

# The Green bonds market and the opportunity for the marine sector

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# Challenge

- IPCC, IEA on track for dangerous warming 4-5C; 2C already in the system
  - Tipping points: tropical deforestation, ocean acidity, melting glaciers...
  - We've failed: 20 years on marginal cost of carbon
- We need a rapid change approach: low-carbon + climate resilience
  - Parallel transitions
  - \$53tn mitigation investment till 2050 + \$40tn adaptation = \$2.65tn p.a.
- Good news: investment not cost!
  - Debt capital markets
  - Green infrastructure

**“The emergence of green bonds represents one of the most significant developments in the financing of low-carbon, climate-resilient investment opportunities,” UN Secretary-General - Climate Finance Report October 2015**

# The Green Bond Market



# We have the investor demand

- \$88<sup>tn</sup> assets under management
- \$30<sup>tn</sup> Insurance
- \$27<sup>tn</sup> Pension funds
- \$6<sup>tn</sup> Sovereign wealth
- \$25<sup>tn</sup> Fund managers, mutuals, foundations
- EM = \$5tn
- Green/brown



US\$25 trillion



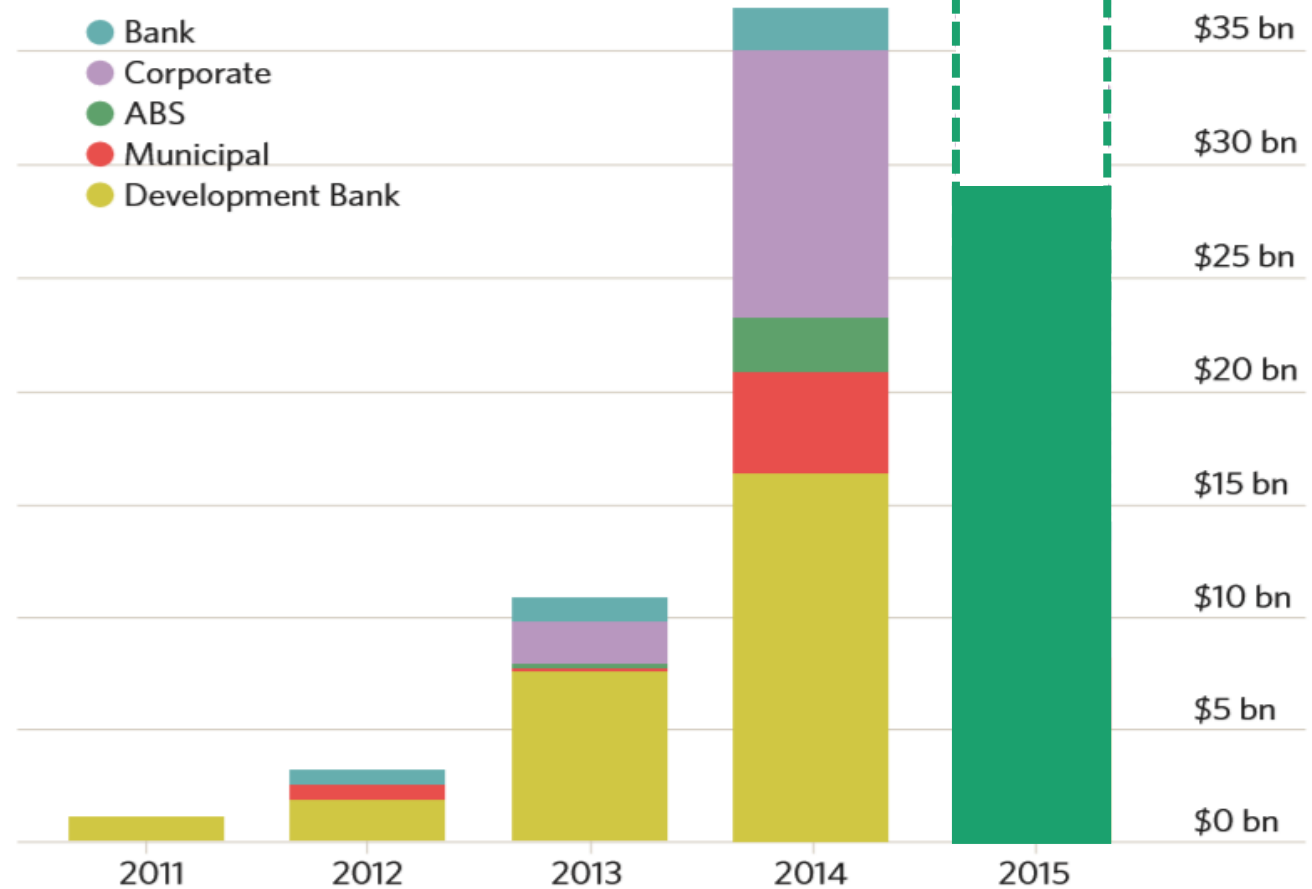
GLOBAL INVESTOR COALITION ON CLIMATE CHANGE

