T2.1: Model validation of biogeochemical processes (1-9) (SMHI, BNI, IOW)

Deliverables:

Unified high quality initial, forcing and validation data sets (6),
Model data sets (6),
Detailed assessment of model skills (9)

Milestones and expected results:

Development of a simplified method to calculate BS acidification
Quantification of model skills that provide error bars for the climate sensitivity assessment

DONE!

T2.2: Validation of the long-term biogeochemical variability (7-24) (SMHI, BNI)

Deliverables:

- Model data sets (24)
- Understanding and quantification of the models capability to simulate perturbations in climate and nutrient loads (24)

Milestones and expected results:

- Validated models for climate change and nutrient load scenarios

T2.3: Scenario simulations of biogeochemical cycles (7-30) (SMHI, BNI, IOW)

Deliverables:

Model data of first transient simulation with BALTSEM and RCO-SCOBI (18), model data of all transient simulations (24)

Analysis of simulated changes (maps, transports, integrated budgets) of biogeochemical variables and ecological quality indicators in future climate and with altered nutrient loads (30)

Milestones and expected results:

Projections of BS biogeochemical parameters, quantification of the impact of nutrient load scenarios in future climate

T2.4: Quantification of uncertainties of projected biogeochemistry (13-36) (SMHI, BNI, TMBL, IOW)

Deliverables:

- Uncertainty assessment of future projections (33)
- Cause-and-effect studies (36)
- Calculation of nutrient load reductions necessary to meet the BSAP targets (24)
- Analysis of various time horizons, e.g. 2010-2030, 2050-2070 (33)

Milestones and expected results:

- Understanding of the predictability of biogeochemical parameters in future climate