

Global Alliance for Building and Construction activities at COP23 An outcome-based summary

9 - 13 November 2017, Bonn, Germany

The Global Alliance for Building and Construction (GABC) actively participated at the recent 23rd Conference of the Parties (COP23), 6-17 November 2017 in Bonn, Germany, highlighting the buildings and construction sector's impact and potential. GABC events took place from 9-13 November and were as follows:

- A **Building Action Symposium** at GIZ premises, 9 November, 09:00-18:00.
- A guided tour **Showcasing exemplary sustainable architecture and buildings**, hosted and organised by the Federal Chamber of German Architects (BAK), 10 November, 09:30-12:00.
- Three high-level sessions **Transforming the Buildings and Construction Sector** during Human Settlements Day, 11 November 13:15-18:15.
- A high-level dialogue **Transforming markets for buildings to deliver against SDGs 11, 7 and 13'** on SDG11 Day, 13 November, 15:00-16:30.

All agendas as well as speaker biographies can be accessed via the [GABC website](#).

GABC members presented essential **findings and recommendations** on transforming the buildings and construction sector. Among others, the International Energy Agency (IEA) presented **key findings of the upcoming Global Status Report 2017**, to be released on 11 December as part of the *Energy efficiency in buildings: how to accelerate investments?* event, in Paris, France.

Building Action Symposium

Together, GABC members as well as external buildings and construction experts presented and discussed insights on the building and construction sector's path to sustainability from different angles. Welcoming and keynote remarks emphasized the different stakeholders' role, including architects, policy makers, and, importantly, building occupants (the 'human factor'). Members highlighted the crucial role of the GABC in bringing stakeholders together and in exploring synergies for large scale solutions.

Highlights from the 2017 Global Status Report showed that the buildings and construction sector's progress is not fast enough to off-set increase in energy demand and floor space and corresponding CO₂ emissions – the equivalent of Paris is added to the world every 5 days. While 132 countries have buildings included in their NDCs, many lack concrete measures and targets, and current commitments only cover 60% of the sector's emission. Policy progress has stalled in the last year compared to previous years. Energy efficiency is improving, but is eaten up by population- and economic growth, as well as by increased demand for floor space. If we delay by 10 years, in 2050 we will have used the equivalent of three years of heating and cooling consumption. Without stepping up the efforts, emissions from the buildings sector are set to double.

An update on progress and essential next steps of the Global Roadmap for the decarbonisation of the building sector in 2050 was also given and the Programme for Energy Efficiency in Building (PEEB), a

programme designed to implement the Roadmap, was presented. PEEB will initially work in five countries: Mexico, Morocco, Senegal, Tunisia, and Vietnam.

Lively discussions focused on how to achieve the SDGs and the Paris Agreement, in what respects the buildings and construction sector is on a good path and which corrective measure are needed. Participants agreed that goals are achievable, but that more and faster action is needed, with regards to policies (e.g. building codes), building design (e.g. net-zero emission buildings), and finance access. Participants also highlighted the need to think holistically about buildings, taking into account the entire value chain from planning, to design, construction, and occupancy and to include all the key decision makers along the value chain – highlighting again that this is a crucial task for the GABC. The afternoon session was dedicated to four breakout group representing four of the five GABC Work Areas: Public Policies, Market Transformation, Finance, and Measurement & Data. Groups gave an update on activities and provided ample space for discussion on priorities for the year to come. Key recommendation from each group where shared with all:



1. Public Policies - Energy Efficiency & Buildings as key to achieving Nationally Determined Contributions:

- Include energy efficiency in buildings in countries' Nationally Determined Contributions.
- When introducing public policies, associate them with enforcement measures and forge local alliances.
- Ensure public policies are long term & harmonized.
- Promote national, regional and local target setting together– achieve vertical integration.
- Emphasize policy levers that impact market demand, e.g. public procurement, carbon pricing.