# Green bonds rapid growth

Growth is coming from corporates, banks and US municipals

Development Banks diversifying by currency, size and customizing for investors

**Corporate and municipal green bonds have become a key part of the market**



# The green bond basics

## Proceeds to green

- Vanilla
- Comparable pricing
- Refi as well as project
- 90% investment grade

## Any entity

- Governments & DFIs
- Corporates
- Asset owners: PPPs, banks, utilities, etc
- Municipalities

## Reporting

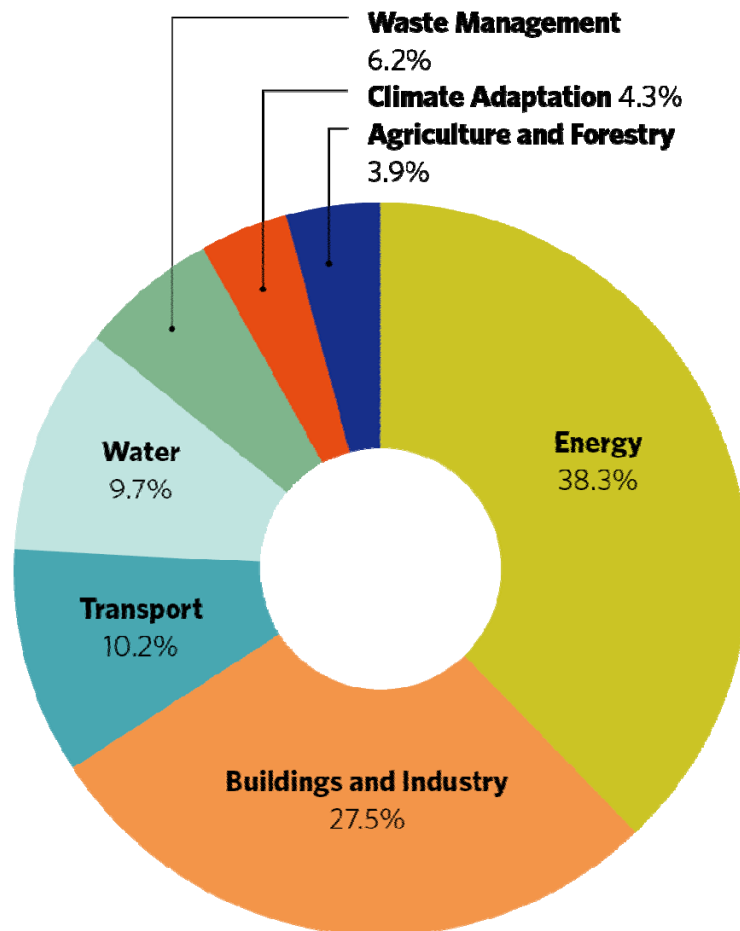
- Transparency to green asset or project
- Independent review
- Reporting on use of proceeds

