

**SUSTAINABLE AFRICAN CITIES**

**DEBATING CURRENT CHALLENGES AND EXPLORING FUTURE PATHWAYS**

**3<sup>TH</sup> – 6<sup>TH</sup> JULY 2018**

**GHANA ACADEMY OF ARTS AND SCIENCES, ACCRA, GHANA**

**DRAFT REPORT**

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**Tuesday, 3rd July 2018**

**Informal opening**

The chairman of the local organizing committee and the master of ceremony (MC) for the conference, Prof. Henry N.A. Wellington at the start of the informal opening of the conference at 7pm on Tuesday, 3<sup>rd</sup> July 2018 welcomed all participants present. He mentioned that the conference was very important to the Ghana Academy of Arts and Sciences (GAAS) because it was going to serve as a launchpad for the activities of the academy geared towards achieving the 17 Sustainable Development Goals (SDGs). He then invited Mrs Jackie Olang-Kado, the Executive Director of the Network of African Science Academies (NASAC) to give her welcome message.

***Mrs Jackie Olang-Kado (Executive Director, Network of African Science Academies (NASAC))***

On her part Mrs Olang-Kado expressed pride that NASAC was associated with the conference as GAAS was one of the member academies. She intimated that linking science to development was very important and was critical in achieving the SDGs. She mentioned that bringing on-board young scientists was very important to NASAC, hence the formation of the Leading Integrated Research on Africa which had a key focus on sustainable African cities. She was also elated that the GAAS had been able to put up a magnificent office complex. She wished everyone fruitful deliberations at the conference. Prof Wellington then invited Prof. Volker ter Meulen, the past president of Leopoldina and President of the Inter Academy Partnership (IAP) to offer his welcome message as well.

***Prof. Volker ter Meulen (Past President of Leopoldina and President of the Inter Academy Partnership (IAP))***

Prof. ter Meulen started by saying that the deliberations during the conference was going to be new for him as his background was in medicine. He looked forward to a period of fruitful deliberations. He also welcomed participants on behalf of Leopoldina, one of the partners involved in organizing the conference. He also acknowledged the contribution of the other partners such as NASAC and Academy of Sciences of South Africa (ASSAF). He added that the challenge of urbanization was the task that conference participants were going to be confronted with going into the future. He looked forward to the sharing of new ideas on the subject.

## **First Day: Wednesday, 4<sup>th</sup> July 2018**

### **Official Opening and Welcome Remarks (Chair: Prof. Aba Bentil Andam, President of GAAS)**

The official opening of the conference started with Prof. Wellington introducing himself as the MC. He welcomed participants on behalf of the local organizing committee by offering the traditional Ghanaian ‘Akwaaba’ greetings. He likened the conference to a mini African Union or United Nations summit by virtue of the large number of countries (14) represented. He offered the chairman of the conference a collection of miniature flags of the countries represented at the conference as symbolic of her role. He then introduced the conference chairman, who was president of the Ghana Academy of Arts and Sciences and a distinguished chartered physicist, Prof. Aba Bentil Andam.

#### ***Chairman’s Opening Remarks (Prof. Aba Bentil Andam, President of GAAS)***

Prof. Bentil Andam thanked the local organizing committee for the honour done her. She then went ahead to say the opening prayer. After that she invited Prof. Sefah Dedeh to formally welcome the conference participants.

#### ***Prof. Samuel Sefa-Dedeh (Fellow and Vice President, Sciences Section, GAAS)***

Prof. Sefa-Dedeh welcomed all participants especially the international participants on behalf of the president and the entire membership of the Ghana Academy of Arts and Sciences. He went on to say that the GAAS had a very special relationship with the German Academy of Sciences. This relationship started in November 2009 with a two-day workshop held at Fumesua in Kumasi, Ghana on the theme, ‘North-South Cooperation in Health Research’ with about 50 people participating. The second was a collaborative work between the Ghanaian and German Academy and the Network of African Science Academies in 2012 which resulted in a symposium organized on ‘the changing patterns of health problems in sub-Saharan Africa; Impact of communicable and non-communicable diseases’, held in Hamburg, Germany. This was followed by the signing of a fund transfer agreement in 2015 for the launching of a health booklet emanating from the 2012 workshop and the launch of the conference on sustainable African cities. He acknowledged the German Academy of Science as the funding partners for the conference. He listed the other institutions in the partnership as the Academy of Science of South Africa and the Network of African Science Academies. He opined that the rate of urban growth brought with it some challenges and

opportunities. He hoped the conference would be a platform for scientists from different countries to share ideas on approaches to the sustainable development of cities, define roles for science academies and identify strategies that would accelerate the achievement of sustainability. He invited first time visitors to Ghana to take the opportunity to see Ghana beyond Accra.

***Prof. Volker ter Meulen (Past President of Leopoldina and President of the Inter Academy Partnership (IAP)***

Prof. ter Meulen started on a personal note by saying that the first time he was in Ghana was about fifty years ago and had followed the discussions about the GAAS building. He congratulated GAAS for putting up a magnificent edifice. He also thanked them for their collaboration in the lead up to the conference. He also thanked the German government for their generous support for the relationship between Leopoldina and the Network of African Science Academies. He also thanked the Network of African Science Academies of which the lead organizers of the conference the Ghana Academy of Arts and Science and the Academy of Sciences of South Africa were members. He further thanked the German Ministry of Science and Education (BMBF) for providing support to the academies since 2011 on deliberations over issues important to Africa. He mentioned further that the relationship between the Ghana academy and the German academy dates back to over 50 years with deliberations over important issues such as public health. He hoped that the conference would open up new perspectives for the academies involved. He mentioned that the creation of sustainable cities is not only an African challenge but a global one as president of the Inter Academy Partnership which brings together over 130 global academies of science, medicine and engineering he was very much aware that many of the academies around the world were trying to address this challenge by working on evidence-based advice for policy-making. He hoped that fruitful collaborations would develop among participants during the conference.

***Ambassador Christopher Retzlaff (Embassy of the Federal Republic of Germany to the Republic of Ghana)***

Ambassador Retzlaff expressed happiness at the partnership between the German and Ghanaian Science Academies. He hoped that the outcome of the conference would help to inform policy advice on urbanization in Africa. He opined that urbanization in Africa and Asia was one of the defining trends in the twenty-first century and had some of the most profound social, economic and environmental effects. He admitted however that no country

had developed without this shift in population to the urban area. Africa had the smallest proportion of urban dwellers (32%) but the highest number of slum dwellers (65%) and the fastest rate of urbanization. Africa had already seven megacities, but the fastest rate of urbanization was occurring in medium-sized cities which received less attention. This situation had been compounded by the demographic ‘youth bulge’. He expressed concern that the situation of large numbers of unemployed youth could be socially destabilizing. Sustainable management of cities hence was crucial to achieving the 2030 and 2063 development goals. Cities were increasingly collaborating among themselves but needed to be well-resourced to achieve these goals. He enumerated four key areas of concern that city managers needed to pay attention to; informality, the urban-rural continuum, basic services and urban governance. He mentioned that the German government was assisting on some of these issues that emanate from rapid urbanization such as sustainable and affordable power supply, environmentally friendly transport and good financial governance. In the framework of the G20 Compact with Africa, the German government was providing the Ghana government with an additional €100m in this regard. He hoped to see more of such events that bring together people from academia, politics and business.

***Mr. Tirso De Santos (UNESCO, Accra)***

Mr. De Santos started by saying that 3.9 billion people the world over lived in cities. In 2050 it was expected that cities would host 2.5 billion more urban dwellers. UNESCO was committed to enhancing the sustainability of cities through policy advice, technical assistance and capacity building drawing on its experience. UNESCO was at the forefront of the implementation of the Urban Agenda and the 2030 Agenda. In the 2030 Agenda, the international community for the first time recognized the importance of culture to development. It is clear in the Sustainable Development Goal 11 on sustainable cities that culture had an important role to play in realizing sustainable urban development.

He mentioned that the cultural and creative industries were among the fastest growing in the world employing about 30 million people. Culture was a powerful tool for reconciliation and the creation of peaceful societies. Intangible cultural heritage represented a form of resilience and knowledge for addressing key challenges including poverty, education and climate change. Culture could serve as a key resource for city reconstruction and recovery while promoting community ownership, social inclusion and economic recovery. Cultural heritage and creativity needed to be embedded in integrated strategies that relied on both people-centred and place-centred approaches. The human and social sciences also had a crucial role



to play in managing sustainable cities. They are needed for evidence-based policy making, the management of the profound social transformation envisaged and commitment of the global agenda to leave no one behind.

Going further, he mentioned that migration both internal and international was noted to be transforming cities worldwide and changing the socio-economic fabric of cities including the health and wellbeing of its residents. UNESCO was working with national and local governments, civil society and the research community to develop policies, research initiatives and operational projects such as rejuvenating public spaces, sports and encouraging large-scale urban-rural migration that would build resilient and healthy societies.

He noted further that lifelong learning was a critical resource in achieving social and economic advancement as recognized in SDG 4. Science was key to providing solutions in urban settings by providing resilience in both water and sanitation provision and disaster risk reduction. UNESCO was at the forefront for scientific and technological development and support cities in growing in a sustainable manner through its hydrological programme and disaster risk reduction team. The SDGs was about 5Ps; people, planet, prosperity, peace and partnership. He hoped that the African scientists would partner with their European colleagues to provide the solutions to the urban challenges facing Africa and vice versa.

***Prof. George Gyan Baffuor (Minister of Planning, Ghana)***

Prof. Gyan Baffuor stated that the government of Ghana had fully embraced the SDGs and was poised to build and maintain sustainable cities and communities. He said that the conference was in line with the government's attempt to domesticate the SDG in line with its development agenda. The SDG 11 on sustainable cities was related to all the other SDGs and of key relevance to Africa. The concept of sustainable cities was not new to Ghana but progress on its achievement had been slow. It was estimated that in the major town and cities in Ghana, 22% of solid waste and 97% of liquid waste are not properly disposed-off, 37% of city dwellers did not have access to potable water and 63% did not have access to WCs. The housing deficit had been estimated by the UN Habitat at 1.7 million housing units as at 2015. It was in the light of such challenges that the President's Coordinated Programme for Economic and Social Development Policy (2017-2024), the development agenda of Ghana, focuses on four areas aimed at building sustainable, spatially-balanced and orderly development of human settlement and provide adequate, safe, secure, quality and affordable, social housing and private housing solutions.

He stated further that to ensure the effective use of land especially in the cities, the government was implementing the Land-use and Spatial Planning Act 2016 (Act 925) and the accompanying National Spatial Planning Framework. The government was determined to establish special growth centres and networks with spatially targeted interventions. The urban networks identified so far were Sekondi-Takoradi, Cape Coast, Tamale, Sunyani, North-East, Aflao and Wa urban networks. Also, the five-tier hierarchy of urban networks namely, villages, towns, secondary cities, cities and city-regions would be implemented in addition to structured metropolitan city-regions around Accra, Kumasi and other metropolitan areas. A district capital and small-town improvement programme was also going to be implemented with a focus on supporting district assemblies to plan for infrastructure provision. Security and disaster prevention was being mainstreamed into urban planning. Government was poised to construct storm drains in Accra and other cities to address the reoccurrence of floods. A national hydrology authority was being established to develop long term solutions to flooding and the protection of sea coastlines. There were also policy interventions to upgrade inner cities, zongos and slums and prevent the occurrence of new ones.

***Keynote Speech: The Creation of Sustainable Cities for African Citizens (Prof. Edgar Pieterse, African Centre for Cities, University of Cape Town, South Africa)***

Prof. Pieterse started by saying that in regard to sustainable cities, scholars and the academy were lagging behind. He hoped to leave the audience with how they could interrogate a different set of relationships between real world experimentations towards sustainability and the job of basic, co-produced or translational research. It was time for the academy to spatialize thinking about how research and innovation happens and not assume that the national level alone should be the unit of analysis. The time had come for city-based systems to be the ‘motto’ of national academies. There was the need to differentiate between the different regions on the continent. East and west Africa was going to have the largest increases in urban growth within the next 35 years. Paying attention to these differentials was critical.

The different dynamics that were unfolding, created a multiplicity of typologies around diverse urbanization trajectories. There was the combined effect of high fertility rates and the low GDP per capita. There was the predominance of informality in terms of social reproduction and how and where people live and in terms of jobs. Over the past 40 years there had been a lack of investment in the built environment. Even more critical was the tendency of African governments to take on-board any type of investment that came along.

Very often these investments locked-in unsustainable forms of urban reproduction. Across the various regions of the continent one can see urban outcomes characterized by dualism; formal-informal, rich-poor and splintered spatial forms and functions. There was the multiplicity of different cities working with different logics in the same urban conurbation. There was a lack of economic diversity and low levels of formal job creation and rising inequality. Few jobs were being created in the primary and secondary sectors. The only jobs being created were in the services sector. This reinforced the skewed and lopsided urban form which had generated the current discourse. The effect of these has been the increase in slums.

