

The Gambia - Introduction and Management of Neem (*Azadirachta indica*) in Smallholder's Farm Fields in the Baddibu Districts of The Gambia, West Africa.

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When I was preparing to go to The Gambia, I read *Under the Neem Tree*, a gloomy account of a Senegalese Peace Corps volunteer, I had no idea that neem would play such a role in my experience. To Gambians and Senegalese, neem is the archetypal compound shade tree, often with rough boards underneath forming a large bench for rest, a communal place for discussions and hot afternoons spent drinking attaya and listening to balax. In many villages, and in particular in northern Senegal, if there were no neem, people would have few trees in their landscape. Indigenous to India, neem is used in cultural ceremonies, revered for its properties. It has been utilized for over a thousand years in agriculture, food storage, and for its medicinal properties. It has been used in commercial products such as shampoo, soaps, bug repellent, and toothpaste.

Neem is an immensely useful tree, widely known for its medicinal properties and use as an organic insecticide. In the US, products containing azadirachtin are sold for gardening, fertilization and fighting insects, fungi, and bacteria (Peaceful Valley Farms 2004). There are many websites devoted to the miracles of neem or selling its products; one website states: “spearheading the neem revolution”. Pharmaceutical companies are fighting for the right to patent neem’s active ingredients for medical purposes. Thirty patents have been granted for neem products, including the use as a spermicide (Neem Foundation 2004).

The purpose of this study is to understand how farmers have adapted neem to their farms and compounds, how neem is managed and how is it integrated into their farming system. I hypothesized that although neem was widely adopted by farmers during the 1970s and 1980s, today farmers do not like the tree. I intend to show how neem is invading their farms, and find out how farmers are managing neem that gets into their farms.

In the following chapter, I will discuss general country and regional background for the study area, covering the geography, history, and people. It will also give a background of the farming system practiced by farmers in the study area. This information should give readers a broad understanding of the country, and make them aware of the main problems and constraints of farmers living in The Gambia.

In the third chapter, the concept of the fuelwood crisis will be explained, showing why exotic trees are being introduced to meet the needs of Gambians. The advantages and disadvantages of introducing exotic species, and problems with species invasion will be discussed. The chapter will conclude with a review of *Azadirachta indica*’s characteristics, potential benefits, problems, and agroforestry potential. Neem’s many benefits and its harmful effects will be described. Having both positive and negative aspects may seem contradictory. However, this duality exists in The Gambia; it is neither completely good nor completely bad in the local context.

In chapter four, I will explain how I came to the topic of this paper while working as a Peace Corps volunteer, and problems encountered while developing this study. I present the methods that I used to understand farmers attitudes toward trees in their farms and how I collected information from the farm fields.

After the reader has an understanding of the methods, chapter five will report my initial, casual observations. Then I present data collected from Njawara's farm fields, and discuss their meaning.

In chapter six, results from farmer interviews will be presented and a discussion of how their responses relate to the field data follows. Next, a discussion of how tree's role in the farming system evolves as farming becomes intensified, and how neem might be integrated into the farming system. Finally, conclusions and recommendations for this study are discussed in chapter seven.