



Cambio Climático: ¿Cuál es el rol del sector privado?

Marina Hermosilla, Directora Ejecutiva

Líderes Empresariales por la Acción Climática, CLG-Chile
Icare, 11 de abril de 2019



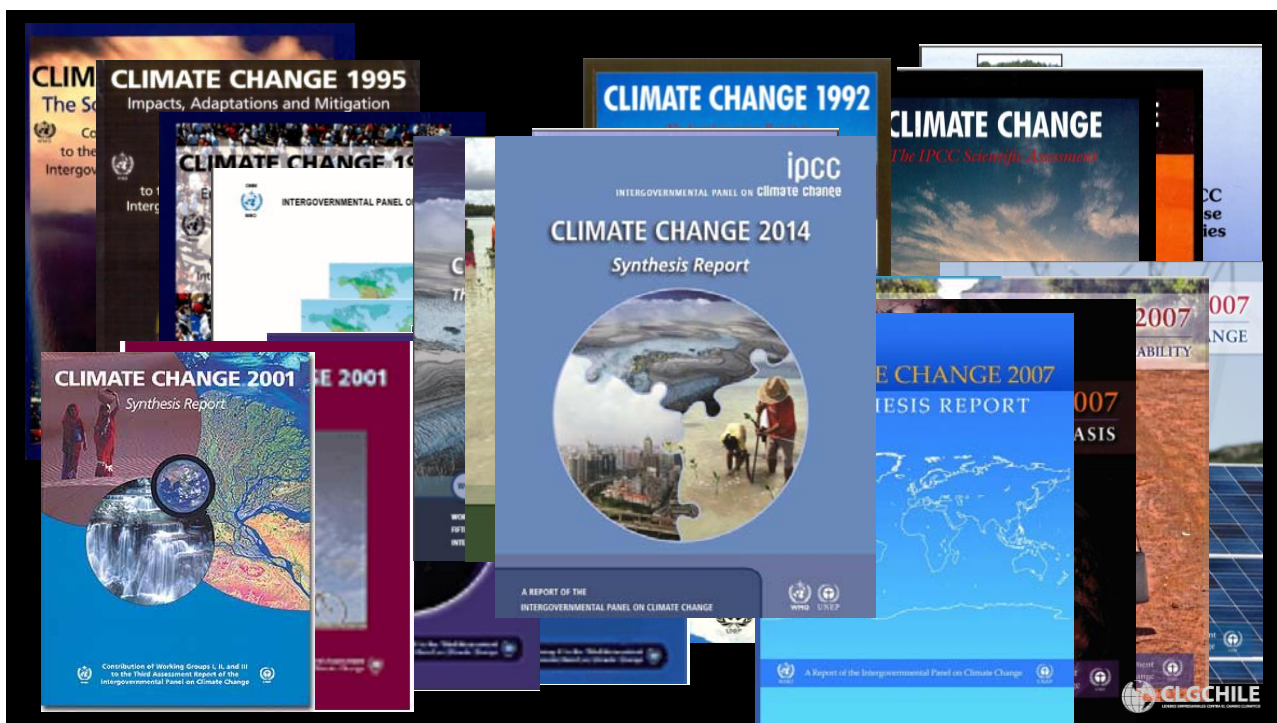
Impulsamos la transformación hacia una economía
menos intensiva en carbono y resiliente al clima
cuidando mantener un buen ambiente para los negocios,
de manera que ésta se traduzca en
oportunidades de desarrollo para Chile.



**“El cambio climático probablemente provocará
escasez de agua y alimentos,
enfermedades pandémicas,
peleas por refugiados y por recursos,
y destrucción de regiones alrededor del mundo por
desastres naturales”.**



U.S. Department of Defense
2014 Climate Change Adaptation Roadmap
October 13, 2014



Nations Unies Conférence sur les Changements Climatiques 2015

COP21/CMP11

Paris, France



ACUERDO ALCANZADO POR TODOS LOS PAISES DEL MUNDO, EXCEPTO SIRIA.



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EU-Japan trade deal first to carry Paris climate clause

Published on 17/07/2018, 3:32pm

The world's largest ever trade deal is also the first Europe has signed that commits both parties to upholding the UN climate accord



European council president Donald Tusk (Photo: European Union)

By Karl Mathiesen

Europe's massive free trade deal with Japan is the first the EU has struck with a specific provision on the Paris climate agreement.

CLIMATE HOME NEWS

EU and China agree sweeping joint statement on climate action

Published on 16/07/2018, 1:32pm

Leaders put climate at centre of relationship, push for agreement on the Paris deal rulebook and reject Trump's efforts to undermine global cooperation



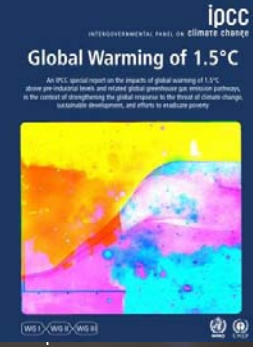

Chinese premier Li Keqiang and European Commission president Jean-Claude Juncker (Photo: European commission)

By Soila Apparicio and Karl Mathiesen

Climate change will become a "main pillar" of the relationship between the European Union and China, said leaders on Monday.

ACUERDO DE PARÍS

Art. 2: Objetivos

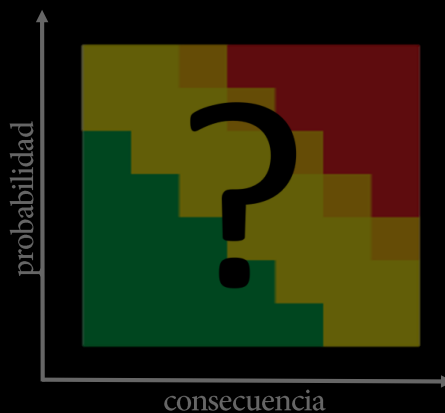
Fortalecer la respuesta mundial a cambio climático, en el contexto del desarrollo sostenible y la erradicación de la pobreza, en particular:

- a) Mantener la elevación de la T° media global por debajo de los niveles pre-industriales; intentando limitar el aumento de la T° media global a 1.5°C, lo que reduciría significativamente los riesgos y la vulnerabilidad.
- b) Incrementar y fomentar la capacidad de adaptación a los efectos adversos del cambio climático, así como el desarrollo bajo en emisiones de gases de efecto invernadero, de manera que no amenace la producción de alimentos, la seguridad alimentaria, la nutrición y el medio ambiente.
- c) Hacer que los flujos financieros sean consistentes con un desarrollo dirigido hacia un sistema de bajas emisiones de gases de efecto invernadero y resiliente al clima.**

El Acuerdo se llevará a cabo equitativamente, y bajo el principio de responsabilidades comunes pero diferenciadas, considerando las capacidades y circunstancias nacionales.

