

CMEM FAQs

What happens when two vegetation types (with different LAIs) are equally dominant in the grid cell?

You need to decide for at most one dominant Low vegetation type and one dominant High vegetation type per grid box in the CMEM input files.

When we use the CIDVEG='ECOCLIMAP' is it based on (H)TESSEL clasification ?

No. When this option is activated, the vegetation classification used is:

0 No vegetation; 1 Deciduous forests; 2 Coniferous forests; 3 Rain forests; 4 C3 Grasslands; 5 C4 Grasslands; 6 C3 Crops; 7 C4 Crops.

When I use the 'gribapi option', I have no problem with compilation, but running cmem fails with this message (when it starts to write the outputs):

GRIB_API ERROR : grib_new_from_template: Internal error

In your xterm you must do: `setenv GRIB_TEMPLATES_PATH /YourPathWhereTemplateFiles/`

or for ksh or bash: `export GRIB_TEMPLATES_PATH=$pwd`

More information about GribAPI is available at: [GRIB API](#)

It seems to be a problem with the netCDF libraries. Do you probably have some already precompiled netCDF libraries that work well together with CMEM (32bit and 64bit Linux) that you could probably send us for testing?

No CMEM does not use any specific libraries. There must be a problem with your netcdf installation and link to fortran.

A simple test for you to test your installation would be to try to compile and to use a very simple fortran programme which do uses netcdf functions.

In dielsoil_sub.F90 the Dobson model computation of beta does not match with the equation given in the Dobson et al. (1985) paper for the imaginary part. CMEM uses $\beta = (133.797_JPRM - 0.603_JPRM * sand - 0.166_JPRM * clay) / 100_JPRM$, while Dobson et al. indicates that $\beta = (1.33797 - 0.603 * sand - 0.166 * clay) / 100$.

The original Dobson paper had a typo error and was later corrected in Peplinski et al. (1995) (IEEE TGRS, Vol 33) where the expression is given as: $\beta = (1.33797 - 0.603 * sand - 0.166 * clay)$, where sand and clay are expressed in fraction. This formulation is used in CMEM where sand and clay contents are expressed in percent.

CMEM TBs are identical in horizontal and vertical polarizations when CMEM is used in C-band. However the 1.4 GHz simulations seem to behave as they should.

Before using CMEM please ensure that soil parameters are properly defined. The soil roughness parameter `ip_rgh_surf` is defined by default to be 2.2 cm in `cmem_setup.F90`. It must be replaced by an appropriate value for each case study (lower than 1 in most cases).