

World Agroforestry Centre

Market Dynamics for Agroforestry Investments as Influenced by Property Rights and Incentives

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Presentation Notes

PANEL 1: WFO/ICRAF, Title, MNG and addresses, and website

INTRODUCTION

- The one thing I have brought with me from the private sector is a healthy respect for the importance of understanding the market; It matters not one jot how “good” your product is if there is no market for it; A better mouse trap is of no interest to those with no mice ...;
- **PANEL 2:** Tenure, Incentives and Interactions
- Here in Kenya, two of the most important factors in understanding the evolution of land use and rural economies, and therefore rural markets, are property rights and incentives.
 - Economic and environmental aspects of private and customary tenure regimes;
 - Incentives in terms of endogenous, social and exogenous; and
 - how they interact to influence the market for agroforestry goods and services.

PROPERTY RIGHTS

- **PANEL 3: BREAKDOWN OF TENURE STATUS PANEL 3**
- I am going to restrict the discussions today to Property Rights among the smallholder farmers of Kenya of whom there are many, many millions. I am not concerned right now with large commercial farms or with other kinds of land (e.g. Protected Areas, other Government land, or Trust Land).
- I am going to argue that secure, enforceable and freely transferable property rights are the single most important determinant of wealth and investment in land in Kenya.
- **PANEL 4:** Lueck Model: distinguishes between two main kinds of property rights, Stocks and Flows; Stocks concern LAND, while flows

concern PRODUCTION from land which is something quite different, and the property rights are quite different. Discuss:

- Must keep these separate; what is possible with one is not necessarily possible with the other. I will refer to these two main kinds of property rights as PRIVATE TENURE (PT) and CUSTOMARY TENURE (CT).

ECONOMIC ASPECTS

- **PANEL 5:** Net Returns to land as a function of moisture availability. Data from the sample described above. These c. 50,000km² generate some \$877m in net returns.
- **PANEL 6:** Split into PRIVATE and CUSTOMARY – clear moisture effect as we have seen, but superimposed is a clear tenure effect, the “tenure gap” of \$425m. PT creates wealth in smallholder farmers in Kenya – huge difference – wealthy farmers make different investment decisions than do poorer farmers. Many more such economic indicators show same pattern.
- **PANEL 7:** Environmental Aspects: Same analysis for Woodlots – indicator of long term perspective and investment in your land – clear Moisture effect and a superimposed Tenure Effect –
- **PANEL 8:** – involvement in local financial markets – strong relationship with Private Tenure.
- **PANEL 9:** Table of Tenure Effects – economic and environmental: tenure has a clear impact on the wealth of farmers, and on their investment decisions, both for crops and for Agroforestry products.
- It is clear that these two markets are different: one will be more responsive perhaps to products with higher investment implications, time and or money, and with a longer time horizon for benefits; the other to products with lower capital and time requirements, and with much shorter term paybacks.
- And I would just to mention here for the record that we can determine exactly the same patterns in pastoral areas; here in Kenya between Adjudicated Group Ranches and Communal Ranches; clearly you would sell a completely different package of goods and services to a Group Ranch compared with a Communal Tenured Ranch.

INCENTIVES

- Incentives are equally important to understanding both wealth creation and investment decisions in rural areas.

- **PANEL 10:** 3 kinds of incentives. Not a good choice of definitions here (sound like Gordon Brown) – but each will be responsive to different bundles of goods and services.
- **Endogenous:** mainly from population growth and in-migration, growth of an internal market, if you will. It will impact
 - following;
 - intensify production and increase productivity as there are more people to feed off the same area; and
 - with sub-division following death or marriages.

All produce huge incentives to increase production per unit area, and make owners more open to adopt new technologies and methods: good market for appropriate goods and services.
- **Social:** also in response more to an internal market; family health (medicinal trees, shrubs and herbs); hedgerows, windrows, field/plot boundary markers; Not quite sure about this one!
- **Exogenous:** primarily the development of external markets for farm production. This is what is driving Kenya's rural economy today, not just the overseas markets for commercial products (tea, coffee, flowers ...) but through URBANISATION the development of the domestic markets for production.
- Consider Nairobi: it purchases anywhere between \$1.8 billion and \$2.4 billion each year in agricultural and livestock products from its hinterland – which is the entire country. Not just the QUANTITY but also the QUALITY. You simply could not sell today what one used to sell 20 years ago. Talk with the suppliers of horticultural seeds. And in real terms, smallholder horticulture producers have seen a >400% increase in farmgate prices over the last 20 years.
- These burgeoning markets in turn create massive incentives to invest in land improvement and production – and your bundles of Agroforestry goods and services have to adapt to this. It's a no brainer. You cannot sell soil and water conservation to conserve soil and water – what possible interest would anyone have in doing that: but you can sell soil and water conservation to raise production for the nearest urban market.
- Incentives are hugely important:- there is no free lunch for there is always an opportunity cost involved in any investment decision – even if you are giving goods and services for “free” – the person could be investing his time and energy in something else.

