APRACA FinPower Programme

A Review of
Rural Finance Innovations in Asia:
New Approaches, Best Practices and Lessons

Ramon C. Yedra

With Special Sponsorship of the
International Fund for Agricultural Development (IFAD)

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This review is published during the incumbency of Mr. Thiraphong Tangthirasunan (APRACA Chairman), Dr. Do Tat Ngoc (APRACA Vice-Chairman), Mr. Benedicto S. Bayaua (Secretary General).

MESSAGE from the APRACA CHAIRMAN and VICE-CHAIRMAN

Greetings! This review of rural financial innovations and best practices is a testimony of APRACA's strong commitment to pursue the promotion of efficient and effective rural financial systems and broadened access to rural financial services in order to help reduce rural poverty among countries in Asia and the Pacific. APRACA has successfully established among its members, machinery for systematic interchange of information on sustainable rural and agricultural financial services, encouraged inter-country studies and provided training, consultancy, research and publication services on matters of common interest in the field of rural finance.

In all these aspirations, the International Fund for Agricultural Development or IFAD has played the role of APRACA's strategic partner under the FinPower Program. APRACA and IFAD share that mutual desire to pursue and create conducive rural finance policy environment and regulatory framework in Asian countries, including the development of sustainable financial services in rural areas, pilot testing of innovative approaches, delivery mechanisms and linkage programs, promoting finance reforms aimed at poverty alleviation, and disseminating best rural finance practices to more countries.

May we therefore thank Dr. Thomas Elhaut, IFAD Asia Division Director, and Dr. Ganesh B. Thapa, Regional Economist, for the trust and confidence they have continuously bestowed on APRACA and for their commitment to help alleviate poverty and accelerate rural growth and development among countries in Asia and the Pacific.

We wish to congratulate Mr. Benedicto S. Bayaua, APRACA Secretary General and FinPower Regional Program Manager, for initiating the program and supervising the FinPower activities.

We also convey our thanks to APRACA's research and training arm, the Center for Training and Research in Agricultural Banking (CENTRAB), particularly to Ms. Jovita M. Corpuz, President and Atty. Eduardo Garcia, Managing Director, for their support and commitment to the FinPower Program. We sincerely wish that this publication will continuously inspire policymakers, practitioners and other stakeholders in the different countries in Asia and the Pacific to work towards poverty reduction and rural development.

MR. THIRAPHONG TANGTHIRASUNAN
President, Bank for Agriculture and
Agricultural Cooperatives and
Chairman, Asia-Pacific Rural and
Agricultural Credit Association
2007

DR. DO TAT NGOC
Chairman, Vietnam Bank for Agriculture
and Rural Development and
Vice-Chairman, Asia-Pacific Rural and
Agricultural Credit Association
2007

MESSAGE from the APRACA-CENTRAB PRESIDENT

Greetings to all! It is my ardent wish for all the readers of this review of rural financial innovations and best practices in Asia to share in our quest to help uplift the lives of the rural poor through a conducive rural finance policy environment that will allow the delivery of adequate, timely and appropriate financial products and services in the rural areas.

The Center for Training and Research in Agricultural Banking (CENTRAB), the research and training arm of APRACA, takes pride in providing research expertise under the APRACA FinPower Program. Together, we promote the interchange of information among member countries through inter-country studies, training, consultancy, research and publication services in order to help these countries address critical issues and formulate strategies towards sustainable and effective rural financial markets.

This publication is one of the major outputs of the FinPower Program. I would like to congratulate Dr. Thomas Elhaut, IFAD Asia Division Director; Dr. Ganesh B. Thapa, IFAD Asia Division Regional Economist, Mr. Thiraphong Tangthirasunan, APRACA Chairman, Dr. Do Tat Ngoc, APRACA Vice-Chairman; and Mr. Benedicto S. Bayaua, Secretary General and FinPower Regional Program Manager; for their strong commitment to the program.

I wish also to thank Atty. Eduardo Garcia, CENTRAB Managing Director and the Agricultural Credit Policy Council of the Philippines' officers and staff for their full support and commitment to implement the FinPower Program, without which the conduct of this review and its publication would not have been possible. I also want to thank Mr. Ramon C. Yedra, ACPC Deputy Executive Director, and other ACPC research officers for incessantly sharing their talents and expertise to help APRACA achieve its objectives.

May we all continuously be inspired to be generous in sharing our resources to help reduce poverty in this world.

MS. JOVITA M. CORPUZ
President, APRACA CENTRAB and
Executive Director, Agricultural
Credit Policy Council of the Philippines
2007

FOREWORD

A number of rural financial innovations evolved from Asia in the 1990s. Amongst these are the microfinance methodologies that have been recognized worldwide as having been successful in reaching to large number of the rural poor as well as in providing sustainable financial services. IFAD – supported projects such as those in the Philippines and Indonesia have considerable experience in rural microfinance and can provide instructive lessons for other countries similarly situated. APRACA likewise – which includes the major Agricultural Development Banks in the Asia-Pacific region – has had significant experience in initiating innovative rural microfinance such as the GTZ supported Self-Help Groups (SHG) Linkage Banking which has been scaled up with considerable success by APRACA members, particularly by NABARD of India. Within APRACA members and projects in the represented countries, a number of practices and approaches on agricultural finance as well as other new financial services, products or instruments on rural finance have evolved.

This publication reviews the rural finance innovations in Asia-Pacific region with focus on IFAD assisted projects and APRACA member institutions. It discusses emerging rural finance development strategies, highlights the remaining challenges in rural finance in major APRACA represented countries and presents a conceptual framework in the analysis of rural finance innovations and best practices. The review covers institutional innovations, new products and methodologies on rural finance, microfinance and agricultural finance that emerged in the 1990s. The report identifies the best practices for each innovation category, synthesizes key lessons learned according to relevant themes and outlined the considerations related to the promotion of recommended practices and approaches to other APRACA member institutions and represented countries.

Despite this wealth of experience and innovative practices, the coverage of rural microfinance and rural finance – except for few countries – has been largely limited. A major challenge that remains is how to widen access to financial services by the poor and low-income rural clients. It is within this context that the IFAD supported APRACA FinPower Program has been initiated. The Program seeks to facilitate the diffusion and adoption of the successful approaches among APRACA members and represented countries. It is hoped that the findings and recommendations of this review would help not only in having identified the particular innovations and best practices but also in guiding future actions of APRACA and other interested rural finance players to facilitate adoption of successful approaches in their respective countries.

Benedicto S. Bayaua
APRACA Secretary General and
FinPower Regional Program Manager

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The writer likewise wishes to extend his gratitude to Mr. Benedicto S. Bayaua, APRACA Secretary General and FinPower Regional Program Manager, for approving the consulting project and Atty. Eduardo Garcia, CENTRAB Managing Director, for facilitative support and guidance in preparing the review.

Ramon C. Yedra

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LIST OF ACRONYMS

ACPC	Agricultural Credit Policy Council
ADB	Asian Development Bank
ADB/N	Agricultural Development Bank of Nepal
AgDB	Agricultural Development Bank
AFC	Agriculture, Forestry and Fisheries Finance Corporation
APRACA	Asia-Pacific Rural and Agricultural Credit Association
ASA	Association for Social Advancement
BAAC	Bank for Agriculture and Agricultural Cooperatives
BRI	Bank Rakyat Indonesia
CARD	Center for Agriculture and Rural Development
CENTRAB	Center for Training and Research in Agricultural Banking
CGAP	Consultative Group to Assist the Poorest
CUES	Credit Union Empowerment and Strengthening
FAO	Food and Agriculture Organization of the United Nations
GTZ	Gesellschaft fur Technische Zusammenarbeit
HNB	Hatton National Bank
IFAD	International Fund for Agricultural Development
LBP	Land Bank of the Philippines
MFI	Microfinance Institution
NACF	National Agricultural Cooperative Federation
NABARD	National Bank for Agriculture and Rural Development
NGO	Non-Government Organization
SHG	Self-Help Group
VBARD	Vietnam Bank for Agriculture and Rural Development
WOCCU	World Council of Cooperatives and Credit Unions

I. INTRODUCTION

Poverty is basically a rural problem in Asia. In the major countries of Asia, 80 to 90 percent of the poor live in the rural areas (IFAD, 2007). In reducing poverty, access to financial services – as this affects productivity, asset formation, income and food security among the rural poor – is a crucial issue being addressed by donors and governments of developing countries of Asia. Over the past ten to fifteen years, considerable experience in rural finance has been gained by donors, governments and rural financial institutions amidst changing Asian economies. This report reviews the experiences and innovative approaches on rural finance from the Asia-Pacific region with particular focus on IFAD supported projects and APRACA member institutions and projects. The desk research involved the review of existing literature related to the subject, published case studies, project evaluation reports and other available report documents from IFAD, other donor assisted projects and APRACA member institutions and projects. The objectives of the review are: (a) to identify best practices and innovative approaches that have made impact on attaining improved outreach and sustainable access to financial services by the rural poor; and (b) to draw lessons from these approaches and best practices and synthesize them according to relevant themes, particularly in relation to the promotion of innovative practices in APRACA member institutions and represented countries.

