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Building industry holds important key to effectively addressing climate change: New report, based on IPCC AR5, shows that stronger building codes will strengthen resilience and reduce emissions.

Cambridge, 10am BST, 28 June, 2014: A new briefing published today distils the key findings from the recently released Intergovernmental Panel on Climate Change Fifth Assessment Report and reveals how buildings around the world will play a critical part of any global low carbon future. By increasing resilience and efficiencies in the developing world and by capitalising on energy savings in the developed world and emerging economies, our infrastructure can become more adapted to a changing climate and greenhouse gas emissions can be reduced.

The briefing was published jointly by the Buildings Performance Institute Europe (BPIE), the Global Buildings Performance Network (GBPN), the World Business Council for Sustainable Development (WBCSD), the University of Cambridge Institute for Sustainability Leadership (CISL) and Cambridge Judge Business School (CJBS). It was supported by the European Climate Foundation and reveals that:

- In 2010, the world's buildings accounted for 32% of global final energy use and 19% of all greenhouse gas (GHG) emissions. Under business-as-usual projections, use of energy in buildings globally could double or even triple by 2050.
- Widespread implementation of best practices and technologies could see energy use in buildings stabilise or even fall by 2050. Many mitigation options promise multiple cobenefits.
- Many barriers exist to greater uptake of energy-saving opportunities. But know-how exists
 on retrofitting and how to build very low- and zero-energy buildings, often at little marginal
 investment cost.
- The very long life-cycles of buildings create risks of energy use 'lock-in'. Using state-of-theart standards immediately, for both new and retrofit buildings, would alleviate this hazard.
- Buildings face major risks of damage from the projected impacts of climate change, having already experienced a big increase in extreme weather damage in recent decades.

The briefing highlights how the impacts of climate change such as heat stress, extreme precipitation, inland and coastal flooding, landslides, air pollution, drought, and water scarcity pose risks in urban areas that are amplified by a lack of essential infrastructure and services or by living in poor-quality housing and exposed areas. Improving housing and resilient infrastructure systems could significantly reduce vulnerability and exposure in urban areas.

Building codes and appliance standards, if well designed and implemented, have been among the most environmentally and cost effective instruments for emission reductions. Substantially strengthening these codes, adopting them in further jurisdictions, and extending them to more building and appliance types will be key factors in reaching ambitious climate goals and in helping adapt to the changing climate.



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The briefing, and an associated infographic, is being distributed across the buildings industry with a call for action to address this global threat.

Commenting on the report, Peter Graham, GBPN Executive Director said: "This report is a timely reminder that to bridge the so-called 'emissions-gap' in the building sector we urgently need to scale up available advanced polices and technologies. Mainstream adoption of net-zero energy standards for new buildings; more and deeper energy renovation of existing buildings; A price on carbon and better access to carbon-financing; Investing in education and capacity building – are all measures we have piloted and proven to work and now need to be scaled up."

"This report is a powerful resource to highlight the significant impact of curbing building energy consumption and associated emissions. This latest IPCC effort captures the global opportunities and challenges of realizing these outcomes. The buildings of tomorrow can be more self-sufficient if they optimize energy efficiency into their design, incorporate effective renewable energy sources, and use the best design and building practices" said William Sisson, Director, Sustainability, United Technologies Research Center and co-chair of the WBCSD Energy Efficiency in Buildings 2.0 Project.

Roland Hunziker, Director, Sustainable Buildings of WBCSD said: "The AR5 Buildings Report is crucial in understanding the numerous opportunities buildings offer to curb growing energy demand as well as the challenges associated with the lack of sustained policies. Energy efficient buildings will play a key role in laying the foundations of a low-carbon future for the planet."

The report is available at [www.cisl.cam.ac.uk/ipcc, add BPIE, GBPN and WBCSD links] and is accompanied by a summary infographic.

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Notes for Editors

The report is one of a series of thirteen, based upon The Fifth Assessment Report (AR5) of the Intergovernmental Panel on Climate Change (IPCC). AR5 represents the most comprehensive overview of climate science to date and is the fact base that will used by governments and businesses to formulate climate policy in the coming years. Sustainable Fisheries Partnership, the European Climate Foundation, the University of Cambridge Programme for Sustainability Leadership (CISL) and the Cambridge Judge Business School have worked together to distil relevant AR5 findings into concise, clear, relevant findings and visuals derived from, and in line with, the original text.

The set of summaries cover the broad implications of climate change, how the IPCCC works and give an overview of the physical science, as well as adaptation and mitigation options. The specific summaries cover the energy sector, investors and financial institutions, the transport sector, the tourism industry, the agricultural sector, fisheries and aquaculture, the defence sector, primary



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industries, cities, buildings and employment.

The full set of summaries will be posted at www.cisl.cam.ac.uk/ipcc in the coming weeks

The University of Cambridge Institute for Sustainability Leadership (CISL) brings together business, government and academia to find solutions to critical sustainability challenges. Through our educational programmes, business platforms and strategic engagement initiatives, we deepen leaders' understanding of the context in which they operate and help them to respond in ways that benefit their organisations and society as a whole. http://www.cisl.cam.ac.uk/

Cambridge Judge Business School (CJBS) is in the business of transformation. Many of our academics are leaders in their field, creating new insight and applying the latest thinking to real-world issues. www.jbs.cam.ac.uk/home

BPIE is a European not-for-profit think-tank with a focus on independent analysis and knowledge dissemination, supporting evidence-based policy making in the field of energy performance in buildings. It delivers policy analysis, policy advice and implementation support. www.bpie.eu

GBPN provides decision makers with policy expertise and technical assistance to advance building energy performance and realise sustainable built environments for all. We are a globally organised and regionally focused non-profit organisation active in China, Europe, India, South East Asia and the United States. www.gbpn.org

WBCSD is a CEO-led organisation of forward-thinking companies that galvanises the global business community to create a sustainable future for business, society and the environment. www.wbcsd.org

The European Climate Foundation (ECF) was established in 2008 as a major philanthropic initiative to promote climate and energy policies that greatly reduce Europe's greenhouse gas emissions and to help Europe play an even stronger international leadership role to mitigate climate change. www.europeanclimate.org



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