In the last decade there has been a policy shift as can be seen in the agenda 2063. There is recognition of the challenges of urbanization and that cities are the hubs of cultural and economic activities. Both access to the urban area and affordability are crucial. Research on sustainable urbanization has not kept pace with developments in the field. That notwithstanding, there have been some effort in this regard such as the African Universities Research Association, the Sustainable Urbanization Group, the African Research Initiative, the Association of African Planning Schools which has 55 members in 21 African countries. There have also been other large-scale donor-funded research projects. The problem is the disconnect between research and national urban policies. The key issue here is how to reposition research in order to influence the new national urban policies. Often missing in these policies are infrastructure investment programmes.

He was weary of the theoretical traps inherent in the policy frames which presupposes that it is possible to draw a balance between environmental, economic and social development in some form. The Urban Sustainability Working Group of the National Science Foundation in the United States defined sustainability not based on the idea of a balance but by recognizing conflicting economic and political agendas. They proposed an approach that calls for sustaining lives and livelihoods instead of sustaining development. The contexts of African urbanization were not the same as the historical conditions that informed the Brundtland definition. There was need for a stronger language on trade-offs because of the inherited contexts of Africa. The current extractive economic system is a direct cause of the current social and environmental challenges. Tinkering with the system would not solve the problem. What was needed was a something much more transformational.

He proposed a working frame of four parts. First, the notion of environmental sustainability enables the pivoting of the discussion towards green or sustainable economy. Secondly,

social inclusion can be connected to the challenge of basic services. The third is employment and the final being institutional competence.

In concluding, he calls for radical ways of thinking about futures. If affordability and inclusivity are the absolute norms for building sustainable African cities, there is the need to think in more ecliptic ways on what the adaptive African city might be. Also, key is paying attention to disruptive technological impact. Further to that, there is need for localization and regional transitions. Three infrastructural foci are needed at the regional scale namely, energy, mobility and ICT. Academies and national science councils need to begin to look at regional and citywide scientific systems.

***Discussion (Moderator: Mr. Kwabena Agyepong, Executive Director, Ghana Institution of Engineers)***

The moderator started the question time by asking for a hierarchy of options that professionals in the built environment in Ghana can execute to achieve sustainable cities. Mrs Jackie Olang-Kado from the Network of African Science Academies asked on what kinds of investments are needed to attain smart cities and why the emphasis on smart cities as opposed to smart villages. Dr. Emmanuel Osuteye from the University College of London asked about the potentials of small and medium-sized towns and peri-urban areas which are experiencing a lot of growth. Ms Sandra Owusu Koranteng from the Ghana Trade Union Congress wanted to know if the academies were focusing on inequalities in society, for instance in the provision of housing that were beyond the means of workers.

Prof. Pieterse began answering by saying that the question of affordability was key. What was needed was a discussion on the political economy of urban investments. He used an example of a study on big ticket investments across Africa. Taking the instance of a highway constructed from Nariobi into the peripheries which had led to the springing up of gated communities along the highway. This development he noted had worsened the traffic situation into downtown Nairobi and the money spent by the state on such a project reduces the resources available for other needed services. He further suggested that trade unions and other civil society groups needed to make their voices heard in the discussion. He reiterated the need to rethink what the components of a sustainable city would be. For instance, energy requirements, local economic development, social enterprises, infrastructure investments, social services, etc. The issue of lifelong learning the upscaling of workers was key to these outcomes.

On the potentials of peri-urban areas, he called for the reversal of the hierarchy. There was the need to think of both scales at the same time. What was needed were investments that were in sync with both micro-economies and the large eco-systems such as energy and transportation. On the question of substituting smart cities with smart villages, he answered that it was because of how the global economic system works ie. the need for agglomeration and economies of scale. Research had shown that the centres that are knowledge intensive were going to be the centres leading in research, development and innovation. These tend to be in places with large number of people. That notwithstanding, smart villages have a role to play in the areas of agricultural, social and cultural functions but could not be the main solution.

Prof. Babatunde Agbola from the University of Ibadan, Nigeria and the University of Technology, Johannesburg, South Africa commented on the need to interrogate received knowledge in relation to building sustainable African cities. He added that many African cities were not sustainable as their revenue base in terms of tax generation were very low. Prof. Ralph Mills-Tettey asked for clarification on a table presented on the per capita expenditure of some city administrations in Africa, he commented that Lagos which generated a lot of revenue was not captured in the table. Prof. Songsorre from the University of Ghana commented that there was a need to integrate the countryside into the discussion since cities on their own cannot be sustainable as they consumed most of the ecosystem services generated from the countryside. Mrs Cindy Baidoo from Environmental Protection Agency commented on the need to include culture, religion, norms and values, women empowerment, street children, etc. in the discussions on sustainable African cities.

Prof. Pieterse began answering by focusing on the low rates of tax generation. Studies had shown that there was little confidence in the tax system, there was therefore the need to increase transparency in tax administration and utilization. He agreed on the issue of tax generation in Lagos as it has been one of the cities with the largest tax receipts over recent years. The city had also improved on its tax transparency and even more important were the services provided out of the taxes collected. He referred to a recent report titled, 'The weight of cities' by UNEP which drew attention to the total material requirement needed for a population expansion by 3 billion by 2050. He also agreed that the issues of gender, identity and differentiation were at the heart of the issue of localization.

In concluding, the moderator raised again the issue of what is needed to arrest the decline in African cities. He referred to the chaotic assemblage of institutions in the built environment in Ghana. What he felt was needed was a list of options from the academy on the way forward.

**First Session: The Conceptualisation of Cities (Chair: Prof. Ralph Mills-Tettey, FGAAS)**

***Conceptualising the City in a Sub-Sahara African Context (Prof. Beate Lohnert University of Bayreuth, Germany)***

Prof. Lohnert started by acknowledging Prof. Elizabeth Ardayfio-Schandorf who was instrumental in her master thesis field research work in Koforidua in Ghana some 30 years ago. She stated that her presentation was only an attempt to conceptualize the African city. The on-going debates about the African city includes attempts to find the uniqueness of the African city. Most of the discourse has been dominated by the prevalence of slums and informal settlements. Though African cities have a history that predated colonial rule, she took the view that the colonial period had a major impact in shaping the African city. Very few cities have been founded after colonial rule and there has also been the recent emergence of new parts of cities showing the dynamism of African cities. The African city was diverse in terms of functions, operationalization and definition. Most governments define cities according to the population, size of infrastructure, political and administrative boundaries, etc.

The city was bound to the notion of the rural, hence she disagreed to the rural-urban dualism. She thought of it as a complex system and not an independent system. For most people the rural-urban divide was blurry as they go about their daily lives. She called it the 'rurban social space'. Migration was the main cause of growth of many cities in sub-Saharan Africa. This was more fluid as cities and rural areas performed different functions. There was the spatial diversification of income production. This she termed a flow of bonds, exchange, cooperation and transactions. There are also issues of emotional and cultural connections. The multi-locality and multiplicity of income sources for many households in sub-Saharan Africa was the normality rather than the exception. The ever-shifting hybridity blurred the imagined divide. Typically place-based occupations such-as agriculture have been de-placed as seen in the emergence of urban agriculture. These processes have never been linear but vary in direction and velocity.

The mobility of African rural and urban dwellers accounted for the ever-changing city. The livelihood strategies of the poor and middle class are expressions of a special type of 'cityness'. This required creativity, inventiveness and informality. This notion of fluidity does not mean neglecting particular fixed capital and human expertise that enable specific nodes in global urban systems. There was a strategic combination of established practices with global narratives that are reformed into an African 'cityness'. The complexity of colonial and post-colonial urbanism can be explored in terms of locally specific combinations of materials, practices, ideas drawn from different contexts.

The making of the city was not driven only by necessity but also aspirations and dreams. The question of what citizens expect of the city such as liveability is often not interrogated. Quoting from a recent study, she averred that what people conceived to be a liveable African city could be crystalized around keywords such as incomes, education, health care, housing, infrastructure, governance, feelings of oneness, security, opportunities, belongingness, access to daily needs, relatively fair government, welfare, participation, and diversity. If these were considered, planning would look different from what it was today. Again, not enough was known about the everyday making of cities. The recent emergence of new city projects has led to the question of dreams or nightmares. Examples include Nova Cidade near Luanda in Angola built by the Chinese. Most of the apartments in this city were empty because those who could afford it prefer to live in the city and those who wanted to live there could not afford it. There are also examples from Equatorial Guinea, Roma Park in Lusaka, Zambia, Konsa city, the "Silicon Savanna" development, near Nairobi, Kenya. There were also experimental ideas of combining rural and urban ideas.

She concluded that the African city was influenced by colonialism, characterized by high mobility, multiplicity, disparity, liminality, trans-locality, informality, flexibility and experimentality. There were not only problems but also strength in African cities such the hinterlands. There were opportunities to produce for both local and global markets. There was a culture of flexibility that could be a basis for an African way of urban planning.

***A Right to the City: Just and Inclusive Cities for All – African and Global Concepts and Perspectives (Prof. Fred Krüger and Dr Alexandra Titz, University of Erlangen-Nuremberg, Germany)***

Prof. Krüger started by saying that the right to the city was a precondition to shaping sustainable cities. He used an analogy of a dining table in a state after dining. From the

disorganized state of the table after dining one could trace with a close look how the table was before the eating started, where the men and women sat, what food was served, which people were hungry or not, the cause of spillage on the table, etc. On a whole the table was a mess and so was the city. Using the city of Dar e Salam as an example, he used the case of Margaret and her self-help group called the 'Drive-in Group' who had occupied a green space along the highway leading out of the city for urban agriculture, growing vegetables for the market and subsistence. This group was not entitled to use the land but were tolerated by the municipal authorities. Behind this urban farm was a shopping complex. The owner of the complex built a parking lot on part of this same open space and again was tolerated by the municipality. This reduced the land and water available to the urban farmers. This caused some tension and the shopping complex owner employed a few of the farmers albeit on unsecured contracts. The US embassy nearby supported the urban farmers with a few hundred dollars a year further complicating the issue. Opposite the street was a police station where the police might spring a surprise eviction on the urban farmers. The group was also supported by a Tanzanian network of farming cooperatives whose leader acted independently, so the group didn't feel represented. This goes on and on.

This showed the complex layers of institutions which the members of this group had to navigate through on a daily basis. This brings up the question of right to the city, who had secured access to the city and who was entitled to shape the urban living environment? This involved the interests and entitlements of the people. He conceptualized the right to city through framing concepts derived from the works of Levfbre who talked of marginalization and that the city should be there to accommodate all, the city as place for urban contestation and negotiation. He tied this into the work of Susan Finestien, who talked of a just city as the existence of equity and moral codes as preconditions for forming the just city. She argued that the neoliberal city must be transformed from within. This position was opposed by David Harvey who argued that there was a fundamental transition in the urban space where a new understanding of rights beyond capitalist logics was needed. this called for a move beyond neoliberalism change the conditions of the city. Peter Mark Hughes talked of the increasing mismatch between the desire for change in existing urban orders and the dwindling opportunities to change them. He reiterated that these were all western concepts and there was the need to question whether they were ideas that could be applied to the sub-Saharan Africa city. He identified with Pieterse and colleagues talk of 'rogue urbanism' which focusses on everyday urban dwellers and not just the elite.



He also drew attention to the need to use the appropriate vocabulary. What was meant by justice and right to space? What did equity, justice and fairness mean? He used the analogy of three children of different heights watching a baseball match obstructed by a fence. Equality would mean to give each of them a box of the same height to stand on. But that does not take into consideration their different heights. Equity would mean giving each of them a box tall enough to enable them to see over the fence. This still does not include justice which would mean tearing down the fence. That called for resistance, ruptures, protests, conflicts and transformations. This contradicted our everyday meaning of justice which is stability, order, predictability, etc. There was therefore a discrepancy between what was meant by justice and what it entailed to bring about justice.

This was even more difficult to disentangle in disaster situations. He quoted Douglas and Mueller, who defined 'extremnants' as, 'violent disruptions of normal channels through which justice is pursued'. He argued that what was normal was not known, these were political issues as they involve governance and distribution of resources in the recovery phase. The African city could be seen as a continuous process of dealing with crises. He used the example of Onagawa in Japan after the tsunamis, where the city authorities realized they needed new forms of governance to deal with the recovery process of rebuilding the city. They brought on board new actors in a participatory process which including educating the people about town planning processes. This meant shifting responsibilities to other actors. The question that comes up is how much of such responsibilities can be shifted as the city is a mess. He then introduced Dr. Alexandra Titz to present an example from a research project they are embarking on.

Dr. Titz started by introducing the project which is known as the Africity (Adaptability, food security, risk and the right to the city in sub-Saharan Africa; Towards sustainable livelihoods and green infrastructure), a collaborative project under the programme, Partnerships for Sustainable Solutions with sub-Saharan Africa funded by the German Federal Ministry of Education and Research and the German Academic Exchange Service. The objective of the project was to explore and understand social vulnerability and adaptability to environmental and resource change. The project conceptualized the city as a 'riskscape' meaning different spatial categories of risk. The project included a teaching and research component with student exchange, consultancies, etc.