This report consists of four sections. The first section is a discussion on operational definitions and concepts related to rural finance innovations and the conceptual framework used in this review in the analysis of innovations and practices and suggested to be used in future case studies by APRACA on the subject. The second section reviews the rural finance development strategy adopted or being promoted in Asia, rural finance market characteristics in Asia and the remaining constraints and challenges on rural finance to put into context where the innovations are coming from. The third section discusses selected innovations that can be recognized as good practices that emerged from APRACA members and Projects in represented countries. The fourth section gives a synthesis of the best practices and lessons learned into relevant themes and recommendations related to the promotion of these practices to other APRACA member institutions and represented countries.

II. CONCEPTS AND OPERATIONAL DEFINITIONS

A. FINANCIAL INNOVATIONS

A functional view defines financial innovation as "something new that reduces costs, reduces risks or provides a new product, instrument or service that better satisfies the participants' demands" (Frame and White, 2002). Thus innovations can take the forms of new products, new services (e.g. internet banking), new 'production' processes (e.g. credit scoring), or new organizational forms. Under this view, the innovation is driven by the desire of the financial institutions to remain competitive; thus they try to find ways to reduce costs, better satisfy their customers and yield better profits. Frame and White (2002) pointed out that, based on descriptive studies in the literature, the stream of financial innovations in a competitive environment is influenced by: (a) market power of enterprises (that permits firms to generate profits from innovation); (b) enterprise size (greater size allows the firm to accommodate economies of scale inherent in research and development activities to yield innovations); (c) technological opportunity (e.g. information and communication technology advancements provide opportunities for innovation); (d) appropriability (e.g. financial innovation is an information or idea that can be made available to all or easily copied by others depriving the originator the return on his original investment) and (e) product market conditions (e.g. a large market provides a greater return on the innovation and thus entice innovation). The empirical studies on the other hand, according to the authors confirmed the following: (a) regulation constraints influenced innovation; (b) the adoption and diffusion of innovation is related to bank size; (b) the use of financial technologies is related to age, income and population. Regulation is a two-edged sword. On one hand, some forms of regulation can inhibit innovation (e.g. if regulation does not permit banks to own insurance companies then bank ownership of such companies will not arise). While on the other hand, innovation can arise from efforts to circumvent innovation (e.g. banks create insurance-like products without labeling them as such).

Tufano (2003) defined financial innovation as the "act of creating then popularizing new financial instruments as well as new financial technologies, institutions and markets." As there are numerous products, he noted

that an approach chosen by most academics about innovation was to adopt a functional approach in classifying innovations. He summarized the functions of innovations to consist of: (a) completing inherently incomplete markets e.g. innovations address unmet preferences or needs of particular clientele; (b) addressing inherent agency concerns and information asymmetries (e.g. exploiting ways of generating information); (c) minimizing transaction, search or marketing costs; (d) responding to taxes and regulation; (e) responding to changes in economic conditions such as increased risk; and (d) capitalizing on technological developments (e.g. use of information and communications technology).

Schrieder and Heidhues (1995) suggested the following classification of financial innovations:

(a) System or institutional innovations – These are innovations that can affect the financial sector as a whole, relate to changes in business structures, to the establishment of new types of financial intermediaries, or to changes in the legal and supervisory framework.

(b) Process innovations – These innovations cover the introduction of new business processes leading to increased efficiency and/or market expansion.

(c) Product innovations – These innovations include the introduction of new credit, deposit, insurance, leasing, hire purchase, and other financial products. Product innovations are introduced to respond better to changes in market demand or to improve the efficiency of services delivery.

B. RURAL FINANCE, MICROFINANCE AND AGRICULTURAL FINANCE

There is a tendency among practitioners to interchangeably use the terms rural finance, microfinance and agricultural finance. Nevertheless, there is agreement on the term 'rural finance' as encompassing the broad range of financial services to the rural populace i.e., finance is not limited to credit. The range of services includes the following (Pierce, 2004):

- Intermediation-which involves mobilizing and transferring savings from surplus to deficit units and provides safe, liquid and convenient savings (deposit) facilities and access to credit facilities tailored to the needs of the rural population;
- Systems for effecting payments and transferring remittances,
- General insurance and cover against variability in output, price and market uncertainties.

The operational definitions of the terms vary depending on the definition or description of the supply and demand sides of the market. IFAD (2004), for instance, with focus on women and rural poor, defines *rural microfinance* as "comprising formal and informal financial institutions that provide small-size financial services to the rural poor as well as larger-size financial services to agro-processing and other small- and medium-size rural enterprises." The definition leaves the interpretation of "small-size" and "medium-size" to the respective countries and institutions.

In this review, the following operational distinctions between the three terms using CGAP and World Bank definitions (CGAP, 2003) are adopted:

Rural finance – to mean as the provision of broad range of financial services such as credit, savings, payments, and insurance to rural individuals, households, and enterprises both farm and non-farm that is, rural finance to mean as financial services offered and used in rural areas by people of *all* income levels.

Microfinance – to mean as the provision of financial services for the *poor and low-income* people who may either be in rural or urban areas.

Agricultural finance – as a subset of rural finance dedicated to financing *agricultural related activities* such as input supply, production, distribution, wholesale and marketing of agricultural products.

Consistent with these operational distinctions, *agricultural microfinance* can be defined as referring to the overlap of agricultural finance and microfinance dedicated to providing financial services to *poor* agricultural households or to financing agricultural activities of poor agricultural households.

C. A CONCEPTUAL FRAMEWORK IN REVIEWING RURAL FINANCE INNOVATIONS AND BEST PRACTICES

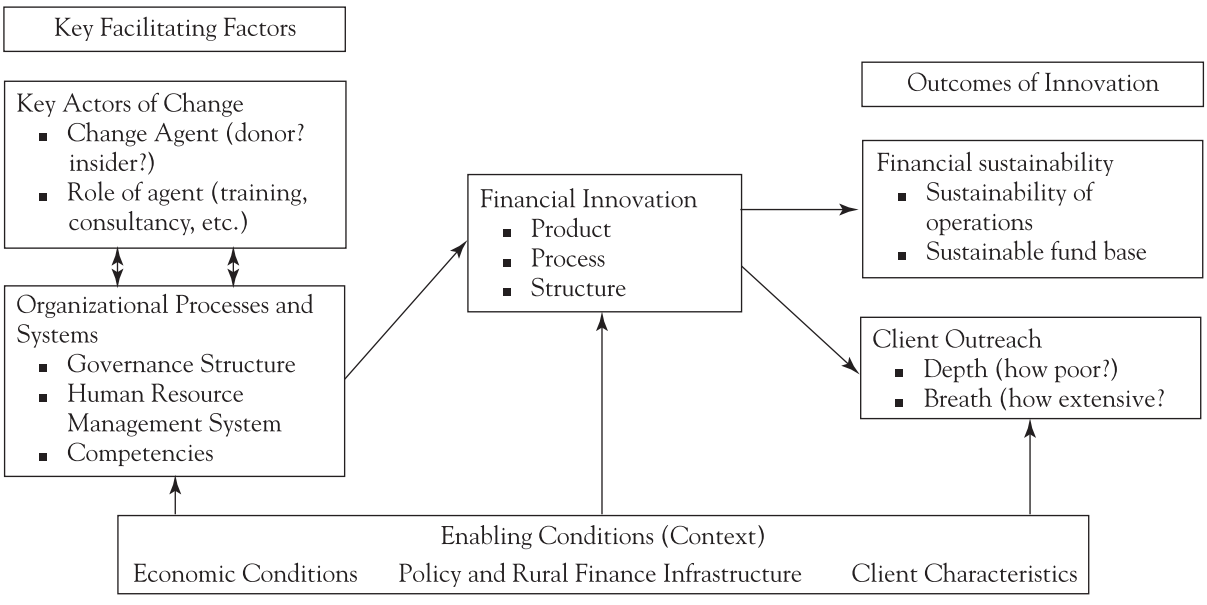
A financial innovation can be defined as something new that resulted from a deliberate change to an existing financial product, process or delivery system. The innovation results from interactions between key actors of change and the organization. The key actors of change are the **introducers of the innovation** – such as government promoting institution, donor or a key actor within the organization itself. These actors facilitated the introduction or development of the innovation. The cost and process by which the innovation was introduced by these actors give an insight on how the innovation can likewise be introduced to others (innovation diffusion). Secondly, it is important to recognize that there are key ***organizational factors*** (i.e., organizational systems such as leadership, organizational culture, incentive systems, etc.) that have facilitated the functioning of the innovation such that it produced good outcomes. The innovation can take the form of a new financial product or financial service (product innovation), a new process or methodology (process innovation) or a new form or structure of delivery system (system or institutional innovations).

