



Impacts of Seaweed Farming on the Coastal Forest of Pemba



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Introduction

Seaweed has been one of Zanzibar's key export since the early 1990's. Zanzibar has historically been the third largest exporter for seaweed in the world, after Philippines and Indonesia (Msuya et al., 2006). Seaweed from Zanzibar is exported to china, Korea, Vietnam, Denmark, Spain, France and united states of America, which are used to produce different products including soaps, perfumes, oils, medicines, shampoos, toothpastes, ice cream, milk shakes and yoghurts. However, seaweed also is eaten as human food as salad, vegetables or snack. Also, used as fertilizers and production of biogas.

Usually, Seaweed grows very fast in the coastal areas of both Unguja and Pemba islands. It has proved to be one of the most important income generating activities in several villages mostly for women and children. The income generated by seaweed farming has enabled farmers to improve their standards of living by giving them income to pay school fees, buy uniforms and books for their children, improve the houses in which they live, and purchase clothes and food to meet their daily needs (Eklund and Petterson 1992; Mshigeni 1992; Msuya 2006a). Shechambo et al. (1996) reported that ownership of items such as radios, clothes (mostly khanga, which are the traditional cloths worn by women), kitchenware, bicycles, motorcycles, furniture and so on was significantly different before and after seaweed farming began.

Method

Cultivation of seaweed require large amount of durable erect sticks. It has been observed that good number of these sticks come from by natural thickest and mainly of the indigenous trees are used for this purpose. These demand for seaweed sticks have resulted in increased pressure on Pemba forest resources.

This project aimed to come up with data on sources and preferences trees species used in seaweed farming and to address the problems facing seaweed cultivation.

The Project was conducted at Micheweni District in North Region Pemba. Four villages namely Micheweni, Tumbe, Shumba and Wingwi were involved. The area was picked due to the fact that, the area was potential for seaweed farming and has high number of seaweed farmers.

Simple random sampling technique, were conducted to obtain respondents, to be involved in the project. Simple random sampling was chosen to ensure any individual element in the population has an equal chance of being selected and being representative, hence minimizing sample biases

Both primary and secondary data were collected during the project survey, observation in seaweed farms and semi-structured interview, a non-experimental design which gives an opportunity for aspect to studied in some depth within a limited time scale to seaweed farmer. (O'Sullivan et al., 1989).

Data obtained from the field where Sorted and analyzed using different methods including Microsoft, WPS office, Internet surfing and browsing

Results

On this project after collecting information of impacts of seaweed farming on coastal forest of Pemba has found that the forests along the coastal areas are affected due to the seaweed farming which needs sticks (wooden pegs) in large quantities. .

These sticks (wooden pegs) are cutting in the forests near the sea which is fixed on sand for raping seaweed branches. Some of these tree species that are cutting for seaweed farming includes the following:

The farm of about 20feet long needs sticks (wooden pegs) less than 30 to 25 sticks with 80 to 70cm height. These sticks (pegs) last for five to six weeks depending on the intensity on the sticks. After harvesting the seaweed farmers which most of whom are women and children for over 90% are forced to look for other sticks for seaweed cultivation. So, this increase the deforestation of coastal areas especially mangroves which is cutting for maximum rate because seaweed farmers believes that mangroves are strong and lives for long compared others tree species.

Since the seaweed farming is very threatens to the coastal forests of Pemba because of the deforestation caused by seaweed farmers, the people in the coastal areas should protects and preserve the coastal forests especially mangroves species which is cutting for maximum rate by seaweed farmers.

Also, the department of forests resources should take a serious measure to control (stop) these effects on coastal areas where seaweed farming taking place.

The farmers it is advisable to use others methods of farming such as 'broadcasting' methods which use stones and rubber band instead of using off-bottom method "tie tie" method. This method of broadcasting helps seaweed farmers to cultivate once and harvesting different time.

Conclusions

For all what have been explained this paper relying on the research questions (what are the impacts of seaweed farming on Pemba). It is very vivid that the coastal forests of Pemba are cutting for maximum by the seaweed farmers so as to get the stick cultivation. The most of trees species that is cutting by the seaweed are the mangroves, so these mangroves should be preserv. Also, the government through there department should take a serious measure to preserve and protect the coastal forests f caused by seaweed farmers.

We conclude that the coastal forests of Pemba are affected by seaweed farming so they should be taking serious measures to control this environmental threat.

Peoples in the region of coastal areas should control and protect and preserve the coastal forests.

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Swahili names	Local names	Scientific names
Mikoko	Mangroves trees	Avicenia marina
Mijera	Guava plants	Psidium guajava
Mdimu msitu	Woodland Suregada	Suregada zanzibarensis
Mkandika	White milkwood	Sideroxylon inermis
Mibura	Mobola-plum/ cork tree	Parinari curatellifolia
Mpendapenda po	Climber/liana forming bush	Keetia guienzii



The mangroves cutting by seaweed farmers

