Parallelism on Cluster MBB

In fact, you specified a parallel environment called mpi with the line :

#$ -pe mpi 10

In your case, it is absolutely not necessary (http://bioinformatics.mdc-berlin.de/intro2UnixandSGE/sun_grid_engine_for_beginners/parallel_environments.html) and you have to remove it (it will remove the "slave" state that you saw before).

Then, to launch a R script, you have to use modules:
e.g.:

1/ First, check your running environment:

log on a compute node (geos-config is not avalaible on the master node)

qrsh

get the list of loaded modules:

module list

get the list of modules avalaible:

module av

load a specific module

module load gdal-2.1.2 proj-4.9.3 R-3.2.0

R

> install.packages('rgdal')

> library('rgdal')

I already did that for you (for this R version), except that I had to specify the path for proj include and library files:

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> install.packages('rgdal', type = "source", configure.args=c('--with-proj-include=/share/apps/bin/proj/4.9.3/include','--with-proj-lib=/share/apps/bin/proj/4.9.3/lib/'))

cf : http://stackoverflow.com/questions/15248815/rgdal-package-installation

2/ Write your qsub script

```
#!/bin/bash
# generic submission file to configure for SGE
# Beginning of SGE Options (all options begin with '#$')
# Define shell to use for this job (/bin/sh here)
#$ -S /bin/bash
# Job name
#$ -N test_run
# Using current working directory (otherwise, you will have to use '#$ wd
/path/to/run')
#$ -cwd
# job time limits (h_rt is required [s_rt == software time limit / h_rt ==
hardware time limit])
#$ -l s_rt=998:55:00
#$ -l h_rt=999:00:00
# choose to run on a specific queue
# (qconf -sql (to list queues) qconf -sq queue_name (to print informations on
this queue))
#$ -q cemeb.q
# Get a mail when the job begins, ends or is suspended
#$ -m ebs
#$ -M kiyoshi.sepulveda@gmail.com
# Export all my environment variables into job runtime context
#$ -V


module load proj-4.9.3 gdal-2.1.2 R-3.2.0
R CMD BATCH script_distance_calculator.R
```

Rscript is known to keep the full installation path of the binary itself, and can be a source of bugs - sometimes.