An innovation will be considered a "good practice" if such innovation has produced positive outcomes in terms of financial sustainability and improved client outreach. Financial sustainability means that the organization is able to continue the financial services on a long term basis. Two core measures are important: (a) sustainability of operations and (b) sustainability of fund base. The generally acceptable indicators for these two measures for the particular sector industry will be adopted. Client outreach would include either or both "breadth" (number of rural poor clients serviced) or "depth" (how poor the clients that are being serviced).

"Best practice" on the other hand is understood as the outstanding practice in the particular process or function, i.e., producing the best results, among those in the same industry. With respect to rural finance, these sub-sector "industry" classifications will be adopted: (a) microfinance, (b) agricultural finance; and (c) micro-insurance.

The innovation is understood to have occurred or have operated within a particular ***context*** or environment. This includes economic conditions and rural policy environment (e.g. interest rate policy), rural finance infrastructure (set of regulations of the rural financial sector and financial system) and clients' socio-economic and cultural characteristics (e.g. poverty level, population density, role status of women, etc.). The particular relevant context may be at *macro* (national level) or *meso level* (at the immediate environment, e.g. communities where the organization operates). A particular innovation needs to be contextualized under these particular **enabling conditions** (or constraints) it operated. Figure 1 illustrates the conceptual framework.

Figure 1. A Conceptual Framework in Reviewing Financial Innovations



III. RURAL FINANCE DEVELOPMENT STRATEGY, MARKET CHARACTERISTICS, ISSUES AND CHALLENGES

To put into context the emerging practices and approaches in rural finance, this section reviews the emerging rural finance development strategy, rural finance market characteristics and the remaining challenges and issues on rural finance in Asian countries.

A. FINANCIAL SYSTEMS PARADIGM

A new rural finance development "paradigm" is being touted as having emerged in the late 1980s and in the 1990s out of the lessons learned from the agricultural credit programs of the 1970s and 1980s and lessons learned from microfinance 'revolution' of the 1990s. The new 'paradigm', according to Nagarajan and Meyer (2005) calls for a "financial systems approach" or using market principles to deliver financial services. It is based on the premise that market-based approach is more likely to reach large numbers of clients on a sustained basis. Meyer citing Gonzalez-Vega (2003), noted that this new paradigm calls for the following: (a) creating a favorable policy environment, including macroeconomic stability as well as reduction of bias against the rural sector; (b) strengthening the legal and regulatory framework including the legal basis for secured transactions and adopting licensing requirements and regulation for rural financial institutions to provide a variety of financial services; (c) building capacities of rural financial institutions to deliver demand driven products and services on a self-sustaining manner.

The financial systems approach (UN-FAO-GTZ, 1998) emerged in the 1990s as a result of recognition of the problems of directed agricultural credit programs of the past. The new approach has the dual aim of creating an infrastructure for the effective financial intermediation services and creating efficient and viable financial institutions. The approach calls for a comprehensive approach at all levels and segments of the financial market: macro-level (policy, regulation and supervision framework), institutional level (financial viability and intermediation efficiency); and the demand side (characteristics, bankability of the different clientele).

The ADB Study on Rural Asia (Meyer and Nagarajan, 2000) pointed out that Asian countries vary in adoption of the new paradigm. As with the UN-FAO, the ADB study emphasized a three pronged approach in developing financial markets. These include: (a) creating conducive policy environment for healthy financial system to include policies on interest rates, policies against loan targeting, and promoting political independence and autonomy of financial institutions, (b) building financial infrastructure – to include the information, legal, and regulatory systems that directly affect financial transactions and transportation and other infrastructure that indirectly affect cost and risks of finance; and (c) institutional development – building up capacities of institutions that target the disadvantaged sectors (women, rural poor).

The same three pronged approach is also adopted by the World Bank (Steel and Charitonenko, 2003) in its rural finance strategy to reach the rural poor, that is, creating a favorable policy environment that remove biases against the rural sector, strengthening legal and regulatory framework for rural microfinance institutions, and building capacity of rural microfinance institutions to deliver demand-driven credit, savings and insurance services on sustained basis.

The ADB study of Meyer and Nagarajan noted the slow adoption of the ideas under the financial systems approach of most countries in Asia. The study did not pinpoint the countries nor the degree by which the countries adhere to the ideas of the new approach, but cited the following problems as reasons for difficulty in adoption: (a) regulations and political pressures keep interest rates low for many agricultural lenders; (b) targeted programs, subsidized refinance funds continue to exist, with many rural financial institutions weak and exist only because of subsidies; (c) savings mobilization is neglected; (d) policy makers continue to be preoccupied with the problems of agriculture overlooking the demand of the non-farm economy; and (e) most institutions are ill-equipped to provide long term loans or use new information and communication technologies.

The summary features of the 'old' directed credit and the 'new' financial systems paradigms (Meyer and Nagarajan, 2000) are described in Table 1.

Table 1. Features of Directed Credit and Financial Systems Approach (Meyer and Nagarajan, 2000)

Features	Directed Credit	Financial Systems Approach
Problem definition	Overcome market failures	Lower risks and transaction costs
Role of financial markets	Promote new technology, stimulate production, implement state plans, help the poor	Intermediate resources more efficiently
View of users	Borrowers as beneficiaries selected by targeting	Borrowers and depositors as clients choosing products
Subsidies	Large subsidies through interest rates and loan defaults; create subsidy dependence	Small subsidies, create subsidy independence
Sources of funds	Mostly governments and donors	Mostly voluntary deposits
Sustainability	Largely ignored	A major concern
Evaluation	Credit impact on beneficiaries	Performance of financial institutions

Yaron (1997; 2004) outlined the role of governments under the 'new' financial systems paradigm. Its primary role is to maintain a policy environment conducive to promote rural financial markets. These include: supporting macroeconomic stability, maintaining a level playing field among economic sub-sectors and promoting competition, deregulation of the financial market and support a competitive environment, introduce legal, regulatory and enforcement mechanisms that address specific requirements of the rural population, elimination of policies that discourage rural development. For direct rural finance interventions, (a) these are warranted particularly with respect to targeted poverty reduction only if these can be achieved cost-effectively, (b) supporting early innovators or pilot experiments as the risks far outweigh benefits that deter private sector in undertaking such innovations; (b) efforts focusing on institution building and promoting measures to overcome information asymmetries e.g. credit bureaus, remove ceilings on deposits and loan interests and provide financial services through various financial institutions.

B. RURAL FINANCIAL MARKET CHARACTERISTICS

Suppliers of rural finance

In most developing countries, suppliers of finance consist of the following (UN-FAO-GTZ, 1999): (a) formal institutions – or those under the banking regulation and supervision to include the state agricultural development banks, rural branches of commercial banks, private rural or community banks, cooperative banks (b) semi-formal institutions or those not under banking regulation and supervision but are legally licensed by other government bodies – these include cooperatives, non-government organizations, credit unions, semi-formal community or village banks; (c) informal lenders such as moneylenders, relatives and friends, rotating savings and credit associations; and (d) interlinked credit arrangements such as input suppliers, crop buyers, processors.

In the developing countries of Asia, the major rural finance and microfinance suppliers are Government-owned financial institutions, non-government organizations, and cooperatives. Government-owned institutions are important suppliers in China, Indonesia, India, Thailand, Vietnam and Sri Lanka. The Philippines has Government-owned institutions as major suppliers of wholesale loans to private retail rural and microfinance institutions. Non-government organizations are dominant suppliers in Bangladesh, Cambodia, India, Sri Lanka and Nepal. Cooperatives are important service providers in the rural areas in China, India, Sri Lanka, Vietnam, the Philippines and Thailand.