She then introduced the concept of green infrastructure. She defined green infrastructure as, ‘interconnected network of green spaces that conserves natural ecosystem values and functions and provides associated benefits to human populations’. Currently in different parts of the world there were many strategies on green infrastructure. For instance, the European Union launched a green infrastructure strategy in 2013 acknowledging it as a tool for providing natural and ecosystem benefits. The urban green infrastructure includes green spaces on buildings, near buildings, farm lands, etc. The urban green infrastructure must be networked and multi-functional. The multi-functionality means that the same green space serves multiple uses. A single tree or a patch of greenery in the city would not qualify to be called green infrastructure. However, the social implication of green infrastructure has not been much discussed. She gave an example from Denmark where a city park’s use has been restricted to certain days of the week to allow for regeneration. Offenders were to be prosecuted. This was an instance of how the green infrastructure can shape the moral code of cities.

***Panel discussion (Chair: Prof. Elizabeth Ardayfio-Schandorf)***

Mr. Emmanuel Ansah who works with the media wanted to know from Prof. Pieterse the peculiarities between in the data which pointed to West Africa as early urbanizers and East Africa as late urbanizers. His second question was on how the African regional groupings such as ECOWAS, SADC, etc have impacted on their host cities. Prof. Daniel Buor from the Kwame Nkrumah University of Science and Technology asked Prof. Lohnert if in characterizing the African city one could add things like vulnerability, insecurity and poverty. Dr. Peggy Oti- Boateng from UNESCO asked about the absence of land tenure systems in the discussions. Her second question was on the green city. Dr. Ebele Mogo asked for empirical examples where the conceptualization of justice as transformation and not as order had taken place.

Prof. Pieterse started by answering that the idea that regional bodies would impact their host cities may be far-fetched. But that notwithstanding he argued for the need for the major cities across the different countries to network as in for instance exchanging R&D on the big-ticket infrastructure items. Prof. Lohnert answered that she agreed to the negative characterization of the African city but wanted to highlight the opportunities in her presentation. Prof. Krüger answered that every city was transformative, what was need was a negotiation between order and transformation.

On the next round of questions, Mr Agyapong from the Ghana Institution of Engineers wanted to know the drivers needed to attain the sustainable city as used by the developed countries. A representative from the Ghana Trades Union Congress asked on the institutions needed to achieve the sustainable African city. His second question was on the vibrancy of the informal economy and the attempts at its formalization.

Prof. Pieterse answered that the historical context from which the developed countries emerged were different or no longer existed for African cities to follow. He continued to emphasize the need for R&D. Prof. Lohnert answered that Africa needed to determine its own path for development. On informality, she argued against the conceptualization of informality as a marginal activity in the context of Africa. She took the view that informality rather was the normality and that should be appreciated both in academia and policy.

## **Second Session: Case Studies Breakout (Chair: Dr Christiane Diehl, Leopoldina)**

### ***Plenary Statements from Breakout Groups***

#### ***Group 6***

Mrs Shiella Victoria Bomita presented on behalf of group six. The group looked at 'Implementing and monitoring the SDGs in an urbanizing context in Ghana' presented by Mr. Raphael Frerking, Head of Programme for Support for Decentralization Reforms and Good Financial Governance, GIZ. They got to know from the presentation that the GIZ had assistance from National Development Planning Commission and the Ghana Statistical Service in gathering data for the project. Ghana had some flagship programmes with respect to the SDGs such as the 'One District, one factory', 'Planting for food and jobs', 'Free Senior High School Education' and 'Affordable Housing'. The challenges with the implementation were a lack of data for monitoring, insufficient budget, low awareness of SDGs, etc. The data available were not disaggregated into the local level categories. She concluded that there was the need for more collaboration from all stakeholders.

#### ***Group 5***

The presentation in the group was given by Dr Francis Mwape Ndilila on the topic, 'Three Peri-Urban Compounds of Lusaka and Mazabuka'. It was a discussion on Zambia concerning the forestry, housing systems and the vehicle for implementation, the RDCs. The group were told that the RDCs were formerly partisan but were no longer so due to democratization. The planning system was not effective but one unique thing was the general access to land. With

land title registration in place land values have increased astronomically. There were also participatory development planning processes in place.

#### ***Group 4***

Mr. Kojo Akoto Boateng from Citi FM presented on behalf of Group 5. The group looked at modelling future cities. They got to know that there was the need to have proper platforms to model changes and plan accordingly. They were taken through the EU's Louisa Project, a territorial modelling platform and the opportunities it had for Africa. The platform was able to make macro projections on the economy, agriculture, demographics, energy, etc. The challenge was how to get reliable data. Other projects included the Community of Practice for Cities. Also, a flagship report on Future of Cities was going to be soon published.

#### ***Group 3***

Mrs Cindy Baidoo from the Environmental Protection Agency presented on behalf of Group 3. The Group's presentation was on, 'Urban Rejuvenation Initiatives in Africa' specifically with focus on Accra by Prof. Joe Osei Addo. The project presented was the rejuvenation of a run-down prime area with a sea front in Jamestown, Accra. The project combined art, culture, architecture, heritage, music, and entertainment. The project could boast of a café, restaurant, landscaping, and waste management initiatives. The project had received international recognition with the partnership of the Australian embassy and the visit of the French President to the café owned by the project.

#### ***Group 2***

Mrs Kate Boampong of the Ghana Academy of Arts and Sciences represented Group 2. The group discussed the, 'Analysis of Rental Housing in Urban Africa: The Case of Ghana' presented by Prof. George Owusu of the University of Ghana. Housing was noted to include the physical shelter, services and infrastructure. Also discussed was how housing affected income, health, employment, municipal services, leisure and the economy. Other issues raised included the cost of housing, informality, etc. she concluded that serious consideration was needed for rental housing for the poor and other low-income groups.

#### ***Group 1***

Dr Christiane Diehl presented on behalf of group one. The presentation for the group was on, 'Integrated Urban Development Approaches in the Context of South African – German City Network for Integrated and Liveable Neighbourhoods presented by Ms Dawn McCarthy and Mr Lars Loebner, both from the South African-German City Network for Integrated and Liveable City Neighbourhoods. The presentation was on the municipality of Nelson Mandela

Bay in South Africa and the municipality of Halle Zallo in Germany. Despite the huge difference the two cities face similar challenges such as segregated neighbourhoods. There have been attempts in both cities to create spatial justice through civic engagements.

**Third Session: Sustainable Urban Housing (Chair: Prof. Daniel Buor, Kwame Nkrumah University of Science and Technology)**

*Urban Housing Policies in Africa Between Supply and Demand-Driven Concepts*

*(Prof. Beate Lohnert, University of Bayreuth, Germany)*

Prof. Lohnert started by saying that housing was a multi-dimensional concept which was much more than shelter. It includes the neighbourhood, and infrastructure. Housing also had a psychosocial meaning ie. privacy, safety, comfort, independence, space for family life, culture and aesthetics, etc. There were two sides to housing, demand and supply. The challenge to housing in Africa was because the two did not match. The supply factors included financial, cognitive and cultural resources, networks and other social capital, preferences, etc. These had different consequences for housing policy and planning and the everyday production of houses. In terms of the supply side there was the role of the private and public sectors, and the different ways of dealing with the housing crises. There had been a degradation in rental housing as the demand is not being met by the supply. The production of housing in many African cities did not match the needs of the people. The consequence of this was the production of housing beyond policy and planning, meaning self-help interventions such as informal housing and owner-occupier housing.

She called for a definition of what was meant by adequate housing. This was very much context specific. For instance, UN-Habitat (2015) talked of adequacy in terms of the lack of services, materials, and facilities, inadequate sanitation, inadequate space, uncatered needs of the disadvantaged and, marginalized groups, and lack of cultural identity. This was a whole arena involving actors, knowledge, power, and materiality. There were governments and elites, individual households and international discourse with different ideas about modernity and development. In-between these are travelling ideas that goes through translations into certain contexts. Key to this was who defined adequacy, who held the definitory power and who set the standards. There were a lot of housing strategies, for instance between rental and ownership. There were also a lot of in-betweens such condominiums, public housing, state subsidies, owner-occupiers, etc.

She used the examples of South Africa and Ethiopia as case studies. The strategy in Ethiopia at the moment was condominium housing provided by the state. In South Africa, housing had always been a political issue especially after apartheid. There was the 'One Family, One Plot' policy which was single family housing on state provided plots. These were highly subsidized by the state to enable many people to build houses. The Ethiopian example was an example for the middle class and not the very poor and the South African example was for the very poor but with issues of maintenance coming in. In the end it does not offer a solution for the poor and mobile groups. There was a need for regional consensus on housing standards for the poor and the middle class as many of the housing standards are from the colonial era. Most of the housing in the African city did not meet these colonial standards. There was also need for space for experiments at the local level. There must be flexible solutions with clear rules. More insight was needed in the everyday making of housing and more coordination at the city level. She ended by calling attention to the phenomenon of the urban sprawl.

***Condominium Housing in Ethiopia (Ms Monika Wiebusch, planning expert, Planbar - Büro für Stadtplanung und Beratung, Germany)***

Ms Wiebusch started by saying that the condominium housing programme in Ethiopia was one of the first mass housing programmes in sub-Saharan Africa. She had been involved in the building of condominiums in Ethiopia from 2007 to 2009. In 2002, Addis Ababa had a housing deficit of 233,000 housing units, with 70% of housing without adequate sanitation. The city government embarked upon some initiatives such as the Low-Cost Housing Private Project in 1999 and the government started the Integrated Development Housing Programme in 2005. The goal was to achieve 400,000 housing units by 2010 with 200,000 in Addis Ababa. The goal for 2020 is 750,000 housing units. The achievement so far was 133,000 in 2010 and 250,000 in 2017.

In terms of the efficient spending of public funds, the government intention was just not to provide housing but to improve the entire domestic construction sector in order to create jobs. The programme was also aimed at improving livelihoods, so people were allowed to sell their houses after 5 years. Since in Ethiopia land belongs to the state, the cost of the land was not factored into the pricing, making the condominiums in the city centre and outskirts costing the same. This meant public subsidies for private gain. Another question that comes up was how to develop into the peripheries of the city. When housing projects in the peripheries are multi-functional they have a better chance of being sustainable. A challenge that came up was the organization of the condominium associations, she gave an example of one association

catering for 900 housing units. This made the associations too big to be effective. She argued for associations covering a smaller number of housing units. Cultural issues were not properly taken into consideration such as the outer houses built for cooking purposes being paid for separately. This also called for the training of people in the management of condominiums and a reasonable mix of different housing strategies.

The reasons for the government going in for a 'condominium only strategy' was because the government wanted a strong state-led programme. Not many partners were available for the government to partner with. The government wanted to improve the image of Addis Ababa as a modern city. Past experiences with the failure of rental housing in the socialist era was also a factor. The collapse of the socialism globally, meant that governments generally, were not interested in state owned housing projects. She recommended cooperative housing schemes as an alternative solution. Upgrading the old places are also important. Housing policies should be aligned to the general urban planning policies with a polycentric emphasis. There was also a need for reasonable plot sizes to make self-organization possible. Owner-occupation was also to be encouraged.

***Housing Finance and Strategies of Informal Settlement Dwellers (Dr Christiane Rudic, Urban Geographer)***

Dr Rudic started by saying that the presentation was based on her PhD thesis. Research on housing finance had mostly been focused on the owner-occupier. For informal settlement dwellers, formal sources of housing finance were irrelevant. The research was based in Dar es Salaam using mixed methods. In terms of strategies, there were owners investing in housing as well as tenants. Owners invested in their current homes as well as new structures while tenants also invested in their current dwellings as well their own on-going structures. Mostly this was financed through savings and a small amount of credit. The savings were from their informal economic activities. Towards their housing investments, people mostly saved 'in-home' meaning they purchased the building material gradually and saved it at home until they had quantities large enough to hire builders to work with. They then saved to hire the builders. Few saved at the banks, many more saved with savings groups called 'Upatu'. Another major source was from rental income where landlords saved lumpsum payment of rents and invested it into other housing projects. Some of the investments were committed to improving already existing structure such as an additional toilet, etc.

Tenant investments ranged from minor activities like changing the wiring to major ones like putting up the entire building on special arrangements with the landlord. She argued that tenants were also important in the discussion about sustainable urbanism. There was a third group of actors called 'quasi-owners' where the first owners of the house were dead, and the building had been taken over by the children or family. These had sometimes complex arrangements which made it difficult to determine who the actual owner was. Such houses were poorly maintained, and occupants had intentions of relocation. Again, informal sector home based economic activities became hampered when tenants move into their own houses especially those in the peripheries. Many still went back to their former neighbourhoods to transact their businesses.

She concluded by asking if credits were the only solutions as the informal sector had embarked on housing finance without credits. The credits were too expensive and beyond the means of the poor. Even the low-cost housing was too expensive for informal settlement dwellers. She argued that small loans with intense training had proved very beneficial.

