms of its inclusivity as a strategic engine for inclusive wealth creation. Supporting efforts to combat food waste and food loss by integrating processing, preservation and other off-farm interventions using clean energy can result in enhanced food security and the creation of additional income and job opportunities. Using clean energy to power these processes drives emissions

mitigation while prioritizing sustainable, ecosystem-based adaptation approaches and will enhance ecosystems resilience and restore degraded areas to recoup over \$60 billion that is currently lost annually to land degradation as well as reversing land-based emissions, which are the main source of emissions in Africa. Innovative environmental solutions will enable African countries to address their key environmental challenges in a way that creates inclusive wealth opportunities to meet the leading socioeconomic priorities of the continent and that enables the simultaneous attainment of climate, social and economic aims.

62. Drawing on the achievements of the sixteenth session of AMCEN and the third session of the United Nations Environment Assembly, the current challenge is to move beyond the planning stage for innovative environmental solutions to practical implementation. As proposed above, a combination of policy, financial, market and partnership innovation is required for such implementation. Examples of such policy, financial, market and partnership innovation under way in several African countries with technical backstopping support provided by UNEP constitute worthy examples to be emulated by African member States.

## **VII. Questions**

63. The following questions are intended to elicit policy discussion on this topic:

(a) What role should environment ministers and State agencies play in the policy coherence task forces in order to influence the establishment of risk-sharing facilities by central banks and incentives for cooperatives towards practicalizing the “innovative finance” aspect of innovative environmental solutions as envisaged by AMCEN at its sixteenth session?

(b) How best can national standards regulators be mobilized to enforce the cascade of standards critical to practicalizing the market incentives that are required to drive innovative environmental solutions?

(c) In addition to technical backstopping and mobilizing inclusive partnerships that include non-State actors, as envisaged in part V of decision 1/CP.21, towards operationalizing innovative environmental solutions for inclusive wealth creation and climate resilience, what role can UNEP play to practicalize the above-mentioned instruments?

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