



## Summary - Climate Chance Talk 5

### "BUILDING"

#### Speakers:

- **Elizabeth Chege**, Chairperson at Kenya Green Buildings Society
- **Oliver Rapf**, Executive Director of the Building Performance Institute Europe
- **Yves-Laurent Sapoval**, Advisor for the Directorate for Housing, Urban Development and Landscapes, French Ministry of Ecological Transition

Moderated by **Concepcion Alvarez**, journalist at Novethic

The **Global Synthesis Report on Climate Action by Sector** was released on the first week of December and is available in both [English](#) and [French](#). A series of "**Climate Chance Talks**" dedicated to the key trends of each sector took place from December 1<sup>st</sup> – 4<sup>th</sup> 2020, all the recordings are available to watch [here](#).

Please find the pages related to the Land-Use Sector from pages 112 to 143.

#### Key points highlighted by speakers:

- **The Climate Chance Observatory** shows that over the last few years, the gains in energy efficiency of buildings (~1%/year) do not compensate for the increase in emissions due to electricity consumption (household appliances, air conditioning). These global emissions should decrease in 2020 because the building sector is one of the most affected sectors by the pandemic, and at the same time it is one of the most concerned by the "green" components of the post-covid recovery plans.
- **Yves-Laurent Sapoval** (French Ministry of Ecological Transition) presented the picture of renovation and post-covid recovery in France and around the world, mentioning the importance of creating awareness, as well of local, regional and multi-actor action at all steps of the construction chain.
- **Oliver Rapf** (BPIE) shed light on the situation in Europe, and focused on the importance of having innovation alongside regulation. Successful pilot projects need to be scaled-up, and made replicable. There is no single solution, and different countries have made progress in different aspects, which now needs to be replicated.
- According to **Elizabeth Chege** (Kenya Green Building Society), there is an immense opportunity for transition in the building sector in Africa, because the majority of buildings that will exist in 2050 are yet to be built, and that the construction sector can provide viable jobs to youth, who are 70% of the population.



## Summary

Main Trends in the Building Sector, highlighted by Ghislain Favé, co-author of the analysis:



# BUILDING

- 1** Emissions from the building sector increased by 1.5% in 2019 (10.08 GtCO<sub>2</sub>) due to a growth demand in electricity from household appliances and air conditioning. Energy efficiency gains (-1%/year) do not offset this growth, and investment in energy efficiency could decrease by 10% in 2020. The absence of energy codes in two thirds of the countries and obsolete appliance standards mean that more than 5 billion m<sup>2</sup> were built in 2019 without energy performance requirements. Only ~35% of buildings' consumption are covered by codes or standards.
- 2** The Covid-19 pandemic has led to a shift in consumption from industry and the tertiary sector to households, mitigating the expected decrease in overall electricity consumption in 2020. However, the pandemic's consequences threaten access to clean energy for cooking, of which 37% of the global population is deprived, and in a context where informal housing is again on the rise since 2018. In Europe, where 15 to 24% of construction companies could go bankrupt, local authorities and governments see the economic recovery as an opportunity to implement their renovation strategies.
- 3** Very few codes and requirements apply to the existing building stock. Some municipalities are showing interesting results thanks to mandatory reporting of energy performance (Tokyo, Columbus, Saint-Paul). Integrated renovation services at the local level (one-stop shops) are proving to be all the more relevant in overcoming the obstacles to renovation accentuated by the crisis, and are an instrument that the European Union wishes to disseminate widely.
- 4** Local and regional codes for new buildings are more numerous: solar water-heating, solar cool roofs and rooftop gardens are among the most frequently imposed requirements. Subsidies, allowances and tax exemptions are also part of the incentives for such developments. Finally, some cities prefer to leave the choice of means to local players either through local emissions quota and trade systems (Tokyo, New York) or mandatory certifications (Singapore). Multi-stakeholder initiatives facilitate access to financing from local authorities or the development of a market dedicated to sustainable construction.
- 5** Multi-stakeholder initiatives are being developed to integrate building users' behavior and needs into renovation projects (data management systems, awareness-raising, etc.) and to develop building performance monitoring tools to this end (EPC, passports or notebooks, etc.). Reflections on the life cycle of buildings are leading to the integration of grey energy into certifications (NollCO<sub>2</sub> etc.), the creation of markets for more sustainable, biosourced or recoverable materials (2030 Palette, Madaster, etc.). Finally, a more "adaptive" approach towards recyclable or reversible buildings is emerging, which would make it possible to anticipate and adapt buildings to changes in usage, as in the case of teleworking accelerated by the Covid-19 pandemic.



## Discussion:

- **Yves-Laurent Sapoval, French Ministry of Ecological Transition**

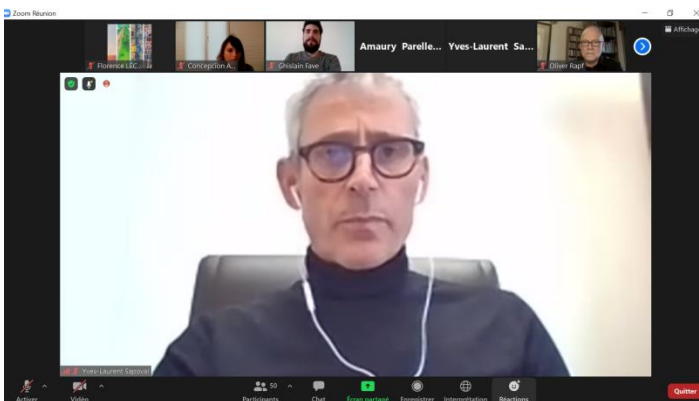
### **Question: In France, the crisis has made it possible to relaunch the renovation of buildings. What is at stake now?**

On the renovations in France: we are far from our goals, but the situation is progressing. We will have to invest massively in energy renovation to reach climate goals: we can not rely on renewable energies in this sector.