***Sustainable Governance for Sustainable Urban Settlements (Prof. Daniel Kipkirong Tarus, Moi University, Kenya)***

Prof. Tarus started by saying that the presentation was based on experiences from Kenya. He stated that 90% of rural-urban migration was in Africa and Asia. Africa was urbanizing at a rate 3.3% as against the global average of 2.5%. he contended that by 2030, 50% of Africans will live in cities. Currently 50-60% of GDP in Africa was generated from cities. He mentioned that the determinants of sustainable cities were affordable housing, health, adequate water, security, efficient transportation, sanitation, and power supply. All these are predicated on good urban governance. The determinants of the mode of governance were location, how integrated the city was to the rest of the world, historical factors, and political structures. A well governed city should have a transparent and accountable system, public participation, effective and efficient, equity and fairness, responsive to residents, rule of law, etc.

He then gave a brief on Kenya. He mentioned that Nariobi although had 5% of the population, it contributed 20% of the GDP. Challenges to urbanization in Kenya included poor planning, lack of access to services, poor sanitation, informal settlements, poor security, high cost of living, congestion, poor functioning land markets, etc. He then gave a brief of urban governance in Kenya. Under the new constitution enacted in 2010, Kenya operates a



two-tier governance structure made up of the central government and 47 county governments within which the cities fall. The county was headed by a governor, with the cities being led by municipal boards with a city or municipal manager. For instance, Nairobi had a city board of 11 members, 6 of whom are elected and 5 appointed from different sectors of the public service. Public participation was held to be very important. There were other technical departments and agencies which were part of the city government. Constraints to improved urban governance were the fragmentation of social and economic life, weak institutional structures, social inequality, overlapping jurisdictions, corruption, political patronage, bureaucratic bottlenecks, etc. To solve these problems there was the need for the devolution of power, partnerships for service delivery, stakeholder participation, etc.

***Healthy Housing Policy: The Role of Housing in Health Creation (Ms Amy Weimann, University of Cape Town, South Africa)***

Ms Weimann started by saying that the presentation was based on her on-going PhD thesis. Health considerations, she noted were important to the achievement of sustainable cities. Studies had shown that the urban environment posed a threat to the health of the urban poor such women, the elderly and children. She linked the SDG 3 on Good Health and wellbeing to most of the other goals. Driving factors affecting health included individual lifestyles, the surrounding, social and community networks, living and working environments, and general socio-economic and cultural environmental factors.

She averred that the non-health sectors were very key to health outcomes. The World Health Organization had endorsed the ‘Health in All Policies’ approach which calls attention to the health implications of policy making. Her research took this model and applied it in the context of housing connecting SDGs 3 and 11. This goes beyond the national level health context to the local. For instance, in a study comparing informal settlement areas with formal settlement areas, it was found that hypertension was more prevalent in the informal area. So was HIV and diabetes. In the South African context, it was found that various disease-causing organisms and factors were more prevalent in the informal settlements. These included moulds, pests, asthmas and allergies, crowding and mental health issues. They hoped to expand the study to Cameroun. The research aimed at evaluating the need and readiness for implementing the ‘Health in all Policies’ approach within the African context to mitigate the health risks of inadequate housing.

Preliminary results so far showed that there was a data gap in the South African context, where the health impact of various housing policies was not known. There were two schools

of thought in the local governments, sectoral thinkers who wanted to keep to their organizations and intersectoral thinkers who find it important to collaborate with others. There were also issues of hard and soft approaches where the hard approach focuses on curative measures and the soft approach that went beyond that to look at other environmental factors. Another issue was the output focus of politicians as against being outcome-focused, implying the health implications of policy.

***Wrap-Up: Urban Housing – The Challenges for the Next Decade (Chair: Prof. Buor)***

Prof Buor began by asking about the housing deficit for the entire Africa. The answer was deferred. A questioner from the Academy of Science of South Africa asked Dr. Rudic about the definition of informal settlement because in the South African context, informal settlement do not come with buying land and plastering as she described. His second question was to Prof Lohnert concerning the subsidy provided for the ‘One Family One Plot’ housing project in South Africa. According to him the government had fully paid for all those houses.

Dr. Rudic answered that informal settlement is context-defined and in the Tanzania context those were informal housing. Prof. Lohnert answered that she was aware many of those houses were fully paid for. She wrapped up by saying that Ms Wiebusch had given good advice by saying that we ‘keep the money in the house’ and go back to the cooperatives. Dr. Rudic had placed emphasis on appropriate financing for informal housing. Prof. Daniel Kipkirong Tarus had mentioned that the key was good governance and not the money even though that was also important. Ms Amy Weimann spoke on the close relationship between housing and health outcome which was also very important. Prof. Buor concluded by saying that the housing issue was critical, he urged African governments and other concerned stakeholders to make adequate financing for the housing sector.

**Second Day: Wednesday, 4<sup>th</sup> July 2018**

**Fourth Session: Urban Ecosystems and Ecological Management (Chair: Prof. Volker ter Meulen, Leopoldina)**

***Urban Water and Wastewater Management (Mr. Daniel Adom, Chief Technical Advisor, Water for African Cities, UN-HABITAT, Kenya)***

Mr. Adom started by saying that upon his experiences from the previous day he had modified his slides to focus on the local level practices. He mentioned that the African water vision was an Africa where there was equitable use and management of water for poverty

alleviation, socio-economic development, regional cooperation and the environment. These included strengthening water governance, improving water wisdom, research and data gathering, meeting urgent water needs and strengthening the investment base. The African Council of Ministers on Water had a number of initiatives such as the Yamha Trust Fund, the African Water Facility, Rural Water and Sanitation Initiative, Water and Sanitation in African Cities Programme, Integrated Water Resource Management Initiative, and the African Network of Basin Organizations. The African Union had made a number of commitments in the area of water policy, but the questions remained about the impact these would have at the sub regional and national levels. For instance, there were monitoring mechanisms to check how the Sham el Sheik Declaration was being implemented. The responses had been varied, while some were doing well, others were not. At the global level, there is the New Urban Agenda which was adopted in Quito and led by the UN-Habitat.

He mentioned that the human settlement remained the focus of any water infrastructure project. In terms of policies there was the, ‘Environmental and Sustainable Urban Resilient Urban Development’. The challenges that come up in terms of implementation in the human settlement were the challenges of urban growth. The state of water in the city was one of the key determinants of the quality of life. The key urban water management issues were fragmentation of institutions, pursuit of short term goals, inflexibility, and energy use. Due to the low public revenues in developing countries, the water sector was usually supported by foreign grants and aid. He used the example of a multi-national that wanted to go into the water and sanitation sector in some African countries. After selecting some countries based on the expected rewards and estimated risks, they selected some African cities to do a detail analysis. The challenges they faced was the lack of data. The lack of data was a drawback for investors. Another concern was the uncontrolled sprawl.

Future water concerns included the increasing need for water, and lack of appreciation for the urban water system-ecosystem nexus. Opportunities from effective water management included health and wellbeing, agriculture, industry, recreation and the ecosystem. In terms of challenges, there was the issue of untreated waste water discharged into the sea. What was needed was integrated water approaches and water sensitive designs. The key considerations for integrated urban water management were the political case, innovative financing, and the promotion of a mix of technical options and data management. He also explained the urban water management transition framework which was made up of cumulative socio-political

drivers and service delivery functions which determines the state of urban water management at any point in time.

He concluded by saying that the conventional approach to urban water management was not sustainable and was failing and therefore recommended the integrated urban water management approach.

***Sustainable Urban Ecological Management in Accra, Ghana: A Mirage or Reality? (Prof. Rose Emma M. Entsua-Mensah, CSIR Ghana)***

Prof. Entsua-Mensah started by saying that she would be telling the story of Accra from an ecological point of view. She mentioned that the urban environment has three dimensions namely, the natural environment, the built environment and the socio-economic environment. There was a need to strike a balance among these. She gave a brief on Accra. Accra was generally low lying and had eight drainage channels. But the feeder streams and lagoons had all been encroached. Accra had continued to expand since the nineteenth century. This had led to many urban challenges with the poor being worse hit. It currently had 265 slums with 76 informal settlements. It currently had a population of 5 million with a growth rate of 4%. Most of the sewage treatment plants were non-functional. Other major challenges were the problem of e-waste and plastics. She said that the fishermen were now complain of fishing plastic instead of fish. Flooding was also common in Accra.

To this she offered solutions such as rain harvesting, micro storage of water, and dredging water channels. There was also the problem of air pollution. Implementation of the laws was also key. The people must be involved in decision-making. She suggested the 'Cradle to Cradle' concept which obliges industry to protect and enrich ecosystems. With this concept there was a 100% renewable energy use, water stewardship and social responsibility and material health.

***Sustainable Air Quality Management in Developing Urban Environments (Prof. Stuart Piketh, North West University, South Africa)***

Prof. Piketh started by saying that he was going to discuss air quality management in a developing environment using the case of South Africa and hoped the lessons learnt could be applied elsewhere. He mentioned that the problem of air pollution was highly localized although the principles of air quality management were universal. Poor air quality was a major source of pre-mature death on the African continent, ranked number three. The normal

way of measuring air quality was to identify the sources of pollution, put emission standards in place and implement them.

In South Africa, many of the industries didn't meet the minimum air pollution standards. Key to this was understanding the drivers of air quality. There was the ambient air quality and indoor air quality, and these were handled by two different institutions in South Africa who cooperated very little among themselves. One strategy in South Africa to achieve air quality had been to implement emissions offset projects.

The sources of air pollutions were industrial sites, urban and suburban residential areas, traffic, and the townships. Particulate matter was the biggest source of air pollution and the residential areas were the biggest polluters. Coal-fired power stations were the biggest emitters in South Africa. He revealed that it would cost the South African economy 6% of GDP to become compliant with minimum emissions levels. But this would only reduce the particulate matter in the air by 5%. The question then was if there were more effective ways of doing this.

Residential sources of pollution such as solid fuel combustion had a higher impact on health than the industrial. He used the example of a study of some four communities in South Africa where they measured air quality. Many of the poor did not have access to electricity and therefore burned solid fuels especially during winter. The percentage of particulate matter in the air varied according to income levels with poor communities having higher concentrations. This meant that different solutions were needed for the different income groups. In South Africa ambient air standards was used as proxy for in-door air quality during summer time. The difference between ambient and in-door air quality increase drastically during winter as people burned solid fuels to keep warm. Some homes at this period have in-door air quality comparable to living in a chimney. This problem was compounded by the poor solid waste management in the low-income areas where uncollected rubbish was burnt.

He concluded that tackling the residential air pollution had a bigger impact on particulate matter in the air. Every city needed its own unique solution, but much was achieved by finding solution to residential sources of air pollution.

***Interrogating the Ecosystem Health of Accra Metropolis for Human Well-Being: The Challenges and the Prospects for the Future (Prof. Alfred A. Oteng-Yeboah, University of Ghana)***

Prof. Oteng-Yeboah started by saying that the presentation was about global processes that cities like Accra in Ghana were supposed to take a cue from in the areas of ecosystem health. He presented a number of such global processes. First was the Sustainable Cities Index that concerned issues of people, the planet and profits. Then there were the targets of SDG 11 on sustainable cities and communities. Next was the Convention of Biological Diversity which emphasized the need to take care of the things that conserve life. This convention was people-centred especially the needs of rural dwellers. Another one was ICLEI, an inclusive system that brought local government issues to the point where there would be agreement. The question was whether African cities were aware of these global initiatives. He mentioned further that ICLEI was made up of 5 pathways namely, equitable and people-centred development, low emissions development, circular development, nature-based development and resilient development.

There was also the United Nations Convention to Combat Desertification which was mainly concerned with land. Next was the UN-Habitat Agenda III, which called for proper urban planning of cities. There was the United Nations Framework Convention on Climate Change which recognized the role of non-party stakeholders such as city authorities. He raised the issue of the urban tree canopy and asked why Accra didn't have an urban tree canopy. Next was the Global Covenant of Mayors for Climate Change and Energy which issued the Edmonton Declaration in 2016. The final one he presented was the African Mayors Group which recently met in Accra to compare notes. The question that remained for him was how these global processes were going to affect ecosystem wellbeing.

***Open panel session (Chair: Mr. Alfred Kwasi Opoku, President, Ghana Institution of Planners)***

Prof. Addai Mensah began by asking how urban water managers takes into consideration what goes on upstream in the rural areas where the sources of urban water supply come from. He then commented that most of the urban challenges were due to attitudes and mentalities. Prof. Songsorre was worried that there was no one present articulating the voice of the ordinary person. He also wanted to know what had changed in South Africa post-apartheid. He also doubts the capacity of the capitalist system to bring about global development. A

participant from Zambia asked about the competencies available in city governments in Africa to meet these global benchmarks. Prof. Lami from the Cameroonian Academy of Science asked about the strategies in place in Kenya to deal with urban water challenges.

Mr. Adom started by answering that under the integrated water management approach the sources of urban water supply were to be taken care of, but the challenge had been with implementation. He further answered that Nairobi had an elaborate water governance system. Dr. Sheillah added that there had been a lot of improvement in water supply in Kenya. Water governance had been decentralized to the county governments. The issue now was with maintenance such as broken pipes etc. Prof. Yeboah answered that elected representatives needed to share the information they have with their constituents for feedback.

