

IAMC – Integrated Assessment Modeling Consortium

AIM International Workshop 2025 [Day 1, Session 2] IAMC SWG on National Scenarios Current Status

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Acknowledgement:

Scenario data: Modelling Teams [National, Regional, Global, Subnational]

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Registration: Phillip Hackstock (Research Software Programmer and Data Steward, IIASA)

David Almeida (Research Software Programmer, IIASA)

Date: 22nd July 2025 [14:15 – 15:30 Japan time]



Outline

Open Call

What has been accomplished?

Work in Progress

Next Steps

NEWPATHWAYS Eol –
Development focused Socio-economic indicators (DSPs)

Open Call

National Modelling Scenarios Forum (NMSF)



Study Objectives

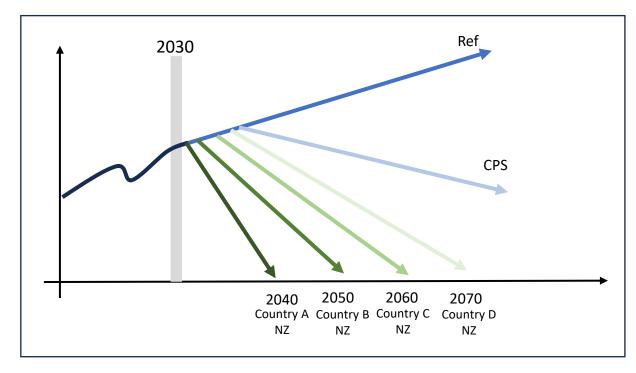


Modelling Community, Scenario Users:

- i. Collect and validate national scenarios to generate evidence base that could be used by national and international stakeholders [policy makers, negotiators, consultancies, global/regional modelling teams, business and so on]
- ii. Alignment of short term NDC with LT-LEDS and NZ scenarios
- iii. <u>Identify</u> similarities and different aspects across model and scenarios at country-level



IAMC SWG: National Scenario Protocol



Reference/BAU: Also known as baseline/business as usual scenario. This scenario assumes policies or measures implemented before 2015. Baseline scenarios are not intended to be predictions of the future, but rather counterfactual constructions that can serve to highlight the level of emissions that would occur without further policy effort.

Current policies Scenario (CPS): includes currently implemented policies adopted by governments (through legislation) or non-binding targets backed by effective policy instruments and planned policies in the pipeline to be adopted.

Net Zero scenario (NZS): The NZ scenario could capture the planned policies (including updated NDC), ratcheted implemented policies in addition to policies mentioned in each country's Long-Term Strategies (LTS) and/or Net Zero plans. Ambitions and pledges are considered in this scenario.

Illustrative Pathways (Authors, WIP)

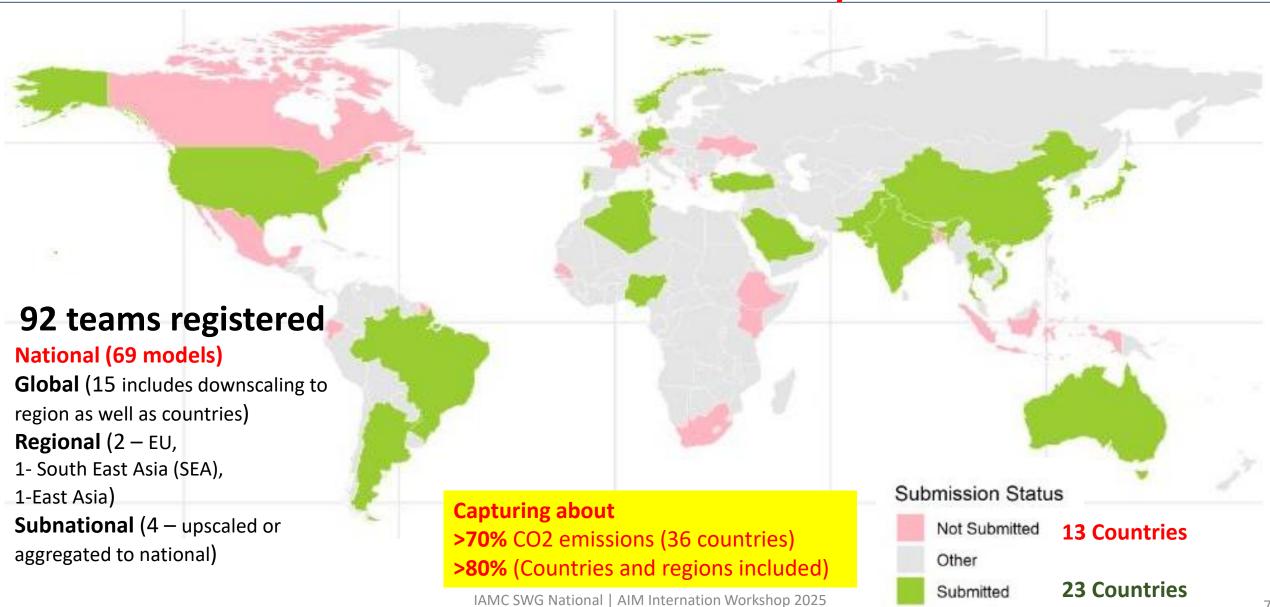
What has been accomplished?



