

International Transport Energy Modeling (iTEM)

Fourth workshop



Organizing team:

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30–31 October 2018

International Institute for Applied Systems Analysis (IIASA)
Laxenburg, AT

Thank you to **IIASA** for hosting iTEM4,
and to **ClimateWorks** for financial support!

Outline

iTEM organization updates

Transport in the IPCC SR1.5 vs. iTEM models

Priorities & directions for the iTEM community

iTEM organization updates

Our partners

International Transportation Energy Modeling (iTEM)

Organized by



Contributors



Participants



2018 highlights for iTEM



New partner

Sustainable Transport Division

2018 highlights for iTEM



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OpenKAPSARC

The OpenKAPSARC platform provides free access to KAPSARC's data and research tools, to advance the understanding of energy economics and environment policy. It contains over 1000 machine-readable (API ready), model-ready datasets, 3000 indicators and over 30 million records.

This platform contains open source software and models fully licensed for public use. It also offers hundreds of energy datasets gathered from 175 data sources, 50 of which are regional. Each dataset shows the source, data use license and the timestamp of its last update on its information tab.

We check the validity of each regularly updated dataset at least every 45 days.

We hope you find OpenKAPSARC a useful resource and encourage you to comment on the datasets.

Web Apps

Developer Tools

Data Insight

KAPSARC Energy Data Portal



KAPSARC Insights



KAPSARC Maritime Transport Analysis Framework



KAPSARC Building Energy Assessment Tool



KAPSARC Global Energy Macroeconometric Model



KAPSARC Energy Model for Saudi Arabia



KAPSARC Toolkit for Behavioral Analysis (KTAB)

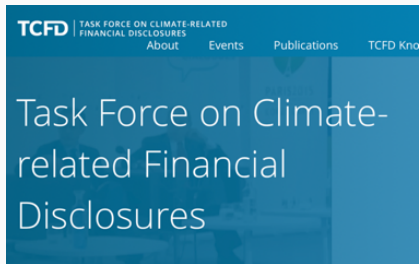
KAPSARC Vehicle Fleet Model

KAPSARC India Renewable Energy Policy Atlas

New collaboration: iTEM-KAPSARC

- More from Amar Amarnath in Session D.
- Proof-of-concept data cleaning & harmonization pipeline targeted for early 2019.

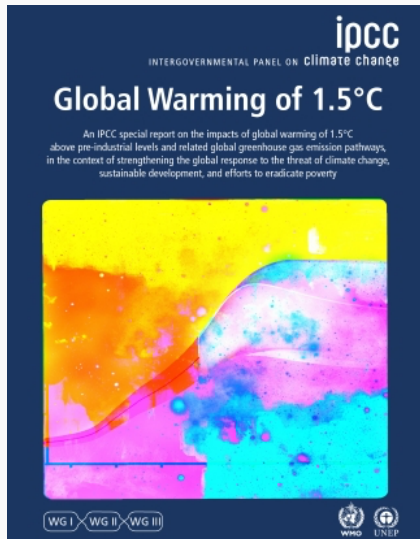
2018 highlights for iTEM



Public outreach

TCFD and BoE Conference on Climate Scenarios, Financial Risk and Strategic Planning

2018 highlights for iTEM



Major contributions

- iTEM2 paper cited prominently IPCC SR1.5 (more below).
- iTEM participants SLoCat (Gota et al. 2018) also cited.
- Target similar inputs to AR6 with next iTEM model database.

Transport in the IPCC SR1.5 vs. iTEM models

Introduction to/review of the IPCC process

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- iTEM2 paper (Yeh et al. 2016) a key reference in §2.4.3.3:
“Mitigation pathways compatible w/ 1.5°C in the context of sustainable development — Disentangling the whole-system transformation — End-use sectors – Transport”
- Yet iTEM model range not aligned w/ IAMs used in SR1.5 (next slide)

