NEW SCENARIOS OF PLAUSIBLE CLIMATE CHANGE – AN UPDATE WITH SPECIAL EMPHASIS ON GLOBAL SEA LEVEL AND REGIONAL TEMPERATURE AND PRECIPITATION DETAILS

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For the Third Assessment Report (TAR) of the Intergovernmental Panel on Climate Change (IPCC) a new set of plausible climate change scenarios have been prepared. Two of these scenarios, named A2 and B2, representing “a very heterogeneous world with an emphasis on family values and local traditions” and “a
world with an emphasis on local solutions to economic and environmental sustainability” are reviewed in this talk, with special emphasis on regional convergence of the results obtained by different climate models, and changing sea level.

It turns out that for the expected climate changes, envisaged by the Second Assessment Report (SAR) in 1995 are rather similar to those in the TAR report. In particular, “regional changes”, on scales of 10^7 km^2 and more, simulated by different climate models share many similarities in terms of temperature and precipitation changes. For instance, 7 out of 9 models agree in projecting A small increase of precipitation in Northern Europe at the end of this century for both scenarios (A2 and B2), whereas no consistent projections emerge for Southern South America. For sea level, a global average of about 30 cm is expected at that time, again in both scenarios, related to thermal expansion.