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Validating food insecurity scale for rural population: A step towards combatting food insecurity

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Food insecurity scales can help in identifying households that belong to high-risk groups. This effort helps in designing interventions and strategies based on pre-empting or combating malnutrition. Additionally, such a scale can also help us identify correlates of high-insecurity, i.e. poverty, education level, occupations etc., and enable interventions through the use of these correlates. In several countries, the measurement of food insecurity has led to new policies and policy adjustments that have subsequently led to introduction of targeted programmatic interventions aimed at promoting food security among the severely food insecure groups. As an outcome of the use of scale for measurements, some countries have effectively identified the vulnerable groups and have taken precautionary measures too to avert food insecurity situations. Using an eclectic tool developed from a combination of atleast five available scales, both traditional (i.e based on calorie consumption and income levels) as well as more dynamic ones (which also tried to capture perceptions and anxieties etc.), we approached 600 households in six different districts (administrative unit) in rural India to collect data. The survey included 18 questions about perception of food insecurity levels, and respondents were expected to choose a value between 0-never (felt the effects of food insecurity) and five (always feel the effects of food insecurity). Cumulative scores were used to categorise the household as food securre, moderately food insecure and severely food insecure. In the analysis of the data (N=600), we find varying degrees of food insecurity. For instance, we find data that suggests a negative relationship between perceived insecurity on the scale of one to five and monthly per capita income in line with expectations and theory. Additionally, we find occupational variation in perceived insecurity, with daily/casual labour facing a higher degree of insecurity than agricultural labour. Indicative relationships have also been traced between insecurity and outcomes such as BMI (BMI decreases as insecurity increases) and weight (weight decreases as insecurity increases).

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The production of energy by agriculture in the Mediterranean basin – Understanding the role of agriculture knowledge and innovation system at the regional level: The case of Tuscany, Italy

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The EU aims at increasing the production of renewable energy by agriculture by 2020 and it is now supported by COP 21's Paris Agreement (2015). Biogas-to-electricity plants in farms might help the EU complay with the energy target above, but the diffusion of agroenery in the Mediterranean area is modes and uneven. This study aims to understand the process of biogas diffusion in a region of the Mediterranean area, by dealing with knowledge transfer and the role of networks and considering networks' impacts on the transaction costs associated with agroenergy adoption. The paper depicts the agricultural knowledge and innovation system behind the diffusion of agroenergy and identifies the system's structural components in Tuscany (Italy), i.e. a proxy for northern areas of the Mediterranean basin, where prospective biogas adopters in Tuscany should radically change farm structures. The methodology involves social network analysis, for pinpointing the role of the different interest groups in knowledge transfer and the extent to which knowledge management has shaped the biogas sector in Tuscany. Preliminary results highlight that knowledge transfer from producers to users (farmers) seems to be a weakness of the network. Apparently, adopters are self-sufficient in terms of knowledge gathering during the innovation-decision phase, while they miss significant intermediaries. Given the irreversibility of biogas adoption, disconnection could significantly affect the costs for daily management. The lack of coordination among the components of the agricultural knowledge and innovation system may hinder the sustainable diffusion of biogas, with the rise of intensive entrepreneurial agro energy farming.

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