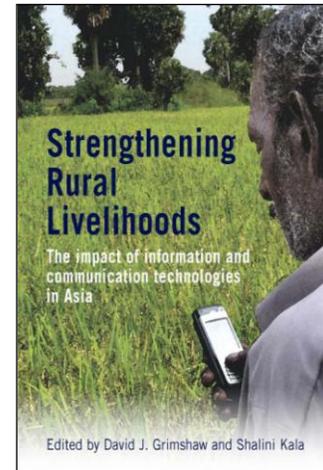


David J. Grimshaw and Shalini Kala (Eds.), **Strengthening Rural Livelihoods: The impact of information and communication technologies in Asia**. Practical Action Publishing Ltd., Rugby, Warwickshire, UK and the International Development Research Centre, Ottawa, Ontario, Canada, 2011, 170 pp., \$15.95 (paperback).

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The recent recession and following spike in worldwide food prices have made the issue of food security a priority. Rural development, specifically focused on agricultural communities, is a means to help make food security a reality for the world's poor. Poor people in rural areas are often constrained by limited access to information and poor communications technology. The book *Strengthening Rural Livelihoods: The impact of information and communication technologies in Asia* edited by David J. Grimshaw and Shalini Kala looks at the use of information communications technologies (ICTs) in facilitating rural development by providing agricultural extension services and real-time market price information, connecting rural laborers with wage-earning opportunities and helping rural communities build a sustainable asset base. Six research projects are both quantitatively and qualitatively analyzed to show how ICT interventions have "empowered rural people and transformed livelihoods in agriculture by filling information gaps, raising awareness, building skills and extending social networks" (p. xi). Appropriate for both experts and newcomers to the field of development, this well-written and comprehensive book contributes greatly to the understanding of the ways in which ICTs influence rural livelihoods.



This book is a culmination of work undertaken by the International Development Research Centre (IDRC) through the Knowledge Networking for Rural Development in the Asia Pacific Region (ENRAP) research program along with the International Fund for Agricultural Development (IFAD), Practical Action and a group of Asian researchers with the purpose of "better understanding the extent to which ICT applications could support rural livelihoods" (p. xiii). The editors, David J. Grimshaw and Shalini Kala, have the necessary expertise to compile this book. Grimshaw is Head of International Programme: New Technologies with Practical Action and is a Senior Research Fellow at the Department for International Development. Kala, with an advanced degree in Economics, has been working in the area of rural livelihoods and agriculture for more than 20 years.

Strengthening Rural Livelihoods is a collection of thorough descriptions and analysis of six research projects, undertaken in Sri Lanka, India, Philippines and China, with an introductory and concluding chapter linking them together. The projects within this book include both new interventions (four studies) and past interventions (two studies) via end user perception surveys. The studies "investigate strategies, processes, methods and technologies to support rural communication and knowledge networking, and develop recommendations for future activities" (p. 133). While each project

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was designed as a research project, employing randomized control trials where possible, they are also development interventions that made changes to the lives of real people as a result of their implementation.

A brief summary of the book follows. Chapter 1 provides a thorough introduction to the six research projects described in the book and also an overview of several key concepts including the role of ICTs in development, the role of ICTs to support rural livelihoods, the livelihoods framework as well as the pros and cons of using this framework in the context of ICT interventions. Chapter 2 describes a project that takes place in Sri Lanka exploring the use of mobile phones to access accurate market prices in real time. The work is based on the thesis that "achieving an efficient balance between supply and demand requires price transparency" (p. 11). The projects described in Chapters 3 and 4 take place in India; the first involves the design, development and implementation of a software system to provide customized soil and crop (rice) nutrient information and the second deals with the implementation of phone-based agricultural advisory services. Chapter 5 is about connecting the non-agricultural labor market in Sri Lanka with employment opportunities via a database of potential employers and employees. Chapters 6 and 7 take place in the Philippines and China, respectively, and both use the Internet as the ICT to provide access to information on agricultural and farming technologies and practices. The project in China involves the development of village information centers that additionally provide information on agricultural produce markets, weather, financial instruments and health. Chapter 8 provides a synthesis of what each project has achieved and the impact that ICTs can have on rural livelihoods in a summary table. The main measured impacts include increases in income, reductions in vulnerability and improvements in food security. Additionally, the effect of ICT interventions on social networks is also considered. A few key issues that arose from the analysis of the projects and are discussed in detail including intervention sustainability and building trust in the information supplied as well as the information delivery mechanism.