On the next round of questions, a questioner from Nigerian Academy of Science enumerated a number of problems facing the water sector in Nigeria and wanted to know if there were such problems in Ghana. Another questioner from the South African Academy of Science wanted to know how the siting of rubbish dumps close to the townships impacted air quality. Mr. Kwabena Agyapong from the Ghana Institute of Engineers wanted to know the relationship between the academies and the political authorities and bemoaned the fact that the city authorities from the major towns in Ghana were not present. Mrs Cindy Baidoo from the Environmental Protection Agency contributed that the dumping of liquid waste into the Korle lagoon in Accra had stopped with the commissioning of a treatment plant. Dr. Ebele Mogo wanted to know which frame works best in achieving the ecosystem balance.

Mr Adom began by answering that the problems with the Nigerian water sector was similar across Africa. What was needed was improving the management system. Prof Stuart Piketh answered that the problem of siting waste dumps in the townships was a simple problem to be solved by carrying away the waste but that doesn't happen. Prof. Rose Emma M. Entsua-Mensah answered that the organizing committee reached out to the various stakeholders such the city authorities, but they didn't turn up. Prof. Yeboah answered that the global initiatives were signed by governments as parties, but city authorities were non-party stakeholders. He intimated that many African countries were into climate change issues because of the funding opportunities available there. He also mentioned the issue of a government initiative to have a green belt around Accra which was defeated by the land owners who quickly sold off their lands.

The chairman concluded by answering a question raised earlier if the city authorities were aware of those global initiatives. He said that there were attempts to breakdown illegal structures in Accra by the mayor. This was hampered by court litigations and political pressure on the mayor.

**Fifth Session: Urban Economic, Spatial Development and Livelihood Security (Chair: Prof. Jacob Songsorre, University of Ghana)**

***Sustainable Industrial Development in the Construction Sector for Urban Youth Employment Creation (Prof. George Ofori, University of Singapore)***

Prof. Ofori started by saying that the presentation was based on a research he did for the Swiss Development Office the previous year on the issue of employment in the construction sector. He stated that the construction industry played a big role in any country. It created a lot of jobs. He gave the example of the United States where a study was conducted on how many jobs could be generated in the construction sector by the investment of an additional dollar. Another study conducted in Cameroun also showed that the construction sector created more employment per a dollar invested than many other sectors. This hinges on the need to provide more infrastructure in developing countries. According to another study by the ILO employment creation could be achieved in three ways. One of them being to invest in particular sectors of the economy such as construction.

The scorecard from the Ghana Institution of Engineers painted a poor picture of the infrastructure situation in Ghana. The proportion of the youth in the population was very high and youth unemployment was equally high. There were big gaps of workforce in the construction sector in Ghana. This was a common problem in many countries. He presented the example in the United Kingdom where the Construct Youth Trust, a charity exposed young people to the opportunities in the construction sector. Another example was the Employment UK. Despite the construction industry not being popular as a preferred choice for employment, survey of people working in the construction industry show that such people were happy. He hoped that the Ghana Youth Employment Policy would be implemented to the full. He presented data showing that the construction sector pays well. He gave an example of an initiative in Ghana called 'YIEDIE' which is meant to attract people into the construction sector. He also mentioned that the Swiss government is also helping with the Ghana Skills Development Initiative III.



***Informal Markets and the City (Prof. Tebarek Lika Megento, Addis Ababa University, Ethiopia)***

Prof. Megento started by saying that in Ethiopia the informal sector was an important avenue for the poor to find jobs. The informal sector was transforming the urban economy. Globally, 1.8 billion workers were in the informal sector. Women form a large part of the informal sector. The informal sector was the foundation block of the African economy. That notwithstanding, the sector faced some challenges such as social exclusion, as it was characterized as illegal, marginal, etc. The authorities were not helping the sector by way of skill up grading, credit, etc. He reiterated the need for Africa to find home-made solutions to its problems.

The definition of the informal sector as given by the Ethiopian authorities exclude workers in the formal sector engaged in informal economic activities. The causes of the informal sector were rural-urban migration and government regulation. He emphasized the political and ethnic dimension of the informal economy in Ethiopia which was skewed to favour a particular political and ethnic group. Cheap imports especially from China was also a causal factor. He also talked of the optimistic and pessimistic views of the informal sector.

He then zeroed in on the footwear industry dominated by the Gurage ethnic group located at Merkato market in Addis Ababa. The industry was facing stiff competition from Chinese imports. That notwithstanding, they were doing well due to place capital and social capital. The strategies they used include down-sizing their business, hiring the work force, seasonal migration to the countryside to farm, etc. So long as there was too much bureaucracy, the informal sector would continue to grow because it is the 'flavour of the society'. He concluded by reemphasizing the spatial and social capital inherent in the informal economy. He also called for such informal clusters not to be relocated but rather upgraded.

***Adequate Policy Frameworks & Urban Planning Approaches (Mr. Remy Sietchiping, Lead, Regional and Metropolitan Planning, UN-HABITAT)***

Mr. Sietchiping started by saying that his role was to put a few ideas on some of the frameworks already presented. The key message in the SDGs was to leave no one behind and he would add that no space should be left behind. That means taking care of the deprived and rural areas. He emphasized that context, place and people all matter. The issue about urbanization was not new, towns had always been growing. The footprint of cities went far beyond their boundaries. So, the conceptualization of cities should be on the functional area

and not the administrative area. This makes the issue of scales very important. The question here was if Africa was ready to embrace urbanization. The UN-Habitat no longer saw urbanization as a challenge but as an opportunity to do things differently. This also concerned issues of governance, finance ie. leveraging city potentials to generate more revenue. The issue of security was also important. The SDGs were very much important for any space.

He then gave a brief on UN-Habitat which had been in existence for 40 years. They had 70 programmes in different countries. One flag programme was the New Urban Agenda. The UN-Habitat worked with a number of policy frameworks. These included Urban Policy, the International Guidelines for Urban and Territorial Planning, Public Space and Planning Principles. The New Urban Agenda required member states to have in place policies that set goals at a pre-determined point in the future. These policies had to be inclusive, transformative, and support the production of resilient cities. He opined that policy should be seen as a process and not a document and involved engaging with people, issues and opportunities. In partnership with the OECD, the UN-Habitat had put together a global report, 'The State of Urban Policy' which presented the status of where countries were in terms of their urban policies, the trends, what's working and what's not. The UN-Habitat also required frameworks that have urban-rural linkages. There was the Guiding Principles on Urban-Rural Linkages. There was also the Metro-hub that brought together the various sectors of the metropolis such as financing, governance, planning, capacity, etc. another was the Principles of Urban Planning and Design that had 5 principles. It emphasized mixed uses, adequate public spaces, adequate density, etc. He ended with the stream of planning which meant science and policy working together. They also had frameworks available from global to local.

***Panel discussion (Chair: Prof. Ralph Mills-Tetteh)***

The chairman introduced Mr. Teiko Tagoe from the Accra Metropolitan Assembly's Planning Department as another panellist in addition to the speakers. The chairman then asked the various speakers to give a summary of their presentation. Prof. Megento mentioned that he had presented on the informal economy in Ethiopia and the SDGs. Prof. Joe Addo said he had presented on the previous day at one of the breakout sessions on sustainability in our 'own words'. He believed that there was a long history of sustainability in Ghana and there was the need to appropriate that narrative. Mr. Teiko Tagoe mentioned that he had worked with the city of Accra for the past 25 years as a development planner. His work is on urban and poverty reduction activities and slum upgrading. Currently they were working in

old Accra which is the core of the city. With the assistance of UNESCO, they are embarking on the Old Accra Redevelopment Strategic Framework. Mr. Remy Sietchiping mentioned that the main goal of UN-Habitat was to help member states to find pathways for addressing the challenges of urbanization. Prof. George Ofori urged participants to read his slides but took the opportunity to acknowledge the chair who was his senior in school and had urged him to join the academy.

Prof. Takyiwaa, a fellow of the academy who had just retired from the UN Economic Commission for Africa asked about issues of curriculum in the schools preparing young people for the construction industry. She also wanted to know how the recent political changes in Ethiopia would impact the informal sector. She also asked about the issue of industrialization which she found missing in the presentation of Mr. Remy Sietchiping. Dr. Maximillian Petzold, a Consultant at PCG, Germany asked about how to ensure sustainable jobs in the construction sector. He asked further that since there is a large labour force ready to be employed in the construction sector, how were labour standards going to be maintained. Mrs Monica Wiebusch asked Prof Memento about the contestations between the formal shop owners and informal operators at the Merkato market and whether he was right in saying that the informal operators were able to compete with Chinese imports. She questioned how this was sustainable. She also raised issues with the definition of informal sector as when less than ten people were employed. Dr Francis Mwape Ndilila asked about the popular notion of lack of skills in the construction sector. Dr. Chioma from the Global Young Academy raised the issue of the need to place more emphasis on skill acquisition at the secondary school level in relation to technical education. Her second question was on whether begging which she found to be rampant in Ethiopia should be considered part of the informal economy. Prof Addai Mensah asked about how city authorities were going to improve on housing conditions without pulling down people's houses.

Prof. Ofori began by answering that, concerning sustainable jobs in the construction industry, the industry itself, along with the ILO and national governments were looking at ways through which this problem could be solved. He mentioned that many countries had strict regulation in that regard, but the issue was with implementation. On low salaries in the construction sector, he said that research findings don't support such assertions. On technical education, he mentioned that COTVET in Ghana had a career-based training approach. On the issue of the notion of lack of skilled labour in the construction, he said the issue varied from country to country and was quite complex. Mr. Remy Sietchiping answered that on

industrialization, even the best performers in Africa such as Rwanda were growing not because of industrialization so that had given impetus to the idea that Africa could come up with its own path to development not necessarily through industrialization. On not including the work of other UN agencies, he answered that he wanted to avoid the problem of misrepresenting them. Mr. Tagoe answered that the Accra city authorities had embarked on a survey to identify old houses that needed improvement and being traditional family homes, they had dialogue carefully with the families on the improvement strategies due to the cultural and emotional attachments involved. Prof. Joe Addo added that rebuilding the old city didn't always mean pulling down houses. What was needed was improvements such as sanitary and waste management services. Prof. Memento answered that on the political changes in Ethiopia, he was very optimistic. On the definition, he answered that it was specific to Ethiopia hence the need for an operational definition. On the issue of beggars, he answered that it could be seen in two ways. First of all, as a profitable business and in that sense could be considered part of the informal sector. But most of the beggars were the very poor. The chair concluded by reiterating the cultural attachment to the redevelopment of the old city.

#### **Sixth Session: Urban Health (Chair: Prof. Beate Lohnert, University of Bayreuth)**

##### ***The Challenge of Urban Health (Prof. Daniel Buor, Kwame Nkrumah University of Science and Technology, Ghana)***

Prof. Buor started by saying that health is the end of development and a true mechanism for achieving development. He mentioned that Africa's population was currently 1.2 billion with the urban population being 40.6% and expected to rise to more than 60% by 2050. Such population growth came with health challenges. Urban growth in Africa was 4.8% per year. Lagos for instance, had a current population of 21 million and could grow to become the largest city in the world in 10 years' time. He added that natural increase contributed more to urban growth than migration. Most of the urban growth was taking place in west, middle and east Africa. There was the issue of urban primacy where one urban area was far larger than the other urban areas in the country. This put a lot of stress on scarce resources.

He defined urban health as the determinants of diseases within the urban context. He stated that African cities were besieged with diseases resulting from poverty, ignorance, environmental degradation, pollution, congestion and overcrowding, ethnic and political violence, etc. Most of these are preventable. The top causes of death in Africa were lower

respiratory tract infections, HIV-AIDS, diarrhoea and heart disease. Mental health issues were also on the rise. Poverty was a key issue here and needed addressing. Pragmatic solutions were needed to stem the tide. Pollution in the form of air, water, sound and on land were also key contributors. There was overcrowding even in the hospitals. About 42% of health facilities lack potable water supply. Life style changes such as smoking, consumption of junk and fast foods. There were also issues of changes in traditional values such as sexual promiscuity. Climate change also impacted on diseases such as malaria and diarrhoea. Housing conditions were also poor. Traffic congestions were rampant. Crime was also on the increase. There was also the problem of state-sponsored violence. He advocated for the adoption of the African Urban Agenda, good urban governance, proper planning, enforcement of sanitation laws. There was also the need to emphasize preventive health and rural industrialization was needed to stem the tide of migration. He concluded by advocating for collaboration among local and international researchers.

***The Healthy African City (Dr Ebele Mogo, ERIM Consulting)***

Dr. Mogo started by saying that health was very central to the conversation on sustainable cities. Urbanization when not well planned led to a lot of social and economic vulnerabilities which would impact on people's wellbeing. She mentioned that injuries were a leading cause of death in Africa. Her presentation was based on her doctoral thesis which asked about the place of health in the city. The study involved looking at key government archives, the Lagos State Development Plan, the budget, government statistic, the manifesto of the mayor, etc. It also involved looking at the built environment ie. factors that might complicate health outcomes.