2. Market Transformation - How to engage the private sector to achieve the GABC ambition.

- Align value chains – stakeholders need to avoid working in silos, otherwise we sub-optimize overall performance. To align value chains, the first measure is mapping the value chain globally and for given regions/countries/sub-sectors.
- Ensure that climate targets, e.g. of the private sector are science-based – the GABC Work Area on Market Transformation is currently working on this topic through, among others.
- Avoid the cycle of blame – each stakeholder can be the starting point.

3. Finance: How to access finance for the needed transformation?

- Target national stakeholders beyond finance ministries.
- Connect finance needs to regulatory frameworks.
- Build capacity for accessing and using finance instruments.
- Work on scale-unlock available funds.

4. Building data capture and management as a catalyst for moving the sector onto a 2°C pathway

- Create a common data language, e.g. what do stakeholders mean when saying net floor area.
- Ensure permanent & easy data access – boost innovation through open source data and regard data as public good.
- Ensure data quality - this is as important as data availability.

Dr Le Trung Thanh, Director General at the Vietnamese Ministry of Construction outlined the way forward from the perspective of the Socialist Republic of Vietnam. His Excellency Mr Inia Seruiratu, High Level Climate Champion and Minister for Agriculture, Rural & Maritime Development, and National Disaster Management of the Republic of Fiji gave the closing remarks. The Minister recognized and highlighted the important role the buildings and construction sector has for climate change mitigation.

Building Action Symposium presentations can be accessed [here](#).

Human Settlements Day: Transforming the Buildings and Construction Sector

During the official Global Climate Action-organized Human Settlement Day organized, the GABC held three high-level sessions discussing the challenges transforming the buildings and construction sector. To kick-off the session, recommendations from the Building Action Symposium were presented, along with key information on the impact and potential of the buildings and construction sector and on the GABC. .

Panellists of the session *pathways to net zero emission buildings* outlined that carbon is the key metric to track progress to decarbonise the sector as fast as possible. Yet, the original definition of sustainability, namely keeping within planetary limits, must be kept in mind. It was emphasized that solutions are available and that the time for action has come. Important points include:



- Efficiency must come first, followed by on site renewable energy. Off-site renewable energy and off-sets have a role to play as well.
- Local Alliances mirroring the GABC are crucial instrument for aligning stakeholders and getting the building sector on track.
- A narrow focus on technology must be avoided – buildings are about convincing the clients, the people who live in buildings. The driver for the transition is also pleasure and wellbeing, not only energy efficiency or low-carbon buildings per se.

Another important measure is also a given country's Nationally Determined Contribution (NDC). Argentina for instance has undertaken a carbon inventory among others to determine their NDCs finding that 16% of carbon emissions result from the residential buildings sector. The Ministry of Environment's goal is to reduce carbon emissions by 70% by 2030. As a consequence, Argentina has developed a roadmap on how to achieve their NDCs. The roadmap includes design, developers, and use phases, among others of the buildings and construction sector. To address capacity building, Argentina engages with its universities and has started a programme on how to teach engineers and architects of the future.

The focus panel *NAMA development for the building sector in Asia* highlighted participating countries' efforts in transforming their buildings and construction sector by including it in their Nationally Appropriate Mitigation Actions (NAMAs).

The Republic of the Philippines emphasizes energy efficacy, private sector engagement and green buildings codes as essential ingredients for transforming their buildings and construction. Through engaging the private sector, the Philippines is construction mass housing projects with solar roofs. The three Cs of success include Capacities; Cooperation & Coordination; and Connection. The three Cs are also a pathway to finance. *For the Socialist Republic of Vietnam*, NAMAs are the key solution. Energy, environmental protection and construction are connected. A crucial ingredient to transforming the

buildings and construction sector are human resources – highly skilled designers and contractors are required. Vietnam has a programme for low-income people to be able to afford buying a sustainable house. *Half of the Republic of Indonesia's* energy- efficiency improvement in their NDCs is to come through the buildings and construction sector. *The Kingdom of Thailand* has programmes on low-income housing for 100,000 units per year, involving the private sector.