While there exists a general consensus that ICTs play an important role in development, "there is concern that the 'digital divide' is increasing the gap between the 'information haves and have nots' and this is the preoccupation of many of the initiatives established to address ICTs for development" (p. 3). These studies, undertaken under the ENRAP program, have helped fill the gap in demonstrating the positive impact of ICT interventions in contributing to the reduction of information asymmetry.

This book is unique in that it contributes to the field of ICTs for development in two main ways: first, each of the six projects adds to the literature on ICTs for rural livelihoods, and second, by contributing to impact methodology. The research projects apply the sustainable livelihoods framework by evaluating the impact of information and knowledge to the livelihood assets: social, physical, financial and human. Examining the projects through a "livelihoods" lens provides "a framework for thinking about ICT interventions and research that is primarily focused on the needs of poor farmers rather than on the technology" (p. 5). Through the use of randomized control trials in which the ICT intervention is applied to a certain population and then that population is matched and compared to a "control group" that doesn't receive the intervention, the researchers are better able to quantitatively measure the impacts the ICT interventions have on rural livelihoods.

This book is applicable both for experts in the field as it offers new research and a new contribution to impact methodologies as well as for students or those unfamiliar with communication for development as it provides an excellent overview of the issues surrounding this field. As someone new to the field of communication for environmental and social change, I found this book to be a great introduction to the type of work that is being done and the direction the field is headed for future work. It can be easily read and understood by someone with limited knowledge of the field. While Chapter 1 provides an excellent introduction to the concept of ICTs for development, the concept of the sustainable livelihoods framework could be more thoroughly explained as understanding this model is key to interpreting the analysis of the projects. While it is inadvertently described in subsequent chapters, fully describing the framework at the beginning of the book would better prepare the reader to understand the evaluation of the six research projects. Additionally, the fact that the "livelihoods" concept is introduced repeatedly in subsequent chapters as they all have different authors makes some of the information presented redundant. Furthermore, I found the change in writing style throughout the book as a result of the varying authors to be disjointing.

The contributors to the book do an excellent job of discussing what type of work has been done in the past—what was both good and bad about it, what work is presently being done and what must be done in future work to improve it. In doing this, the book effectively addresses criticisms of ICT interventions for development projects to date. The book carefully speaks to both the pros and cons of the methodologies and strategies employed in each research project. The difficulties in using the livelihood framework are discussed; for example, income levels are inherently difficult to measure. This book addresses the difficulties of the use of the "randomized control trials" methodology to measure the impact of development interventions, as the risk of contamination of the control group is high, as well as the ethics of such "experimentation" on people. "The main ethical issue is that the people in the control group are being deliberately excluded from an intervention that could benefit them" (p. 10). The authors of each chapter also do an excellent job of describing both the strengths and weaknesses of their action research project and discussing what further work must be done to improve or expand on the project in the future. All aspects of each project are thoroughly discussed to make them as reproducible and up scalable as possible.

Improvements in technology and changes in the availability of it worldwide have enabled a wider range of rural poor access to information. However, simply having access to information is not enough to strengthen rural livelihoods; research, such as that included in this book, has shown that it is the "customization of information and knowledge and their delivery via easy-to-use interfaces" (p. 3) that have the greatest impact on rural livelihoods. Individually, each project described is an evidentially-based work demonstrating the impact of information on rural livelihoods, providing both qualitative and quantitative analysis. Collectively, these research projects offer evidence from the field across a range of application areas, geographies, cultures and technologies greatly contributing to the field of ICTs for development.