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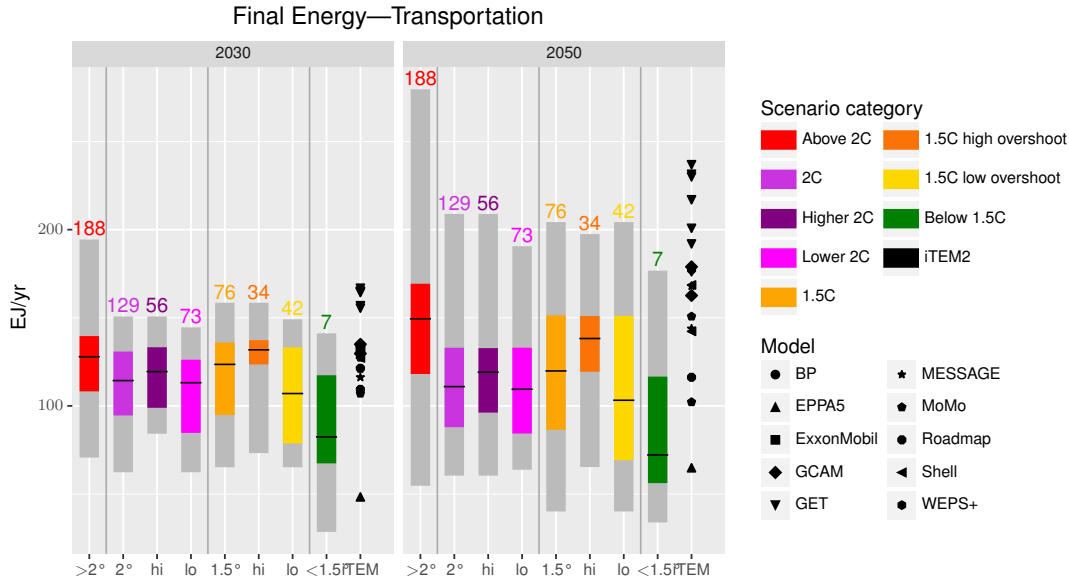
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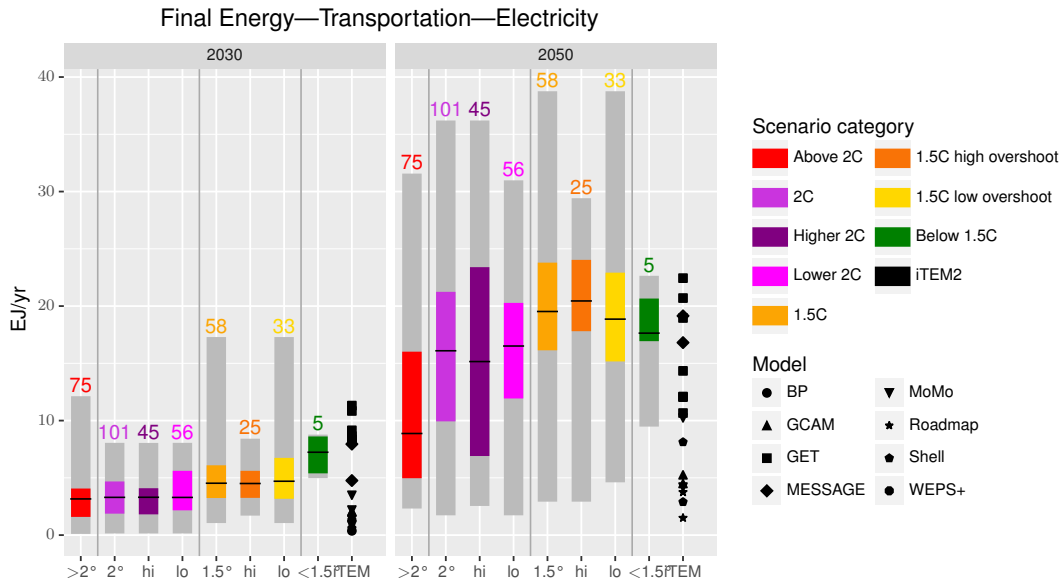
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2022: Sixth Assessment Report (AR6) to be released.

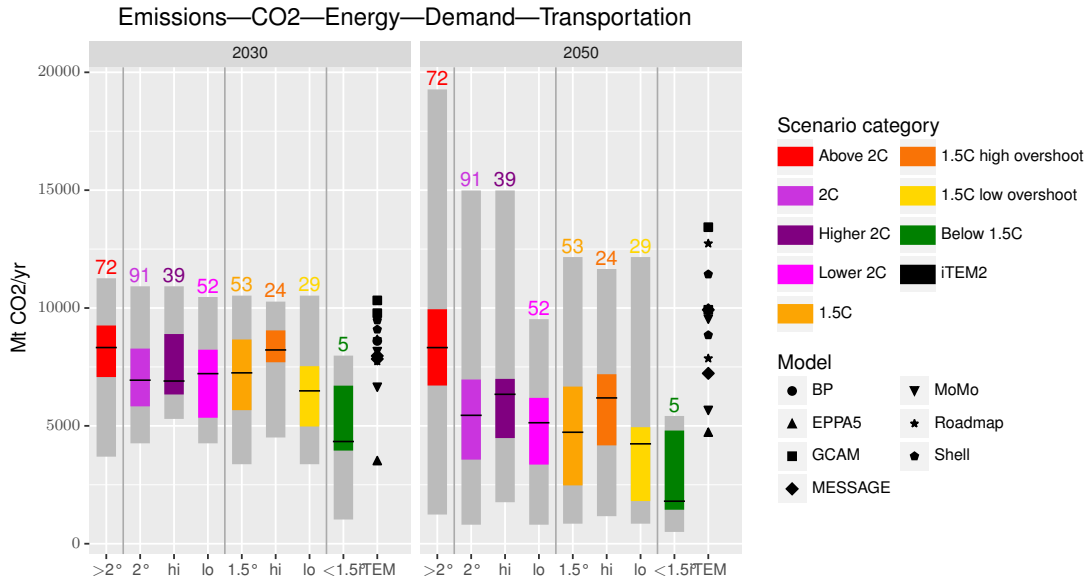
Comparing SR1.5 transport to iTEM2 models



