meet government targets is necessary to revert already established negative economic and social conditions, already in advanced, difficult to reverse stages. The authors used the case study of the Brazilian state of Sao Paulo to make this point.

Keywords: cattle; livestock; official data; public policy; rural exodus; sugarcane.

What Are the Links Between Population Dynamics and Climate Change?

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Abstract

Population dynamics and climate change has been a greater concern worldwide as there has not been a simple relationship found. Hence climate change has been described as the biggest health threat of the 21st century. This is described as a result of high consumption of fossil fuel and greenhouse gases in the developed countries. Population growth however is said to be an important variable that can worsen the impact of climate change in this complex relationship. Researchers further indicate that rapid population growth endangers human development, poverty eradication and weakens the capacity of poor communities to adapt to climate change.

The paper will review the extent to which population dynamics have impacted on climate change and economic development as Lesotho population depend on natural resources for livelihood though are faced with climate and environmental challenges.

The findings indicate that carbon emissions per capita are very low in Lesotho as most of the emissions that the nation produces come from land use change and the agriculture and energy sectors however rely heavily on the ecosystem goods and services to support livelihoods hence limited land available for agricultural activity. This has led to extensive land degradation, loss of biodiversity and low agricultural productivity. The decrease in farmland adds to a growing fear of the limits to food production. Most of the households were not connected to electricity (73.3 percent), 2011/12 CMS. This force people to harvest biomass to satisfy their energy needs, thus Lesotho currently relies on biomass for 72 percent of its energy needs. On the other hand, there is an improvement with access to safe drinking water in the urban areas from 62 percent in 1996 to 73.9 percent in 2006 population census.

Although urbanization is the driving force for modernization, economic growth and development, there is increasing concern about the effects of expanding cities, principally on human health, livelihoods and the environment. In Lesotho, there has been a declining population in rural areas from 1996 to 2011 and an increasing pattern in urban areas from 16.9 percent in 1996 to 23.7 percent in 2011, thus Lesotho is increasingly becoming urbanized.

There has been some progress though at a low base, in terms of setting aside protected areas for the conservation of biodiversity. However, a large number of plant and animal communities remain either endangered or critically endangered.

Although currently personal transport, home-heating and ventilation do not contribute much to emissions in Lesotho than they have in other countries but there is need for monitoring as electrification levels increased and personal vehicle ownership becomes more commonplace. Furthermore, access to safe drinking water and adequate sanitation is still pronounced in the rural areas.

Keywords: population dynamics; climate change and environmental challenge.

Analysis of cointegration in Brazilian bean market

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Abstract

The co-integration techniques have been widely used in studies that examine the process of integration of product markets. In this study, we sought to confirm the analysis of the bean market with threshold autoregressive (TAR) models. The results of the study indicated the presence of market transaction costs in bean marketing. These costs may be related mainly with the freight component of production since it is positively associated with distance from markets.

Keywords: cointegration; threshold; bean.

Economic Analysis of Adaptation Strategies to Climate Change: a cost benefit analysis

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Abstract

Climate change poses threats to the agricultural sector and negatively affects subsistence farmers who have a low adaptive capacity. Therefore adaptation capacity is needed to counteract the impacts of climate change. However, while adaptation is considered crucial for addressing potential challenges of current variability and future climate change, there are many knowledge gaps in the assessment of the cost and benefits of adaptation to climate change in the agricultural sector. There is thus a need to build capacity, particularly on fine-tuning methodologies to understand a range of estimates and trade-offs related to local level adaptation to climate change. This thesis presents an economic analysis of adaptation to climate change. This study draws on the existing literature on best strategies and tailors its use on testing local level economic methods for analysis of adaptation projects. The thesis focuses on the exploration of Cost-Benefit Analysis of adaptation options to climate change in order to provide comprehensive evidence for policy makers. Three main methods of economic analysis namely; Net present value (NPV), Benefit-Cost ratio (BCR) and internal rate of return (IRR), were used for each of the adaptation strategies. The results of this thesis show that farmers who practice late planting and recommended fertilizer amount in the context of climate change are the ones who will get the highest crop production more than farmers who practice early planting and common fertilizer. Therefore this study recommends that farmers in Maphutseng should adapt late planting and recommended fertilizer amount in order to protect themselves from the negative impacts of climate change.

Keywords: climate change; climate change adaptation; Lesotho; Maphutseng; cost-benefit analysis.

Food Safety: the reality of the city of family farmers Itapuranga Goiás

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Abstract

This study aims to assess the food security of small farmers in the municipality of Itapuranga - Goiás. In order to reach this objective, the study analyzed comparatively producers who are in the food security and insecurity to check the relationship of the food (in) security variables, tenure, size ownership, education of the producer, the value of family income and agricultural finance. Technique of comparison analysis and investigation groups of frequencies were performed, based on the data collected, considering the number of studied variables. The research was conducted in the municipality of Itapuranga - Goiás, from January to March 2013. The calculation was made with the value determined by confidence level of 90%, the sampling error of 5%, p = 0.85 and q = 0.15, with a sample of 138 producers. The techniques for