Financing Low Carbon Buildings

Energy Efficient Buildings

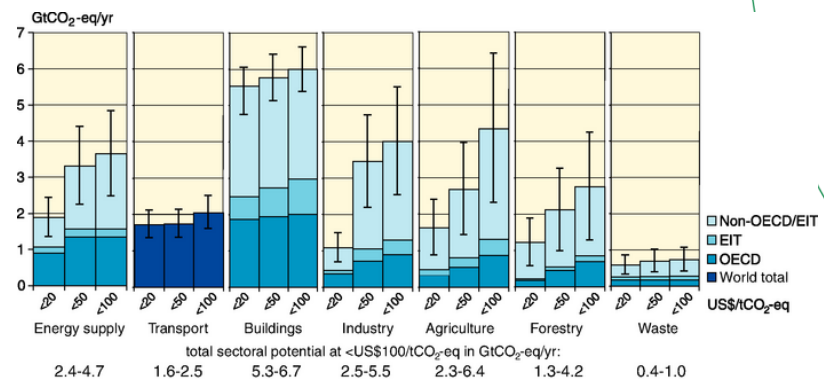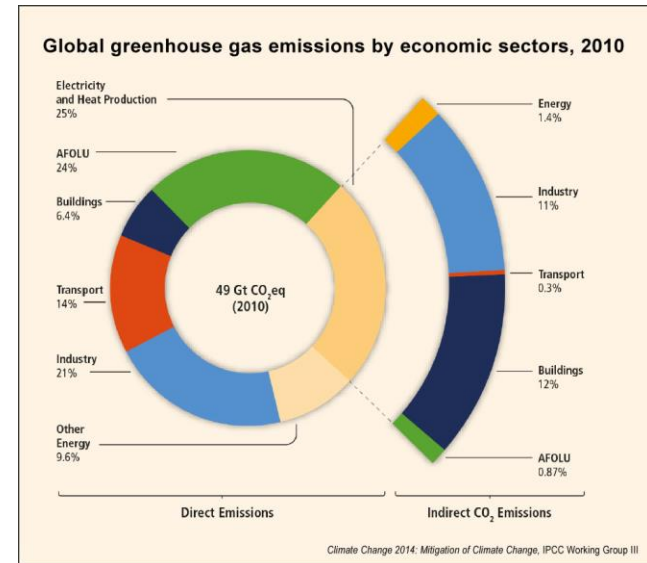6 June 2015

David Wilk

Inter-American Development Bank
Infrastructure and Environment Sector
Climate Change and Sustainability Division

IDB

Buildings & Climate Change

o Represent 6.4% of World´s emissions.

o CO2 emissions from buildings are growing as a result of climate change.

o Low hanging fruit. Is the sector with larger potential for reducing emissions with a net profit during the building life-span.

Global greenhouse gas emissions by economic sectors, 2010

Electricity and Heat Production 25%
AFOLU 24%
Buildings 6.4%
Transport 14%
Industry 21%
Other Energy 9.6%

49 Gt CO₂eq (2010)

Energy 1.4%
Industry 11%
Transport 0.3%
Buildings 12%
AFOLU 0.87%

Direct Emissions   Indirect CO₂ Emissions

Climate Change 2014: Mitigation of Climate Change, IPCC Working Group III

GtCO₂-eq/yr

Non-OECD/EIT
EIT
OECD
World total

US$/tCO₂-eq

Energy supply | Transport | Buildings | Industry | Agriculture | Forestry | Waste

total sectoral potential at <US$100/tCO₂-eq in GtCO₂eq/yr:

