

Setting the global scene



Brazil is one of several key countries where deforestation must be curbed to avoid global warming, a new international report says.
PHOTOGRAPH BY JOHN STANMEYER, NATIONAL GEOGRAPHIC

ENVIRONMENT

Climate change impacts worse than expected, global report warns

The Intergovernmental Panel on Climate Change says the world is facing more painful problems sooner than expected, as emissions keep rising.



Current national commitments on emission reduction are not sufficient to bridge the emissions gap in 2030. Technically, it is still possible to ensure global warming stays well below 2°C and 1.5°C, but if countries do not scale up their ambitions before 2030, exceeding the 1.5°C goal can no longer be avoided.



There's one key takeaway from last week's IPCC report

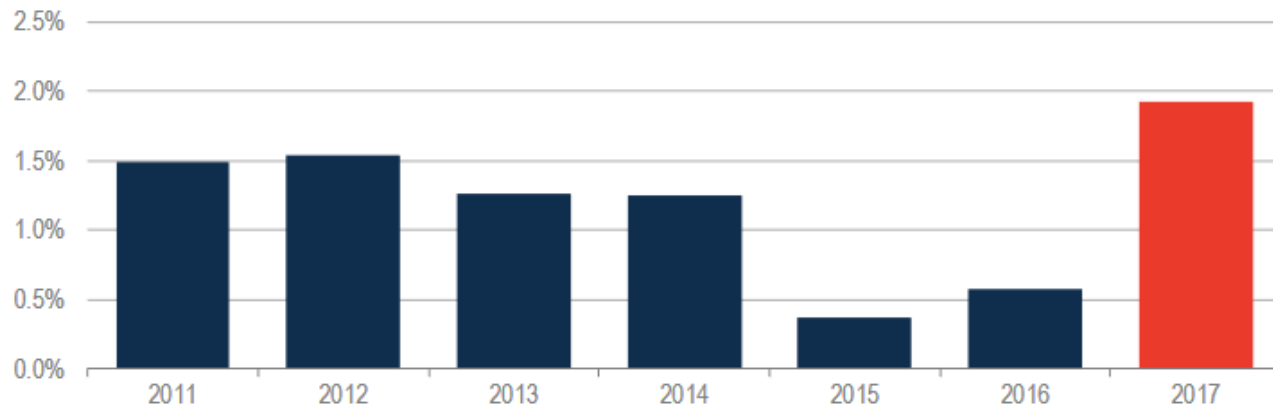
Cut carbon pollution as much as possible, as fast as possible



...set a target of no more than 2°C global warming above pre-industrial temperatures, the IPCC says. But there hadn't been a lot of research into the impact of sea level rise - felt that even 2°C global warming would take to achieve the 1.5°C limit and it would be of missing it.