Rural Poor in Asia

About 80 to 90 percent of the poor in Asian major countries are in rural areas. The rural poverty characteristics in Asia vary both within and across countries. Nevertheless, IFAD (2002) identified the following as the major rural poverty groups in the region:

- Landless and marginal farmers. Landlessness is highest in South Asian countries such as Bangladesh (49.6 percent), India (22 percent), Nepal (10 percent) and Pakistan. In Bangladesh, 69 percent of the poor and 80 percent of the severely poor are landless (defined as those with less than 0.2 hectare). Marginal farmers and tenants predominate in countries like Bangladesh, India (where 28 percent of small scale farmers have less than 0.4 hectare), Nepal and the Philippines. Marginal farmers in rainfed areas are at the bottom of the socio-economic spectrum in most countries of the region.
- Indigenous peoples. About 70 percent of the world's 250 million indigenous peoples live in Asia. They are known by different names, such as 'hill tribes' in Thailand, 'ethnic minorities' in Vietnam, 'scheduled castes' in India, and 'cultural minorities' in the Philippines. Incidence of poverty among these peoples is high. In India, poverty incidence among scheduled castes was 54 percent (1994) compared to 40 percent for the total population. In Vietnam, poverty incidence was 69 to 100 percent (1999) for ethnic minorities compared to 50 percent for the total population.
- Other poverty groups. Forest dwellers compose one group increasingly marginalized. They can be found in the outer islands and hilly areas of the islands of Indonesia and the Philippines, and throughout the hinterlands of Southeast Asia and South Asia. Pastoralists are mostly found in the highlands of Mongolia and Kyrgyzstan. Fisheries sector provides employment to a large workforce though they represent a small proportion of the region's vast population. Asia has some 25 million (1998) fishers and fishfarmers which is four fifth of the world's total. In South and Southeast Asia, 10.4 million people work as full-time or part-time fishers. Majority are artisanal coastal operators and generally among the poorest of the poor.

Severity of poverty is higher in women. Women in rural areas have fewer opportunities than men due to gender biases in their societies, unequal opportunities of access to education, employment and asset ownership. In Bangladesh and Nepal, literacy rates of women fall far below than men, 29 percent for women compared to 45 percent in men in Bangladesh (1999) and 17 percent for women compared to 51 percent for men in Nepal (1995). Women have generally fewer employment opportunities, less occupational mobility weaker skills, and less access to training.

There is likewise a spatial dimension to rural poverty. There are large differences in rural poverty incidences within countries. In India, poverty incidence varied from 16 percent in Punjab to 66 percent in Bihar (1999). In China, while only 1 percent of households were poor in Beijing, Shanghai, Tianjin and Guangdong it was 20 percent (1999) in Inner Mongolia and Qinghai. A large part of the poor are found in the hilly and mountain ranges of Bhutan, Cambodia, China, India, Indonesia, Lao PDR, Myanmar, Nepal, Pakistan, Philippines and Vietnam. Nearly a quarter of the 250 million rural poor are in these areas. Majority of them are in the rainfed cropping areas.

Given the insufficiency of agricultural income from small-scale farming or from seasonal agricultural wage employment, non-farm income sources become important. In Asian countries, share of non-farm economy in rural areas is increasing. India had the smallest share at 23 percent (1994), Indonesia had 37 percent (1995), Bangladesh had 40 percent (1990) and Thailand had the highest at 50 percent (1996). Service activities dominate the non-farm economy in rural areas, followed by manufacturing and trade. Service is more predominant in lower income South Asian countries while trade and manufacturing are important sources in Southeast Asian countries. Trade is the more dominant source for women in East Asian countries than in South Asian ones though women are more concentrated in these countries in most countries. Households with less than 0.5 hectare earn between 30 percent to as high as 90 percent from non-farm income sources. There is strong negative relationship between non-farm income share and farm size. In Thailand, the average income share of non-farm sources is 45 percent for those with 4.1 hectares compared to 88 percent for those with less than 4.1 hectare.

C. CHALLENGES FACED BY RURAL FINANCIAL INSTITUTIONS IN ASIA

Success and Limits of Asian Microfinance Methodologies

The microfinance institutions (MFIs) 'revolutionalized' traditional views by showing that the poor are bankable and it is the conventional banking technology that failed them (Nagarajan and Meyer, 2005). These

MFIs modified informal lending technology with respect to interest rates, collateral and collection methods. Their efforts gained momentum in the 1980s and solidified in the 1990s with the documentation of the generalized best practices. While microfinance has shown success in reaching out to the poor, recent literature has casted doubts on the applicability of the successful microfinance methodologies in addressing other sectors of the rural populace particularly the agricultural households. Vogel (2006) recognized that in Asia and the Pacific, a variety of microfinance approaches emerged. The cited common elements of successful microfinance are: (a) the microfinance institutions know their market, (b) lending outlets are located near the clients, application procedures easy and loans are disbursed quickly, and (c) interest rates are market oriented to cover financial and operational costs. However, Vogel noted that in 10 countries in Asia with the exceptions of Bangladesh and Indonesia, microfinance has not reached a significant proportion of rural poor households. Further, Vogel noted that simply replicating microfinance methodologies reaching the market vendors is feared to be an inadequate approach when dealing with agricultural households with long gestating periods and requiring larger amounts.

Rural and Agricultural Finance Challenges

Agricultural finance poses peculiar constraints that remain as challenges indicating need for approaches other than the successful microfinance methodologies. World Bank (2007) identified the following constraints to agricultural finance: (a) high covariant risk – owing to weather, pests and diseases, price fluctuations and smallholders constrained access to inputs, advice and markets; (b) dispersed demand – low population densities and small size of individual transactions (c) high information and transaction costs-due to dispersed population and poor record keeping of clients (d) seasonality of agriculture – posing liquidity management challenges and (e) lack of usable collateral due to ill-defined property and land rights, costly registering procedures, and social constraints to foreclosure. Thus while both urban microfinance and rural microfinance share the common problems of imperfect client information, risk mitigation and transaction costs, these are more severe in rural areas (Wenner, 2001). The heterogeneity of production and marketing conditions combined with lower education levels, and absence of written records pose problems in information gathering. The high-risk nature of agricultural activities combined with the absence of insurance schemes pose problems in risk mitigation. Poor infrastructures (transportation, communication facilities, deed registries) make it costly for both intermediaries and clients.

These constraints were likewise cited by Miller (2005). He cited that the major constraints faced by rural lenders in developing countries which continue to pose as challenges consist of: (a) higher transaction costs of serving dispersed population and poorer households; (b) seasonality of agriculture that constrains ability of agricultural producers to pay on frequent installments; (c) loan collateral issues e.g. poor land records, lack of movable collateral registries; (d) asymmetry of information e.g. difficulty of credit bureaus to operate in rural areas, client record keeping is usually poor, (e) legacy of failed government programs and (f) covariant risk – high concentration of farmers growing same crop in the same area subject to the same risk such as weather and high volatility of crop's selling prices.

In addition, the World Bank (2003) noted that there are country specific macro and institutional level factors that impede rural financial institutions to operate efficiently. These include: (a) unsound macroeconomic management, (b) restrictive agricultural or financial policies (particularly interest rate controls), (c) insufficient capacity within rural financial institutions to reach higher level of outreach on a sustained basis, (c) underdeveloped legal systems particularly with respect to marketable property rights, (d) inadequate prudential regulation and supervision of financial intermediaries; (e) poor governance and political factors that raise risks.

Credit Pollution

Due to the proliferation of microfinance institutions, both formal and non-formal, lenders now are faced increased chances of clients who borrow from multiple sources at the same time. This is exacerbated by the difficulty of information gathering and verifying credit track records of clients as there are no formal credit information mechanisms (e.g. credit bureau) that can be accessed. The issue of credit pollution came out in the recent APRACA (2006) workshop reported by the representatives of APRACA member institutions to be occurring in the Philippines, Thailand and Cambodia. The issue of "credit pollution" appeared in several case studies and policy notes in the Philippines (Llanto, 2004).

IV. INNOVATIVE APPROACHES AND PRACTICES

In this section, innovative approaches and practices from the APRACA member institutions and represented countries that made strides in addressing the problems on rural finance are discussed.

A. GOVERNMENT-OWNED AGRICULTURAL DEVELOPMENT BANKS

Agricultural development banks (AgDBs) are major players of rural finance in Asian countries. As of 2000, there were 71 AgDBs worldwide, 44 percent of which (or 31 AgDBs) are found in Asia-Pacific.

One of the early rationales for State-owned banks was that government ownership of firms in strategic sectors was critical to development and these firms needed low-cost funding from government banks. A related economic rationale cites the allocation of loans to underserved groups such as agriculture, small businesses, housing and export finance. Many of the AgDBs were set up in the 1960s and 1970s as part of the expansion of the agricultural credit programs. These AgDBs generally performed poorly although there were few exceptions (Nagarajan and Meyer, 2005). While most donors are against AgDBs, there were donors, notably IFAD and GTZ that argued forcefully in favor of reforming AgDBs instead of ignoring them. They emphasized the potential of these institutions in reaching the rural poor if they implement an appropriate framework of reform. Notable among the successful institutional reforms were the cases of Bank Rakyat Indonesia (BRI) of Indonesia and Bank for Agriculture and Agricultural Cooperatives (BAAC) of Thailand. These two institutions are recognized as having been successful in terms of both outreach and financial sustainability, having been successful in reaching out to unprecedented levels of millions of people.