The findings included the fact the planning was reactive rather than being proactive. In terms of the built environment, there was physical disorder, poor power supply, waste management, road infrastructure and governance. In terms of signage, there were signs that promoted or impinged on health such as road signs, political campaign signs, commercial adverts. The signs that promoted health like the road signs were few. There were not enough sidewalks, street lights, etc. Maintenance of the infrastructure was another challenge. Community transport services were also poor. In the high-income areas there were many private signs, private security and high electric generator noise. In the low-income areas there was more social interaction among the people. Also, non-health professionals saw little connection between their work and health.

She concluded that when health was not central to development, inequities could be aggravated. There was therefore the need for inter-sectoral and multi-level action, which should include more public participation in policy-making. Equity should be core of government policy. She also called for the gap between research and policy to be closed.

***Question and Answer Session (Chair: Prof. Beate Lohnert)***

Mrs Cindy Baidoo from the Environmental Protection Agency wanted the presenters to include a recommendation on prioritizing access to mental health care in Africa. She also wanted to know the gender breakdown in terms of mental health case. A representative from the Ghana National Fire Service wanted to know how the problem of emissions from the increasing number of vehicles on the road was being addressed. Prof. Songsorre commented that despite the health challenges in the cities, the urban areas were better than the rural areas. So, he wanted the presenters to have placed more emphasis on inequalities in the city.

Prof. Buor answered that the emphasis on the city is because going forward there was going to be more people living in the cities. He added that there was a need to redesign transport systems in the city. There was also the need to have more green areas in the city. Dr. Mogo agreed with the need to prioritize access to mental health care. She didn't have data on the gender breakdown in mental health cases.

On the second round of questions, Dr. Patrick Cobbinah from Kwame Nkrumah University of Science and Technology wanted to know what then the healthy African city was. A representative from Stanbic Bank reemphasized the need to prioritize poverty reduction. Prof Lohnert wanted to know how a healthy city looked like.

Dr. Mogo answered that health is not just about cure but also the context in which people live in and go about their normal lives. In talking about the healthy city, there was the need to look at the environment. This would involve the different sectors working together.

**Seventh Session: Urban Food Security and Livelihood Issues (Chair: Prof. Jacob Songsorre)**

***The Challenge of Food and Nutrition Security and Agriculture in Africa (Prof. Sheryl Hendriks, University of Pretoria, South Africa)***

Prof. Hendriks started by saying that the presentation was based on a publication by NASAC and IAP that looked at food security and agriculture in Africa. The study was about how science could support evidence-based policy-making to transform African agriculture and

food systems. The study used an integrated approach that looked at the food system from production through consumption to the issue of waste in terms of how it affected livelihoods and diets. The report is framed in SDG 2 which deals with ending hunger, reducing food insecurity, improving nutrition and providing sustainable agriculture. Complimenting that was the African Agenda 2063 especially the Malabo Declaration on the agricultural growth agenda. The challenge for the study was how to provide the world's population with sustainable and secure supply of safe, nutritious and affordable food that was of high quality, produced on least land, and with lower inputs, all within the context of global climate change and degrading natural resources. There was also the issue of the number of producers reducing while the number of consumers increase. Another issue was stability, as tensions rose with the degrading of natural resource.

She noted that Africa is the only continent that has had famine since the 1965 famine in China. There were three famine zones in Africa with 29 of the 54 African countries needing external food assistance. Food security and nutrition was a continuum of experiences from malnutrition to obesity. From the four regional reports, the problems were similar, meaning that it was possible to learn from each other. Though progress had been made, Africa is still fragile in terms of food supply. There was need for large scale interventions. The growing youth bulge was likely to compound the problem. This requires good healthcare particularly for children. As poverty dropped food prices were also rising. She reiterated what much makes a sustainable diet was not known and that it could be culture related.

In terms of the Africa report, the first component was how to reduce risks i.e. shortages, contamination, etc. Managing the demand for food was one topical issue in all the reports. This raised questions on how public policy could be used to shape the diet of people, reduce food wastes and how to increase the shelf life of food. There was also the need to improve urban food governance. There was need for investments in the rural areas where the food comes from and product diversification. This could throw up livelihood opportunities for urban dwellers. Preserving indigenous preservation technologies was also crucial. Incentives were needed to make people not to use plastic packaging. Cold storage and refrigeration also needed to be made accessible. Epidemiological studies were also needed to ascertain the effects of microbes on food. The report ended on a positive note that science and technology can transform African food systems and make them sustainable.

***The Challenge of Food and Nutrition Security and Agriculture in Africa (Prof. Axel Drescher, Institute of Geography, University of Erlangen-Nuremberg, Germany)***

Prof. Drexel began with an aerial view of Frankfurt that showed a large area made up of Schreber Gärten (allotment gardens). He said that after the second world war, a lot of people in Germany had small gardens all over the cities to grow food. Many people also do that in African cities. For some people urban agriculture is a livelihood. Urban agriculture can contribute to urban food security. He argued that even though SDG 2 is on food, the issue of food was not emphasized enough in the SDGs report. Another interesting point was that while the SDG 2 on food didn't have 'urban' mentioned in it, the SDG 11 on cities also didn't have 'food' mentioned. There was the lack of a linkage between the two SDGs. Having food systems on the urban agenda required planning. Urban agriculture in Africa was a reality and a necessity and policy makers needed to support it and not restrict it. A study that links urban agriculture to household livelihood security talks of two pillars namely improved access to food products and increased household incomes. He however disputed the outcomes of the study which said that there was no evidence that urban agriculture contributed to food security in low and middle-income countries. He disputed the fact that it was a comprehensive study.

To him, the problem of the mismatch between urban governance and urban agriculture was due to institutional confusion. The institutions were not working together. There was a need to create urban development platforms that would take the SDGs to the ground and make it their own. Urban agriculture was more than food production, it has to do with communities and daily lives, ecosystem services, etc. he concluded that there was the need to take urban agriculture out of the poverty trap into the normality.

***Agriculture in an Urban Society; Social Challenges and Implications (Ms Maren Wesselow, Carl von Ossietzky University, Oldenburg, Germany)***

Ms Wesselow started by introducing herself as coming from the University of Oldenburg and working on a project called ECOSOLA (Ecosystem based-solution for resilient urban agriculture) in Germany. She mentioned that they had two study sites in Dar es Salaam, Tanzania and the Western Cape in South Africa. The research started in the previous year. She defined urban agriculture as 'agriculture taking place in inter-urban areas or in peri-urban areas of cities'. Urban agriculture tended to be smaller, scattered, more flexible and more adaptive and more integrated with non-agricultural activities than rural agriculture. Urban agriculture also took place in a social urban surrounding where there were diverse and



changing social institutions. This also included social resilience. This could be challenging in urban areas where there was social fragmentation despite being a melting pot of social interaction. This raises the problem of trust which is important for urban agriculture. Urban agriculture was more individualized than rural agriculture. There were integrated livelihood activities prevalent in the urban area such that people did not easily identify themselves as farmers which was necessary to build networks.

She used the case study of farmer group in George in South Africa. It was a loose network of farmers of about 200 but with a core of 20 members. They came from diverse backgrounds. Their goal was to diversify and improve their nutrition. They had regular demonstrations on the yards of members. They aspired to a philosophy of working without money as it reduces the prevalence of conflicts. They had signs they communicated in. They had champions who led the group in the different parts of the town. They bartered their products for seeds and aimed at being independent from financial help. They also adopted ecological approaches and had a debating culture. She concluded that non-monetary forms of support were key to build resilience.

***The Role of Urban Agriculture and Ecosystem Services for the Development of African Cities Dr. Maximilian Petzold (Planungsgruppe Grün, Germany)***

Dr. Petzold started by saying that he is also involved in the ECOSOLA project dealing with ecosystem services and urban agriculture and how these contributed to the sustainable development of urban areas with focus on Dar es Salaam. The pace of urban growth in Africa exceeded the capacity of the planning authorities leading to informality. Hence, the benefits of ecosystem services were not properly considered. Ecosystem services were the benefits humans derived from nature. He described ecosystem services as provisioning, regulating and cultural ecosystem services. Even though ecosystem services were highly demanded in the urban area the capacity of urban areas to produce them were low. This led to the high dependency on rural areas for the provision of ecosystem services. This notwithstanding, there was a huge potential for urban areas to provide ecosystem services. When this potential was harnessed, it would contribute to sustainable urban development.

One such potential was urban agriculture as it could provide economic and social benefits. Despite the potential, urban agriculture in Africa faced many challenges. In many cities it was not legally recognized leading to issues of high insecurity of land use. There was the problem of pollution from the urban area and urban agriculture itself could also be polluting. He

mentioned that the aim of their study was to develop an urban planning process and to investigate the preferences of residents on the different land uses. This would lead to a landscape plan for the study area and guidelines for planning. Dar es Salaam is dependent on the rural areas all over the country for its ecosystem service needs. The project area was located north of Dar es Salaam. The first task was to collect the background data. After the data was collected, goals were developed. The current stage was working on the draft plan. The preliminary findings were that the habitats consisted of bushlands, grasslands, temporary streams and gullies. Stakeholders in the area highly valued the ecosystem services. They were also able to draw the linkages between the ecosystem and the services. In the plan they intend to build small dams where the gullies were and set up woodlots to provide firewood.

He concluded that for sustainable urban development, there was a need to review planning strategies and ecosystem services-based planning approach provided one means to do this. The challenge has been to gain acceptance from the planning professionals as they were not conversant with it.

***Panel Discussion (Chair: Prof. George Ofori)***

Mrs Monica Wiebusch added that 20% of the area of Frankfurt was used for agriculture and it was interesting because Frankfurt is known as a financial hub. On the study that concluded that urban agriculture had no links with sustainable urban development, she referred to a study by the ILO that showed that Havana, Cuba had the healthiest workers and that was due to how they do urban agriculture. Prof. Babatunde called for the interrogation of received knowledge such as the old urban planning approaches which did not make room for urban agriculture. He wondered why state-acquired land not been utilized was not diverted for urban agriculture. He raised issue with the quality of waste water used for urban agriculture. Another contributor recommended a PhD study on urban agriculture in Berlin. She also wanted to know how green spaces were incorporated into urban planning for the purposes of harnessing ecosystem services. Another questioner wanted to know if mosquitoes could breed on the leaves of maize.

Prof. Drescher began by answering that he was not sure of 20% of Frankfurt being used for agriculture but he knew much of the food for Frankfurt came from its region. On the study that concluded that there was no linkage between urban agriculture and urban sustainability, he answered that he reviewed that paper and had questioned their use of certain terminologies, but the authors had responded that their study was small scale. He debunked

the assertion that mosquitoes breed on maize as studies had proved that there was no evidence of urban agriculture contributing to malaria. On the issue of interrogating received knowledge, Ms Wesselow answered that though she was not an urban planner, one had to look at what was doable. Dr. Petzold added that urban planning in African cities was complex with colonial planning schemes. He recommended new approaches such as community-based planning. On the issue of the health achievements in Cuba, Prof. Hendriks answered that the health success of Cuba could not be narrowed down to urban agriculture alone. On integrating ecosystem services into development planning, Dr. Petzold answered that the people should determine which ecosystem services they needed and where they can be found. This called for an understanding of what ecosystem services were.

On the second round of questions, Dr. Christiane Diehl from Leopoldina asked how science, technology and innovation could help fast growing African cities to maintain agricultural land for urban agriculture. A participant from Zambia asked about the international policy on urban agriculture. He was also concerned about theft and post-harvest losses in urban agriculture. Mr. Denis Quarcoe from the Land Use and Spatial Planning Authority wanted to know if the urban gardens under electricity pylons had health implications for the people. He also wanted to know if landscaped areas could not be better used for urban agriculture.

Prof. Hendriks began by answering by referring to different countries where communities were taking over control over their food systems and they offered lessons on how Africa could capture back control of its food system. International policy was moving towards food systems and how food systems could be understood in a globalizing world. Many African countries were net food importers hence dependant on other countries to meet their food needs. Also, other countries were investing in Africa to secure their food needs. There were transformations going on in the agriculture sector in Africa, but not fast enough to generate the needed jobs. A more systematic strategy of agricultural development was needed.

In rounding up, Prof. Drescher shared that he believed that there was a lot to be learnt from the German urban agricultural system. Ms Wesselow shared that there were no ready-made solutions but rather processes. Prof. Hendriks reminded participants not to forget to put food pathways on their urban agenda. Dr. Petzold added that ecosystem-based planning was one way of making cities liveable. The chair concluded by saying that there was the need to interrogate received knowledge.

