

Assessment of sensitivity to Tiedke Scheme's parameters in South America 's precipitation

GROUP 3:

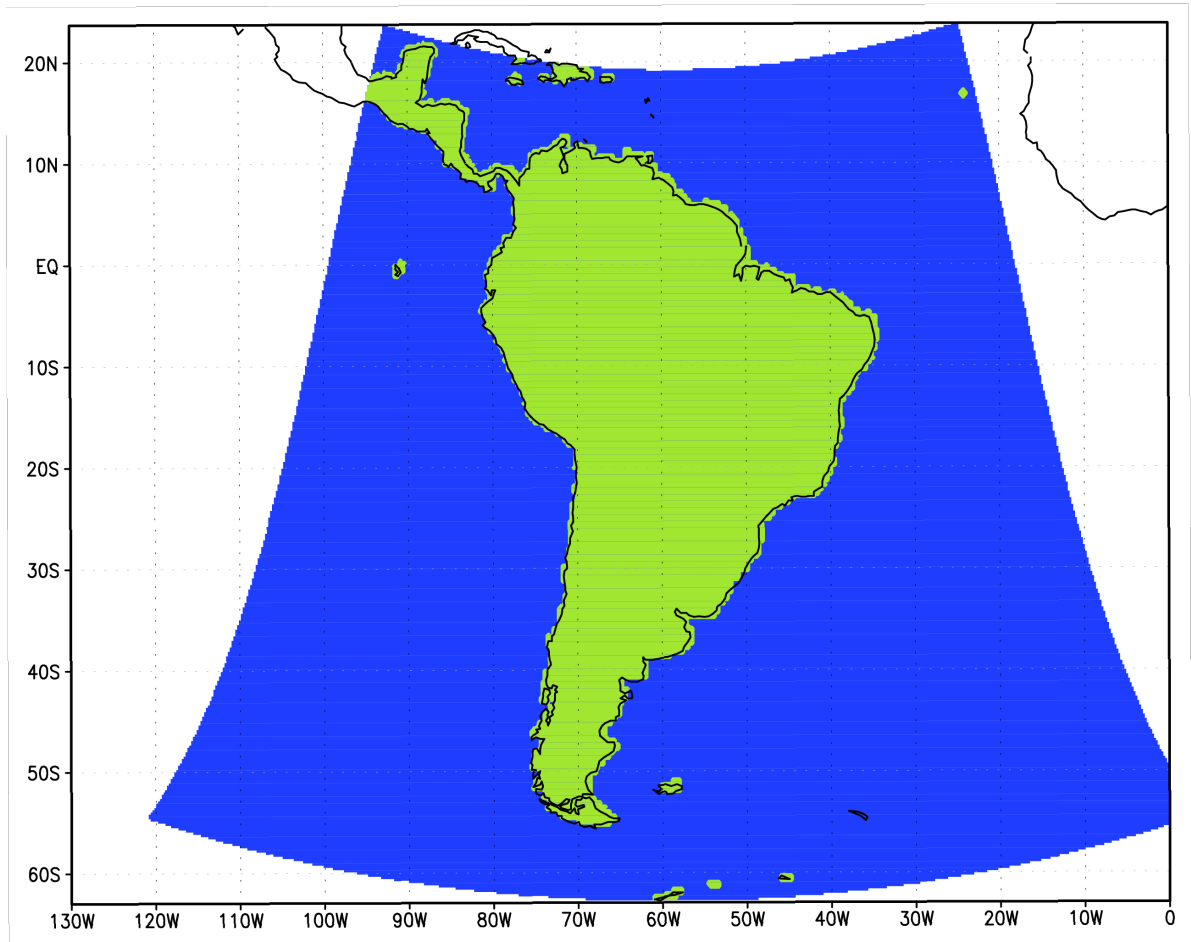
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Model settings and domain:

Domain: CORDEX SouthAmerica domain

Resolution: 0,5° (50 km)

Boundary conditions: ERA
Interim



Experiments

Variations of entrainment and CAPE parameters were made.

