

## Final Report

The Nui Chua nature reserve is unique for its category as semi-arid protected area for Vietnam. The dynamic of the forest is also very complicated due to the aridity of the climate and negative impacts on the landscape will follow by unexpected consequence. The equilibrium of the environment is very fragile and negative impact from humans will follow with the loss of irreplaceable vegetation form, especially when the communities living around the protected area need arable land and residential area.

From our survey, only the area along the coast, including the rocky hills, was investigated, some preliminary data was recorded almost concentrated in the Vinh Hai commune with common vegetation forms:

- the semi-arid vegetation form : almost tree has a low height , rarely over 7m,scarced distributed , sclerophyt leaves form and thorny to reduce the evaporation .Common species can be seen like *Lanea coromandelica*, *Streblus icilifolia*, *Buchanania latifolia*, *Vitex pubescens* var. *ptilota* ... The rareness of valuable species is almost due to the fuel cutting and charcoal production.
- the bush form with thorn :
  - High bush form: common species are *Blageneraa jatrophiifolia*, *Opuntia elatior*, with a height varying from 1.5 to 3 m. Growing grouped 3-5 trees , branched and succulent adapted to the dry condition;
  - Low bush form with thorn: dominant species can be seen with a lower height: from 0.5 - 1.5, many of them are branched, succulent, thorny resistance to dry climate and poor condition of soil e.g. *Opuntia elatior*, *Lanea coromandelica*, *Carmona retusa*, *Tarena membranacea*, *Gmelina philippinensis*, *Breynia* sp, *Polyalthia evecta*, *Asparagus acerosus* . Some other species can be also found such as *Dracaena cambodiana*, *Cycas rumphii*, *Selaginella tamariscina*, *Notholaena velutina*, *Capparis beneolens* those species are typical for arid zone.
- Vegetation forms along the coast: In moving sandy dune following species can be easily seen: *Vitex ovata*, *Spinifex littoreus* in dominant stage .While in fixed sandy dune *Euphorria longan*, *Pleiospermum littorale* are dominant. Some other species can be also recorded like *Albizia nigricans*, *Buchanania latifolia*, *Pandanus tonkinensis*, *Capparis beneolens*, *Pentatropis pierrei*, *Agave angustifolia*, *Capparis flavicans*, *Cyperus bulbosus*, *Opuntia elatior*....

Interviews with local community has recorded a relative density for the area. The tree diversity is relative high comprised of higher tree, even luxurious vegetation was described until to 1980's. However due to the high human impacts, the vegetation forms become more and degraded.

A better way of management needs to be implemented, combining the interest of the local community living in the area, together with severe measures to limit the negative impacts and to enhance the natural rehabilitation of the area.

