West African Regional Food for Peace Office
USAID/Senegal
Professional Paper Series

November 2005 Series No 3

MIGHT WOMEN'S GARDENING ACTIVITIES HAVE AN UNINTENDED NEGATIVE IMPACT ON CHILDREN'S SCHOOL ATTENDANCE?

Abstract

A recent survey conducted by the Regional Food for Peace Office in the Abéché region of eastern Chad concluded that more than 50% of women active in vegetable gardening activities in 2004 used child labor and that only 7% hired extra labor of any kind. The survey also found that a high number of children are not attending school. It was found that child work might explain in part the low school attendance rate, and that gardening programs such as the one in the Ouaddaï department might discourage women from sending these free laborers to school. The present study aimed to look more closely at these issues by posing the following research question: 1) Is child labor associated with market gardening an important contributor to low school attendance in Abéché or are other variables (lack of or inadequate schools, lack of teachers or some cultural phenomena) the key determinants of low school attendance? We have tried to answer these questions through a review of the literature and an analysis of the relationship between gardening and school attendance. A logistic regression (logit) model was used to provide a better understanding of the interrelationship between women gardening and schooling. Data were collected during the Ouaddaï women gardening survey and were complemented with secondary data and interviews with Africare Chad field agents working in the study zones. A total of 125 women were interviewed for the gardening survey.

Children's school attendance rate is very low in the survey area. Only 32% of married women have at least one child in school. Of the 236 children who were older than 6 years, only 54 (23%) are currently attending school. More than 70% of these students are from only three cantons[1] --where school attendance rates are high: Ouaddaï Hamra (68%), Koniere (56%) and Mandjabo (50%). School attendance rates in the other 6 cantons are between 0 and 21%. The sex ratio of school attendance is 1 girl for 3 boys. Although, much of the literature on the determinants of schooling indicated that the educational level of the household head and the caretaker are important determinants of children's school attendance, there was no relationship observed between women's

[1] A geographic location of the country, it is constituted by a group of village

educational level and child school attendance in the present study. This is probably due to the very high illiteracy rate (98%) among the women surveyed. Only 3 women out of 122 women have a primary education level. Contrary to the conventional wisdom in Africa that the presence of children under-five in the household has a negative impact on children's school attendance, this study finds that the number of children under five does not affect a woman's probability of having children in school. On the other hand, the number of school age children (6-14 years old) is an important determinant of a woman's likelihood of having children in school. The logistic regression coefficients of two variables (number of children 6- 10 years old, and number "more than 10 years old" children) are statistically significant (p=0.008, p=0,032). The results suggest that the presence of a school in the village does not necessary imply a high likelihood of school attendance. The variable presence of public school in the village was used. The coefficient of this variable is not statistically significant (p=0.349) implying there is no difference between public school and community school in the study area. This is probably due to the GOC's primary school policy which gives priority to the construction of new schools rather than school quality. In order to address the question of the relationship between school attendance and women's gardening activities in Chad, a dummy variable was used to assess the impact of the use of child labor by woman on schooling. The variable was not statistically significant (p=0.885), meaning that a mother using her child in a gardening activity is not less likely to have a child in school compared to a woman who is not using her child (when all levels of gardening income are examined together). The most important and perhaps surprising finding is that a woman's net gardening income has a negative effect on a woman's likelihood to have her children in school. The logistic regression coefficient for revenue is statistically significant at 10% level (p-value = 0.08). Holding other factors constant, this implies that an increase in a woman's income will decrease her odds of sending her children to school. The effect of distance to the regional capital was examined and as would be expected, there was a negative relationship between distance from the regional capital and school attendance (the coefficient of this variable is significant p-value = 0.02). Women living long distances from regional capitals are less likely to have children in school and teachers resist working in remote schools. Villages were classified according to their potential for wadi (river beds) gardening activities. A dummy variable was used to assess the impact of wadis on women's likelihood of having children in school. The regression coefficient of this variable is negatively significant (p= 0,06) implying that women living in areas with wadis are less likely of having children in school than women in villages where access to wadis is difficult.

An analysis of the data in this study and a review of the literature suggest that while other factors mainly related to the quality of schooling are also important, **gardening in Ouaddaï has a negative impact on school attendance as garden size and labor demands (and household income) increase.**