CAPE values: 10, 20, 30, 40, 80

Entrainment values: 0,25, 0,5, 0,75, 1, 2

Period of all the experiments: October 2000

Two alternative runs using:

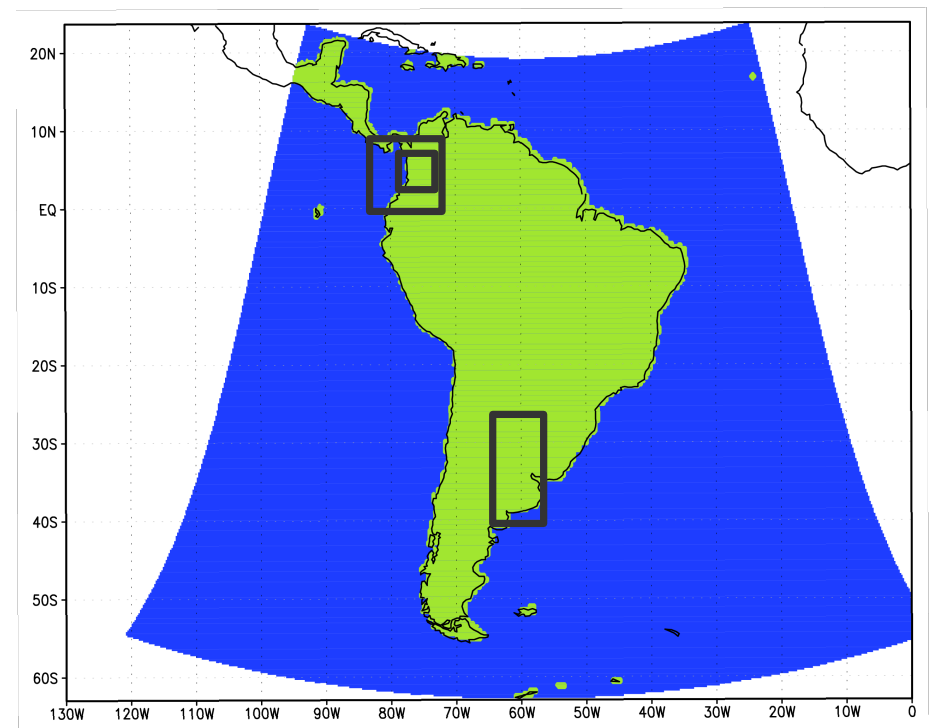
- * Grell over land and Emanuel over ocean
- * Emanuel over land and Grell over ocean

Two areas were selected to study the mean precipitation: one for Colombia and another one for Argentina

Why these regions?