**Third Day: 6<sup>th</sup> July 2018**

**Eight Session: Disaster Preparedness and Management in the African Context and Climate Change Adaptation (CCA) (Chair: Prof. Elizabeth Ardayfio-Schandorf)**

*Understanding and Addressing the full spectrum of Urban Risks (Dr. Emmanuel Osuteye, University College of London)*

Dr. Osuteye started by saying that he had tweaked his presentation to focus on small scale risk in informal settlements without losing focus on the full spectrum. The presentation was based on a project funded by the British government. It focused on 9 cities in 6 countries in Africa. It looked at the spectrum of risks and how risk accumulation occurs and how risk accumulation cycles can be broken. The goal was to see how researchers on Africa could build a bottom-up view of risk, how it can be understood and what can be done about it. The examples used in the presentation were from Karonga, Malawi and Freetown, Sierra Leone. Risk evokes the idea of the likelihood of a disaster happening. It is conceptualized as hazards interacting with vulnerabilities, and a lack of coping capacity of people. When these factors are high risks are high. The focus on urban areas was because risks accumulate faster in urban areas than rural areas. The cumulative effect is what makes the city vulnerable. There is an unequal exposure of how risks happen. The frameworks in dealing with risks are very centralized in Africa as decentralized processes don't work. In all of this, it is the urban poor who suffer most.

He mentioned that disaster could be looked at in three broad categories; the large-scale and intensive, small-scale and the everyday. There are also issues of risk traps. There are issues of how cities are built and how that induces risks. The entire riskscape had to be considered and research questions developed that interrogate the interaction of hazard and vulnerabilities and the actors and relationships involved. This would reveal the current development practices in place. There was a need to think of alternative practices. What was needed was a disaggregate grassroots view of the factors shaping these practices. In Freetown some of the coastal areas were being reclaimed, this led to floods during the rainy season.

He added further that his institute beyond the research write four-page policy briefs which was circulated to city authorities. Multi-stakeholder engagements were needed in the research and research dissemination. There were alternative and innovative approaches to assessing urban risks which worked very well at the local level. An example at UCL was the 'Remap risk' which is a community-based tool. In Karonga, the risk density was concentrated in the

city centre. He concluded that the use of visual tools like maps was also effective in eliciting the interest of people.

*African Coastal Cities: On the Frontline in the Anthropocene (Prof. Bruce Glavovic, Massey University, New Zealand)*

Prof. Glavovic started by saying that he was born in Harare and grew up in South Africa. He wanted to share on the significance of coasts in the urbanization of Africa. He said that many people in Africa had their backs to the coast with only a few making a living off the coast. The coast was incredibly productive, spatially confined and susceptible to over-exploitation. The coast was a shared public space and a meeting place of land and sea, people, etc. The coastal areas were each unique but shared a lot in common. Most major cities in Africa were located along the coast. The future of cities in Africa was dependent on how the challenges that faced coastal cities was navigated.

According to him, the Anthropocene referred to the era of humans dominating the globe. This was manifested in for instance in the issue of global warming which has resulted in rising sea levels. In the future, biggest cities would be in Africa and Asia. This raised the issue of the coastal squeeze as more and more people lived in coastal cities. Sea level rise would continue to pose a challenge going into the future. Africa among the different continents had least exploited the potential of its coastal economy albeit the recent exploitation by foreigners. Governance approaches had to be framed in a way that took account of these issues. Coastal hazard risk was socially constructed and had become the dominant discourse in recent times. These issues affected human development because the underlying political, economic, cultural issues were not addressed. It is in the context of building the enabling environment that human development was fostered.

He added further that there was an important and complex relationship between risk, resilience and sustainability. The unsustainable pattern of development itself was resilient to change. The status quo resisted change. The issue was not choosing between bottom up approaches but how to bring the two together in a meaningful way. The question was on how to reconcile the technical and formal with the informal and disruptive. He argued further that in the long-term, protective approaches such sea defences would be rendered useless. There was a need for transformative approaches such as getting off the addiction to fossil fuels and other patterns of unsustainable and inequitable forms of development.

He mentioned an example of such an initiative as the ‘Future of Coasts’ which was a network of researchers. It had the ‘Our Coastal Futures Strategy’ which worked at the regional scale. He averred that the regional level as well as the community level work was important. There was the need to understand the community and the riskscape, deciding on short term actions and adaptations. Defining what the community was key in this process. Difficult decisions had to be made as there was going to be losers and winners. There was a range of decision tools available, but the challenge remained political. He concluded that the role for the African science academies was to create safe spaces for ‘rogue science’.

***Urban Development, Climate Change and Disaster Management Nexus in Africa (Prof. Babatunde Agbola, University of Ibadan, Nigeria)***

Prof. Agbola started by saying the current planning approaches in African cities would lead to disaster. He mentioned that the presentation was anchored on cause and effect. Many a time, the perception of cause and effect were not as people perceived them. Effects could only be traced to the causes when they occurred. Disasters were not random incidents, they didn’t just occur. They were things that could be planned for. Disaster could be natural or human induced. Disaster risk management concerned mitigation, protection and adaptation. These were about modifying the human vulnerability. Disaster risk management included accepting the risk, avoiding the risk, transferring the risk, reducing the risk, etc. A typical disaster risk management would involve procedures, practices, responsibilities, etc. He asked about how the concepts of smart city, green city, sustainable city fitted into the African context. These concepts needed to be interrogated. Cities could only be sustainable if the life support system on which they relied on were resilient. He concluded that the urban poor must be the business of everyone. Africa was the most prone to disaster but the least equipped and that governance was key in changing this.

***Q&A session (Chair; Prof. Elizabeth Ardayfio-Schandorf)***

The chair urged participants to come up with solutions to the problems raised in the presentations which could be recommended to policy makers. Ms Amy Weimann was concerned about the fact that the prevalence of some disease was a normality for some, she wanted to know if the media could be brought in to help with information dissemination. Prof Lohnert commented that all the presentations had talked about vulnerability and central to that was coping mechanism. The poor were sometimes engaged in coping strategies that were harmful in the long run and that should be noted. Prof. Krüger questioned the conceptualization of risk as a function of hazards. He opined that such a notion affected the

ability of people to adequately assess hazards. He also questioned the conceptualization of community, he argued that such a concept did not exist in reality. Mr. Emmanuel Mensah wondered if regional bodies like ECOWAS could play a role in disaster management. He also thought the telecom companies could be used as an early warning mechanism for disasters. Mrs Cindy Baidoo wanted to know the gender break down in the urban disaster risk studies done by Dr. Osuteye. Dr. Mogo asked about the role of the private sector and indigenous knowledge systems in disaster risk management. Prof Buor wanted to know what scholars are doing to develop models that deals with the period before disasters.

Prof. Glavovic began by answering that there was a critical role for the media and the private sector as well as other stakeholders. On the concepts used, he opined that the value of concepts was that they create spaces for debate. Dr. Osuteye also agreed that the media had an important role to play. On the concept of community, he differed from the opinion expressed by Prof. Krüger, he thought community existed. On risk, he answered that the focus had shifted from calculating risks to people's experiences of risk which he found to be a powerful tool. On the gender breakdown, he answered the experiences of the different genders varied. Prof. Babatunde answered that sometimes people fail to heed to early warning systems.

On closing comments, Prof. Glavovic shared that the perception of risk needed to be opened to alternative frames. Dr. Osuteye urged that the conversations needed to continue, and the small and everyday risks should feature in the discussions. Prof. Babatunde called for re-education and the interrogation of received knowledge. The chair concluded that the discussions should continue to find ways the academies could contribute to building sustainable cities.

***Innovative Framings of the African City (Chair: Dr. Christiane Diehl, Deputy Director, International Relations, Leopoldina)***

The chair started by saying that there would be opportunities in the last session for participants during the discussions to make contributions they had not had the opportunity to make. She also announced some amendments to the programme.

***Making Science, Technology and Innovation Work for Sustainable Development of Africa (Dr Peggy Oti-Boateng, UNESCO, Zimbabwe)***

Dr. Oti-Boateng started by saying that the presentation was a summation and the way forward for the conference. What she felt had not be dealt with so far in the conference was how to

make science and technology work for Africa as academies of science. She introduced herself as the Regional Science Advisor of UNESCO for Africa. according to her, Africa was not doing well in terms of science and technology. Africa needed to build partnerships that would be win-win. Africa should not only be a recipient of science and technology. For the first time, Africa was part of the process of formulating the SDGs. The SDGs were based on four Ps; the planet, people, peace and partnership. Ghana was also actively involved. Africa had its own vision before the SDGs, that was 'Africa 2063' which was formulated in 2013. She argued that the SDG 9 on science, technology and innovation drives the whole process. SDGs1 to 6 were the unfinished business of the MDGs. The African Union had a vision of prosperity for all and that no one should be left behind.

The potential of our natural and human resources had to be harnessed. What was needed was science, technology and innovation to add value to the human resource to make it human capital. But many African countries were not investing in science and technology. There were deficits in the high-end skills like engineering. This vary across Africa with anglophone West Africa doing better than the others. Higher education was not robust. The academies could drive this process. She argued that there was a correlation between science, technology and innovation and economic growth and development. The African Union wanted 1% of GDP dedicated to science, technology and innovation and only South Africa which had achieved this. Africa was not partaking in the fourth industrial revolution. There were 167 targets under the SDGs and come 2030 most African countries would not have achieved because of lack of commitment to science and technology. There was the need to work together from all levels. She added that investments in science and technology should be based on ethics.

Some of the science and technology and innovations for sustainable cities were policies, capacity building, renewable energy, small islands development states, freshwater, sustainable cities, geodiversity, climate change, gender equality, etc. She revealed there were funds available for climate change programmes in the Green Climate Fund. The academies had to be the think tanks to bring the other constituents together. She mentioned again that African countries had developed TESAC 2024. The gender dimension was also key in the discussion. Big data was also needed to inform policy. There was the need to also look at ecotourism, youth empowerment, curriculum development and monitoring and evaluation, and a synergy of actors. All these needs to be communicated well. She concluded that sustainable development of cities needed to be integrated into the other SDGs.



*Makin Africa Urban; Africanizing Global Urban theory (Prof. Jenny Robinson, University College London, UK)*

Prof. Robinson started by asking what a good relationship between research and policy was. She enumerated some urban challenges and concluded that many of these problems lied with governance, politics, power relations. So far in the conference there had been a lack of focus on global processes because Africa was shaped by global processes. She asked how the multiple processes shaping Africa could be matched. The insights of African urban scholars have been occluded from the urban discourse. She opined that Africa was not incomparable. She asked about the relevance of theories fashioned from elsewhere to Africa. She also queried if ideas had to be transformed on the basis of learning from Africa. she mentioned that there was a strong repertoire in African urban studies that pointed to the fact that the urban was just not in a physical territory but that urbanization processes were spatially very extensive. There was therefore the need to draw in distinctive thinking of wider conceptualization of urban circuits. What could we learn from the different instantiations of urbanization, she asked.

There were also features of cities that don't 'travel' like gentrification. There was the need to think across these features to learn more about our context. What could be learnt from each other in a much loser way. There was the need to build urban concepts and understanding from policy work. But these had their limits. These separate processes worked together and were not isolated. What do we do with large scale investments, she queried. There were the sceptics but not much studies had been done in this area. On issues of rights to the city, she asked how they had been understood elsewhere.

She concluded that there was the need to think outside the normative three-tier government structure, and to think about the way in which projects were assembled. The wide range of actors who had to negotiate and benefit from development. Development shouldn't just be written off as a waste of resources but there was a need to look a bit more closely at what they mean. For instance, in Shanghai there was upgrade investments in infrastructure from which the government then reaped tax returns. In the London case the returns that investors could make were capped as these could lead to some perverse urban outcomes. Johannesburg had a blend of property taxes no matter where you invest in the city. There were a lot of key actors who were not being researched on. There was the need to focus research on the emerging urban issues such as large-scale infrastructure developments and on this there was the possibility of learning from the differing contexts.

***Modelling future cities on-going and upcoming JRC (Ms Ineh Vandecasteele, European Commission Joint Research Centre)***

Ms Vandecasteele started by saying that learning from policy was not enough, policy should also learn from us. The work of her centre was to give the European Union scientific evidence for policy-making. They also worked in various parts of the world. There was a project on Africa where they provided data support and tools. They also wrote policy briefs on urban issues. From next year they were going into some cities in Europe and possibly some African cities. The tools they used were satellite images. They also had a land-use model which was used to look at possible futures. For instance, how would cities or agriculture develop and what that would mean and how this could be optimized. In 2012 there was a project on safeguarding Europe's waters and the retention of water potentials. Such an exercise helped one to know what measures could be applied in which place. Another example was another project that looked at the compaction of cities and how that would affect air quality. There was work also done on shale gas exploitation in Poland and how it would impact land use and impact on water and water use. Another example was the impact of energy crops. The analysis was done by looking at several indicators. All the works done so far were available online on the urban data platform. This was being applied to the African case at 100m resolution starting from 1km. There was already a baseline available and working was on-going in building baseline scenarios. She concluded that data was available for use with the intention of building a community of practice.