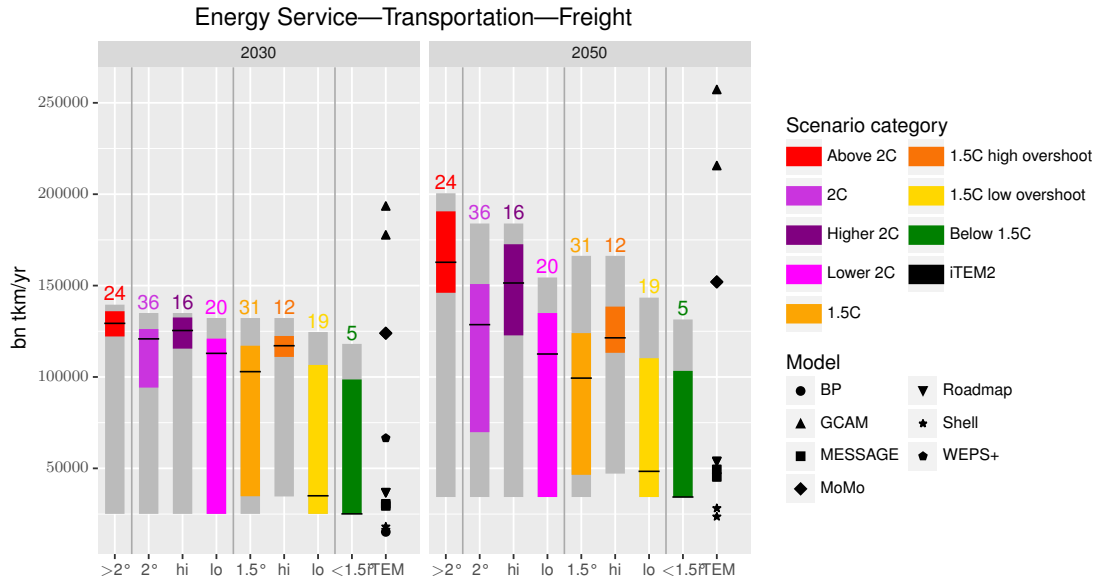
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mid-2020: papers to be included should be submitted for review → any submissions from iTEM members, or iTEM intercomparisons, should be prepared by this date.

To discuss at iTEM4:

- What information needs to make it into this report?
- Will iTEM members contribute jointly, individually, or both?

Priorities & directions for the iTEM community

Analytical priorities for the iTEM community

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Check your e-mail Wednesday morning!

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Responses (anonymized) to be used in a concise, public statement of analytical needs in transport energy modeling in next several years.

The next iTEM model database

Target: initial comparison at iTEM5 (Fall 2019)—publication in 2020.

Tasks and decisions:

- Which models? Recruit additional participants for completeness.
- Core research questions?
 - Sources & contributions of structural uncertainty— transport in a 1.5°C world—impacts of new technologies—others?
- Provision common historical data for (optional?) calibration, based on iTEM-KAPSARC process + output harmonization.
- Transparent process of analysis & plotting.
 - Open-sourced code so that participants can trace their data through harmonization and plotting.

Outline of the workshop

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Day 1

Opening session: A. Grübler keynote. Self-introductions: affiliation, transport interests, *your* goals for iTEM4.

Session A: New methods and models for projecting transport demand.

Session B: Autonomous, shared, and micro-mobility.

Day 2

Session C: Freight & international passenger transport.

Session D: New data sources & community database efforts.

Session E: Trucking & diesel vehicles.

Closing session: A. Eggert concluding thoughts.

Discussion of directions and priorities for iTEM into 2019.

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New logo & colours. Any suggestions?