- No superar 2°C respecto T° preindustrial
- Balance emisiones cero al 2050
- Cada 5 años, los países se comprometen a entregar sus nuevas metas (NDCs) las que deben ser cada vez más ambiciosas.**
- El 2020 cada país debe entregar su Estrategia al 2050 y nuevas metas

Precio al Carbono



Big investors urge G7 to step up climate action, shift from coal

Alister Doyle

3 MIN READ



OSLO (Reuters) - Institutional investors with \$26 trillion in assets under management called on Group of Seven leaders on Monday to phase out the use of coal in power generation to help limit climate change, despite strong opposition from Washington.



In the letter, pension funds and asset managers said that “effective climate mechanisms” were vital for investors to make informed investment decisions.

“The investors are concerned they could lose money if different governments have inconsistent policies on climate change”

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Exxon, BP and Shell back carbon tax proposal to curb emissions

Tue 20 Jun 2017 12:32 BST

- Oil giants among numerous firms to support conservative group's plan
- But Greenpeace says: 'A PR exercise is no cure for decades of deception'



▲ Under the proposal, a \$40 carbon tax, rising over time, would be levied on emissions in order to encourage a shift towards renewable energy sources such as solar and wind. Photograph: Franck Robichon/EPA

Oil giants ExxonMobil, Shell, BP and Total are among a group of large corporations supporting a plan to tax carbon dioxide emissions in order to address climate change.

The companies have revealed their support for the Climate Leadership

CLIMATE HOME

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Top US Republicans pitch \$40 carbon tax to Trump

Published on 08/02/2017, 10:47am

GOP veterans say carbon dividend could put money in pockets of 70% of poorest in US while significantly cutting greenhouse gas pollution



James Baker served as U.S. Secretary of State and White House Chief of Staff under President George H. W. Bush (Pic: State Department/Flickr)

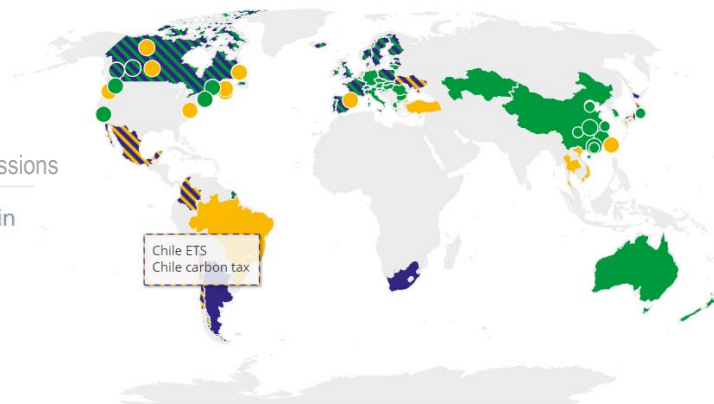
Regional, National and Subnational Carbon Pricing Initiatives

14 of the G20 economies have a national or subnational carbon tax or ETS planned or implemented

52 Carbon Pricing initiatives implemented or scheduled for implementation

These initiatives represent 19,5% of global GHG emissions

Total value (US\$ Bn) of carbon pricing initiatives in 2018



- ETS implemented or scheduled for implementation
- ETS or carbon tax under consideration
- ETS implemented or scheduled, tax under consideration
- Carbon tax implemented or scheduled for implementation
- ETS and carbon tax implemented or scheduled
- Carbon tax implemented or scheduled, ETS under consider...

Fuente: [The Carbon Pricing Dashboard](#) was developed by the World Bank Group with the help of [Ecofys](#) and supported by CPLC.



EU carbon prices have hit a 10-year high

European allowance price, €



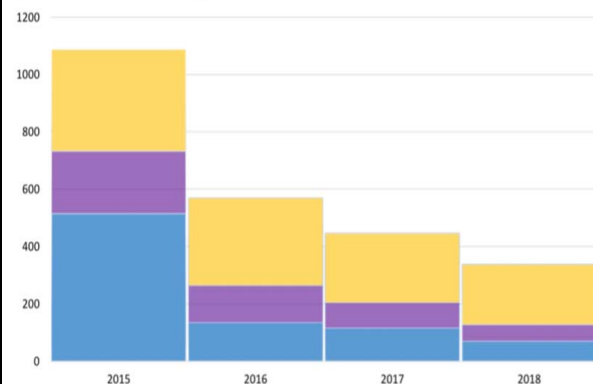
Guardian Graphic | Source: Sandbag



...los mercados responden consecuentemente...

Planned coal power capacity in pre-construction status has declined, with the biggest drops in China and India (gigawatts)

China = blue, India = purple, Other = yellow



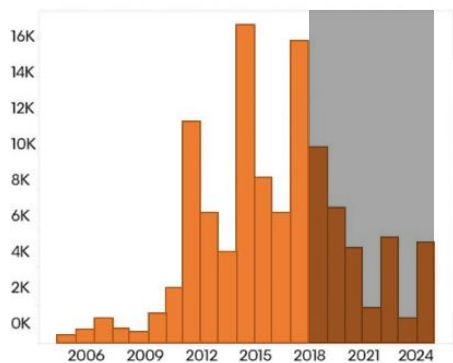
Fuente: <https://reneweconomy.com.au/global-coal-plant-pipeline-shrinks-for-third-year-in-a-row-31788/> visitado el 30 marzo 2019

BloombergNEF



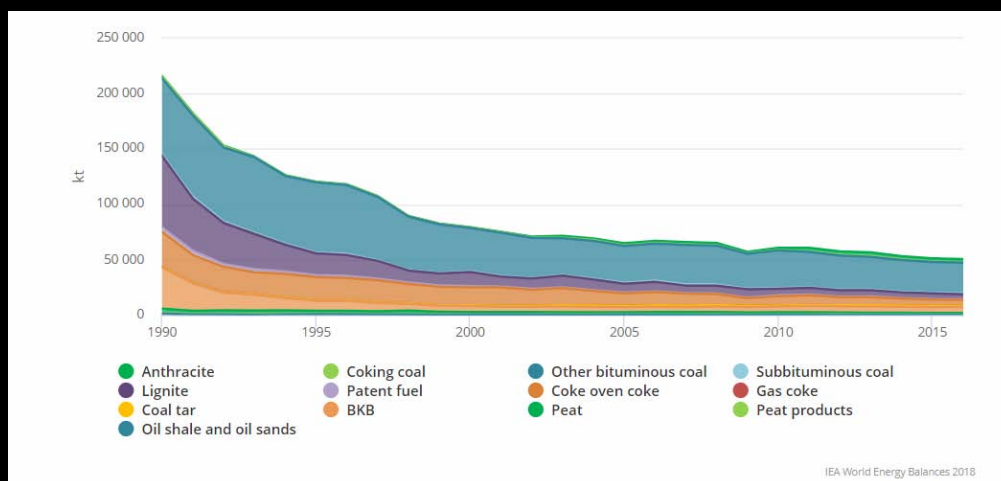
U.S. Coal Plant Retirements Near All-Time High