2.4-4.7 | 1.6-2.5 | 5.3-6.7 | 2.5-5.5 | 2.3-6.4 | 1.3-4.2 | 0.4-1.0

IDB

The role of low carbon housing

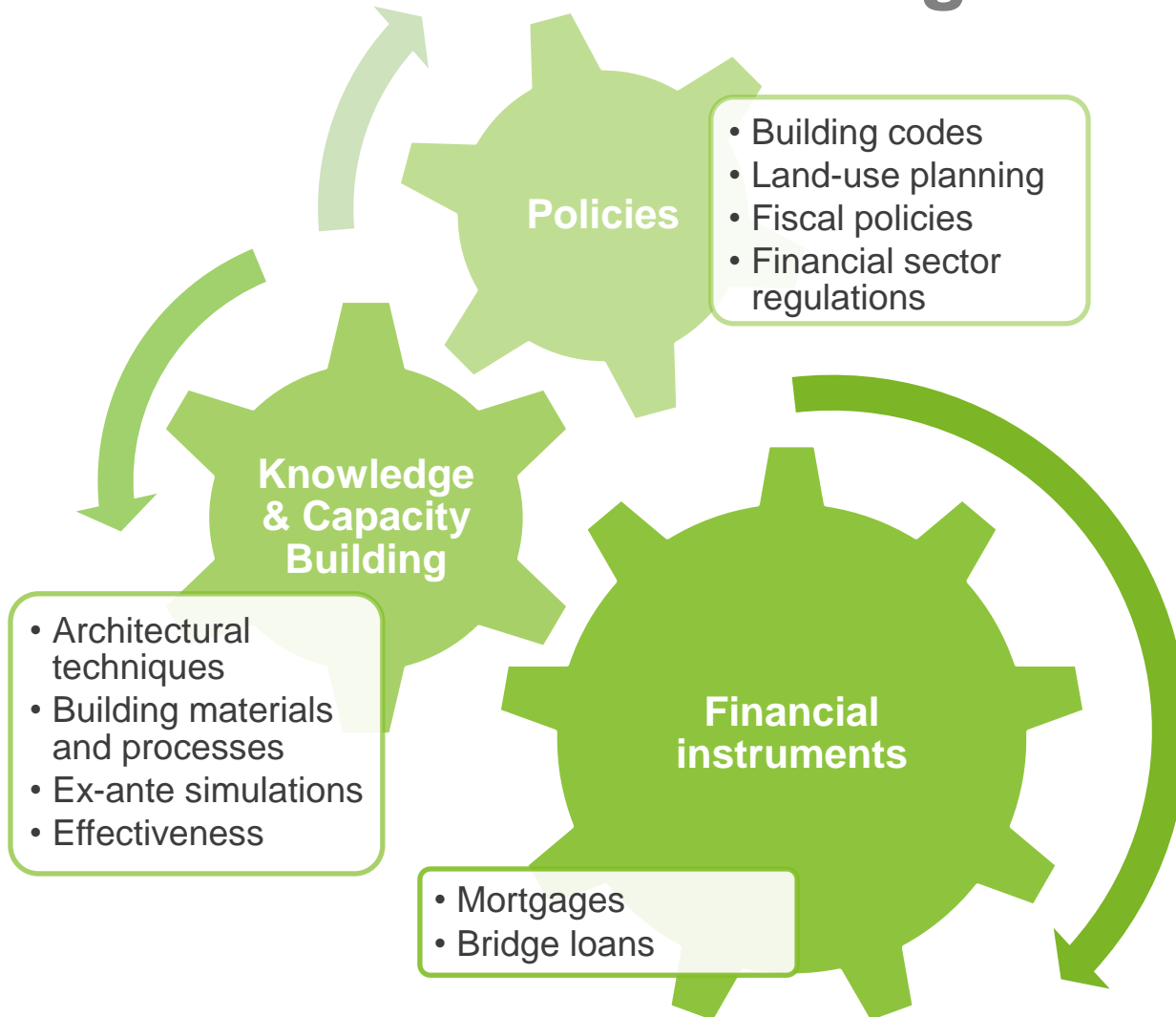o Low carbon housing avoids long-term CO_2 emissions lock-in by:

Improving living conditions

Enabling long term energy savings and emission reductions.

o Opportunity for using concessional loan and grants from climate finance.

Inter-American Development Bank | Climate Change and Sustainability

IDB

Elements/Drivers of transformation for low carbon housing

Policies
- Building codes
- Land-use planning
- Fiscal policies
- Financial sector regulations

Knowledge & Capacity Building
- Architectural techniques
- Building materials and processes
- Ex-ante simulations
- Effectiveness

Financial instruments
- Mortgages
- Bridge loans

IDB

Selecting the right instrument for concessional finance

Supply
Bridge loans

Fosters innovation by developers.