Having a closer look at energy

Change in global primary energy demand

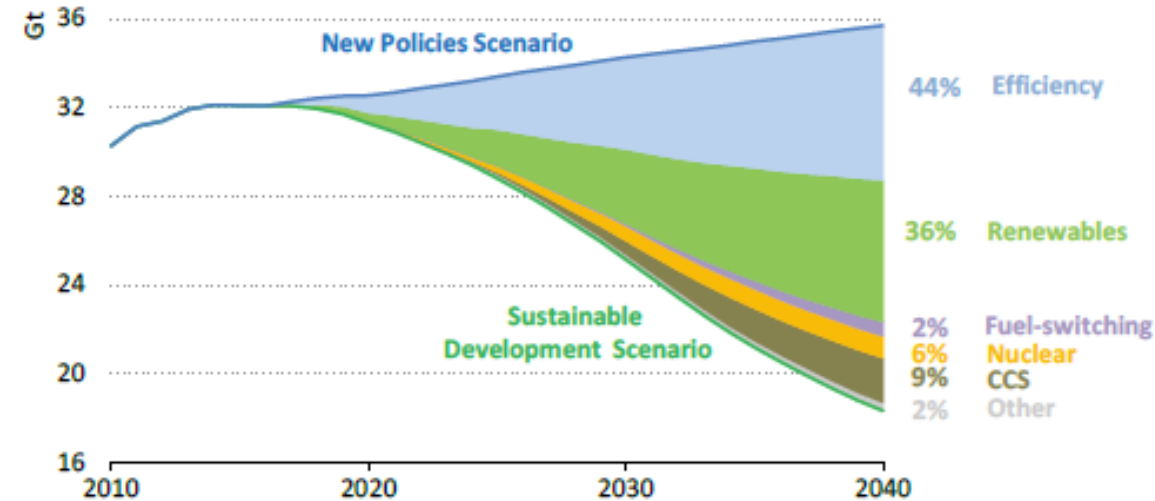


Increase in global primary energy by 2% in 2017

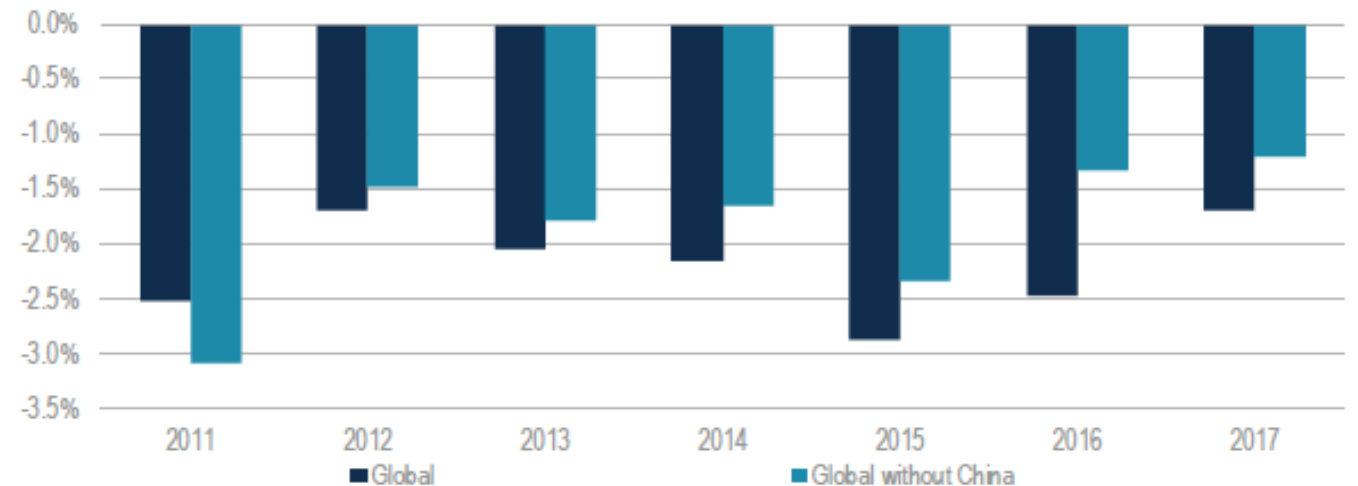
Slow down in reducing global primary energy intensity – only 1.7% in 2017

More than 40% of abatement to reach Paris Agreement can come from EE

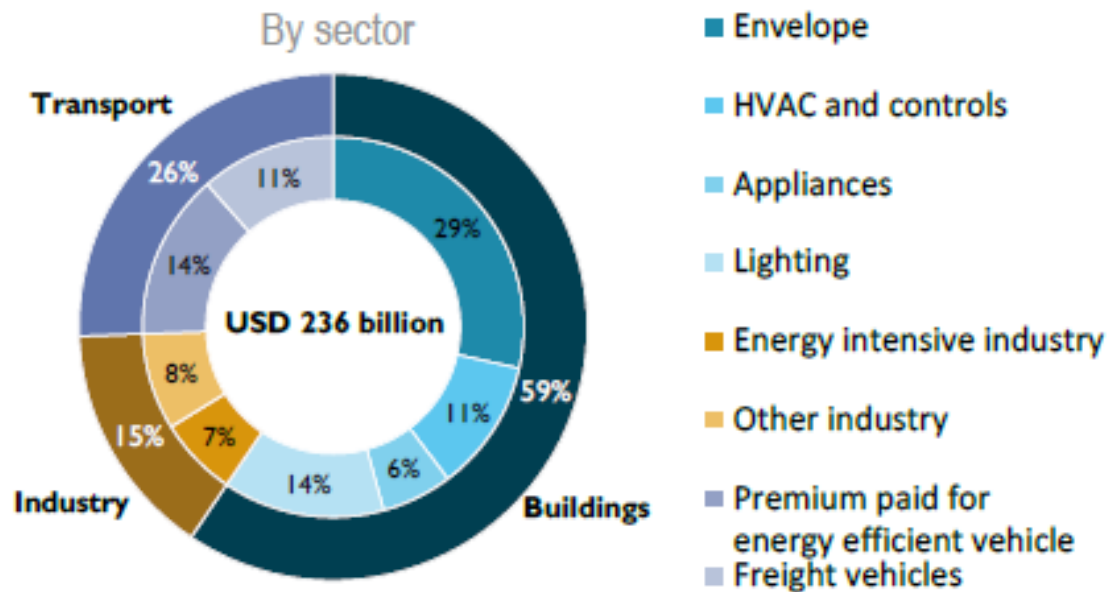
Global carbon dioxide (CO₂) emissions reductions



