



Building Agreement at Copenhagen:

Could a focus on buildings be the fast track to a global climate accord?

Overarching commitments as well as real practical actions are fundamental

The climate change negotiations have been conducted with an underpinning framework in mind:

- overarching national emissions reduction commitments
- carbon price signals for those that can afford to and are willing to pay
- sector intensity agreements for major emitting industries at risk of carbon cost relocation
- sustainable development policies and measures (SDPAMs) for the rest

Through this framework the negotiation process aims to establish an all embracing structure that allows each of the emissions reductions pathways to be addressed in turn. The negotiations have often followed a logic that what is needed to meet mitigation objectives is commitment to national reduction targets and if that can't be agreed then a price signal for carbon and failing that, agreement over sector intensity targets for industry. By the time SDPAMs are considered the energy has gone out of the dialogue and they are easily waved-away as a mass of technical and sector-specific details from which the negotiations would never emerge once entered. Yet this is a mistake because it's precisely down in the SDPAM "weeds" that the greatest abatement potential resides - and at the lowest cost. Hence this is where there are actually the greatest prospects for meaningful agreement.

Everyone agrees: energy efficiency is a triple winner

As an illustration of the types of savings that are possible, it has been estimated by the IEA that if their 25 energy efficiency policy recommendations were fully implemented globally they would save 8.2Gt of CO₂ emissions in 2030 i.e. some 20% of the all emissions projected from the energy sector under a business as usual scenario for the same year. Agreement to fully implement these measures alone would bring global emissions back to 2005 levels despite an assumed doubling in economic activity and an increase in global population of 22%. Furthermore these savings come at negative overall cost to society i.e. they bring direct economic benefits. They thus belong to the triple-win solution set which abate emissions, bring economic development including employment benefits and enhance energy security. These recommendations have been endorsed across economies at differing levels of economic development, yet strangely they are not centre stage in the climate negotiations process.

Energy efficient buildings offer the least-cost savings

The UNFCCC agreed practice of attributing emissions to the direct point of production (power plants, smoke stacks, tail pipes) has served to mask a fundamental issue – emitting sources only exist in response to demand for their services. In fact about 40% of global energy demand and energy-related CO₂ emissions are attributable to energy services consumed in buildings: heating, cooling, ventilation, lighting, water heating, cooking, entertainment, computing, etc. As a result buildings are the largest source of energy demand and direct and indirect emissions, ahead of industry and transport. All the major studies investigating cost-abatement potential conclude that there is vast potential for savings in the built environment through the use of more energy efficient solutions and that these will save carbon at negative net-cost, i.e. they will benefit society economically as a whole.



For example the IPCC 4th Assessment report of 2007, which conducted a synthesis of international abatement potential studies, found that about 4Gt of CO₂ could be abated annually in the global building stock at negative cost – in other words *at a profit* - by 2020.

Barriers to energy efficient buildings are common

However, there are numerous market failures and imperfections which prevent the full deployment of cost-effective energy efficiency solutions. Some examples are: missing or partial information on energy efficiency – it is not visible to end users; split incentives: tenants pay energy bills but landlords pay for building energy investments; separate management of capital acquisition and operation & maintenance budgets; building lifespan is much longer than the period of ownership; fragmented supply chains: e.g. separation of developers, constructors, architects/designers, and building service engineers; and low awareness among building procurers of the savings potentials from the adoption of more efficient design solutions and equipment choices.

Tackle these barriers with targeted measures

These barriers are highly impervious to the energy and carbon price signal and thus while increasing energy costs through measures that place a value on CO₂ will tend to reduce energy demand in buildings, it will be far less effective than were it complemented by a portfolio of targeted SDPAMs that address the individual barriers too. Overcoming these barriers requires the adoption of robust, multi-faceted policy frameworks that create strong incentives to ensure new buildings are constructed to be highly energy-efficient and that encourage the low energy retrofit of existing buildings. There is tremendous experience in this domain that is capable of wide-spread adoption were a concerted effort to be made to do so. Some examples are: the adoption and enforcement of building energy performance codes; building energy performance certification and labelling; equipment efficiency standards; and fiscal and financial incentives to accelerate retrofit, such as via utility financed energy efficiency schemes that recover the costs through higher energy tariffs but lower overall energy bills. A strong portfolio of such measures could reduce building energy use and emissions by 60-80%.

Lets act where we already agree

Given the scale of the opportunity and the potential for success is it not time to put the areas of greatest savings and greatest prospects for agreement first and do some constructive gardening among the SDPAMs weeds in the building sector? There is tremendous potential for the global climate negotiations to develop and agree to support an enabling framework that assists countries in identifying all the triple-win abatement solutions, develop the enabling policy framework and support the massive capacity building effort required to implement it. Turning the order of dialogue of the items in the framework on its head would be a good way to begin because if the sequence is reversed the overall problem of gaining global climate accord becomes much more tractable. As abatement is seen to be delivered through targeted efficiency measures without any economic disruption willingness to make deeper commitments is likely to grow and confidence in the UNFCCC process increase, making it more probable that agreement in other parts of the framework would follow in due course.