Yaron, *et al.* (1998) cited the following as key factors in attaining efficiency: (a) high degree of autonomy in formulating operating policies; (b) policies that provide for staff accountability, investment in human capital, and reward and incentive system related to sound financial performance and sustainability; (c) innovative low-cost delivery systems and mobile banking systems; (d) innovative and flexible loan terms adapted to local social, economic and cultural circumstances; (e) close monitoring of loan performance and keep high on time collection rates; (f) development of domestic savings; (g) positive and high interest rates that ensure adequate spread; (h) control of administrative expenses and effective use of economies of scale; (i) advance management information systems that facilitate effective planning, control and timely monitoring of loan repayments; and (j) concentration on rural markets that have high population densities.

Bank Rakyat Indonesia (BRI). BRI had succeeded in attaining financial sustainability while providing credit and savings services to the rural low income families that previously had no access to formal financial services. Moreover, it had achieved unprecedented level of profitability while providing such services to the rural poor. The most fundamental policy change in the BRI village banking program was the "shift from disbursing credit to motivating loan recovery and mobilizing savings." Yaron, *et al.* (1998) cited in Table 2 the following key factors that compares the old approach of BRI (BIMAS credit program) and the new approach (Unit Desas):

Table 2. Comparison of BIMAS and Unit Desa

Attribute	BIMAS	Unit Desa
Institutional objective	Disbursement conduit for subsidized credit	Profit-making full-service rural bank
Financial autonomy	BIMAS windows in BRI branches with accounts subsumed in these branches	Distinct profit and loss statements with separate financial accounting
Operational autonomy	Limited – borrowers chosen by extension workers of the Ministry of Agriculture	Full – borrowers selected on viability and credit-worthiness
Staff performance evaluation	Based on loan disbursed or hectares covered	Based on profitability of unit desas
Staff incentives	Civil service – flat salary structure	Profit related bonus incentives, promotions

Table 2. *(continued)*

Attribute	BIMAS	Unit Desa
Target market	Rice farmers	Any income generating enterprise
Client incentives and sanctions	Incentive for timely payment-none Penalty for delinquency-curtailment of further loan but not well enforced	Interest rebates for timely payment; Penalty for delinquency-curtailment of further loans, strictly enforced
Interest rate	12 percent (subsidized) below inflation and savings deposit interest	33 percent, not subsidized and well above inflation, savings deposit rate
Main sources of funds	Concessional credit and grants	Client deposits at market rates
Dealing with losses	Losses covered by government	Loss-making operations suspended
Bottom line	Heavy losses and subsidy dependent	Large profits, self-sustainability

Key to the operational success is the autonomy of the village bank system to operate as an independent profit center. Village banks are free to set their own loan terms with transfer prices as the ones negotiated with the management. Loan processing is quick-taking only about a week for new borrowers and less time for repeat borrowers. BRI imposed rigid standards on its operations. Loan loss provisioning of BRI is higher than most state owned banks in other countries, e.g. general loan loss provision of 3 percent (compared to 2 percent in other countries), 100 percent reserves against loans that are three months and above overdue. As to attaining financial sustainability, BRI only took three years to shed off its subsidies. See Table 3 BRI Unit Desa Performance (2004).

Table 3. BRI Unit Desa Performance (2004)

Number of bank units	4,049
Active savers	30 million
Active borrowers	3.1 million
Deposit to loan ratio	225 percent
Loan Portfolio	Rp 18,146 billion
Portfolio at risk	2.8 percent
Return to equity	43.41 percent
Return to assets	4.02 percent

Source: www.bwtp.org.

Bank for Agriculture and Agricultural Cooperatives. (BAAC). During the past four decades, BAAC underwent transformation from a specialized agricultural lending institution to a diversified rural development bank. It underwent a gradual process of reform (Seibel, *et al.*, 2005):

- 1966-1974, laying the foundation for individual lending to farmers through joint liability groups;
- 1975-1987, expanding its lending operations through access to commercial bank and donor funds and consolidating its operations by substantially reducing loan channeling through cooperatives;
- 1988-1996, striving for viability and self-reliance, under conditions of controlled interest rates, through savings mobilization, improved loan recovery and increased staff productivity;
- Since 1997, adjusting to prudential regulation by the Central Bank and diversifying into non-agricultural lending.

The result of this gradual reform has been the largest outreach of small farmers by any AgDB, 93 percent of total farmers in Thailand while maintaining institutional viability.

The important elements of reform (Maurer and Seibel, 2000) include:

- Government's respect, though not complete, for its operational autonomy;
- corporate culture emphasizing cost-effectiveness, productivity and efficiency;
- lending schemes attuned to Thai culture;
- improvement in loan portfolio creating depositor confidence; and
- shift in financial resource base to rural savings mobilization.

By 2001, BAAC has 5.2 million direct and indirect borrowers of which 2.7 million farmers are active borrowers. The bank expanded to 1,476 branches and outlets with 12,960 staff. BAAC had 9.57 million

savings accounts with an average US$ 270 per account. As of 2001, BAAC had assets of US$ 7.8 billion with outstanding loans of US$ 5.6 billion, savings deposits of US$ 6 billion and equity of US$ 0.57 billion. With the shift to deposit mobilization, 10 million rural depositors were reached by 2003. Productivity among credit staff also saw progressive improvement, that by 2003, one credit officer is responsible for 500-550 loan clients. See Table 4 BAAC's Outreach (2002-2004).

Table 4. BAAC's Outreach (2002-2004)

	2002	2003	2004
Retail loans to farmers **Loans to cooperatives** **Total loans(In Baht)**	94 billion 27 billion 289 billion	116 billion 25 billion 322 billion	173 billion 29 billion 380 billion
Number of branches and field offices	664 branches 926 field offices	667 branches 926 field offices	669 branches 907 field offices
Number of farmer clients (retail)	3.69 million	3.73 million	3.86 million
Number of farmer members of assisted cooperatives	1.57 million	1.62 million	1.51 million
Total farmers assisted	5.39 million	5.36 million	5.37 million

Source: BAAC.

Among the lending approaches of BAAC, the most extensively used was the joint-liability group lending. Under this scheme, BAAC extends non-collateralized loans through groups of farmers who are made co-liable for each other loan. A typical group has 12 to 15 members. In practice, BAAC still asks farmers for individual landholdings and may require the deed for "safekeeping" as added loan security. Loan size is set at about 60 percent of projected revenue of sale of the crop.

Land Bank of the Philippines (LandBank): Wholesale Lending Approach. LandBank does not enjoy any government subsidy on its operations. It operates as a universal bank. The LandBank opted to do "wholesale lending approach" in reaching out to its mandated clients rather than undertaking direct lending to rural clients. Under this approach, LandBank extends credit facilities (loan and rediscounting facilities) to local rural financial institutions (mostly rural banks and cooperatives) which in turn lend to small farmers and microloan borrowers. LandBank was a participant of the APRACA-GTZ SHG Linkage Project in 1992. While it did not continue lending to informal groups, LandBank continued and concentrated its wholesaling activities to cooperatives.

In the early 1990s, LandBank aggressively lent to cooperatives, hastily forming cooperatives in the process and treating them as mere "conduits" of bank loans to farmers. Haunted by increasing unpaid loans, LandBank adopted a new approach in mid-1990s into enabling cooperatives as financial intermediaries. The strategy consists of: (a) a cooperative rating system that emphasizes the over-all institutional viability of the cooperative which serves as basis in determining credit lines; (b) performance based lending and (c) institutional development support to the cooperatives to improve their governance and management practices including improvement of savings mobilization (through a program called "Member Savings Operation"). The cooperative development approach yielded positive results. While the number of cooperatives declined, the quality of cooperatives improved. Loan repayments of the cooperatives improved considerably (average repayment to LandBank improved from 60 percent to 90 percent), membership expanded, internally generated funds (capital and deposits) increased and financial viability of the assisted cooperatives improved. The LandBank maintains 13 percent to 14 percent of its total loan portfolio for cooperative lending in recent years (2003-2005).

In 2005, LandBank (See Table 5 Performance of LandBank-assisted Cooperatives [1995 vs 2005]) extended loans amounting to US$ 312 million to 1,075 cooperatives under the wholesale lending program reaching out to about 518,000 small farmer-members. (Source: LandBank).

Table 5. Performance of LandBank-assisted Cooperatives (1995 vs 2005)

Key Result Areas	1995*	2005**
Internal funds to asset ratio	17%	64%
Debt to equity ratio	6:1	1.5:1
Past Due Ratio	40%	13%

Source: *ACPC Study of LandBank Coops. **Profiles of LandBank IRF Coops.

