

Insights on investment needs for mitigation actions

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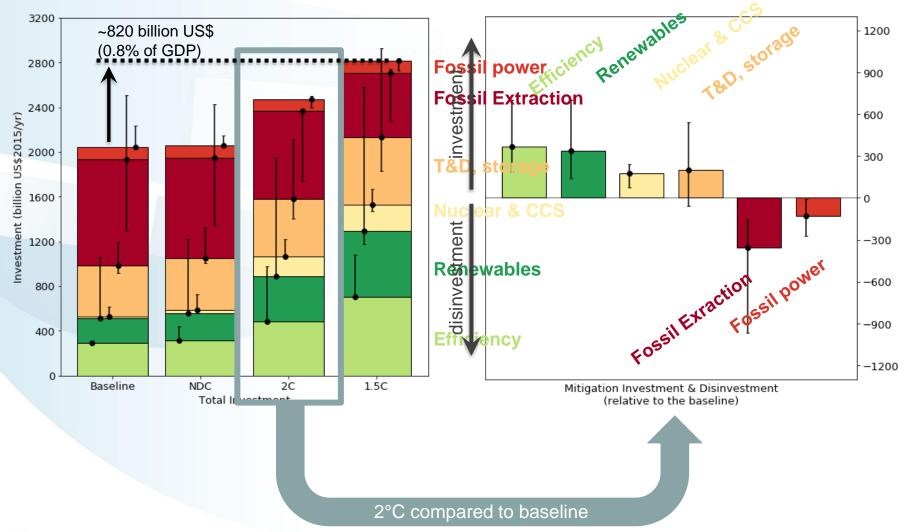
Experts Meeting on Assessing and Determining the Needs of Developing Countries

10 July 2019



Global Investment Portfolios for 1.5 and 2C

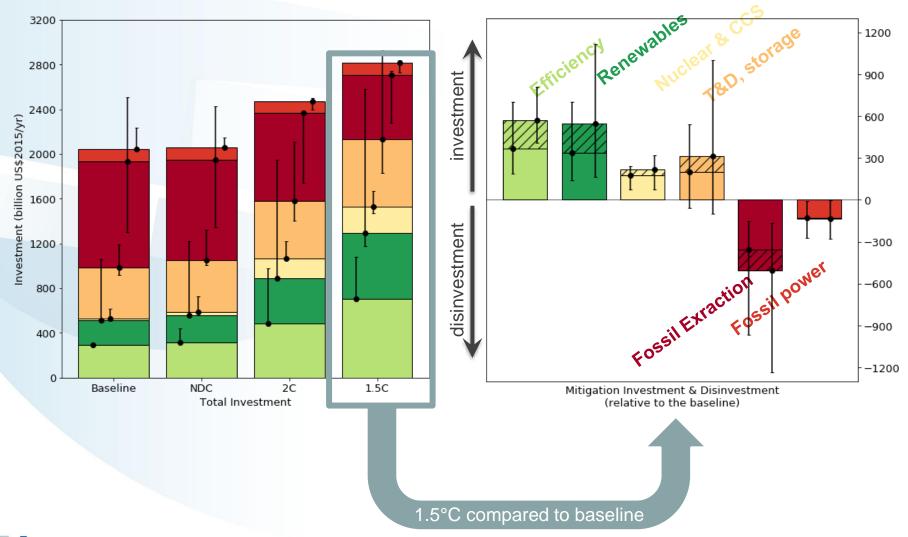
Average annual investments 2010 to 2050





Global Investment Portfolios for 1.5 and 2C

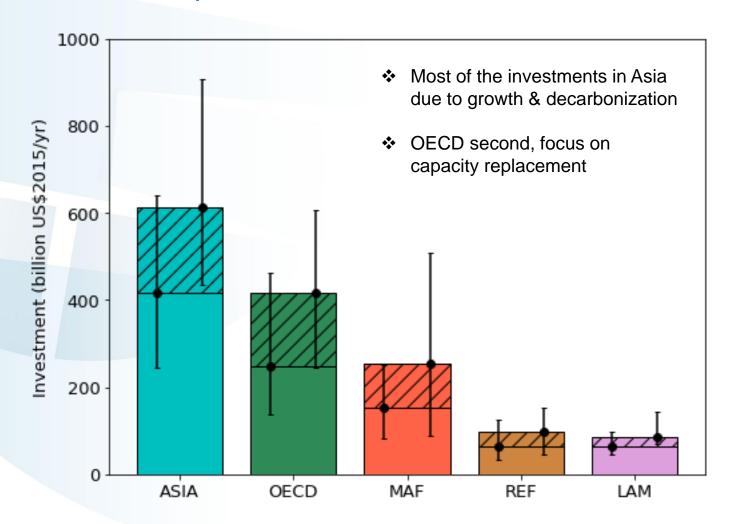
Average annual investments 2010 to 2050





Regional Investments (1.5 vs 2C)