Registration and Submission



101 teams - Interest Survey





Asian Countries (registration and submission)



Region	Country	Registered	Submitted	Modelling Network
East Asia	Japan	4 + 2 (Global)	4 + 2	AIM family, TIMES, Individual models
	South Korea	4	3	AIM, GCAM, MESSAGE, Individual models
	China	6 + 4 (Global)+ 1 (subnational)	3 + 2	AIM, GCAM, Individual models
South East Asia	Thailand	1	1	AIM family
	Indonesia	1	1	ASEAN Energy Outlook
	Viet Nam	1	1	AIM family
South Asia	Nepal	1	1	AIM family
	Pakistan	1	1	MESSAGE-ix
	India	8 + 1 (subnational)	3	AIM, GCAM, MESSAGE, Individual models
Middle East	Saudi Arabia	1	1	GCAM-KSA
	Turkey	1	1	MESSAGE-ix
Attempting to get countries from Central Asia		36	24	Encourage teams in the AIM community present here to register and submit scenarios

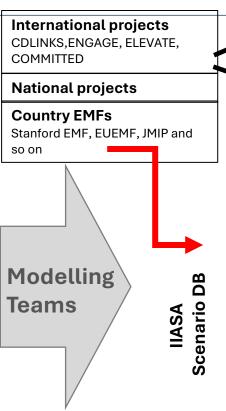
SWG National Scenarios | Meeting 12 [12.01.2024] | SSV