## Benefits

- Investor diversification
- Stickiness
- Longer tenors
- Multi-asset for scale



# Green proceeds: Renewable energy is largest



**Energy:** Vestas, KfW, Terraform

**Buildings & Industry:** DBJ, Regency, Vasakronan

**Transport:** Full universe shows potential to grow much larger. TfL

**Water:** DC Water, US munis

**Waste:** Paprec

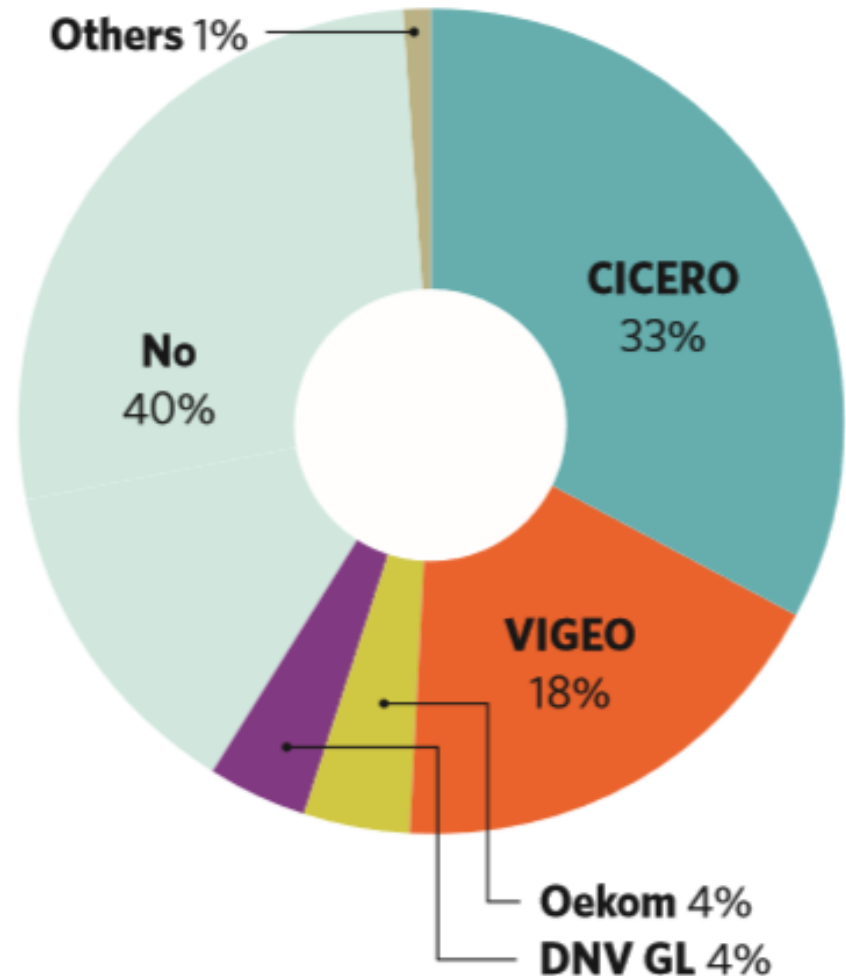
**Climate Adaptation:** Commonwealth of Mass, World Bank, IFC

**Agriculture & Forestry:** SCA

## Green credentials: independent review

60% of green bonds use  
some sort of 2<sup>nd</sup> review

Climate Bonds Certification  
supports scalability with a  
Standards-based  
approach





But there's more

Climate-themed bonds  
\$597.7bn

Project Bonds  
\$13.9bn

Green Bonds  
\$65.9bn

Climate Bonds INITIATIVE



The opportunity for the marine sector



# A need for action

- Over 90% of the world's fish stocks are over-exploited or depleted, while the need for food security and low-carbon protein production drives the demand for seafood.
- Ocean mis-management costs over \$200bn/yr in economic damage, rising to \$320bn by 2050 due to climate change impacts.
- Industries compete for marine resources - fishing, shipping, energy, tourism, mining - while insufficient policing makes conflict resolution and conservation very difficult.
- Climate change triggers rising sea levels and storms, making the majority of the world's population centers highly vulnerable.

