

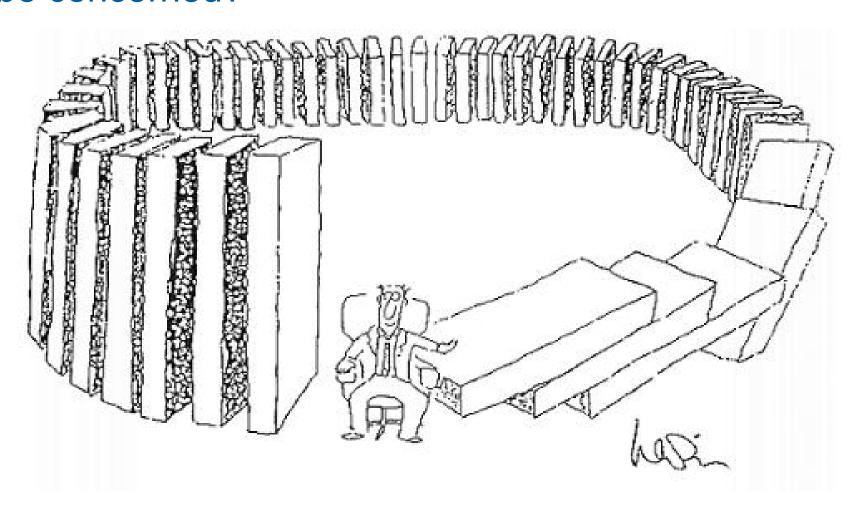
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How EIB is addressing climate risks in its lending

Base EU cities meeting 28th October 2015



Climate change is happening but why would a Bank be concerned?





What if that Bank is supposed to finance long term infrastructure? What if that Bank is supposed to finance urban development plans? What if all the projects that Bank finances are supposed to provide economic benefits and support EU objectives, both inside and outside EU?

If that Bank is the EU's Bank; www.eib.org then climate risks may start to undermine the expected results and pupose of the Bank's financing...



Flooding in central Europe 2002, 2013





- Elbe and Danube valley has suffered three big floods in just 16 years
- Damages caused by flooding of Dresden in 2002 estimated at EUR 8 billion
- Damages caused by flooding in GER in 2013 estimated at EUR 11 billion
- The EIB finances flood management projects so we need to make sure that they are well designed using the latest climate change information, and include adaptation measures taking account of increased flood risks



Heat wave in Europe 2003







- Around 35,000 people died across Europe as a result of the high temperatures. (the EIB finances health projects, metro projects and building renovation projects)
- The combination of extreme heat and little rain caused more than 13 billion Euros in ruined crops and other agricultural damages. (the EIB finances forestry and agribusiness projects)
- The water levels in major rivers such as the Loire were at record lows, disrupting inland navigation, irrigation, transport, & industry. (the EIB finances all these sectors)
- Extreme weather events will become more common and more severe, so the Bank needs to take account of these risks in project appraisal



EU Adaptation strategy - 2013

Strengthening Europe's resilience to climate change impacts

Three key objectives where EIB can also take action in cities

1.Promoting action by Member States (MS):

- Encourages all MS to adopt comprehensive adaptation strategies (currently 18 have strategies)
- Provides funding to help MS build up their adaptation capacities and take action.
- Supports adaptation in cities through Mayors Adapt initiative.



Three key objectives...

2. Promoting adaptation in key vulnerable sectors/areas

- Such as agriculture, fisheries, cohesion policy and ensuring that Europe's infrastructure becomes more resilient
- Promotes the use of insurance against natural and man-made disasters.

3. Better informed decision-making

- addressing knowledge gaps about adaptation and further developing the European climate adaptation platform (Climate-ADAPT) as the 'one-stop shop' for adaptation information in Europe.
 - European Climate Adaptation Platform

http://climate-adapt.eea.europa.eu/



Talking about strategies...

National policies or strategies are not all in place yet – so if there is a national strategy it is a good place to begin, but if not – EIB can still engage in proactive discussions with cities, or with promoters whose

projects are in cities.



Adaptation strategy adopted

No adaptation strategy adopted

Many city networks are already established to share experiences and support their members in addressing the local challenges of climate change impacts.

