Dispersion modeling Recommendations

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Twinning project - Air Quality Improvement

An EU-funded project managed by the European Agency for Reconstruction

Meteorological data

- Strengthen the co-operation with the National Meteorological Institute
  - Ensure that the data flow from HMA to MEPP will be/remain operative (short term)
  - Ensure that all data received is stored in such a way that it can be directly utilized in future dispersion modeling activities (short term)
  - Study the possibilities of utilizing meteorological modeling results as a bases for AQ modeling (mid term)

Emission data

- Crucial for successful realistic modeling applications
  - Resources should be allocated –person(s) should be nominated to be responsible for keeping the emission inventories up to date and filling in the current gaps in emission information (short/mid term)
  - Emission information is extremely dynamic data – it needs to be updated continuously

Dispersion models

- At the moment 2 local /urban scale models installed
  - Current models useful for several practical applications and for understanding the AQ modeling process, but not enough for completely independent Macedonian wide AQ assessment or AQ forecasting
  - Regional scale modeling – no resources/tools for it at the moment : will require co-operation with relevant institutes (mid/long term goal)

Model evaluation

- Basic theoretical background for proper assessment of model skill exists
- Continuous practical work with modeling and evaluation (several people involved) would be needed to keep up and strengthen the skills in modeling and model evaluation work (mid/long term)

Summary

- Very basic understanding/skills/tools in AQ modeling have been reached
- Lot of work still and especially resources needed to reach sufficient level to do independent AQ assessment work
  - Minimum of 3-4 people should be allocated/ trained to tasks related to modeling (input data, model runs, evaluation)