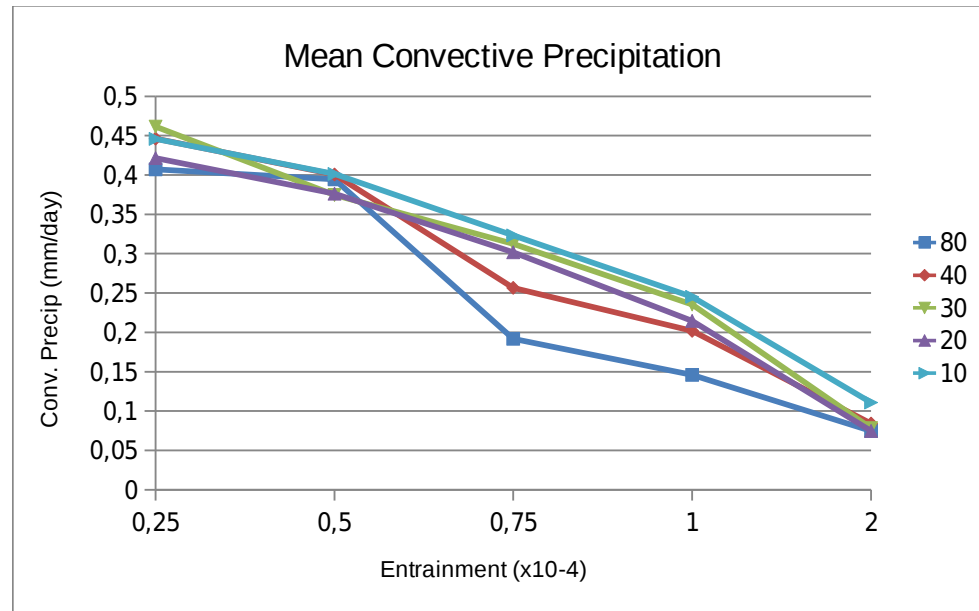
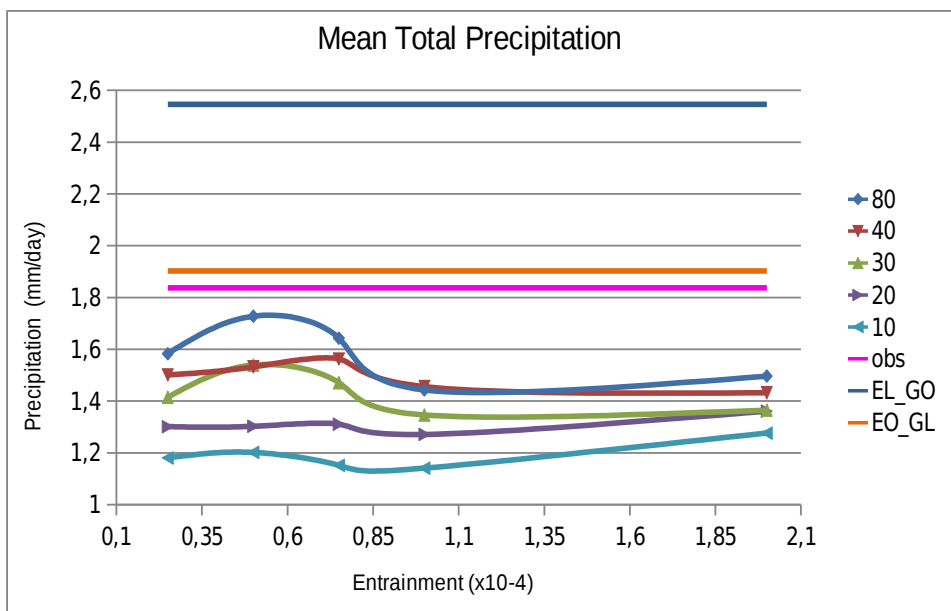
They are the regions with the highest amounts of precipitation during the year, specially on October.