Need to have adequate supply of low carbon houses.
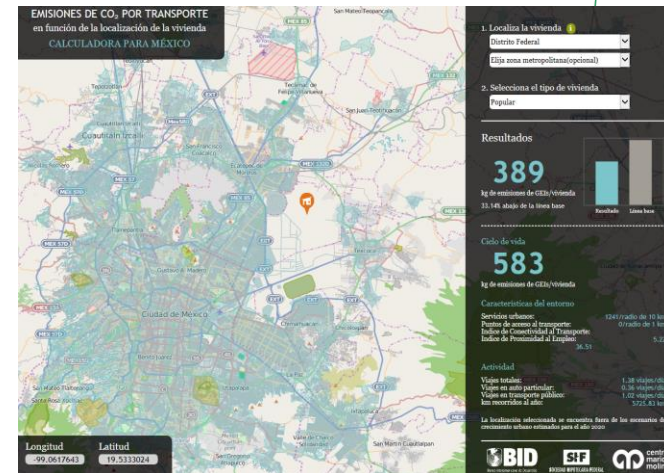
Demand
Mortgages

Beyond housing

o   Peru's low carbon construction NAMA

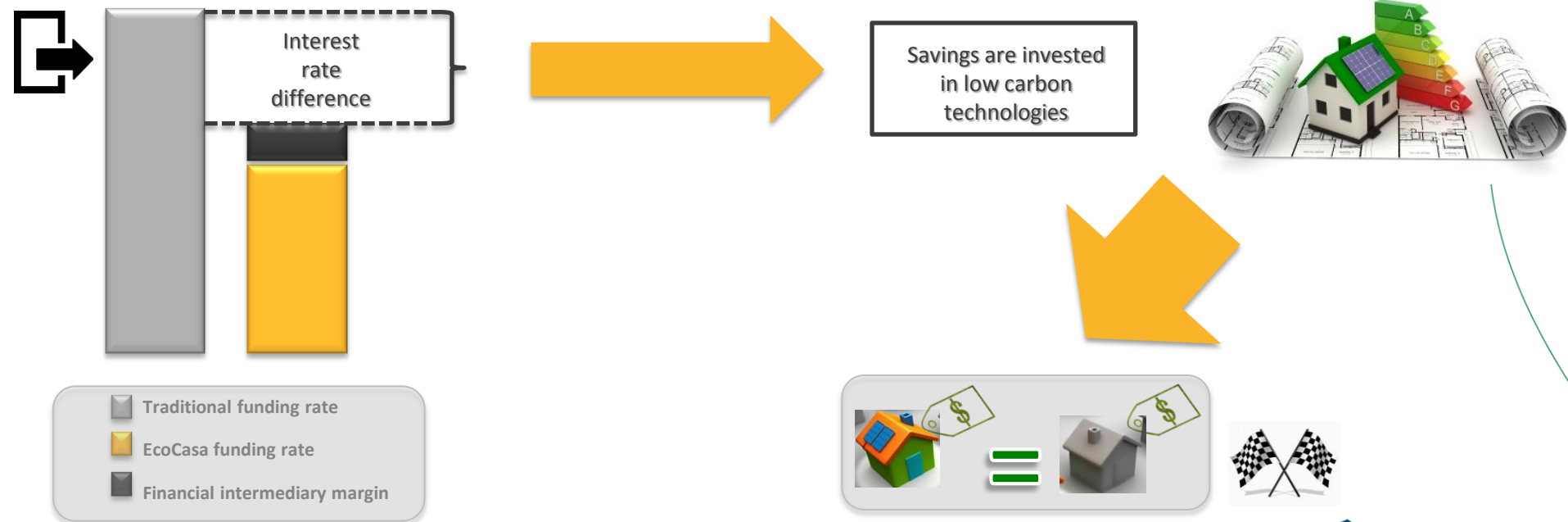Includes urban planning interventions to reduce energy, water, & waste consumption and improve mobility.

o   Mexico's Ecocasa Program

Has developed a tool to quantify transport emissions of a housing development based on location.

Ecocasa – How it works

o Concessional bridge loan to developers.

o Ex-ante validation of eligibility criteria.

o Impact evaluation to generate knowledge.

Interest rate difference

Savings are invested in low carbon technologies

Traditional funding rate

EcoCasa funding rate

Financial intermediary margin

IDB

Ecocasa developments

Inter-American Development Bank | Climate Change and Sustainability

Conclusions

o Experience tells us that adequate financial instruments can drive innovation in knowledge and policy development.

o Financial instruments have to be tailored to the specific situation of countries in order to maximize their impact.

o There is a need to consider other aspects such as the location of the houses to maximize impact.

Let's talk about climate change and sustainability

🐦 @BIDcambioclima | http://blogs.iadb.org/climatechange