



TFIAM-CIAM Work plan 2024-2025

Priorities, progress, plans & requests

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TFIAM & CIAM 2024/2025 work plan

≈ 25 specific tasks on the work plan matching the areas of the TFIAM mandate

- Integrate knowledge from science bodies in an integrated assessment framework and support the policy process with scenario analyses
- Produce special reports on request
- Stimulate national integrated assessment capacity and exchange experiences

Priorities for 2024/25 are on support to the Gothenburg Protocol revision process

- Integrate knowledge from science bodies into the IAM framework and further develop GAINS to enable scenario analysis replying to questions from WGSR, EB, and parties
- Provide documentation informing policy decisions

Requests received by TFIAM/CIAM

WGSR61

- To prepare a policy brief on the attainability of a 50% reduction target for health-risks as suggested during the Saltsjöbaden-VII meeting
- To assess the feasibility of reaching a 50% improvement also for ecosystems

EB43

- To provide further analysis on potential implications of introducing collective risk-based targets for the UNECE region to address air pollution impacts on health and ecosystems (adopted WP 2024/25)

Policy brief on potential targets to reduce risks for health and ecosystems (1/2)

- First version provided to EB43 as [informal document](#)
 - Focus on reaching a 50% improvement in health impacts from PM_{2.5} in 2050
- Comments requested by EB by 3 February 2024
 - Comments received from EU&MS, CH, UK
 - Comments received from TFIAM expert (UBA DE)
- Recurrent comments are
 - Choice of & criteria for base and target years; modelling intermediate years
 - Clear definition and documentation of scenarios (BL, LOW, GP compliant...)
 - Optimization also for O₃ health and combined PM_{2.5} O₃ health, analyses for ecosystems (biodiversity)
 - Explore staged/phased approaches
 - Sensitivity scenarios (impact of targets for marine ecosystems, impact of N management policies, ...)

Policy brief on potential targets to reduce risks for health and ecosystems (2/2)

- Document destined to evolve with modelling and assessments throughout GP revision (2024-2026)
- First updates planned for WGSR62
 - Updates in Baseline (EU consultations, West Balkan, EECCA)
 - CIAM modelling intermediate years (2035, 2040)
 - Region vs. state wise optimisation
 - Suggestions for analyses that could inform revision options for West Balkan & EECCA countries
 - Suggestions for optimisation for biodiversity protection target setting
- Further additions for EB44
 - First analyses informing revision options for West Balkan & EECCA countries (staged / phased approaches...)
- Not before 2025
 - Multiple health target optimisation (PM_{2.5} & O₃)
 - Other indicators (biodiversity, marine...)

Some key issues for the next steps

- Need for improving the involvement of/exchange with representatives of non-parties
 - technical and policy perspective
- Priorities on scenarios
 - WGSR, EB
- Collaboration with other TFs on issues relevant for data quality improvements, target setting, optimization, health...
 - => CIAM presentation

Further TFIAM work for 2024 and 2025

- **Draft guidance document on NTMs and structural measures to EB44**
 - Approaches to assessment and examples of successful implementation of such measures
 - Cooperation with TFRN (e.g., on dietary change)
- **EPCAC position paper on multi-level modelling**
 - Draft by summer, workshop in autumn, final version end of 2024
- **Coordination with task forces and expert groups**
 - Regular coordination with TFHTAP, TF-Health, TFTEI, TFRN, and FICAP
 - Commonly engaging in outreach activities

A call for collaboration with TFMM

- Correction of biases between modelled and measured concentrations
 - Whether and how biases are corrected differs between parties ($\Delta\%$, $+\Delta$, no correction)
 - Choices may impact on the assumed policy effectiveness
 - Choices can explain differences in scenario results from different models
 - Choices may be politically motivated
 - TFIAM is interested in systematic biases in average exposure
 - Raise awareness by countries' IAM modellers on this
 - Obtain information on options to bias correction, their rationale and potential limitations
 - Obtain recommendations on whether and how to correct systematic biases