# Some focus areas

## **Mitigation**

- Marine transport
- Port development
- Coastal development & infrastructure
- Marine energy
- Waste & supply chain management (fisheries)

## **Adaptation & resilience:**

- Port development
- Coasts (saltwater intrusion, sea water rise, natural infrastructure etc.)
- Aquaculture & food systems associated with marine environments (e.g. mariculture)

# Opportunities: some hypothetical examples

Category	Example use of proceeds	Relevant Issuers
Seafood Industry (supply chains)	<ul style="list-style-type: none"><li>• Marine fisheries – aggregation fishery improvement projects; marine protected areas</li><li>• Aquaculture facilities –sustainable practices; storage/distribution infra.</li><li>• Certification / chain of custody in supply chains &amp; sourcing</li></ul>	Corporates, Municipalities
Port & marine infrastructure	<ul style="list-style-type: none"><li>• Technology, efficiency upgrades</li><li>• Fleet capacity; improve service facilities for monitoring</li><li>• Natural infrastructure (mangroves, reefs);</li></ul>	Port authorities, municipalities and national govt's
Waste management	<ul style="list-style-type: none"><li>• Oil spill, pollution clean up</li><li>• Transport, handling,</li><li>• Plastics</li></ul>	Corporates e.g. Adidas, BP

# Challenges

- Lack of bankable projects and robust project pipelines
- Lack of well functioning bond markets
- Lack of preparedness for bond financing
- Lack of commonly acceptable green standards
- Risk adverse investors with limited capacity to analyse green investments
- Small investments that would not be attractive to large institutional investors
- Involvement of many stakeholders that lack coordination

## Climate Bond Standard and Certification Scheme

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# The Climate Bonds Initiative: What we do

- Information flows for ratings agencies & index providers
- Climate Bond Standards & Certification Scheme
  - Definitions for investors and guidelines for bond issuers
  - Assurance through certification
- Outreach to inform and stimulate the market
  - Policy models and government advice
  - Efforts in emerging markets to grow issuance (China, India, etc)
  - Facilitating discussions on securitization, covered bonds, Islamic Finance
- Partners Program
  - Platform for market participants to get involved during the formative stages
  - Tailored way to support the CBI's efforts to accelerate growth in green bond issuance and demand





