# Maximizing Landscape Restoration to the Benefit of Smallholder Farmers in Forest Agro-ecological Zones in Ghana

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### Background

Ghana is one of the countries in the world with high rates of deforestation.

In fact, Ghana's deforestation rate, which stands at 2% per annum, is higher than the average decline for Africa and West Africa, which are 0.62% per annum and 1.17% per annum, respectively.

## Results

The results showed that smallholder farmers genuinely care about tree planting, but are challenged by factors such as pest and diseases, wildfires, lack of capital and high transaction cost but low returns from tree planting activities (Table 1 and Table 2).

Now there is a strong emphasis on landscape restoration.

Taking a cue from the cocoa sector in Ghana where the bulk of Ghana's enviable world record in cocoa production is planted by smallholder famers;

it has been argued that plantation development and indeed landscape restoration can better be served by small-scale farmers as against large-scale developers.

#### **Objectives**

This study was conducted to;

1. Analyse factors that affect the adoption and non-adoption of landscape restoration schemes by smallholder farmers.

2. Identify best governance practices for enhancing landscape restoration by Small holder farmers.

					Inheritance/inve		Other
		Landscape		Boundary	stment for	Access to own	environmental
	Higher Income	restoration	Shelter for crops	protection	children	wood	reasons
Mann-Whitney U	99.000	120.000	89.500	117.000	100.500	113.500	85.500
Wilcoxon W	127.000	750.000	719.500	747.000	128.500	141.500	715.500
Z	999	087	-1.207	191	941	319	-1.307
Mean	1.4762	2.7381	1.9286	2.7381	1.3810	2.2381	2.3810
Standard Deviation	0.89000	1.30775	1.23748	1.59358	0.73093	1.24567	1.18841
Variance	0.792	1.71	1.531	2.54	0.534	1.552	1.412
Rank <sup>¢</sup>	2	6	4	7	1	5	3
Asymp. Sig. (2-tailed)	0.318	0.931	0.227	0.848	0.347	0.749	0.191
Exact Sig. [2*(1-tailed Sig.)]	0.446 <sup>b</sup>	0.947 <sup>b</sup>	<mark>0.272</mark> ⁰	0.869 <sup>b</sup>	0.466 <sup>b</sup>	0.766 <sup>b</sup>	0.217

a. Grouping Variable: Name of community

b. Not corrected for ties.

													Low
													returns
		Insecure											due to
		land	Lack of			Long	Lack of	Pests		Unfavorable	Lack of	Lack of	high
	Land	tenure	market	Lack of	Lack of	rotation	extension	and		weather	information	smallholder	transaction
	scarcity	system	access	capital	labor	age	services	diseases	Wildfires	conditions	on grants	cooperatives	cost
U a	706	689.5	992.5	941	944	806	915	958	956	1027	922	1007	979.
WÞ	1834	1771	2074	2022	1979	1887	1996	1993	2037	2108	2003	2042	2060
z	-2.839	-2.82	345	-1.273	754	-1.889	-1.002	648	650	072	-1.007	239	464
Mean	2.98	2.99	3.05	1.13	3.35	2.56	2.47	2.18	2.80	2.06	1.64	2.19	2.34
SD°	1.55	1.38	1.49	0.34	1.49	1.20	1.34	1.40	1.40	1.16	0.88	1.25	1.42
Rank	10	11	12	1	13	8	7	4	9	3	2	5	6
P <sup>-</sup>	005	005	720	202	451	050	217	517	516	042	214	011	642
value	.005	.000	.130	.203	.431	.039	.317		.510	.343	.314	.011	.045

Table 2 - Ranking of the key challenges to small holder forest plantation establishment

Mann-Whitney U

Wilcoxon W

Table 1 - Descriptive statistics of factors affecting the adoption of tree planting by smallholder farmers

## **Data and Methods**

Data for the study was collected over a period of three months in two communities in the forest transitional zone of Ghana using mixed methods.



Moreover, respondents prioritised efficiency (efficient use) of financial resources), equity (equal access to land by all persons) and effectiveness as the three most important governance issues to be considered in smallholder forest plantation development(Table 3).

Table 3 - Analysis of governance of forest plantations schemes involving smallholders in Ghana

	Transparency:						
	Data and			Effectiveness:	Participation:		
	information on			The scheme is	The public is		
	plantation			very effective in	involved in	Equity:	Efficiency:
	scheme is	Accountability		landscape	decision-making	There are equal	efficient use of
	publicly	of forestry	Avenues to	restoration and	and can freely	opportunities for	financial
	available	officials	seek redress	livelihoods	participate	all members	resource
Mean	2.80	3.25	3.15	2.4	2.95	2.80	3.75
Standard Deviation	1.53	1.42	1.41	1.39	1.47	1.38	1.32
Rank	7	5	4	3	6	2	1
Chi-Square	1.796	.173	1.512	6.343	3.047	7.944	.437
df	2	2	2	2	2	2	2
Asymp. Sig.	.407	.917	.470	.042	.218	.019	.804

a. Kruskal Wallis Test

b. Grouping Variable: Communities and experts

rces Survey stionnaire inistration	 Chi square test Content Analysis	-	ONS Major findings Conclusion Recommend	
us group ussion			Recommend ations	

**CONCLUSIONS &** 





## **Conclusion & Outlook**

Policy Makers in Ghana should consider a mix of recommendations including giving farmers access to credits and markets; pest and disease control and good governance to trigger the needed participation in landscape restoration schemes by smallholder farmers in Ghana.

These may include equity, efficiency, effectiveness and provision of avenues to seek redress for smallholder farmers