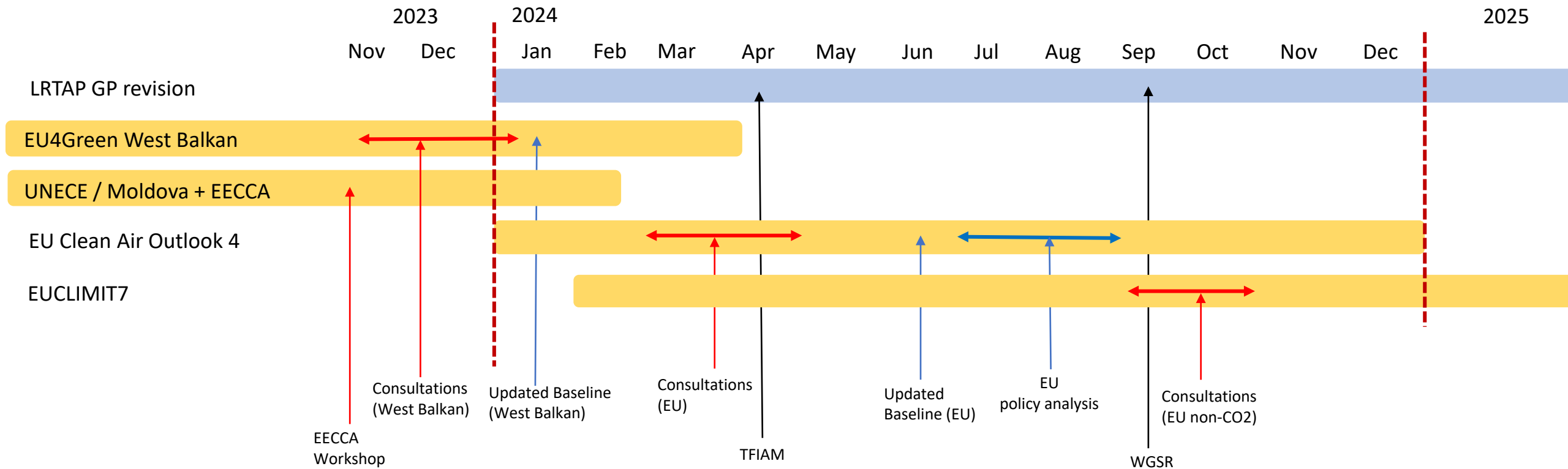


CIAM Work

Plans & requests more in detail

Gregor Kiesewetter & Zig Klimont

Synergies with other activities (in 2024)



Addressing comments to Policy brief - general considerations

- Updated calculations for TFIAM will draw on:
 - EU4Green – West Balkan
 - SR3 (detailed analysis with GAINS for the EU Industrial Emissions Directive)
 - EU Clean Air Outlook 4 (MS consultations, new baseline)
 - EECCA work funded by UNECE
 - Initial responses to comments to policy brief
- Air quality targets/limit values vs health-based targets (emission ceilings)
- “Inequality / injustice” between countries
 - Meteorology: different years are high or low for different countries
 - Natural vs anthropogenic PM: different background levels in different countries

Specific questions to the Policy Brief

- Target setting options
 - Base year (data availability!), target years (beyond 2030)
 - Region wide vs country targets
 - Population dynamics - take them into account or not?
 - Inclusion of natural PM
- Details of the health calculations (premature deaths, YLLs, mortality)
- Inclusion of biodiversity, O₃
- Impact of different ways of representing condensable PM
- Staged / phased approaches: next slide

Thoughts on staged/phased approaches

- Addressing concerns by West Balkan & EECCA, providing new options for achievement of targets
- Options were outlined in [informal EB document](#) (Expert Paper Dec 2023).
- GAINS could:
 - Run optimization for different target setup
 - Identify priority sectors for cost-effective reductions, similarities across countries
 - Run simulations with more stringent controls for selected sectors (for example assuming full compliance with EU Industrial Emissions Directive)
 - ?

Further considerations

- Sequential optimization to derive a consistent time series?
 - Could be relevant for later target years. Currently each GAINS run for a specific year starts from CLE.
- What to assume for the rest of the world? (particularly relevant for O₃)
- Assumptions on international shipping
- Should there be an additional target on urban population / cities?
- “Beyond MFR”
 - What can be assumptions on behavioural changes?
 - What emission levels are 'permissible' to reach a given target, e.g., nature preservation?