The Bank improves its own knowledge by sharing in these exchanges (e.g. ICLEI Open European Day 2014) and "learning by doing" on each project it finances



First EIB-wide Climate Strategy – September 2015

Reinforce the impact of climate financing

- Define high impact and increase pipeline of high impact eligible projects – climate action indicator
- Financial innovation
- Supporting green bond market

Build resilience to climate change

- Making operations more resilient to climate change
- Increasing the portfolio of adaptation projects
- Developing the use of climate risks and vulnerability assessment tools

Further integrating climate change considerations across EIB standards, methods and processes

- Improving mainstreaming tools
- Extending coverage of sector policies
- Managing portfolio climate risks



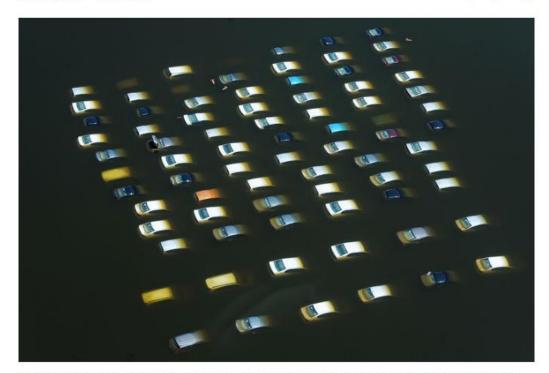
Climate Action – EIB has a target of more than 25% of its lending annually

- Mitigation addressing a global problem
 - e.g. Renewable Energy, Energy Efficiency, afforestation
- > Adaptation addressing a local problem (or is it?)
 - ADAPTATION IN PROJECTS Changes/modification to projects/systems that permit them to work as intended under climate change scenarios i.e. climate resilient projects – this will eventually be all projects in the bank, the "NEW NORMAL" the incremental cost of the project may be counted as adaptation and go towards the 25% target
 - ADAPTATION THROUGH PROJECTS Specific projects whose whole purpose is adaptation can help us all adapt to the climate changes - if the entire purpose of the project is adaptation the whole project cost may be counted as adaptation – e.g. entirely new and additional flood protection to address CC



Worst Thai Floods in 50 Years Hit Apple, Toyota Supply Chain

October 21, 2011 — 7:59 AM CEST f t 1



Honda Motors Co. cars are submerged in floodswaters at a Honda car factory in Ayutthaya, north of Bangkok. Japanese carmakers, including Toyota, Honda Motor Co. and Nissan Motor Co., are losing 6,000 units of production daily after halting production since early this month in their Southeast Asian manufacturing hub, the Japan Automobile Manufacturers Association said. Photographer: Christophe Archambault/AFP/Getty Images



Why should the Bank ask its promoters to adapt projects and systems?

- Climate change will have serious impacts on livelihoods all over the world, so we need to adapt projects/systems to ensure functions and outputs
 - Additional flood and storm protection (dykes, flood barriers etc.)
 - Bigger reservoirs and water preservation (dams, recharging aquifers, recycling water).
 - Greening cities and developing drought resilient crops
- Climate Resilient projects:
 - All projects need to be climate resilient to provide the expected outputs or benefits. If power plants fail, bridges collapse, hospitals become inaccessible – then livelihoods also suffer
 - Business need to be resilient: Buildings collapse, business supply and delivery lines interrupted, workers unable to works due to heat/cold, efficiency falls
 - · Food security and resilient land use

Cost are incremental and for infrastructure are often small

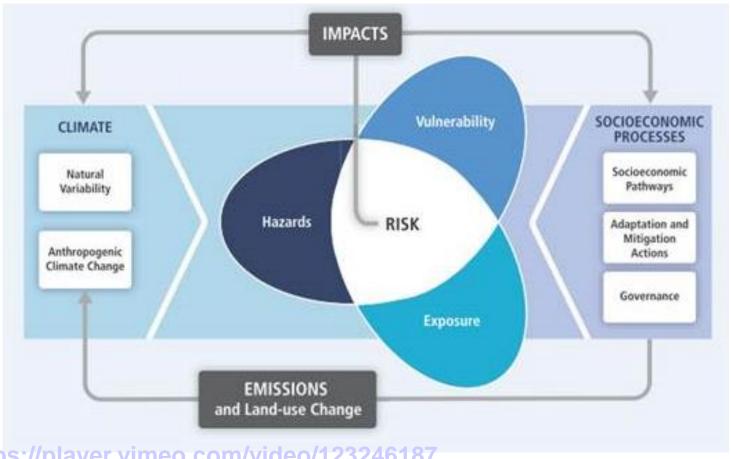


Risk and Reputation

- What risks does EIB normally look at:
 - Regulatory and economic situation of country
 - Cash flow, market demand, currency, interest rates, cost and availability of key inputs; Management and business plan
 - Technical, Environmental & Social (and reputational?)
- Climate change can have massive impact on most of these so EIB must integrate thinking on climate change into its project appraisal
 - Where is the cash-flow from the hydropower plant if there is insufficient water?
 - Where is the benefit from an industrial project that can't supply the market because supply chain is disrupted?
 - Where is the modal shift if the metro trains are in 5 m of water
 - (PS Where is your banking reputation if you financed a project that becomes a stranded asset or ceases to function because of climate change?!!)