Agricultural Development Bank of Nepal (ADB/N): The Small Farmer Cooperatives, Ltd. (SFCL). SFCLs provide a unique institutional transformation – from joint liability groups of small farmers in the 1980s, attached to the field offices of the Agricultural Development Bank of Nepal that graduated into the SFCLs comprising 90,000 households with outstanding loans of US$ 17.9 million and internally generated resources of US$ 3.9 million by 2004. In 2003 it received the IFAD pro-poor innovation challenge award. The growth of SFCL over a ten year period (1994 to 2004) was impressive: number of SFCLs increased from 4 in 1994 to 161 by 2004, number of groups from 372 to 13, 351, outstanding loans from US$ 156,000 to US$ 17.8 million and resources from US$ 23,600 to US$ 3.9 million. The SFCL approach, according to Koch, *et al.* (2004) is based on three foundations: local SFCLs at the grassroots level, apex banks (Small Farmer Development Bank and Agricultural Development Bank) that provide the refinance facilities and the federations of SFCLs that provide the non-financial technical support services. At the village level, small farmer groups are formed as joint liability groups consisting of 5 to 12 members. From each small group, a representative joins the so-called inter-group. This inter-group further validates specific group requests and gives recommendations to the "main committee" (composed of 9 members) of the SFCL that decides on the loans and projects of the SFCL. The SFCL delivers various financial and non-financial services to members. Non-financial services include irrigation system construction, nursery projects, or women empowerment projects. The key intervention is institution building which adopted "farmer-to-farmer replication" approach which proved to be cost-efficient as well as effective. Cost was reduced by 50 percent. The replication of a SFCL took about three to four years.

However while the organizational transformation from informal groups into SFCL was successful, the loan performance of the SFCLs in recent years showed deterioration (Majorano, 2007 citing ADB Report). To support the SFCLs, the Agricultural Development Bank, Ltd. of Nepal established a separate and independent bank – the Small Farmers Development Bank (SFDB) to provide wholesale lending to SFCLs. SFDB started operations as an independent bank in 2003 making loans for agriculture and livestock investments through SFCLs. In 2005, amount of total loans outstanding of SFCLs was NRs 476.5 million. However, there are viability concerns – non-performing loans ratio is high at 18 to 38 percent of total loans and return on assets is very low at 0.29 percent. Further, if the booking up of interest as required by the central bank is followed, return on assets may even fall into deficit.

Vietnam Bank for Agriculture and Rural Development (VBARD). VBARD has a novel approach to physically reach out to its clients through the use of 'mobile banking offices' (Nguyen Hung, 2004). In 1998, the bank initiated a mobile banking program modeled after similar programs of other Asian countries. It started with 159 vehicles equipped to travel in hilly and dirt roads enabling its bank staff to reach remote areas where it can process loan applications, disburse money, collect repayments and savings. After five years, the program provided services to 315,000 households (6 percent of the bank's total clients). The success required that the normal best practices in microfinance were followed: offering appropriate loan products, linking lending and savings, and the use of joint-liability groups and solidarity groups. The bank applied cost recovering interest rates. Repayments are good and each vehicle is reported to have generated US$ 1,000 monthly profit. Each mobile bank disbursed 1,921 loans, collected 1,387 payments and transported cash on 75 occasions to 16 points monthly. The program mobilized 1,983 small savings accounts each month.

B. PRIVATE RURAL FINANCIAL INSTITUTIONS

Transforming Cooperatives into Commercially Viable Financial Institutions. In most APRACA represented countries, cooperatives are among the significant financial service providers in rural areas. Cooperatives are important financial service providers in China, India, the Philippines, Nepal and Sri Lanka. Its potential, however, has been largely ignored due to a legacy of failed credit programs in the past using cooperatives as channels of credit for small farmers and due to the general financial weakness of most rural cooperatives. In the late 1990s, however, efforts by the World Council of Cooperatives and Credit Unions (WOCCU) around the globe to revitalize cooperatives into commercially viable microfinance institutions apparently paid off (Richardson and Lennon, 2001). The pilot projects were implemented in Latin America (Bolivia, Guatemala and Ecuador), Europe (Romania) and Asia (Philippines). The approach transformed cooperatives to be "bank-like" in operation (competitively priced loan and deposit products, professionalized services), in physical image (as part of its marketing strategy) and in terms of financial structure (reliance on deposits as primary source of funds). The WOCCU credit union model puts emphasis on meeting financial standards such that financial discipline is linked to expanded growth and outreach while keeping track of stability and soundness. The financial performance standards called PEARLS (which stands for Protection, Effective financial structure, Asset quality, Rates of return and costs, Liquidity and Signs of growth) guide management in assessing the results of their operations.

In the Philippines project (Credit Union Empowerment and Strengthening or CUES), a microfinance scheme with savings and education targeting women, was incorporated in the credit union model (Sasuman, 2001). The microfinance approach involved formation of women savings and credit groups linked with the cooperative. The microfinance services served as the cooperative's strategy for market penetration for both savings and loans. The performance results of the cooperatives that participated in the project were remarkable. There were significant improvements in the performance of the first 11 cooperatives that participated in the CUES Project in terms of outreach (15x increase in membership), in volume of loans (27x increase), in delinquency rates (reduction of loan delinquency rate from 63 percent to 7 percent) and savings (45x increase) within the five year period (1998-2002). Similar exponential growth and performance results were reported to be achieved by other cooperatives that replicated the approach even after the termination of technical assistance of the CUES Project. The features of the CUES were subsequently promoted by the Agricultural Credit Policy Council (ACPC) and the Landbank – both APRACA members – to participating cooperatives under their joint institution-building project called "Integrated Rural Financing Program" and to the participating cooperatives of the ACPC in a capacity building project in the Quezon province.

Transforming NGOs into Regulated Financial Institutions. In Asian countries notably Bangladesh, Cambodia, Nepal, and India, Non-Government Organizations (NGOs) play considerable role in extending rural microfinance services. The main drawback however of NGOs is that they are not within the purview of banking regulation and are not normally granted the legal authority to mobilize deposits. This puts a constraint in attaining financial sustainability as the NGO becomes dependent on outside funds – mostly donors – to sustain its lending operations. In countries that allow entry of new banking institutions in the rural areas, converting into regulated formal banking institutions becomes a sound option. The transformation of NGO microfinance institutions into regulated financial institutions was a model that started to appear in the late 1980s in Latin America and in the 1990s in Asia. Between 1992 and 2003, ADB reported (Fernando, 2004) at least 39 NGOs were transformed into regulated financial institutions, with Asia accounting for 15 of 39 cases worldwide. In most cases, it was noted that the transformation brought significant improvements in governance and institutional sustainability. A comparison of the pre- and post transformation outreach of 6 microfinance institutions in Asia (Cambodia, Mongolia, Nepal) showed an increase from US$ 20.4 million loan portfolio and 161,503 clients to US$ 78 million loan portfolio (390 percent increase) and 441,077 clients (173 percent increase) within three to four years.

In APRACA represented countries, the cases of transformation cited by Fernando (2004) include the following:

- **Cambodia**: (a) Hattha Kaksekar, Ltd. – established as non-bank regulated financial institution in 2001, owned by four shareholders and a staff association; (b) ACLEDA Bank – established as

specialized bank in 2003 from the ACLEDA NGO; (c) AMRET Co., Ltd. (formerly Ennatien Moulethan Tchonnebat or EMT) established as a regulated financial institution in 2001 from the EMT NGO; and (d) Thaneakea Phum Cambodia – established as a regulated non-bank financial institution in 2003 from four NGO partners of Catholic Relief Services. Among these institutions, the Association of Cambodian Local Economic Development Agencies (ACLEDA) Bank has the widest outreach and fastest growth, from 82,976 borrowers in 2002 to 159,930 in 2006 while loan portfolio increased from US$ 27 million to US$ 157 million. (Source: acledabank.com.kh).