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The panel *buildings contributing to Sustainable Development Goals (SDGs)* emphasized that green homes can contribute to several SDGs - but they cannot eradicate poverty. They are, however, an important contributor to health and wellbeing. Unhealthy buildings are a burden not just on health, but also on the purse - sustainable buildings do not have to be more expensive. For instance ventilation and light are crucial ingredients which improve performance and creativity. Consumers do not understand SDGs nor are SDGs or energy efficiency important to them (statistically almost insignificant in surveys). However, once indoor air quality and similar issues are mentioned the issue gets closer to peoples' heart.



SDGs also promote more community friendly, holistic framework conducive to cities. Mayors tend to appreciate the SDGs – they are aligned with many of their visions of how a city should be. SDGs call for measures which constituencies care about. An example is China where air pollution is a real problem that constituencies ask politicians to address. For engineers the new ISO standards can help operationalize SDGs - they help connect cities to SDGs

Data management is essential for tracking SDG progress. SDGs can help us harmonize our language – they raise questions such as what is meant by certain terms e.g. net floor area. SDGs also help institutions review their targets related to buildings and align them to a common framework.

The SDGs can also help avoid mistakes - in countries where the majority of the future building stock does not yet exist it is essential not to repeat the mistakes of industrialized countries. There is a danger of having a growth-minded, narrowly focused approach focused on 'modern' high-rise glass buildings. It is essential that different countries not lose their own building culture. The money invested specifically in sustainable buildings is insignificant compared to money spent on 'usual' buildings – and the question remains of how those incentives can be changed.

The panel *transforming the buildings and construction sector* emphasized enforcing codes and regulations and focusing on good business cases to create the conditions for green buildings and to increase investment. Barriers to increasing investment in sustainable buildings in developing countries often include price sensitivity and the perception of additional costs of building green as well as lack of understanding of the multiple benefits on a green building. According to the IFC the five key recommendation for stepping up investment are:

1. Enabling everybody, not only experts, to communicate the business case of green.
2. Providing targeted incentives such as green loans.
3. Empowering sustainable the built environment through conducive policies, codes, and voluntary certifications.
4. Working locally to change utilities' mandate from selling a product to selling a service.
5. Engaging financial institutions to understand and provide transformative finance.

Improving knowledge transfer and enhancing training and capacity building was also recognized as crucial, as well as adopting a life cycle approach in project development - an important tool to identifying bottlenecks and areas of improvement.

Engineering and construction companies are essential stakeholders to involve early on in the building planning stage. In addition, when creating new developments, the building context, e.g. the neighbourhood and city need to be considered. Highly efficient, modern houses far from the city centre and not easy accessible it may create problems down the line. Informal houses are often built where rapid urbanization and limited economic means come together – for instance in Peru, for every formally constructed house, two informal ones get built.

Overall, several particularly important steps for improving the buildings and construction sector were recognized: knowledge and training, policy and regulations, lifecycle approaches, and enforcement with the last one being perhaps the most challenging. Finally, for a real transformation, behavioural and attitude changes are essential - stakeholders need to accept stepping out of their comfort zone.

Recommendations for the GABC include:

- Have more representative from the construction sector through professional associations, especially developers.
- Support green building strategy inclusion in NDCs.
- Support capacity building and knowledge transfer to authorities but also the private sector, and support creating effective incentives.
- Reach out to the 'rest of the world', beyond high level events, especially regional and cities level.

The following three short-term (2018) and three mid-term (2020) priority that could have significant impact and deliver concrete results aligned with the Paris Agreement and that could feed into the 2018 Facilitative Dialogue have been provided:

Short-term (2018):

- Elevate the place given to the building and construction sector in the NDCs, particularly through dedicated policies and measures on energy efficiency and the use of renewable energy in buildings in the NDCs, with national and local targets clearly defined.
- Create regional and national alliances, which further understanding and cooperation among all players along the value chain.
- Develop and promote science-based targets for cities and regions, as well as the private sector in all sectors, including buildings and construction - also building an evidence base to track progress.

