### Property rights, Land Tenure and Land Productivity: Empirical Evidence from Sri Lanka

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## **Background**

Property rights are defined as 'a set of activities' and exists as a bundle (Bromley 2008). The bundle of rights facilitates access to land and access is given by a set of policies and rules (Ostrom & Schlager 1992). Individuals may have the access either by 'de jure' or 'de facto' rights. 'De jure' are formal rights that are enforced by a government authorized body. 'De facto' rights are assigned by the community organizations for working purpose only (Havel 2014). 'De jure' rights provide security to property rights and the secured rights provides the security to tenure. The secured tenure increase the assurance effect on receiving the benefits in long term and free from uncertainty. It is widely accepted that secured tenure enhance the productivity of land (Deininger and Jin 2006; Fenske 2011).

## Research problem

Non-secured property rights due to non -availability of a valid legal title is a serious issue in irrigated settlements in Sri Lanka. Irrigated settlements are one of the significant investments handled by the government in order to facilitate the landless peasant sector in the country (Chandrasiri 2010). However, the initial equal sized of low lands, distributed among farmers, have been subdivided and transferred to next generations. Therefore the initial land tenure has changed and both formal and informal tenure arrangements arise.

## **Objectives**

The objectives of the paper are three fold as follows;

- (i) To analyze the perceptions of property rights between the document holders and non-document holders
- (ii) To assess the security of tenure on land productivity

(iii) To identify the most influenced factor on land productivity through simulation

# Research methodology

A model was specified and econometrically estimated capturing the relationships among tenure security, land size and land productivity. Finally a simulation was done to evaluate the extent to which provision of tenure security and re-distribution of land increase land productivity. The Kruskal- Wallis test was used to identify the differences exists in the perceptions on property rights in between document and non-document holders. Primary data gathered from 1230 low land parcels from three irrigated settlements in Anuradhapura District was used for the analysis. Six types of property rights and three categories of tenure as (i) high (ii) medium and (iii) low were identified.

## **Key findings**

The descriptive analysis reveals that the majority i.e. 74% of the farmers perceive that they enjoy only the use rights which are categorized as weak rights in the literature. Therefore, only a few perceive that they enjoy the superior rights i.e. the transfer rights. The result of the Kruskal Wallis test is significant and indicates that there is a significant difference exists between the perceptions on property rights in between the document holders and non-holders.

The results of the econometric estimation indicate that the high tenure security is statistically significant and has a positive impact on productivity. This implies that compared to medium tenure group the high tenure security increases the productivity by 67.7 kg per acre. On the other hand the results presents that low tenure security is statistically significant and negatively impact on productivity implying that compared to medium tenure security the low tenure security group reduces productivity by 102 .58 kg per acre.

The results of the simulation indicates that providing secured tenure increases productivity by 2.5% and distributing equal size lands increases the productivity only by 0.04%.

#### **Conclusions**

The results imply that the farmers who operate with a valid legal document to prove the tenure always perceive that they are enjoying full rights. The perceptions of farmers with no documents and live with uncertainty are always less positive than the other two groups of tenure. This implies the government protected title to land is an influence tool on the perceptions on property rights of the farmers in irrigated settlements.

The estimated results confirm that the secured nature of property rights is a key determinant of land productivity. The results of the simulation clearly indicate that provision of secured property rights yields higher returns than that through land re-distribution to ensure equality. The positive thinking on property rights provides a safety net in the environment of positive performance of the farmer. Therefore, measures taken to improve the property rights in irrigated settlements in a sufficiently long duration of time are required to enhance the land productivity in irrigated settlements of Sri Lanka.

Key words- Property rights, tenure security, Land productivity, Irrigated settlements, Sri Lanka

#### References

Bromley, DW 2008, 'Formalizing property relations in the developing world: The wrong prescription for the wrong malady', *Journal of Land use Policy*, Vol.26, pp.20-27.

Chandrasiri, J 2010, 'Impact of informal land transactions in settlement schemes in Sri Lanka', Research Report No 132, Hector Kobbekaduwa Agrarian Research & Training Institute of Sri Lanka, Colombo.

Deininger, K and Jin, S 2006, 'Tenure security and land related investment: Evidence from Ethiopia', *Journal of European Economic Review*, Vol. 50, pp. 1245-1277

Fenske, J 2011, 'Land Tenure and Investment Incentives: Evidence from West Africa', *Journal of Development Economics* Vol. 95, pp. 137-156

Havel. MB 2014, 'Delineation of property rights as institutional foundations for urban land markets in transition', *Journal of Land Use Policy*, Vol.38, pp.615-626

Ostrom, E and Schlager, E 1992, 'Property-Rights regimes and natural resources: A conceptual analysis', *Journal of Land Economics*, Vol. 68, No.03, pp.249-262.