- **Mongolia**: XAC Bank of Mongolia – from the Liberal Women's Brain Pool and XAC Golden fund for development. The two NGOs started under the UNDP MicroStart Project, transformed into a limited liability company in 1999 and obtained license to conduct lending activities in the same year and then transformed into a commercial bank in 2002.
- **Nepal**: (a) Nirdhan Ulthan Bank – from the Nirdhan NGO (Nepal), a Grameen replicator founded in 1991, transformed into a limited company bank in 1999; (b) DEPROSC Bikas Bank – from the Development Project Service Center (Nepal), converted into a bank in 2001, with the founder NGO owing 21.5 percent of capital, the Agricultural Development Bank of Nepal at 14 percent, private sector banks at 18.5 percent each and the remaining 9 percent from private individuals; (c) Chhimek Bikas Bank, established in 2002 from the Chhimek Bikas Kendra NGO, which owns 17 percent of capital, private individuals owing 32 percent and three private banks owning 17 percent; (c) Swalamaban Bikas Bank from the Center for Self-Help Development NGO owning 22 percent with equity investments from three private banks, one cooperative society and one individual.
- **India:** (a) SHARE Microfin, Ltd. of Andhra Pradesh – transformed into a non-bank financial institution in 2000 from the SHARE NGO; (b) Swayam Krishi Sangam (SKS) – transformed into non-bank financial institution in 2005. Both were Grameen replicators that converted into regulated non-bank financial institutions. SHARE, established as non-bank in 2000, is the largest microfinance institution in India in terms of outreach and loans to the poor. As of 2004, it had total assets of US$ 44 million, loan portfolio of US$ 40 million (an increase of 1,574 percent from 1999 pre-transformation period), portfolio at risk of 0.19 percent, operating self-sufficiency of 120 percent, return to equity of 24.6 percent. (Smith, 2006).
- **Philippines**: (a) CARD Rural Bank (established in 1997) from the CARD NGO; (b) Opportunity Microfinance Bank (established in 2001) a development bank from five NGOs; (c) Banco ng Masa Rural Bank from E. Zobel Foundation, established in 2002 and (d) Dungganon Bank from a pioneer Grameen NGO replicator, Negros Women for tomorrow's Foundation (NWTF). The Center for Agriculture and Rural Development (CARD) was the first NGO that transformed into a bank and the first "microfinance-oriented bank" licensed by the Central Bank in the Philippines. CARD NGO was a Grameen Bank replicator starting in 1989 and a partner institution of the ACPC in its Grameen Replication Project from 1989 to 1995. By 2004, CARD Bank is owned by CARD NGO (40 percent), individuals (directors and management) owning 17 percent, staff with 4 percent and clients owning 36 percent. From its establishment in 1997 to 2004, the bank achieved exponential asset growth (from US$ 1.4 million to 15.3 million or 14 times increase). As of 2006, the bank has US$ 9 million assets, US$ 7 million in loans, and 52,747 active borrowers with repayment rate of 96.8 percent and operational self-sufficiency ratio of 111 percent (Source: CARD).

Hatton National Bank: (Sri Lanka): A Private Commercial Bank that Ventured into Microfinance. The Hatton National Bank (HNB) is a leading private commercial bank in Sri Lanka and a pioneer among private commercial banks in Asia to venture into microfinance. As early as 1989, the bank introduced its own microfinance program called "Gami Pubuduwa" (Village Awakening). The approach is providing a comprehensive package of banking services (savings and credit) and support services (e.g. technical assistance in input procurement and marketing arrangements). Loan appraisals are simplified and authorities decentralized at the branch level to expedite disbursements. A field officer takes care of both deposit taking and loan services. Most loans are arranged with individuals. The bank achieved a high deposit to loan ratio indicating the viability of micro savings mobilization. The bank has adopted the generally accepted good corporate governance practices in risk management, including creation of asset and liability committee, credit policy committee, and strong audit unit (Abeywickrema, 2005).

C. RURAL MICROFINANCE METHODOLOGIES

This section discusses the major microfinance methodologies that have gained wide application in Asian countries in the 1990s that resulted in the improved outreach and financial sustainability of those that adopted them.

The Grameen Bank methodology. Thus far, the Grameen microfinance methodology has been the most popular and widely replicated model in Asia with considerable consistency in attaining successful results particularly in achieving greater outreach and high repayment rate. Grameen Bank, as of December 2006, has US$ 475 million in loan outstanding, 6.9 million borrowers from 74,462 villages and repayment rate of 98.8 percent (source: www.grameen-info.org). The Grameen Trust alone has helped out replication projects in 37 countries around the globe. Among countries where there has been considerable replication of the model are: Philippines, Malaysia, India, and Indonesia. Microfinance in China also started with a pilot replication project on the Grameen model.

David Gibbons (2006), one of the pioneering replicators in Southeast Asia, cited the following as the 'essential Grameen": (a) exclusive focus on the poor with priority on the 'poorest' women, (b) financial services delivery that facilitates participation and ensures timely repayment (small loans payable in periodic mostly, weekly installments; formation of solidarity groups, self-choice of loan activities, loans for income generation only, eligibility of succeeding loans based on repayment of previous loans); and (c) attainment of financial self-sustainability. Gibbons recognized that replication is an art and most replicators adjusted the model to fit particular local contexts. However, he cited the following as among the essential conditions for successful replication of the model: (a) poverty density – it is clear that cost is related to density of clients and thus, operational sustainability is reached in areas where there are high concentrations of the poor; (b) freedom to create self-employment (ease of entry of microenterprises), i.e., there are no serious impediments or constraints in putting up self-employment activities.

Features of the Grameen model are already well known, the new innovation in Grameen is in the *transfer of technology*. In the early 1990s the mode of technology diffusion was "exposure-then-training" – i.e., early innovators in one country were sent for exposure followed by training in Bangladesh. These innovators then became the resource institutions in extending the technology to other financial institutions in their respective countries. The new mode of technology transfer is "Build-Operate-Transfer" that has been piloted by Grameen Trust (Morshed, 2006). The approach was noted to have contributed to the expansion of microcredit in the countries where the model does not exist and where there are very few rural financial institutions. The Grameen Trust reported good results with their pilot "Build-Operate-Transfer" projects in Turkey, Myanmar, Kosovo and Zambia over the last nine years. Myanmar project for instance has reached 95,000 clients as of 2006.

ASA Model of Microfinance. Described as the "new kid on the block", the ASA (Association for Social Advancement) of Bangladesh is one of the more recent models (microfinance operations started in 1990) being replicated in other Asian countries. ASA is among the largest microfinance institutions in the world in terms of outreach. As of 2006, it has 5.16 million borrowers, US$ 304 million outstanding loans, operational self-sufficiency of 252 percent, portfolio at risk of 1.85 percent and loan recovery of 99.82 percent (source:www.asabd.org). ASA was selected by the UNDP Micro-Start Project in assisting other MFIs in Asia. As of 2005, among the countries where ASA was introduced were: Philippines, Indonesia, India, Yemen, and Nigeria. The Philippines has the highest participation (16 MFIs). Among the MFIs provided with technical assistance in replicating the ASA model and their corresponding outreach as of 2005 were: Bandhan – NGO in India – 121,525 clients, Bina Sawadaya of Indonesia – 6,870 clients; CARD Rural Bank of the Philippines – 176,160 clients, Life Bank of Philippines – 46,062 clients. ADB (Fernando and Meyer, 2002) termed ASA as the "Ford model of microfinance" owing to its standardized lending operations approach. Each of branch of ASA follow standardized operations from composition of personnel, physical facilities (up to type of furniture), accounting system, and lending operations. As of July 2007, ASA has 3,339 branches in 72,204 villages manned by 24,542 staff. Each branch has about 60-120 groups (1,200 to 3,000 clients) with about 20-30 members per group. Each loan officer responsible is responsible for about 18 groups per week (3 groups per day). Loans and compulsory savings are collected weekly per group. There is no group co-liability requirement among the groups that distinguishes it from the Grameen approach. Branch offices are near the

clients to keep transaction cost low for both lender and borrower. The unique operating system is viewed as responsible for attaining the most cost-efficient operations of all microfinance models.

Self-Help Groups (SHG) Linkage Banking. Linking self-help groups with banks started out as pilot projects by APRACA with funding and technical support from GTZ in several countries in Asia in 1988. The NABARD experience in India achieved the largest scale and outreach and appeared to be the most successful. SHG Banking (Kroft and Suran, 2002) is an approach that helps promote financial transactions between the formal banking institutions with informal self-help groups (SHGs) as clients. The SHGs usually start by making voluntary savings on a regular basis (monthly or fortnightly basis) which they use as quasi-equity together with bank loans to extend interest bearing loans to members. Such loans can be provided for use of any of the borrowers' production, investment or consumption activities.

There are three models of the SHG-bank linkages. These are: (a) SHGs formed and financed by banks themselves (16 percent of all SHGs) – where the bank takes up the work of forming and nurturing the SHGs; (b) SHGs formed by NGOs or government agencies but financed by the banks (75 percent of all SHGs) – where the bank provides the credit after the preparation work of the government agency or NGO; (c) SHGs financed by banks using NGOs as intermediaries (9 percent of all SHGs) – where the NGOs act as both facilitators of group formation and as credit conduits.