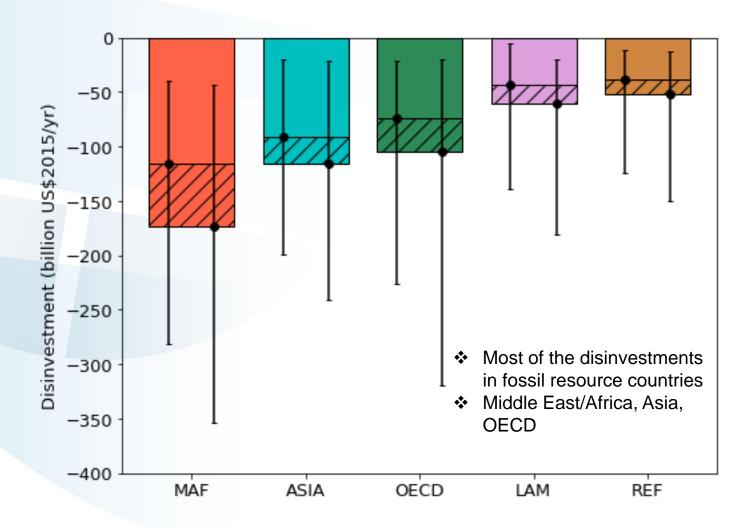
2015-2050, compared to baseline





Regional Disinvestments (1.5C vs 2C)

2015-2050, compared to baseline









Impact on investments for other SDGs

If the energy system remains largely the same

Energy access



50 (50 to 85)



If the energy system is transformed





200 (125 to 320)

Target 7.1:

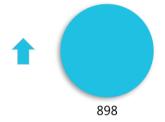
Ensure universal access to affordable, reliable and modern energy services

Policy costs to achieve 100% clean fuel adoption throughout the world via subsidies for cookstoves and fuels.

Clean water and sanitation







Targets 6.1, 6.2, 6.3, 6.4:

Ensure universal access to safe drinking water and sanitation; increase wastewater treatment; and reduce water scarcity

Investments for water-related technologies and infrastructures to achieve the targets.

Air pollution



200







130

Target 3.9:

Substantially reduce the number of deaths and illnesses from air pollution

Investments for air pollution control technologies to slow the growth in premature deaths due to PM2.5 and other harmful species.

Food security



1 (0 to 30)



1



40 (1 to 315)

Target 2.1:

Avoid an increase in those at risk of hunger

Policy costs to compensate the poor for any increases in food costs. Measured against a baseline that does not fully eliminate hunger.

Education



180





180

<u>Target 4.1</u>:

All boys and girls attain full primary and secondary education

Educational expenditures for delivering full attainment. Calculated external to models; thus no impact from energy system transformation.

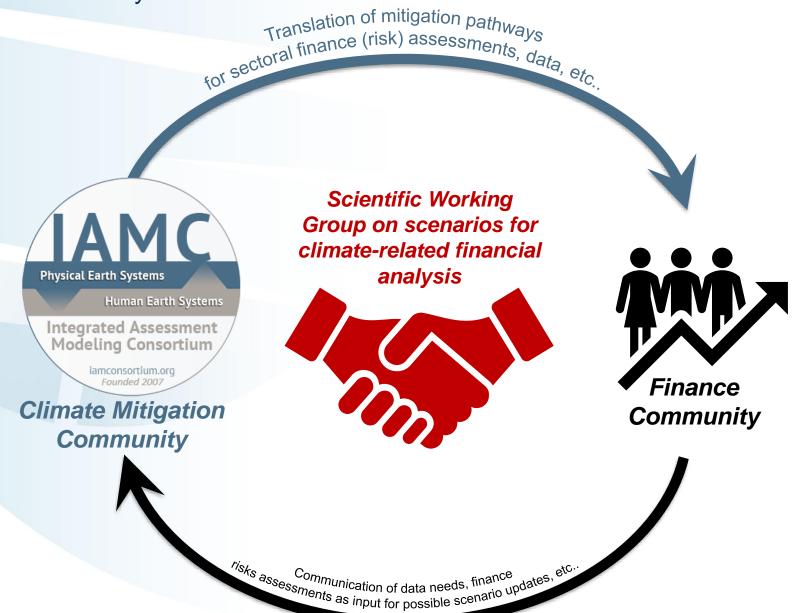
All data available

Paper: http://pure.iiasa.ac.at/id/eprint/15328/

Supplementary data:
 Detailed results from all six models for five world regions plus EU, USA, China, India https://www.nature.com/articles/s41560-018-0179-z

http://www.cd-links.org/





http://www.globalchange.umd.edu/iamc/2019/06/a-new-wg-onclimate-related-financial-analysis/





Thank you

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