Possible Use Cases

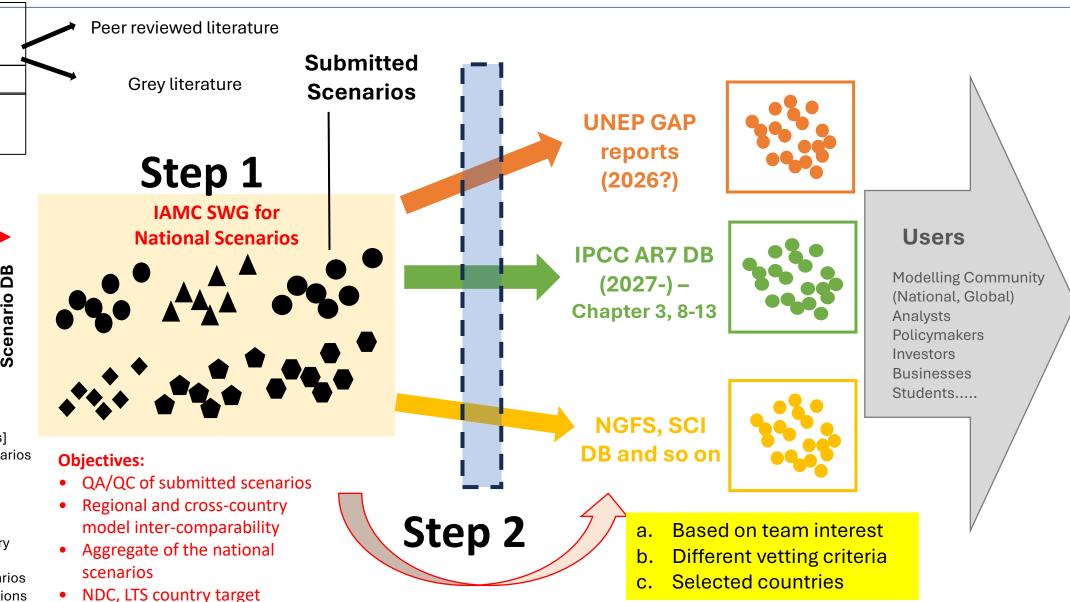


Draft -IAMC SWG National Scenarios

Initial figure courtesy:
Scenario Compass Initiative
Figure updated to understand
IAMC SWG National work-flow



- **Subnational** models [state/provinces or regions] aggregate to national scenarios
- National models
- Regional models with countries as regions
- Global models
 - Customized country scenarios
 - Downscaled scenarios with country as regions



IAMC SWG National | AIM Internation Workshop 2025



National/Regional/Global Modelling Community 🙄 🚉



	SWG National Objectives	Status
1	Promote standardization among national scenario development activities to <u>increase comparability and use in assessment</u> of international climate policy	Phase I in progress [101 teams, 32 countries] IAMC Template with 180 variables Vetting variables — Emissions, Energy, AFOLU Increase scenario data variables? Reference Data discussion need at country level [PRIMAP]
2	Inter-linking national activities to global activities	Global level: UNEP Gap (Request), IPCC AR7 WGIII processes, Network for Greening the Financial Systems (NGFS), Scenario Compass
3	Provide a <u>platform for sharing best practices</u> to build capacity through the exchange of information. This includes (but is not restricted to) national scenario development, model intercomparison and assistance with common reporting DBs.	Webinars: Asia, Latin America, DDP Network New Survey of National Sectoral Submissions Survey
4	Facilitate and support dialogue between IAMC community (global, regional, national) and national scenario users through outreach and communication activities.	Work in progress Webinars [IAMC, National, Scenario Forum]
5	Coordinate on archiving, documentation and communication of national scenario data and publications	Work in progress Registration on IIASA DB Publication/s – Under consideration Possible journals : Nature series, Energy and Climate Change, Carbon Management Synthesis Report

National Sectoral Models Survey



IAMC SWG - National SECTORAL Interest Survey

AIM Workshop 2024 – Feedback Contributors, stakeholders, subscription

- Google Form or Scan bar code
- Country
- Institute Name
- Model Name
- Model Type: national IAM, ESM, CGE
- Geographical coverage: National, subnational
- Project: International, National
- Country EMF
- Latest developed scenarios (NDC, CPS, NZ, other)
- Model documentation
- Relevant literature (4-5 articles if possible)
- Contact person
- Main developer of the model
- Used IAMC template



Next Steps



Next Steps

- 1. Please <u>register</u> your models (atleast), also please fill National Sectoral Models Survey
- 2. Please **<u>submit</u>** national scenarios (published, in process)
- 3. Translation of Model Output to IAMC Template (Challenging)
- 4. Publication
 - Paper (IAMC SWG NMSF study) Work in progress
 - Synthesis report (Protocol, Data quality check, analysis) Work in progress
- 5. Possible ideas for next submissions (potential papers)
 - Multiple Net Zero scenarios (policy relevant)
 - Country level SSP (academic)
 - Other (?)

Development focused socioeconomic indicators (DSP)

NEWPATHWAYS: Expression of Interest

Designing New

Development Focussed Socioeconomic Projections (DSPs)







Expression of Interest in DSPs



Objective: to support the use of **development focused socioeconomic projections (DSPs)** as input for a new set of global mitigation pathways.

We welcome collaboration with research teams that:

- Are currently contributing, or considering to contribute, to the development of DSPs,
- Have expertise in related fields such as macro-economic projections, demographics and development economics,
- Are committed to open science, and
- Are affiliated with universities or other public research institutions, preferably located in the <u>Global South or with strong ties to institutions in the Global South</u>.

Submission by end of 2026

- Narrative
- Quantitative



Access the full

Expression of Interest

Thank you for your time and patience!

Please contact for further information

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