

using Internet technologies such as Flash and streaming audio and video. The Center also aims to conduct software application development based upon open source technologies, such as Linux, PHP, PostgreSQL, and Java. Applications to be developed include geographic information systems and clinical information systems. A landmark research in telemedicine and teledermatology in particular in the PGH and the Philippines was accomplished with the PGH Section of Dermatology. A teledermatology application was developed using Linux, PHP, and PostgreSQL. The study compares the diagnostic results from traditional face-to-face dermatology consult and teledermatology consultation using store-and-forward technology. It assesses the acceptability of this technology to patients and healthcare providers. The results shows that teledermatology is an accurate tool for diagnosis of dermatologic conditions. Agreement is high between SAF and ITF diagnoses. This study also shows that health care providers are open to this new form of consultation. However, in contrast to findings in other countries, this study indicates that there seems to be hesitation on the part of the patients to use the technology. A similar application for a web-based teleradiology system was also developed with the Department of Radiology which compares store and forward technology with traditional negatoscope assessment. The design of a community teleservice center is being conducted with the cooperation of the Philippine Council on Health Research Development and the Department of Transportation and Communication

**Keywords:** e-health, telemedicine, videoconferencing, teledermatology, distance education

## ***SOCIAL SCIENCES*** ***(Technical Session)***

### **LINKING SOCIAL AND TECHNICAL SCIENCES IN FACILITATING LOCAL AGRICULTURAL INNOVATION**

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With or without access to formal science, local people continuously innovate while managing their agricultural livelihood. However, agricultural science has demonstrated that it can contribute to livelihood improvement by developing and disseminating technologies relevant to local people's needs. This paper discusses the challenge facing

agricultural science in ensuring greater utilization of its research products. A particular issue examined is linking social and technical sciences to facilitate local agricultural innovation. Together with empirical examples from rootcrop research across Asia, the paper argues that technological interventions are inadequate for dealing with complex problem situations at the field level. It proposes participatory research as a platform for technical and social scientists to engage in joint learning with local farming communities.

**Keywords:** agricultural livelihood, local innovation, participatory research

**THE USE OF *WEALTH RANK* AS AN EXPLANATORY VARIABLE  
IN A MODEL OF CULTIVATION DECISIONS AMONG  
HOUSEHOLDS IN BUFFER ZONE COMMUNITIES**

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This paper discusses an evaluation of wealth ranks generated by a wealth ranking exercise as an explanatory variable in econometric analysis of farm and household factors affecting cultivation decisions among forest buffer zone communities in the Upper Manupali Watershed, Bukidnon, Philippines. Wealth ranks improved the explanatory power of the model of cultivation decisions, but not the model of access. However, wealth - both in monetary terms and in the terms implied by the wealth ranks - was not a major determinant of buffer zone access and cultivation.

Wealth rank descriptors indicate that initiative, attitude and community relations were also significant determinants of a household's decision to make investments in farming. As a tool that builds on local people's own understanding of their own circumstances, the paper shows that wealth ranks present an opportunity for analytical tools to capture an elaborate on the socio-cultural dimensions of household decision-making.

**Keywords:** wealth rank, econometric analysis, socio-cultural dimension

## MEASURING SOCIAL CAPITAL IN AGRARIAN REFORM COMMUNITIES (ARC) AND NON ARC IN THE PHILIPPINES

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Social capital means different things to different people. At the conceptual level, the current debate stems from two issues: 1. Is social capital capital? 2. Is social capital social? Admittedly, economists and sociologists would have different perspectives of this concept rooted from the theoretical frame of their individual disciplines. Measuring social capital for development policy is thus dependent on how one perceives the concept to be.

This paper will attempt to "demystify" measurement of social capital by illustrating estimation of an index that captures both the economic (capital) and social aspects of social capital. Through a literature review, origins and evolution of the concept will be explored in reference to its impact or potential impact on poverty alleviation. The empirical exercise will be based on the study of agrarian reform communities (ARC) and a set of control non ARCs in the Philippines. The paper will try to point out future needs for research and methodology development in further understanding and quantifying social capital as a policy variable.

**Keywords:** social capital, agrarian reform

## PEASANT TYPES AND DEVELOPMENT ISSUES IN MINDANAO

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In this exploratory paper, we shall first discuss two sets of variables and their utility for classifying the peasantry. Then we can sketch out eight types of the Filipino peasant today. We shall end with some observations on development issues affecting Filipino peasants at the outset of the new century.

The first pair of variables related farm size to agricultural technology. Its unit