Historic and planned U.S. coal retirements (megawatts)



Fuente: <https://about.bnef.com/blog/u-s-coal-plant-retirements-near-all-time-high/> Jan, 2019

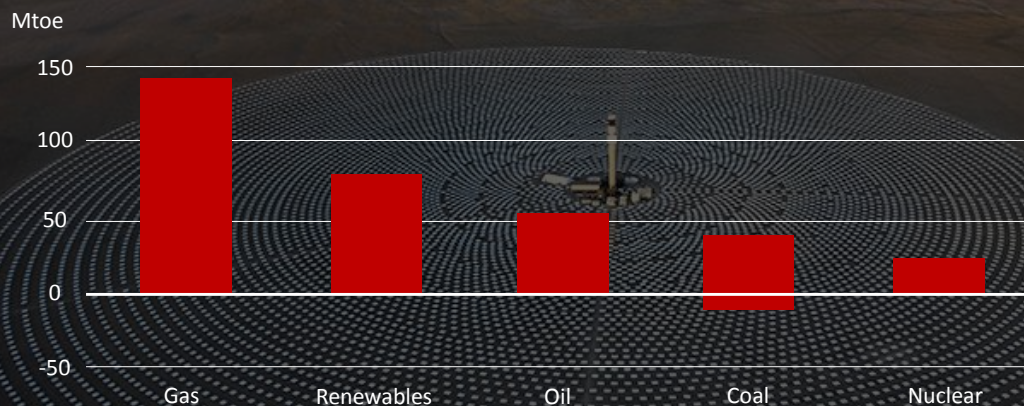
Unión Europea-28: Consumo final de carbón por tipo 1990-2016



IEA World Energy Balances 2018

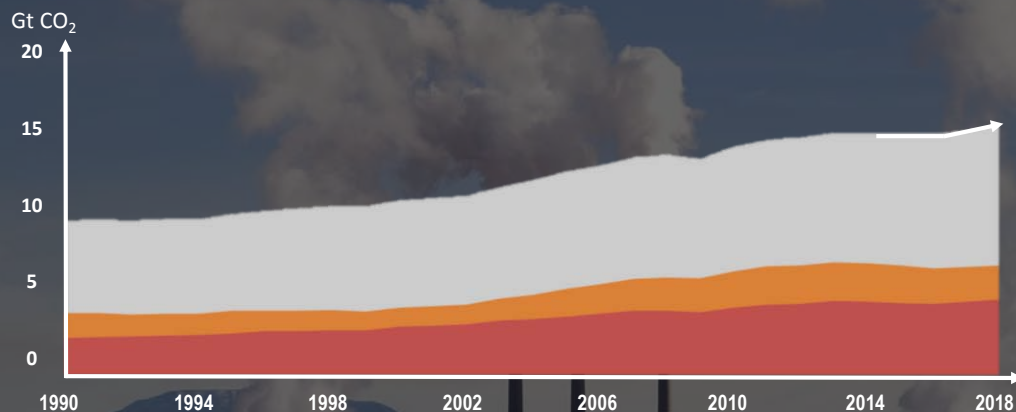
Fuente: <https://www.iea.org/statistics/?country=EU28&year=2016&category=Coal&indicator=CoalConsByType&mode=chart&dataTable=COALANDPEAT> Consultado el 9 de abril de 2019

Crecimiento global de energía primaria por combustible, 2017-18



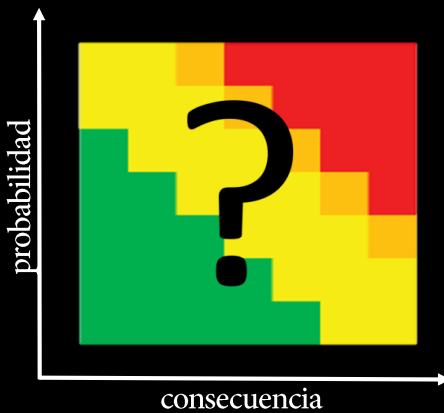
Fuente: <https://www.iea.org/geco/> Consultado el 9 de abril de 2019

Emisiones globales de CO₂ derivadas de combustibles fósiles, 1990-2018



Fuente: <https://www.iea.org/geco/emissions/> consultado el 9 de abril de 2019

Precio al Carbono



THE WALL STREET JOURNAL

Dec. 22, 2018 12:01 a.m. ET

Climate Change Drives Fish Into New Waters, Remarking an Industry

The cash is shifting northward as water temperature rise, forcing crews to retool boats and rework their business

The Price of Climate: Is Commercial Fishing in Hot Water?

PRICE OF CLIMATE

THE WALL STREET JOURNAL

July 13, 2015 1:50 p.m. ET

California Drought Leaves Few Farmers Unscathed

Even those with high-priority access to water are at risk of having their spigots turned off



THE WALL STREET JOURNAL

U.S. Edition | April 7, 2019 | Print Edition | Video

BUSINESS


PG&E: The First Climate-Change Bankruptcy, Probably Not the Last

The fast fall of PG&E after California's wildfires is a jolt for companies considering the uncertain risks of a warming planet



A PG&E truck makes its way past a hot spot during the Camp Fire in Paradise, Calif., in November. PHOTO: HECTOR AMEZCUA/SACRAMENTO BEE/ZUMA PRESS

The New York Times LOG IN



Billion-Dollar Storms: Is This the New Normal?

CLIMATE CHANGE
Billion-Dollar Storms: Is This the New Normal?

