

Risk and Coffee Production in Mhaji, Tanzania

Amend, Joshua

Tanzania 1998-2000

Michigan Technological University - Forestry

Smallholder farming in the tropics is a risky business. Farmers face a variety of environmental hazards from drought to floods. In much of the tropics declining soil fertility is also a problem for farmers. These problems are usually exacerbated by unfavorable terms of trade, volatile markets, and expensive agricultural inputs. Farmers pursue various strategies to minimize the risk posed to their livelihood by these hazards. They also, however, sometimes make risky choices in order to increase their income. Risk is not the only factor farmers consider when making decisions concerning their farms and households, but in many cases risk is the primary consideration.

This study is concerned with risk, crop decisions, and coffee in Mhaji, a village in the Southern Highlands of southwestern Tanzania. Coffee is a relatively new crop in Mhaji; a few farmers have grown coffee since the mid-1980s, but the majority of those who grow coffee have decided to do so since 1998. Coffee has the potential to raise the productivity of the farming system in Mhaji and to increase its sustainability. Therefore, it would be valuable to know why farmers decide to grow coffee or some other crop. This paper investigates the role of risk in this decision process.

Coffee can act as a form of risk alleviation primarily by diversifying a farmer's farming system. Coffee is not susceptible to the pests and diseases common to other crops in the area, and it therefore would not be affected by outbreaks that could destroy other crops. Coffee is more drought resistant than other crops grown in the study area; even in a year too dry to produce a traditional field crop at all, a small coffee harvest might be possible. Because coffee is sold internationally, the coffee market is quite different from other cash crops' in the area. Therefore, growing coffee in addition to other cash crops can reduce the risk of market fluctuations. By planting a permanent crop like coffee a farmer can reinforce his tenure of a field, both legally and in the customary system, reducing the risk that someone else might claim the land.

Growing coffee can still be a risky venture for farmers. Because coffee is new to the village, farmers cannot be certain how coffee will perform. Farmers also are unfamiliar with the skills involved in cultivating coffee, and there is the risk that they might do something to damage the crop before they learn how to care for it properly. The coffee market is unfamiliar, and because coffee is not marketed locally it is more difficult for farmers to predict prices. Because coffee is a permanent crop, farmers lose some flexibility in managing their farms and might not be able to react to changes in the market. Coffee's lack of food value means that if a farmer is unable to sell his coffee crop his investment in the crop that year will be a total loss. All of these risks are magnified by the large initial investment of labor, time, and cash; a failure would be very expensive.

Farmers must weigh all of these factors when calculating the risk involved in beginning coffee cultivation. They must then decide if that risk is worth taking given the potential benefits of coffee. The

goal of this research is to shed some light on this process of risk evaluation and to identify what factors are most influential in farmers' perception of the risk of coffee and how this affects their crop choices. The next two chapters provide the geographic, climatic, social, and agronomic context framing the study. Chapter two presents background information concerning the history, geography, climate, and culture of Tanzania and the study area. The chapter concludes with a description of the farming system in the study area. Chapter three presents general information about coffee and concludes with a discussion of what role coffee can play in increasing and sustaining the productivity of the farming system in Mhaji. Chapter four provides the theoretical context in which the study was performed.

The chapter begins with a discussion of the definition of risk that will be used in this paper. This is followed by a discussion of various theories concerning risk and its role in shaping farmers' decision-making process. Chapter five presents the methods used in the study. In chapter six the results are presented and discussed. The final chapter consists of conclusions and recommendations for further study and for future coffee promotion and extension programs.