Next steps in detail

- Information on publication dates for EMAPEC and HRAPIE II: TFH
- Extension of critical load (eutrophication, acidification) database coverage to the whole EMEP domain
- Concept & data (for the whole EMEP domain) for optimisation of biodiversity targets: CCE, WGE (ICP Vegetation), CIAM
- Information on feasibility of implementing technological options in EECCA: TFTEI -> CIAM
- Reported data, emission inventories (improving completeness and quality, focus on WB and EECCA): TFEIP/CEIP
- Updating atmospheric calculations in GAINS: MSC-W, CIAM
 - Completing the PM_{2.5} exposure increment for the whole domain (so far only Europe)
 - Develop new ambient ozone calculations in GAINS for the EMEP domain (which indicator/s?)

Thank you!

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Presentations and conclusions from all earlier TFIAM and EPCAC meetings found at: <https://iiasa.ac.at/TFIAM>

Annex

TFIAM & CIAM 2024/2025 work plan

Objectives according to the TFIAM mandate

1. Integrate knowledge from science bodies in an integrated assessment framework and support the policy process with scenario analyses
2. Produce special reports on request
3. Stimulate national integrated assessment capacity and exchange experiences

Integrate knowledge from science bodies in an integrated assessment framework ...

- Review source-receptor methodologies (WP 1.1.1.5, TFIAM supporting MSC-W, TFMM, CIAM, TFHTAP)
- Update GAINS for simulating O₃ response to precursors' emission reductions (WP1.1.1.6, CIAM with MSC-W, TFHTAP)
- Consolidate evidence on health outcomes of air pollution (WP 1.1.1.32, TFIAM support TF-Health)
- Improve spatial distribution of emissions (WP1.1.2.5, CIAM support to CEIP)
- Integrate knowledge from science bodies in IAM framework and support policy process with scenario analysis (WP1.1.3.4, CIAM, MSC-W, TFHTAP, TFIAM)
- Update, refine, further develop GAINS (local health impacts, condensables, soil NO_x/NMVOC incl. implications for hydrogen economy, update emission projections incl. mercury (WP1.1.3.5, CIAM)

... support the policy process with scenario analyses

- Contribute to Gothenburg protocol revision (WP 1.1.3.0, TFIAM, CIAM, TFMM, MSC-W, CCC, TFHTAP, CCE, WGE)
- Support policy process with scenario analysis, incl. effects based/risk-based approaches (WP1.1.3.1, CIAM, MSC-W, TFHTAP, TFIAM, WGE)
- Ozone modelling for future scenarios (WP1.1.3.2, TFHTAP, TFIAM, CIAM, TFMM, MSC-W, ICP Vegetation)
- New global and regional model simulations of historical trends and future scenarios for Gothenburg Protocol pollutants (WP1.1.4.2, TFHTAP, TFMM, MSC-W, CIAM, ICP Vegetation)
- Assess implications of ammonia as an energy carrier & write information note (WP 2.1.7, TFRN with TFIAM, TFTEI)
- Examination of benefits and barriers to dietary change (WP2.1.8, TFRN with TFIAM)
- Provide further analysis on implications of introducing collective risk-based targets (WP2.1.12, TFIAM)
- Cooperate with Arctic Council and AMAP (WP1.3.8, CEIP, CIAM, MSC-W, secretariat)
- Coordination with Task forces and expert groups (draft WP 1.2.3)

Produce special reports on request

- Policy brief on multiscale modelling (WP2.1.4, TFIAM, TFICAP)
- Policy Brief on implications of introducing collective risk-based targets (WP2.1.12, TFIAM)
- Draft guidance document on NTMs and structural measures to EB (WP2.2.3, TFIAM with TFRN, TFTEI)
- Promote guidance documents (WP 1.3.10 and 2.2.1, with TFRN, TFIAM, TFTEI)

Stimulate national integrated assessment capacity and exchange experiences

- Stimulate national IAM capacity (WP 1.1.3.3, TFIAM), particularly in EECCA, Türkiye and West Balkan countries (WP1.2.2, MSC-W and CIAM with CEIP, TFIAM, TFTEI)
- Hold EPCAC meetings 5 and 6 (WP1.1.4.6, TFIAM with nominated experts)
- Promote/use multiscale modelling (WP2.1.4, TFIAM, TFICAP)
- Outreach of TFICAP (WP 1.3.1, TFEIP, TFIAM, TFMM)