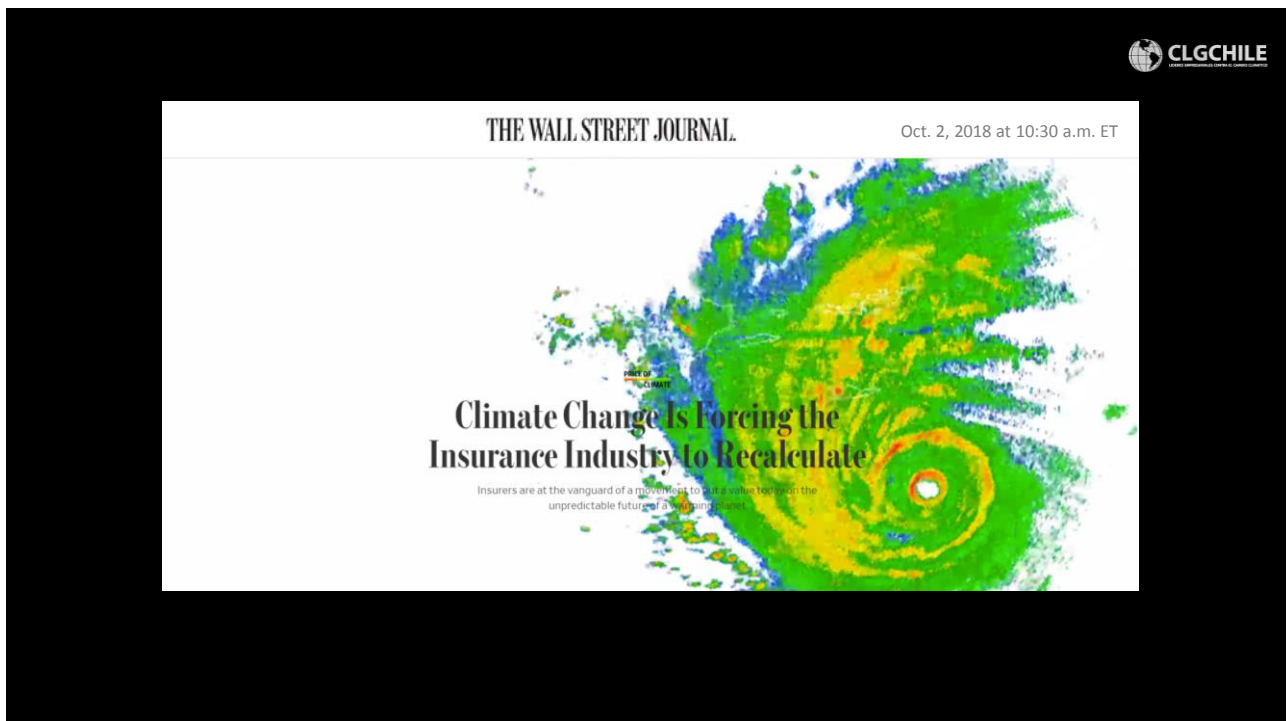
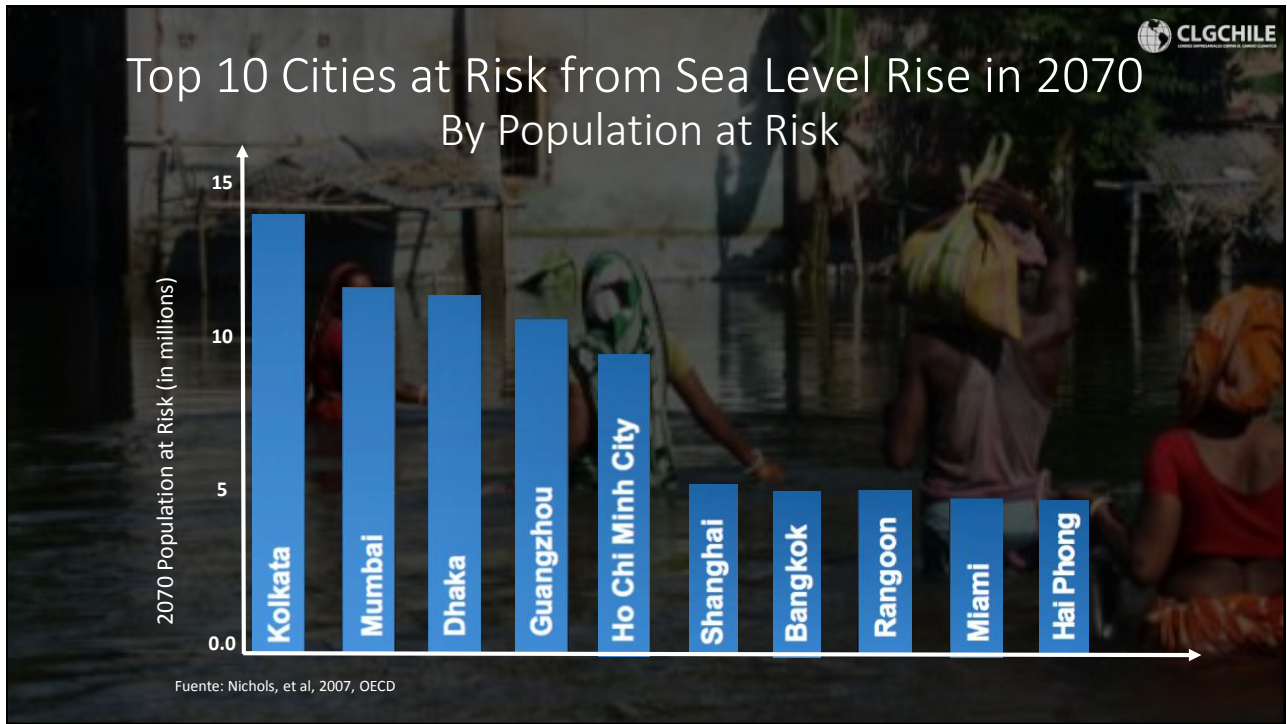
By DEBORAH ACOSTA | Jan. 29, 2018 | 5:39

In 2017 the U.S. saw some of the strongest and most expensive storms in history. As global temperatures continue to rise, things will get worse and more costly.

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ENVIRONMENT MARCH 21, 2019 / 4:00 PM / 9 DAYS AGO

Bank of England to set new rules on climate risk: Carney

Andy Bruce, David Milliken 3 MIN READ

LONDON (Reuters) - The Bank of England will soon spell out how it wants banks, insurers and investment companies to manage the financial risks from climate change, Governor Mark Carney said on Thursday.



FILE PHOTO: Cars caught in flood water after Storm Callum passed through the town of Carmarthen, west Wales, Britain, October 14, 2018. REUTERS/Rebecca Naden

The central bank under Carney has been vocal in highlighting climate change's potential

Environmental Finance

Home Green Bonds Stranded Assets Renewables

HSBC includes climate among its 'top and emerging risks'

08 April 2019

London-based bank HSBC has included climate-related risk in its list of 'top and emerging risks' for the first time.

The physical and transition risks posed by climate change "create potential financial impacts for HSBC through higher risk-weighted assets (RWAs), greater transactional losses and increased capital requirements", HSBC said.

Last year, the bank was among a group of the world's largest lenders that were criticised for their perceived lack of action




Home Green Bonds Stranded Assets Renewables

13% of European insurance assets exposed to climate risk

05 April 2019

Paris, France. Roughly 13% or €1.4trn (\$1.6trn) of European insurers' €10.6trn of assets are exposed to climate transition risk, according to analysis by the European Insurance and Occupational Pensions Authority (EIOPA).