Changes in global primary energy intensity



Global investment gap



Need for implementation at scale

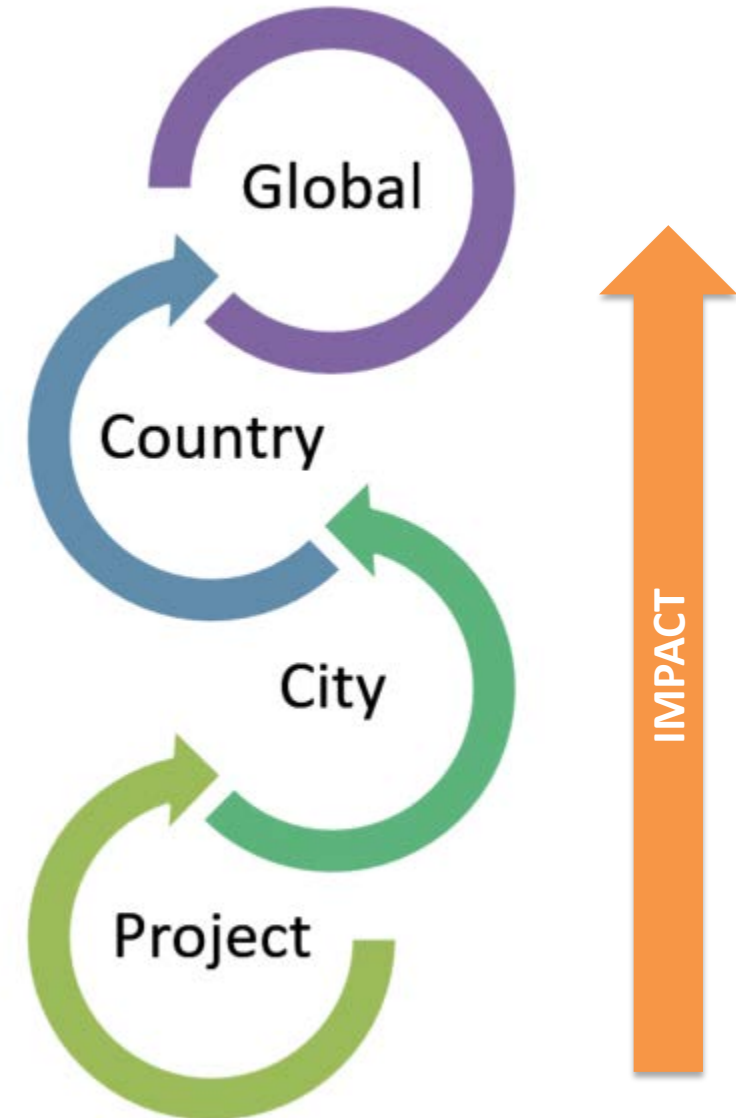
Small scale fragmented projects
Insufficient local project development capacity
Issues with access to finance

A 'Project Bundle' can be defined as:
A structure, which brings together several relatively small-scale energy efficiency projects or activities, to form a single thematic portfolio (i.e. 'bundle') above a certain investment threshold, which can be procured, administered and financed under the same structural framework

Standardisation

Aggregation

Facilitation



Standardisation

Aggregation

Facilitation

1.



National & local
level engagement

2.



Standardised
data collection
& analysis

3.



Bundling of
projects

4.



Financing &
Procurement

5.



Investment &
installation

6.



Aggregation: EE Street Lighting

Aggregation of Municipalities

1. Municipality A
2. Municipality B
3. Municipality C
4. Municipality D
5. Municipality E
6. Municipality F
7. Municipality G
8. Municipality H
9. Municipality I
10. Municipality J



10 X Municipalities



1. Forecast savings & Bundling

2. Project development



3. Financing



4. Public procurement



5. Implementation

On-going work in Georgia:



- Data collection is completed
- Technical assessment for the bundle is under way
- 11 municipalities
- Light fixtures to replace: app.50K
- Total investment: 7.8 Million USD

On-going work in Armenia:



- Data collected is completed
- Technical assessment for the bundle is completed
- 16 municipalities
- Light fixtures to replace: app.13.5K
- Total investment: 2.1 Million USD

On-going work in Argentina:



- Data collection is completed
- Technical assessment for the bundle is completed
- 41 municipalities
- Light fixtures to replace: app.270K
- Total investment: 135 Million USD
- Discussions with MDBs on-going
- Formation of SPV under consideration

Aggregation: EE in Existing Public Buildings

Aggregation of Buildings:

1. Buildings in Municipality A
2. Buildings in Municipality B
3. Buildings in Municipality C
4. Buildings in Municipality D
5. Buildings in Municipality E
6. Buildings in Municipality F
7. Buildings in Municipality G
8. Buildings in Municipality H
9. Buildings in Municipality I
10. Buildings in Municipality J

n Municipalities  ~ x million inhabitants



Interactive depositary for
bundles development



- Typical public buildings:
- schools, & sports centres, hospitals, etc..

On-going work:

- Data collection for technical assessment is in progress
- Active engagement with local CoM offices
- High potential for replication across typical buildings
- Countries for replication: Georgia, Armenia



Mind the gap