***Panel discussion (Chair: Prof. Krüger, University of Erlangen-Nuremberg, Germany)***

The chair started by saying that from the discussions, he realized a growing disjunction between global urban framings and local situational temporal challenges in the city. Starting with Prof. Robinson, he asked if she believed that the global framings allow for a thinking without growth and if such framings shouldn't be abandoned. She answered by saying that there have been attempts to bring on-board more voices onto these global discussions such as city authorities, African governments and therefore would not completely agree with such assertions. The useful point here she thought was not to give a set of prescriptions as if they were set in stone. This emphasized the need for evidence-based global policy making. Prof. Lohnert added that the scientific community had a role to play on being the link between research and policy making by reviewing the research dissemination strategies. The role of the media was also critical. Dr. Oti-Boateng added that it was important to think globally but act locally because we didn't live in isolation. There was no need to reinvent the wheel as

there was need to leap frog. This could be done if we thought and looked globally. We also needed to appreciate that a lot of the local issues would depend on good governance. Mrs Adodoo from the Ghana Institute of Architects added that beyond the academics, there was the need to understand how local contexts work. Ms Vandecasteele added that coming from the background of the question raised earlier about what Africa was doing, she believed that Africa had a lot to add by way of its experiences. Africa had a lot to contribute to the global discussion.

Prof. Krüger probed further by asking, if the average town planner bucked down with the challenges of addressing the pressing needs of his city consider the SDGs in his everyday work. Mrs Adodoo began answering by saying that she didn't think the planner would have the SDGs in mind every day. She went on to say that she thought professionals in the built environment in Ghana had failed the country because development was preceding planning. For instance, she thought there was the need to work towards changing the pattern of traffic moving in only one direction at peak times. Prof. Robinson added that the SDGs were rolled out at a time that the urban area was under so much assault from many forces. This called for working together to overcome those challenges. Prof. Lohnert added that though the planner may not have the SDGs in minds on a daily basis, his work by its nature - if done according to his mission and allowed by the policy - was focused on achieving the SDGs as he worked to improve urban live. Dr. Oti-Boateng added that the SDGs had to be internalized. For instance, the African countries had decided to prioritize seven of them which were interrelated to the African aspiration.

The chair then invited the audience to join in the discussion. A contributor raised issue with Africa been described as if it was one country or a homogenous entity. She thought there was the need to go beyond the general Africa models to the different sub regions and countries. Prof. Addae Mensah wanted to know if the UN took Prof Jeffrey Sachs' advice to have more scientists than economists on the discussion on the formulation of the SDGs. He also shared on the promotional activities of the Ghana Academy of Arts and Science on the SDGs. He called for a more optimistic outlook on what was being done. A contributor took issue with an earlier suggestion of the planning capacity in Africa. He was of the view that there planning capacity was low taking Ghana as an example in terms of personnel and competencies. He called on the academy to help push for more planners into the system.

Dr. Oti-Boateng began answering by saying that she agreed on the need to have more scientists at such global decision-making level, but the onus was on member states to propose for such changes. She agreed with the earlier contribution of inadequate capacity in Africa. She lamented the low representation of Africans in the UN system. She urged that Africa needed to place its people strategically into such places. There was also the problem of inadequate data. On the issue of inadequate capacity in Africa, Prof. Lohnert still held to the position that the knowledge existed in Africa despite the low personnel numbers. So, what was needed was the governance framework that enabled such knowledge to be used. Ms Vandecasteele responded on the issue of referring to Africa as a homogenous entity. She agreed to the contributor's assertion but was of the view that in the search for solutions, looking for commonalities was critical. Prof. Robinson agreed to these assertions and added that looking at the issue from the point of transnational territorial approaches revealed a lot of agile actors who were shaping these local processes. Mrs Adodoo added that the academy needed to champion the collaboration between research and policy by bringing together the professional groups in the built environment to set the agenda.

Dr. Eugenia Date-Baah added that Ghana was quite advanced in domesticating the SDGs by translating them to the local level such as meeting market women and translating the goals into the local languages. She wanted to know why Dr. Oti-Boateng left out 'prosperity' from the 5Ps associated with the SDGs. She also added that despite the commonalities, there were unique things about the African situation for instance talking about the African worker, one such distinction was the level of social interaction. She wanted to know if social interaction was something important in studying the African urban context. Another contributor reemphasized the need to contextualize the issues raised to suit the varying local contexts. He wanted planning authorities to enforce planning regulation and at the same time find innovate means to solve urban problems. He also called for more engagements with the media on these issues.

Dr. Oti-Boateng was happy about what was happening on the SDGs in Ghana. On the 5Ps, she answered that she was referring to UNESCO's 4Ps. More also needed to be done in the area of communication and advocacy. Prof. Robinson urged that the discourse should not stop at the point of differentiating the African city but go to inform a new thinking about the urban area. The chair concluded by saying that there was the need to internalize policies, and a close look at how everyday living in the city was processed.

## **Presentation of Conference Draft Communiqué (Benedict Arko)**

Attached as appendix

## **Vote of Thanks and Close of the Conference**

The MC asked for participants to make inputs into the communiqué for its finalization within two weeks. On behalf of both the international and local planning committees for the conference he expressed gratitude for support received from the National Academy of Science of Germany, Leopoldina. He singled out Prof ter Meulen for his commitment. He also expressed gratitude to the Network of African Science Academies (NASAC) for their support. Next to be commended was the Academy of Science of South Africa. The Federal Ministry of Education and Research of Germany was also commended for their support. Final thanks went to the Ghana Academy of Arts and Science. He was also grateful to those who had made financial contributions towards the conference; the Ministry of Environment, Science and Technology and Innovation, Ministry of Water Resources, Works and Housing, Energy Commission, Council for Scientific and Industrial Research, and the Architects Registration Council. Other private individuals and organizations that supported included Sutherland and Sutherland, an architectural firm; S. Tetteh and Associates, another architectural firm; Multicard Consultancies, McDann Building Interiors, Ghana Institute of Architects, and GTZ. He also thanked the presenters, chairpersons and moderators and everyone who took part in the conference. He also thanked God for the good weather.

Dr. Christiane Diehl added that funding for the conference came from the Federal Ministry of Education and Research of Germany. She also expressed gratitude to the media present from African News Network and Sidednet. The conference had appeared in a number of newspapers the previous day and also in the online news. She made presentations to Prof. Wellington, Mr. Francis Ankrah and Deborah on behalf of the staff of the Ghana Academy of Arts and Science. This was followed by announcements from the MC. The MC then invited Prof. Elizabeth Ardayfio-Schandorf to give the closing prayer. The conference came to a close after the prayer.

## **APPENDIX**

### **COMMUNIQUE ISSUED AT THE END OF THE CONFERENCE ON SUSTAINABLE AFRICAN CITIES HELD IN ACCRA FROM 3<sup>RD</sup> TO 6<sup>TH</sup> JULY 2018.**

#### **Preamble**

We, the participants of the conference held under the theme, ‘Sustainable African Cities; Debating Current Challenges and Exploring Future Pathways’ in Accra from 3<sup>rd</sup> to 6<sup>th</sup> July 2018, jointly organized by the Ghana Academy Of Arts And Sciences, Leopoldina National Academy Of Sciences, Network Of African Science Academies And Academy Of Science Of South Africa consisting of academics and practitioners in the subject area from fourteen countries around the world, deliberated on the issue for the past three days through presentations, group break-outs and discussions. We are ever more aware of the enormous challenges that confront urbanization in Africa, the linkages between urban and rural areas, the potential inherent in urban areas as well as the progress made so far at managing urbanization.

#### **Issues of concern**

Some of the key issues discussed were: sustainable urban housing, urban ecosystems and ecological management, urban economic and spatial management, livelihood security, urban health and health equity, disaster preparedness, risk management, resilience and climate change adaptation. Drawing inspiration from the Sustainable Development Goal 11 on sustainable cities and communities and the imperative to ‘leave no one behind’, we are convinced of the need to interrogate received knowledge on the issue and the need for home-grown solutions compatible with the socio-cultural aspirations of the people. We would like to address the following concerns to governments, local governments, practitioners, academics and indeed everyone concerned with the sustainable management of African cities.

#### **Key considerations**

##### **1) The people must be the centre**

In the light of competing interests for dominance in the African urban space, the need to prioritize the welfare of the general population is paramount. Key to this includes; policy strategies that would secure the health of urban dwellers, provide food sufficiency, adequate housing, efficient transport system, security and decent employment. A good balance is needed between the profit motive of businesses both foreign and local, and the health and

wellbeing of all people to address the inequities that exist in the African city. A focus on prevention and promoting health and wellbeing in the contexts where people live, work, play and pray is critical. This will include collecting data on the social determinants of urban health, breaking down the data to unveil and act on inequities and mapping these data to services such as waste management and physical and social aspects of the urban built environment. Preventive health measures such as proper waste management, awareness creation on physical and mental health and lifestyle changes would ameliorate the burden placed on curative healthcare. There is need to investigate key intersections between the environment, health and economic challenges particularly exploring the role of the urban poor in value creation and incentives to encourage eco-friendly investments in issues affecting the health of the urban poor – waste management, transportation, electricity, housing, for example.

## **2) Colonial understandings of the city must be interrogated and modified**

There is a need also to revisit the issue of land tenure reforms and colonial era planning approaches that are out of touch with the current realities of the African city, especially in the professional development of future urban planners. This would go a long way in mitigating the housing challenges faced by many African cities as well as making room for productive urban agriculture and the benefits drawn from other ecosystem services. Alternative investment options available for putting in place efficient and reliable transport systems need to be looked into as alternatives to urban sprawl as well. The water storage systems both at the household and city level as one of the means to check flooding in the cities, also needs to be looked into. The need to create decent employment opportunities cannot be overemphasized. Apprenticeship programmes to equip young people with requisite skills needed in the job market are needed. Labour-intensive construction approaches are known to be one of the sectors that create more jobs per dollar invested.

## **There is need for research co-production between scholars and leaders to support the wellbeing of urban dwellers.**

The positive correlation between research and development and inclusive growth and development in cities elsewhere is well proven. The disconnect between research, industry and policy-making concerning urbanization in Africa needs to be addressed. African governments at the national and local level as well as the private sector need to invest more into research to inform policy-making. Dialogue platforms need to be created and institutionalized between academia, industry and policy makers. Academics also need to be

encouraged to do more policy-relevant research even as they need to enhance their collaboration with practitioners. Integrated knowledge translation activities targeted at policy-making are also needed.

**There is need for a sustained Pan-African discourse on African cities and the wellbeing of their inhabitants.**

Urgent attention should be given to efforts being made to enhance collaboration and synergy among the governments of African cities through the investment of community, financial and social capital. Mayors and other political and technical actors in charge of running African cities need to be exposed to the opportunities and benefits of collaborating and sharing ideas among themselves. This can be done through collaborative partnerships, research, experiences and best practices on issues of mutual interest. This also includes intersectoral partnerships between experts in various fields: urban planning, environment, health, risk and resilience, justice and economics, amongst others. Sister-city relationships must be looked at as real opportunities for genuine partnership and cooperation among equal partners with common interests. Organizations such as ICLEI offer the platform to address the local impacts of global change phenomena such as climate change and urbanization.

**The black box of governance must be deconstructed and intervened on.**

The need for good urban governance cannot be overemphasized. Many of the challenges faced in African cities can be traced to the issue of governance. Bringing on board all the relevant actors to the governance space is crucial to urban outcomes. Genuine participatory approaches are needed to bring governance to the doorsteps of the people. In line with this are accountability and transparency processes required to build trust with the people. Equity is needed in the distribution of urban goods and that must be seen to be done. The implementation and enforcement of policies and laws without fear or favour would engender the needed trust in the system. Participatory processes and effective communication strategies can make public awareness creation and education on urban policies and laws elicit the desired popular consent and concurrence. There is also need for a reorientation of urban leaders to understand how their decisions impact on health and wellbeing and how to intervene in urban contexts in ways that promote urban health and health equity. Using participatory approaches, the public also has to be sensitized to transform existing social capital into stewardship of the neighbourhood environment, and hence avoid preventable diseases.



## **Conclusion**

It is our firm conviction that the opportunities offered by urbanization in Africa can be enhanced to overcome the challenges it poses, if these suggestions offered above are taken on-board in addition to what is already being pursued.

Issued on 6<sup>th</sup> July 2018 in Accra.

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Prof. Aba Bentil Andam, FGAAS

(Conference Chairman)

*Add-on issues for consideration in communique.*

Other issues of concern were:

- Informality
- Urban-rural continuum
- Basic services
- The role of culture in realizing sustainable urban development.
- Africa was shaped by global processes

Other strategies presented were:

- Domesticating the SDGs
- The need to make major investments in infrastructure.
- Building green infrastructure
- Rain harvesting, micro storage of water, and dredging water channels.
- ‘Cradle to cradle’ concept which obliges industry to protect and enrich ecosystems.
- Tackling the residential air pollution
- Protecting the sources of urban water supply
- Small loans, non-monetary forms of support and intense training for the informal sector
- Preventive health
- Rethink plastic packaging
- Cold storage and refrigeration
- Gender mainstreaming
- Reviewing the research dissemination strategies

Research is needed concerning:

- The processes of the everyday making of cities.