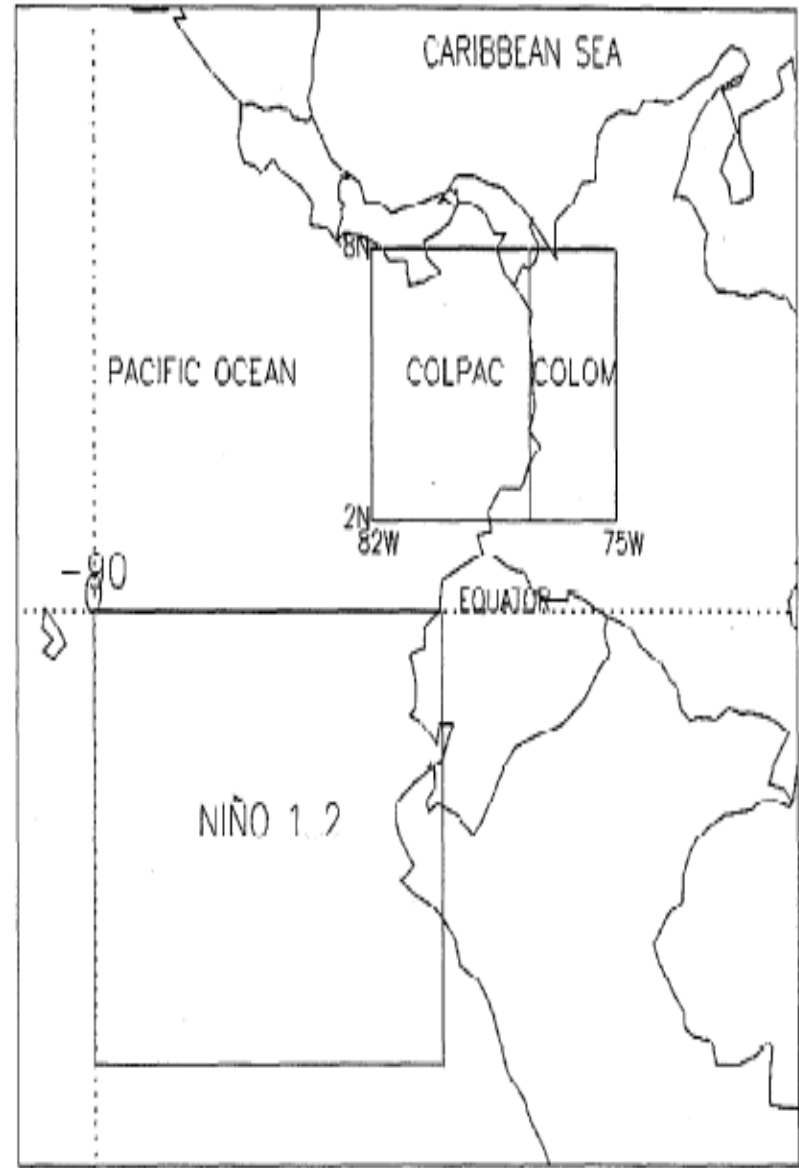
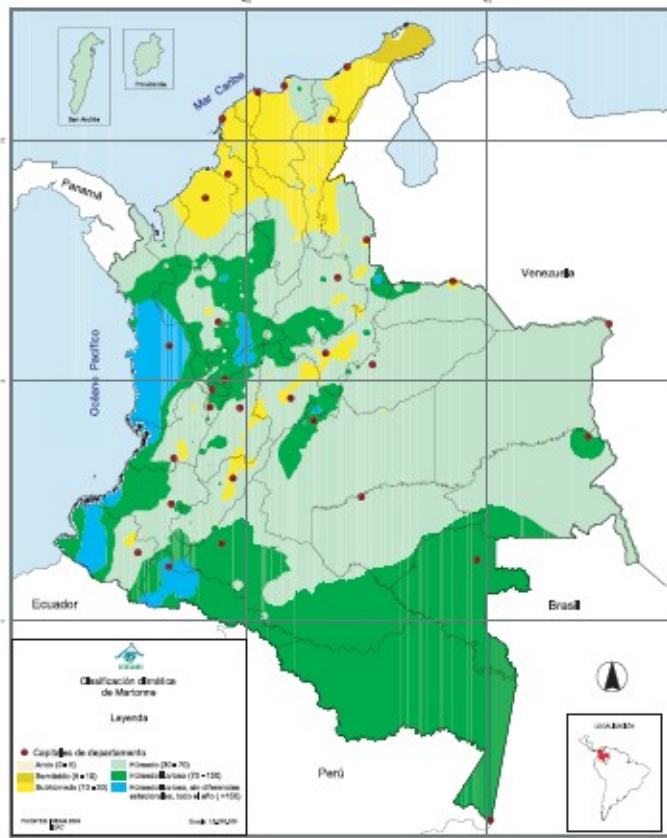
The mean of total precipitation was calculated for these areas for each of the experiments.



Results

Argentina region





Western Colombia

