

is causing long-term ecological damage (SGS Environment, 1995). Mangroves in areas adjacent to petrochemical installations are frequently in poor condition. Wherever mangrove cover is poor and the ground is bare *Nypa* can rapidly invade, out-competing native mangrove species and causing permanent displacement. The study concluded that "*Nypa* is extending its range within the Niger mangrove system and has the potential to become a substantial problem" (SGS Environment, 1995).

It has been observed that where *Nypa* colonizes the mangroves, it completely chokes the mangrove vegetation in which fish breed. It is possible that dense *Nypa* colonization is affecting the breeding of fish in the Niger Delta thus contributing to the decline of fish populations throughout the area (Living Earth Nigeria Foundation, pers. comm.).

The Nigeria Delta and the communities that live there are relatively remote from mainstream life in Nigeria, and thus, *Nypa* colonization has barely begun to be an issue in Nigeria. Some environmental organizations are beginning to realize that *Nypa* could be a potential problem. Two years ago, the Nigerian Conservation Foundation (NCF) began project to assist local communities with the manufacture of jewellery from *Nypa*. The idea was that utilization would curtail the growth of the palm in the area. The project has made little impact because it seems that NCF did not consider the marketing aspect and certainly to date, there is no mass market for *Nypa* jewellery in Nigeria. A more viable alternative might have been to teach local people in Nigeria how to tap the *Nypa* palm for alcohol as is widely practiced in SE Asia (Fong 1993; Päivöke 1984).

Conclusion

There is an urgent need for research to be undertaken into the effects of the *Nypa* palm on the ecology of the West African mangrove ecosystem and fish populations. Additional research is also needed into possible means of developing biological control methods to supplement human control through harvesting and utilization.

Why was *Nypa* introduced to Africa in the first place? Initially intended to provide the people with "a crop more valuable than mangroves" (Zeven 1973: 36), it was hoped *Nypa* would provide cheap and readily available sources of thatching as well as a light alcoholic drink (to provide an alternative to felling the oil palm, the traditional source of palm wine). Unfortunately these development interventions were not appreciated by the local people and, despite some

minor cutting for thatching (Holland 1922), the *Nypa* palm remains considerably under-utilized in West Africa. Most communities in the Niger Delta seem to be completely unaware of the possibility of obtaining 'palm wine' from *Nypa*. Teaching local communities to tap the inflorescence would certainly restrict the ability of the species to reproduce. Hence the spread of *Nypa* throughout West Africa could be somewhat curtailed.

There have been some encouraging developments recently. In June 2002, Elf Petroleum Nigeria Ltd. announced that it would investigate means by which the *Nypa* invasion could be controlled (Obari 2002). A month later, the Nigerian Federal Ministry of Environment announced that plans were underway to eradicate *Nypa* and rehabilitate the Niger Delta's mangrove habitat (Oghifo 2002).

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