## Science-based definitions



Renewable energy  
Energy storage



Green buildings  
Green cities



Industrial  
energy efficiency



Rail, BRTs, EVs  
Low emission vehicles



Waste management  
Methane reduction



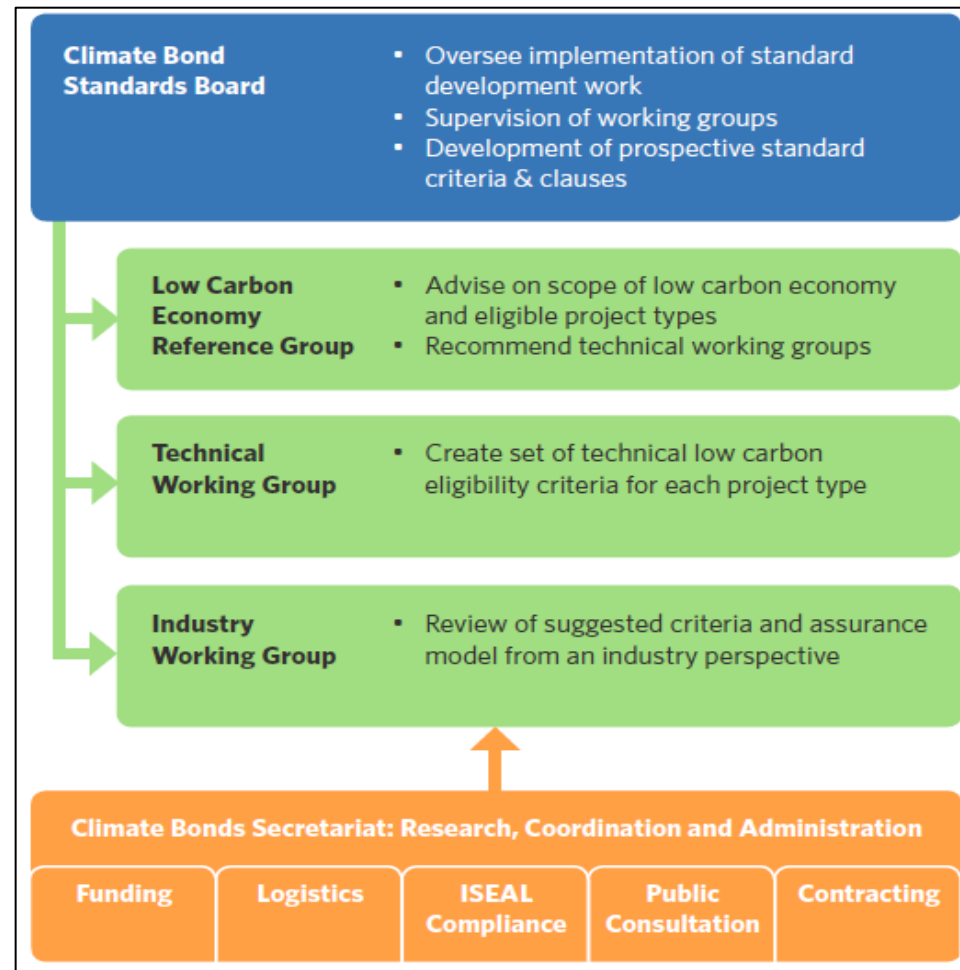
Land use  
Forestry  
Food supply chain



Clean water  
Storm adaptation



# Organisational Structure



# Who's involved?

## \$30tn Climate Bond Standards Board



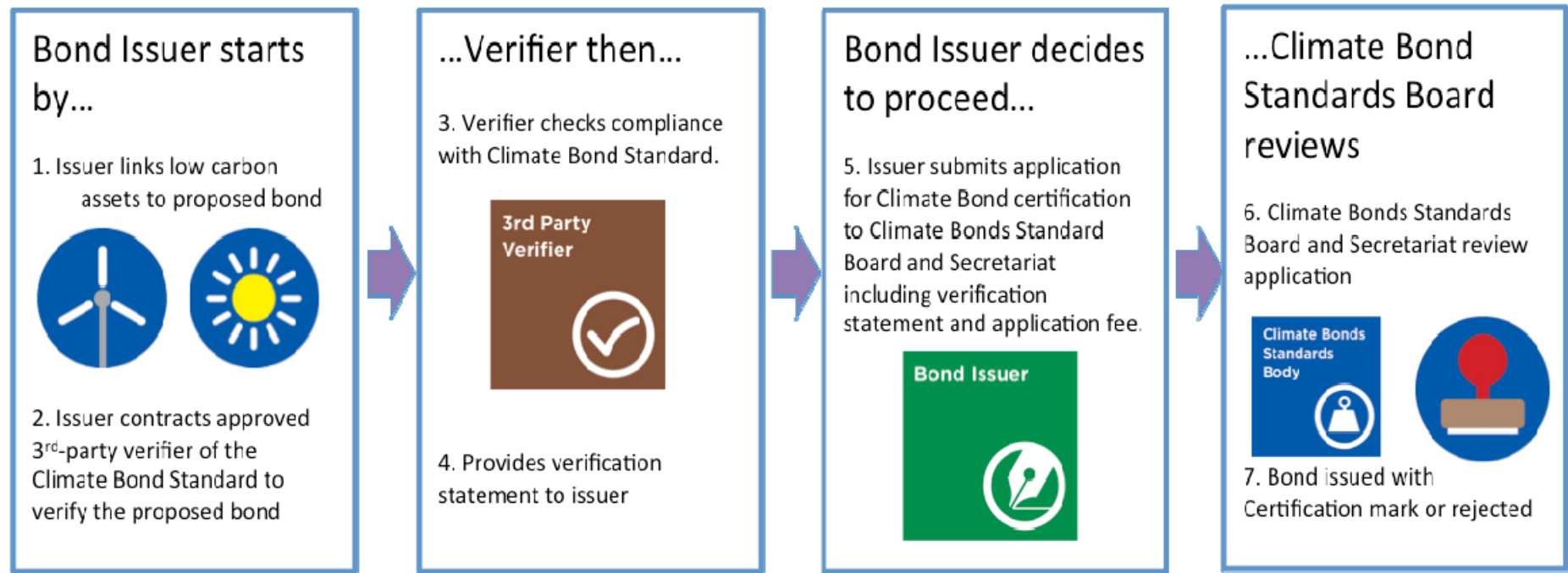
## Expert Committees: Green Property, Low-Carbon Transport, Bio-energy, Agriculture, Water



## Industry Advisory Group



# Certification – How it works



[www.climatebonds.net](http://www.climatebonds.net)

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