The findings were presented at an event in Paris organised by the Institut des Actuaire in partnership with Axa and Schroders, which discussed how to better manage risk with




Report calls on Canada to require companies to disclose climate change risks to investors, pension plans

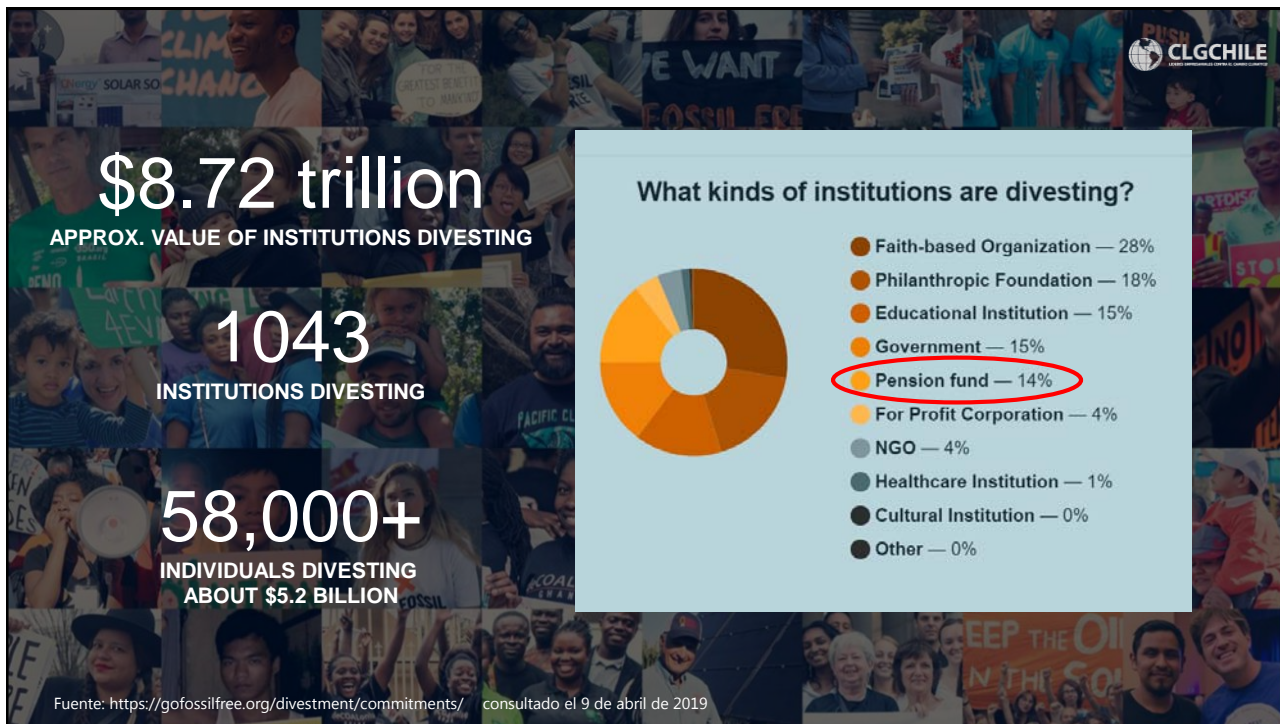
Seleccionar idioma Con la tecnología de Google Traductor de Google

OTTAWA, JANUARY 16, 2019: A new report from the International Institute for Sustainable Development (IISD) sets out a three-year policy roadmap for Canada to adjust its financial ecosystem to support meaningful climate change action. Central to this policy map is mandatory transparency around climate change risks held by business.

Fuente: International Institute for Sustainable Development <https://www.iisd.org/media/climate-change-risk-disclosure-canada>



The Guardian International edition
 Sport Culture Lifestyle More
 ThinkProgress
 9 March 2019 11:19 CET+01:00
 THE LOCAL no
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 Norway sovereign wealth fund, world's biggest, to dump oil and gas
 Another Giant Pension Fund Divested From Oil, Coal, And Gas Companies
 The Asahi Shimbun | Asia & Japan Watch
 TOP Japan News Politics Business Sports Culture
 Nippon Life won't invest in coal-fired power plant projects
 By SHUHEI SHIBATA/ Staff Writer July 13, 2018 at 16:30 JST
 Glencore to limit coal production after pressure from investors
 March 20, 2019 12:19 GMT
 The Guardian International edition
 Sport Culture Lifestyle More
 Fossil fuel divestment funds double to \$5tn in a year
 Reuters
 Ireland becomes world's first country to divest from fossil fuels
 ENVIRONMENT JUNE 1
 Swedish pension fund sells out of six firms says breach Paris climate deal
 California First State in the Nation to Divest from Coal
 SB 185 Signed by Governor Brown
 Thursday, October 08, 2015
 SACRAMENTO - Governor Jerry Brown today signed into law SB 185, which requires California's public pension funds, CalPERS and CalSTRS, to divest from holdings in thermal coal. The measure is the first of its kind in the nation. CalPERS and CalSTRS are the largest public pension funds in the nation, with \$293 billion and \$194 billion in assets, respectively.



FINANCIAL REVIEW

Business Markets Street Talk Real Estate Opinion Technology Personal Finance Leadership Life

BlackRock says coal is dead as it eyes renewable power surge

BlackRock's Jim Barry says it no longer makes sense to invest in coal. Christopher Pearce

“ Divestment movement has been a key driver of the coal sector’s 60% de-rating over the past five years ”

Goldman Sachs, Oct. 2018

**Acción climática:
oportunidad
para asegurar
un desarrollo global
sostenible e impulsar el
crecimiento económico**

“

Nuevos empleos, ahorros económicos, competitividad y oportunidades de mercado, y un mejor bienestar para las personas.