Long-term (2020):

- Align policies across all levels of governance (vertical policy integration) - for buildings, cities, and human settlements in general.
- Strengthen institutions to enable enforcement of standards and policies - for buildings, cities, and human settlements in general.
- Increase capacity for accessing and using new finance instruments.

SDG11 Day: Transforming markets for buildings to deliver against SDGs 11, 7, and 13: A High level dialogue.

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Buildings and construction is a critical sector in implementing SDG 11 (*Make cities inclusive, safe, resilient and sustainable*). The sector is responsible for 36% of final energy use and 39% of energy-related CO2 emissions, and buildings need to withstand natural disasters to reduce inhabitants' vulnerability. The sector also uses some 40% of natural resources and is responsible for a similar amount of waste generated. In addition buildings influence human health, poverty, and inequality. Indoor air quality and thermal comfort are critical, with different root causes for their poor status depending on context, ranging from firewood and kerosene for heating, cooking and lighting, all the way to material emissions in heavily insulated buildings. Finally, the buildings and construction sector is a huge employer, including of unskilled workers in informal construction, but has huge potential for green jobs. If designed well, the market transformation of the buildings and construction sector delivers, or helps delivering against several SDGs, including SDGs 11, 7 and 13, but also 12 and 15, 8, 9, 1 and 3.



With technologies available and figures and targets clear it is no longer about the 'why' and 'what' but about the 'how'. Solutions exist, but need to be brought to scale.

The following three short-term and mid-term priority actions from the *entire SDG11 Day* that could have significant impact aligned with the Paris Agreement and that could feed into the 2018 Facilitative Dialogue have been provided:

Short-term:

- *Promote* coherent policies and target setting by encouraging meaningful engagement between all levels of governments and non-Party stakeholders across the urban sector (including local governments, private sector, and civil society) to inform the development and implementation of integrated national and local strategies, enhancement of key sectoral and cross-sectoral policies and adoption of commitments and targets which integrate climate mitigation, adaptation and sustainable development and which trigger market responses to deliver the Paris Agreement and SDG11 objectives. Global, regional or national sectoral or cross sectoral alliances e.g. on buildings can be an effective tool.
- *Support* developing scalable pilot projects that inspire replication, by improving capacity building and institutional coordination as means to improve non-Party stakeholders' access to finance at all levels. Developing science-based targets for stakeholders such as private sector which are aligned with the SDGs and the Paris Agreement can strengthen their contributions and achievements. In addition, purchasing power of governments (both local and national) through public procurement nationally and locally, and particularly in Low-Income Housing Development can be used to scale-up solutions
- *Promote* shared and collaborative leadership between men and women, and between Party and Non-Party stakeholders. Specifically, recognize the role of cities, states, regions, the private sector and other non-Party Stakeholders as key partners for the implementing the Paris Agreement. Their role needs to be recognized in the implementation guidelines under negotiation and as contributors to the 2018 Facilitative Dialogue, notably through the Yearbook of Climate Action.

Long-term:

- *Commitment* for partnership and cooperation needed to be strengthened to achieve the SDGs and deliver the Paris Agreement. Commitment is also required to institutionally recognize links between the agendas through coherent policies, an enabling environment for sustainable development at all levels and by all actors, as well as creating synergies across stakeholders, including sub-national governments and to create robust local partnerships and collaborations. Greater efforts – including scaling up and speeding up climate action – are needed to accelerate progress on the transport and building elements of SDG 11 (targets 11.1 and 11.2).
- *Planning* for compact and high-density cities will help ensure that the cities we want are the cities we get by 2050. Since local governments are the implementers of such policies, they need to be engaged and to have their goals aligned with national targets, as cities are where the momentum exists.
- *Building* capacity and resource availability (including knowledge) is crucial at all levels of governance and implementation. It is therefore essential for government officials to strengthen institutions to devise and enforce policies, for accessing and using finance instruments, for creating a common language around standards and comparable performance data (e.g. through certification and labelling), and to enhance capacity of workers across the value chain of climate action. Knowledge sharing platforms are crucial for the exchange of best practices, for inspiring scaled ambition and action.