Climate risk is determined not only by the climate and weather events (the hazards) but also by the exposure and vulnerability to these hazards.



https://player.vimeo.com/video/123246187



Adapting - to what, how and when

Some things we know – it will get hotter and sea levels will rise, the uncertainty is when and by how much - so monitor and have a plan.

➤ Adaptation to what?

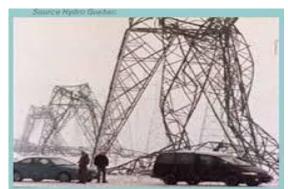
- •Change in **average** climate conditions i.e. hotter, colder, wetter, dryer, sea level rise, irreversible change in habitat
- Changes in frequency and size **extremes**: Storms, Hurricanes, floods, heatwaves, droughts etc.
- How and when to adapt?
- •Proactive change procedures, build stronger, secure supply/delivery lines, change products, move. This may be the best option if you are relatively sure what is going to happen
- •Reactive Have contingencies, larger stocks, pumps, backup electricity, evacuation/routs plans, insurance, standby agreements. *This is generally the best option if don't know the magnitude of the change.*





















Tools and support to help EIB teams analyse risks

- Systematic climate risk assessment started in 2015 all projects will be screened.
- Building up the knowledge starting with key sectors e.g. water and flood management and extending to others
- ➤ Work with interested parties to find most effective ways for EIB to support Promoters start with cities that want to adapt!
- ➤ Share Lessons learnt e.g. the earlier (EIB and clients) start addressing climate risks, the easier and cheaper it is.
- ➤ EIB as the EU's Bank is in the front line and needs to keep an eye out for these risks and opportunities
- ECSO and EIB's Adaptation Task Force will provide support internally to EIB and externally (support with CRVA ToR for example)
- Action plans are currently in development in EIB to implement all parts of the Climate Strategy – by sector and by geography



Preparing and developing an urban project

If there are likely to be climate change risks – EIB standards require the promoter to carry out a Climate Risk and Vulnerability Assessment (CRVA). EIB does not specify a particular model but a good CRVA <u>puts the project in the context of its surrounding system.</u>

- 1 Identifying critical assets and interdependencies.
- 2 Assessing direct and indirect risks and vulnerabilities to climate impacts.
- Identifying and assessing adaptation options.
- 4 Implementing adaptation options, both "soft" and "hard".
- Monitoring and performance evaluation.

- From 2017 EU directives stipulate that all EIA shall make include a climate risk and vulnerability assessment.
- However, this only captures projects that require and EIA, most projects don't so it will be up to the Bank to discuss with the promoter and to assess when a CRVA is needed.



MDBs encourage context and location specific processes though their Adaptation Finance Tracking Methodology (3 steps are required to count adaptation)

- Setting out the climate vulnerability context of the project.

 Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity
- Making an explicit statement of intent to address climate yulnerability as part of the project. Provide a short statement ing out the project promoters' intention to address the vulnerabilities that were identified with the aim to improve the climate resilience of the project or to improve the adaptation effectiveness.
- Articulating a clear and direct link between the climate vulnerability context and the specific project activities. Briefly describe what the specific project activities are that address the climate vulnerabilities identified (e.g. that a specific more climate resistant crop type was chosen; additional scour protection was added).



The Bank engages with project Promoter's

- System/business/operation/city/plans
- Talk about business continuity and disruption

Promoters and designers can NO longer

Predict Provide Relax...e.g. just follow the building code Instead:

- Need to identify where the cities systems and operations are vulnerable and what will cause them to stop working
- Hedge for various climate scenarios make informed decisions allowing flexibility (adaptive pathways)
- Review the decisions as information improves

If the Project is examined separately from its system you may get maladaptation – money spent on the wrong thing in the wrong place!



Adaptive pathways





Missed opportunities?

Every project is constrained by the urban network around it – but even if already under construction – an appropriate CRVA allows EIB technical team and the city to discuss preparedness/resilience.

It will help EIB and the promoter/city understand their systems and their vulnerabilities; it may allow a discussion regarding integrating climate risk assessment into urban planning and into the next project or programme – to ensure adaptation is better included next time.



Thank you!

For more information, contact EIB's cross-sector Adaptation Team

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And look at - European Climate Adaptation Platform

http://climate-adapt.eea.europa.eu/