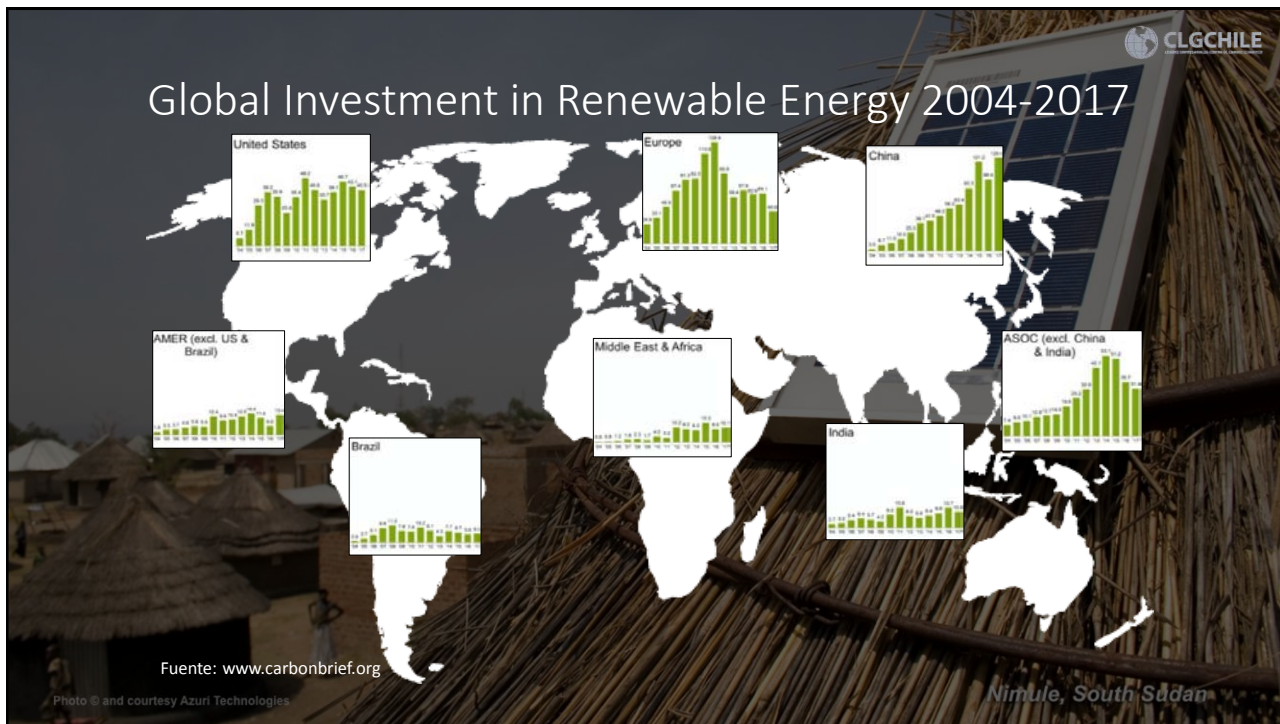
- Inversión en infraestructura: USD 90 trillion para 2030 (más que el stock actual).

Invertir en infraestructura de bajas emisiones de carbono ayudará a mitigar las emisiones de gases de efecto invernadero, reducir la contaminación del aire y mejorar la congestión del tráfico.

- Las NDC de 21 economías de mercados emergentes representan USD 23 trillion para 2030 en oportunidades de inversión.

”

World Bank



QUARTZ

HOW COMES THE SUN

Renewable energy is becoming so cheap the US will meet Paris commitments even if Trump withdraws

By Dale Swanson - July 6, 2017

U.S. solar energy jobs are growing 9X faster than the overall economy

Morgan Stanley Report, July 2017

CLGCHILE

A Warming Climate Brings New Crops to Frigid Zones

Longer growing seasons help lead northern farmers to plow up forests for crops such as corn that were once hard to grow in chilly territories

https://www.wsj.com/articles/a-warming-climate-brings-new-crops-to-frigid-zones-1543168786?mod=article_inline



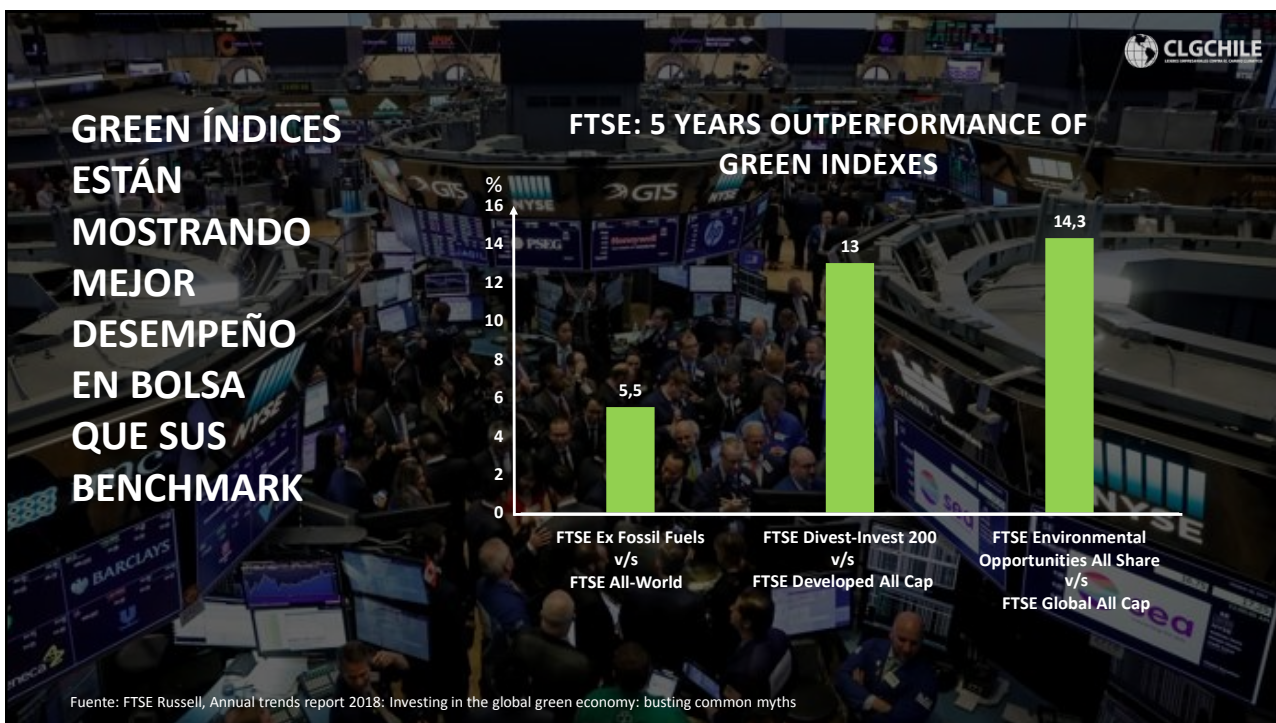
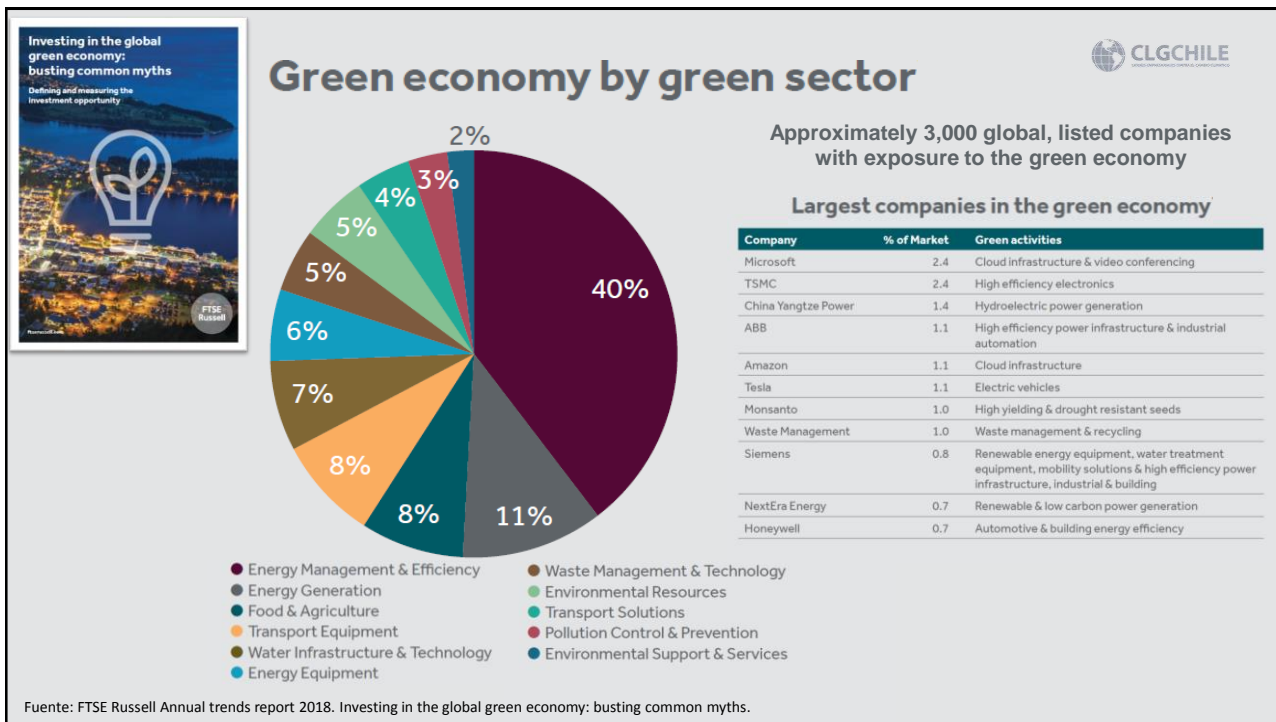
Growth of the green economy vs fossil fuel sector⁹