TENURE & INCENTIVES: COMBINATIONS AND DYNAMICS

- **PANEL 11:** Kilima Hill in Machakos, in 1937, 20 people to the square kilometre, bare and eroded landscape, little sign of land management.

- **PANEL 12:** Same landscape in 1989, some 50 years later, >500 to the square kilometre; what has led to this vast improvement in land management? Primarily through population growth, and development of urban markets following urbanisation, the incentives capitalised on by Private Tenure.
- **PANEL 13:** High intensity land use in Kisii – in a way the end product of these processes.
- **PANEL 14:** Population Growth as an incentive: net returns to land increase with population growth, with a strong tenure effect. Strong positive effect from the population incentive, modified by tenure effect.
- **PANEL 15:** Distance from Markets: again a clear incentive effect, this time the tenure effect overrides incentive with Private Tenure, compared with Customary Tenure.
- **Panel 16:** Distance from markets ... this time with Woodlot Area Strong decay with distance, modified by the tenure effect.
- **PANEL 17:** Distance to All-Weather Roads – another strong incentive this time influencing production costs. Strong decay in net returns to land, modified by tenure.
- **PANEL 18:** Also with woodlot area – an indicator of longer term perspectives.
- **PANEL 19:** Possible to tease out these two different effects – the Incentive Effect which degrades with distance, and the Tenure Effect. And this combination will again influence the responsiveness of farmers to your bundles of goods and services.
- **PANEL 20:** Applies also to other interactions, Wildlife; and Private Investment in Public Environment.
- **PANEL 21:** Finally, effect on land values: Market Forces acting on FLOWS, while urbanisation acts on STOCKS. KITENGELA STORY
- Both interact to force a transformation from Customary → Private tenure.
- All over Africa, especially in western Africa; here in Kenya seen both in the agricultural lands AND in the rangelands where property rights are rapidly evolving from large parcels of land under Group or Communal tenure to small parcels of land under private tenure: EG: Maasai Mara:
- It seems as if Customary Tenure, whether Group or Communal, breaks down under excessive population growth (previous slide) and under

rising land values (flows or stocks). To benefit from incentives, tenure status must change.

POLICY IMPLICATIONS: PANEL 22

- **TENURE**
 - **Private Tenure:** clearly private tenure creates wealth; greater involvement in both financial and producer markets; and a longer term time perspective with respect to decisions about investment in land.
 - **Downside:** although private tenure allows an individual to benefit from his wise decisions and bear the costs of bad decisions, there is a terrible social cost when things go wrong for whatever reason ...
 - **Customary Tenure:** clearly less wealth creation, shorter time perspective on investment decisions, less entry into formal markets for credit, or for farm production.
 - **Upside:** customary tenure clearly provides and maintains to some extent a social network which mitigates against the disasters of private tenure.
- **Same old problem** which faces us all Do we want to be rich and miserable or poor and happy!!
- **INCENTIVES:**
 - Population Growth → intensification of production; Market Growth → increased production, land values and investment; Urbanisation → severs land values from agro-ecological values.
 - Policy too often concerned with regulation – look at NEMA. Regulations very costly; must monitor and enforce – usually unable so to do. In contrast, incentives are significantly less costly as they do not require such extensive monitoring and enforcement. An incentive is a costless regulation.
 - Free market environmentalism claims there is a market solution to every environmental problem. What they mean is that by converting a regulation into an incentive you are in fact creating a market force.
 - But just providing an incentive does not mean it will be taken up – for example if you are on untenured land.
- **DYNAMICS**
 - Transform patterns of land use & land management
 - Creates a variety of investment opportunities for agroforestry
 - Transform tenure regimes from Customary → Private