The European and French recovery plan are planning a massive effort to renovate buildings. There is a growing awareness among citizens for the renovation of their homes, which is not unrelated to the lockdown. There is big potential – 7 billion euros for the French recovery plan – it will create a lot of jobs.

The companies need to be technically capable of doing the renovation and progress need to be made on the question of the visibility of financing. Moreover, there are many small isolated renovations, but the overall renovation has to be scaled-up and we should be sure of the savings made as a result of the work.

Local governments are not taking over from national ones, except maybe in the United States, and to some extent in France. Regulations are mainly managed at the state level. This subject can only progress through consensus and multi-partnership by organising collaboration all along the building chain: elected representatives, customers, residents, financiers, etc. Multi-partnerships along the entire chain are important, along with addressing embodied carbon when it comes to buildings.



*"This subject can only progress through consensus and multi-partnership by organising collaboration all along the building chain: elected representatives, customers, residents, financiers, etc."*

- **Oliver Rapf, Building Performance Institute Europe**

### **Question: What are the levers used for the European Green Deal? Who are the good students in Europe?**

The biggest challenge in Europe is the renovation of existing buildings, and the European Commission has made renovation a priority for recovery.

The current rate of renovation is 1% and deep renovation (that lead to 60% energy savings) is 0.2%. On the other hand, the budget share for renovation is the biggest it has been since WW2, an opportunity not to be missed. In the EU, it is hard to point to one leader - different countries are making progress, very few have a truly comprehensive strategy.



Member states had to submit national strategies 9 months ago, only half of them have submitted. According to the BPIE, only one of these fully complies with requirements: Spain. The other have no strategic approach to renovating building stock or entire quarters, while trying to reduce heating/cooling needs.

There is however, increasing political will. The IEA also launched a report today which shows that we are not in the good direction. We need a common understanding that new buildings, especially in emerging economies, should be zero carbon, using only renewable energy for heating and cooling.

- **Elizabeth Chege, Kenya Green Buildings Society**

**Question: Is ecological concern already a big issue in the building sector in Africa? How has the health crisis impacted these strategies?**

The health crisis has impacted the building sector in Africa. It has been an interesting year, we have learned to pull together. In Africa, buildings that will exist in 2050 are yet to be built or only in being designed now. This is a great opportunity – all new buildings must be zero carbon. Passive buildings, which are discussed in the African roadmap of the World Green Building Council, are extremely important. This roadmap has created a useful benchmark.

Africa's demography is 70% youth: this is a big opportunity in terms of employment. The building industry stopped with Covid-19: this brought the realisation that we are strongly dependant of other continents: we must create our own industries that are energy efficient.



*"The financial sector has started listening; this is from a lot of advocacy... Need to showcase that they can invest responsibly and that it can make a huge difference in the building sector."*

With Covid-19, health and wellbeing have become central. There is a need to put people and planet at the core. The pandemic led to increasing collaboration between people in different countries.

The concerns of the urban poor need to be taken into account in measures concerning the construction sector.

- **Yves-Laurent Sapoval, French Ministry of Ecological Transition**

**Question: There are still few standards and obligations. Why?**

The vast majority of what is built in the world is done without any thermal regulations, even if there are regulations on construction. In this respect, it is certain that financial and technical incentives are important to enable people to understand what they have to do.



Communication and awareness are also essential levers without which nobody would want to do any work.

But the issue of regulation is a priority: to see far ahead, to make companies adapt, ambitious regulations are needed from the public authorities so that companies produce the necessary materials and the entire value chain adapts. Obligations such as the one introduced on the thermal renovation will be likely to lead to long-term changes in emissions and in the real estate market: the cost of renovation will be integrated into the transaction price at the time of a sale.

Public policies are the main agents of renovation.

- **Oliver Rapf, Building Performance Institute Europe**

**Question: In Europe, is there more and more regulations?**

*"We need the regulation to stimulate the sector but we equally need to channel innovation funding and support to the sector, so that the sector can transform its service offer to renovation."*



There is no single silver bullet with respect to regulation. Implementation is key – this can only happen if the construction sector is receptive. We need the regulation to stimulate the sector but we equally need to channel innovation funding and support to the sector, so that the sector can transform its service offer to renovation

Another problem is how to overcome the financing barrier? Many European groups need financial support through different instruments, or allowing third party investors. There is need for more innovative financial instruments, so that the different investment abilities of owners are met. We also need different policies which will trigger responses from these different groups. There is progress being made in terms of pilot projects, stimulating the mass renovation markets. The challenge is to scale these up to cover all of Europe.

- **Elizabeth Chege, Kenya Green Buildings Society**

**Question: Is low-carbon labelling spreading in Africa?**

In Africa, the main issue is not renovation but construction. For the last 10 years, awareness has been important. Improving technical capacity is essential, not just for the private sector, but also local and national governments who cannot make policies if they don't understand the issue.

There is this belief that going to net zero will be expensive or need lot more innovation - but just looking at local ideas and passive design principles, there is a lot of potential. Instead of looking at buildings one at a time, urban planning should be considered as a whole.



- **Yves-Laurent Sapoval, French Ministry of Ecological Transition**

**Question: What do you take away from this report?**

The report is a mine of high-quality information, which should not be read only in a sector-by-sector manner, but should be read as a whole. The report helps us to understand that energy efficiency in buildings can save governments and households money. Energy lost in inefficient buildings is energy lost to other uses. This report shows the importance of partnership: it will not be possible to develop the building sector without involving all the players in the buildings value chain. Although it accounts for 30% of GHG emissions, this sector had never been taken seriously before the creation of GABC at COP21.