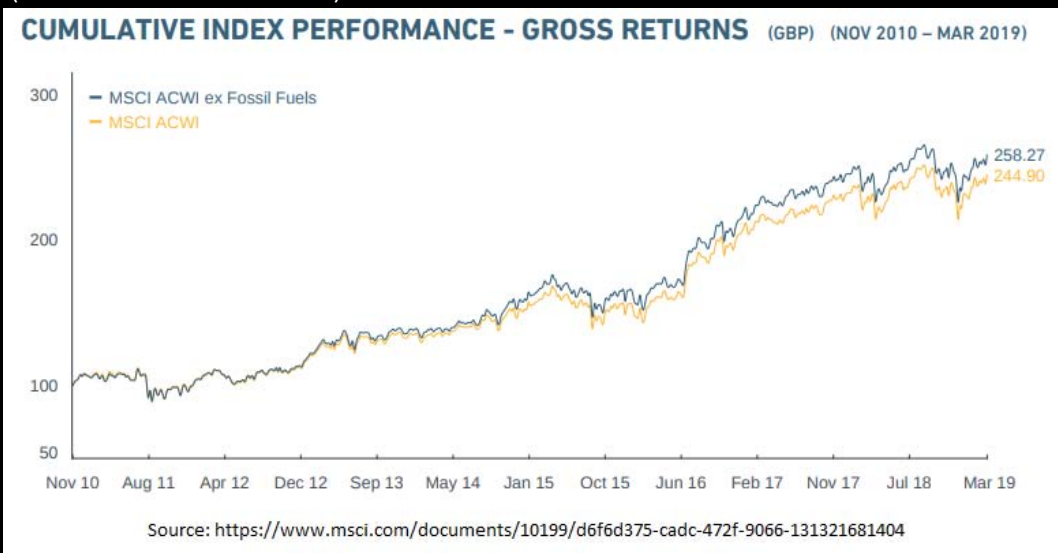
Source: FTSE Russell, data as of December 2017. Please see the end for important legal disclosures.

Nota: en este documento se trata el universo de la acciones públicas globales como un proxy para una evaluación de toda la economía. Como tal, nuestra definición de "economía verde" es la capitalización del mercado de renta variable global, ponderada por los ingresos verdes como una proporción del total de los ingresos, comparado con una evaluación macroeconómica del PIB global

Fuente: FTSE Russell, Annual trends report 2018: Investing in the global green economy: busting common myths



MSCI: World Index vs. World Index ex Fossil Fuels (Nov. 2010-Mar. 2019)

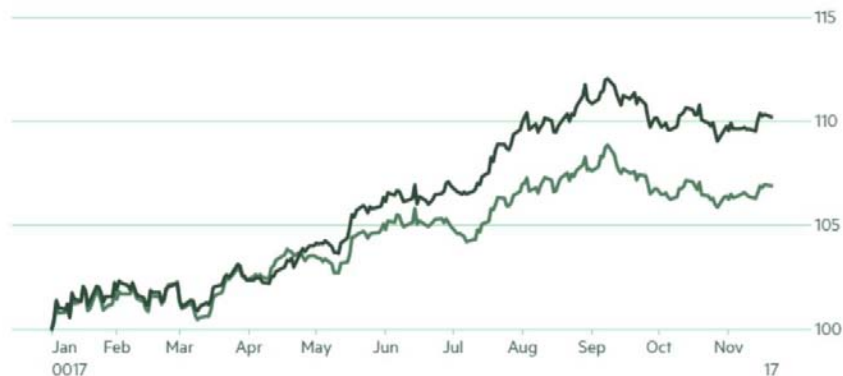


Green Bond Indices show a positive picture against Global Indices

Green bonds outperform

Indices rebased (Jan 2017 = 100)

— Green bond index
— Global bond index



*ICE BofAML indices

Source: Bloomberg

© FT

Venta de vehículos eléctricos en el mundo

Primer millón

20 años

Segundo millón

18 meses

Tercer millón

8 meses

Cuarto millón

6 meses

Fuente: Bloomberg New Energy Finance. 2018

...ya producen vehículos eléctricos

BMW

JAC

Peugeot

Bolloré

JAC Motors

Rayttle

BYD

Jaguar

Renault

Chery

Kewet

Samsung

Chevrolet

Kia

Smart

Citroën

Kyburz

Sono Motors

CODA

Land Rover

Stevens

COURB

Lightning

Subaru

ElectraMeccanica

Mahindra

Tesla

Fiat

Mercedes-Benz

Toyota

General Motors

Mitsubishi

Venturi

Girfalco

MW Motors

Volkswagen

Honda

NIO

Hyundai

Nissan

13 ciudades han comprometido comprar sólo buses cero-emisión desde 2025

Auckland
Copenhagen
Ciudad de México
Quito
Vancouver

Barcelona
Londres
Milán
Roma

Ciudad del Cabo
Los Ángeles
París
Seattle

Shangai y Shenzhen, en China, ya lo están haciendo



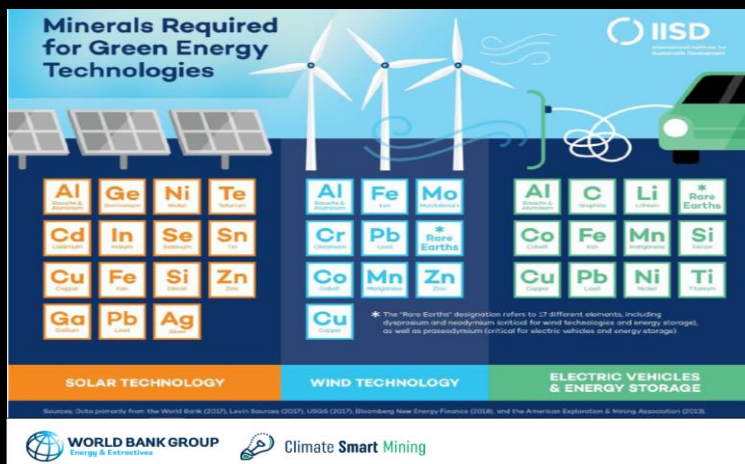
.....en 7 años la mitad de la flota mundial de buses será eléctrica*

*Fuente: Al Gore, discurso en COP24



...para todo esto se requieren grandes cantidades de minerales

“ Sin minerales y metales, simplemente no sería posible un futuro bajo en carbono ”



Fuente: World Bank. Introducing Global Smart Mining, 2019

The infographic features a dark grey background with a red silhouette of Chile on the left. Three overlapping circles are arranged in a triangular pattern: a red circle at the top, a green circle on the left, and a yellow-green circle on the right. The CLGCHILE logo is in the top right corner. A small asterisk footnote is at the bottom left.

CLGCHILE

Green Economy:
electromovilidad
y energías renovables

Chile: el mayor
distrito mundial de
minería metálica
para la
electromovilidad
(cobre, litio, cobalto... etc.)*

Chile: potencia solar
y de otras energías
renovables

*Fuente : Corfo 2017

A green thought bubble on the left contains the text 'Si es de Chile, es verde'. To its right, three small green circles lead to the Chile logo, which consists of the word 'Chile' in red and a cluster of red stars of varying sizes.

Si es de Chile, es verde

Chile

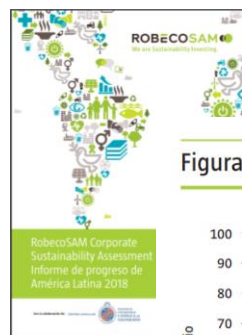
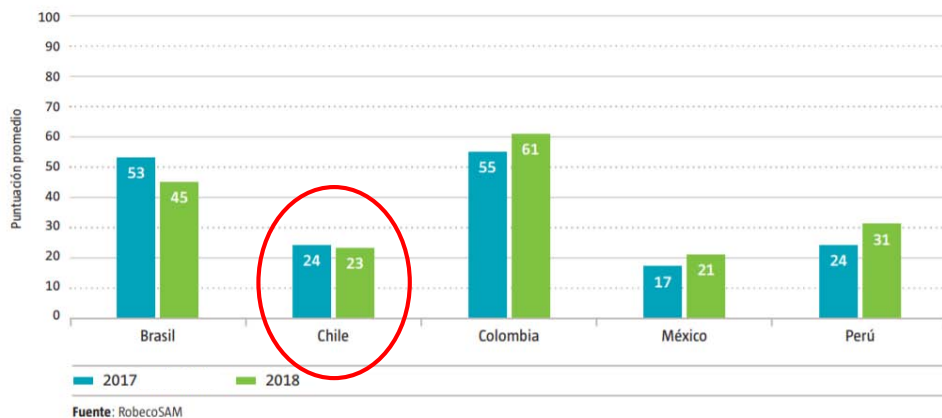


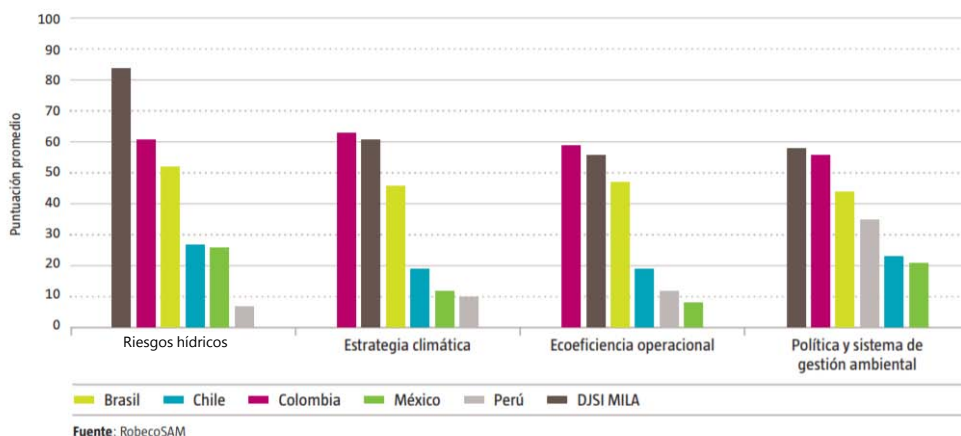
Figura 2: Puntuación promedio total por país



Fuente: DJSI Latin America Progress Report, nov. 2018



Figura 8: Criterios medioambientales



Fuente: DJSI Latin America Progress Report 2018

En esta nueva economía baja en carbono y
resiliente al clima...

...los primeros capturarán las oportunidades,
los últimos pagarán la cuenta



Chile

A graphic consisting of several green stars of varying sizes, arranged in a curved path that suggests the outline of the map of Chile.



Gracias



Marina Hermosilla, Directora Ejecutiva
Líderes Empresariales por la Acción Climática, CLG-Chile
Icare, 11 de abril de 2019