The pilot project in India was initiated in 1992 with 500 SHGs which increased to 637 SHGs from 11 states by 1994. By 1997, there were more than 10,000 SHGs covering around 200,000 families. Each SHG has 10-20 members (women), who meet once or twice a month and maintains their membership, savings and loan records. As of 2002, cumulative loans to 461,478 SHGs amounted to US$ 186 million. Ninety (90 percent) of SHGS were exclusive to women groups. As of 2004, SHG linkage banking expanded to 30 states, involving 2,800 partner organizations involved in social mobilization and guidance, 560 banks operating in 36,000 branches (including cooperatives). Commercial banks account for 50 percent of credit linkages, regional rural banks for 39 percent and cooperatives for 11 percent. Cumulative number of SHGs linked to banks is 1,079,000 with an estimated 16 million members making the SHG Linkage Banking as one of the largest rural microfinance programs in the world in terms of outreach (Karduck and Seibel, 2004). As to financial performance, the SHG linkage banking proved to be profitable and sustainable: return to asset ratio of 1.4 percent to 7.5 percent, and operational self-sufficiency ratio ranging from 110 percent to 165 percent. These were achieved despite comparatively lower interest rates than other Asian microfinance schemes of Indonesia and the Philippines. A further study by Karduck and Seibel (2004) confirmed low transaction costs both on the part of the bank and of the SHGs. Transaction costs (real costs) incurred by SHGs were found to be only 0.6 percent of loans outstanding.

The distinctive features of the SHG Bank linkage methodology (Kroft and Suran, 2002) are: (a) "savings first before loan availment" and linking loans to savings (loan availment is based on amount saved), (b) autonomy given to SHG in determining loan repayment terms (loan purpose, loan size, amortization) and allowing group or individually managed enterprises that can be financed by loans. Initial loans are usually funded by savings-typically small (US$ 2.5-US$ 45) and used for consumption or to repay existing debt from informal lenders payable in six months. Banks establish links with groups that have maintained savings relationships with them. After about six months, the SHG then can borrow from the bank enabling larger loans for consumption and business purposes. Banks usually initiate lending with a 1:1 or 2:1 loans to savings ratio then gradually increase to 4:1. These loans ranged from US$ 23 to US$ 450 and are repaid in monthly installments over one to three years (CGAP, 2007). The SHGs usually borrow at 8-12 percent and lend to members at 24 percent. Because of literacy levels, SHG records are maintained by NGO staff, a literate member of the group or most commonly – a literate person in the village paid for the service. Records include attendance, savings, loans and members' passbooks.

A study by CGAP (2007) found that average on-time repayment rate of 88 percent in five sample SHG promoting institutions, two thirds of loans were for business (agriculture, animal husbandry, microenterprise) and average of US$ 1,388 loan per SHG. Lending performance of SHG lending to members showed a relatively high portfolio at risk (PAR), e.g. 90 days PAR was 24 percent while PAR for 365 days or more was 11 percent. This would appear too high compared to the PAR of other models (e.g. Philippine MFIs have less than 5 percent for 90 days PAR). However, this high level of late repayments did not translate into loan

defaults. Loan performance of SHGs with banks was better at PAR 90 days of 8 percent and PAR 365 days of 4 percent. The study concluded that while there are many well-executed SHG programs that are achieving financial sustainability, it cannot generalize for the entire SHG movement.

For countries interested to replicate the model, the study (CGAP, 2007) noted that a facilitative factor in India is that commercial banks, mostly government owned, have been encouraged to lend to SHGs because of Government-imposed priority sector lending quotas (e.g. banks are required to lend 40 percent of loan portfolio to the priority sectors). Further, Sharma (2004) cited three concrete actions from the NABARD and the Government that facilitated the scaling up of the SHG banking in India: (a) Central Bank's steps to legitimize SHG accounts providing the basis for banks to legally accept deposits from informal SHGs; (b) NABARD's setting up of a fund that provides financial support to NGOs in the formation of SHGs and for refinancing of SHG loans from participating banks; and (c) NABARD's setting up of research, training and advocacy activities that facilitated political support to the SHG program. It may be noted though that by 2003 NABARD's refinanced loans constitute 70 percent of total SHG loans indicating the increasing contribution of commercial banks' own funds for the program.

BRI *Unit Desa* Village Banking Model. The *unit desas* are the village bank units of the Bank Rakyat Indonesia (BRI) that enabled it to attain the phenomenal outreach and turnaround in profitability. From a default rate of 50 percent and loss of US$ 28 million in 1983, the *unit desas* were transformed into profitable units that contributed the US$ 34 million profit in 1991. As of 1999, *unit desas* had deposits of 24 million accounts amounting to US$ 2.27 billion and 2.5 million borrowers with outstanding loan of US$ 781 million (ADB, 2000). By 2004, there were 3.1 million borrowers with US$ 1.9 billion loans, 99.4 percent on time collection rate, 4,047 unit desas, 80 percent of which are located in rural areas (Arianto, 2004).

The strength of BRI unit desas is savings mobilization both in magnitude and in terms of deposit to loan ratio. It has the highest deposit to loan ratio among all major microfinance institutions in Asia. As of 2004, deposits from unit desas amounted to US$ 2.9 billion which came from 30 million savings accounts. Each sub-district town had at least one unit desa. Staffing is determined by ratio, at one loan officer per 400 borrowers and one teller per 150 daily transactions. Each unit's structure is made simple-manned by at least 4 to at most 11 people. The bank implements a performance based incentive system to motivate the staff. For example: 10 percent of unit desas' profit is allowed to be paid to the staff up to 1.5 months of salary in a year. The bank utilized two lending methodologies (Seibel, 1998): retail lending to individuals (89 percent of total loans) and wholesale services to existing self-help groups. Individual deposits account for 96.9 percent of the total amount. The lending features include the following (Yaron, 1997): (a) loans are for any income generating activity of borrower, (b) loan maturities (KUPEDES loans) of 3 months up to 24 months for working capital and 36 months for investment capital, (c) small loan sizes (from US$ 11 up to US$ 10,675 in 1997), (d) market interest rate, and (e) provision of incentives to good paying borrowers-interest rebate and increase of 100 percent of previous loan maximum. For collateral, borrowers are required to pledge household assets. Compared with the rural poor borrowers of other microfinance models (Grameen, ASA, SHG models), borrowers of BRI can be considered "less poor" or of the low income bracket. In 2005, the ratio of average loan per borrower to per capita Gross National Income (GNI) was 54.7 percent for BRI borrowers, compared to 17.9 percent for Grameen, 13 percent for ASA, and average of 15 percent for SHG model (source www.mixmarket.org).

Mixed Model Microfinance

Over time, the Microfinance Institutions (MFIs) that replicated the Grameen Bank (GB) model made modifications to fit to their local contexts. As further modifications ensued as a result of cross-diffusion of other methodologies, a "mixed model" approach has emerged particularly from MFIs of the Philippines and India. M-CRIL (2004) referred to "mixed model" approach as a mixture of features of two or more models (Group-based lending, Linkage banking and Individual lending) under one approach. Another is "mixed method" approach where an MFI undertakes a combination of two or more models for different client segments. The "mixed model" was noted by the Microcredit Ratings International (M-CRIL), a microfinance rating organization based in India, when it rated 123 MFIs 90 of which are from India and the rest from other Asian countries. The M-CRIL reported that mixed model approach was adopted by 21 MFIs among 110 sample MFIs.

Philippine Diverse Microfinance Practices. According to Mixmarket (Sicat and Graham, 2006) benchmarking report, the Philippine microfinance institutions ranked first among the Asian top MFIs in terms of depth of outreach (reaching the very poor). Average loan balance of Philippine top MFIs is US$ 100 per borrower compared to the average of US$ 113 of Asian top MFIs while ratio of average loan to per capita GNI was 9.2 percent compared to the average of 18.7 percent for Asian MFIs. Philippine MFIs, in general adopt two approaches: (a) group-based approaches where loans are provided to individuals required to be members of a group, and (b) individual lending where group membership is not required.

The Grameen Bank approach has the greatest influence which started in 1989 by the Agricultural Credit Policy Council (ACPC) – an APRACA member institution, under its Grameen Replication Program where 27 institutions participated. The following are examples of the more recently evolved methodologies.

- The village lending unit (VLU) pilot project of the ACPC was implemented in two cooperative banks in 2003. The approach borrowed the concept of linkage banking while sticking to Grameen as the microfinance methodology. Cooperative banks lend to community-based organizations that are taught of the Grameen methodology for on-lending activities to members. The transfer of the Grameen technology used a "franchising" approach. This involved installing a complete set of operating system (lending operations system, accounting and loan tracking system) of the Grameen methodology to the community organization and on-site training. The franchise approach was observed to cut down the learning period of the grass roots organizations. Similar successful results (e.g. high repayment rate) were achieved by the grass roots organizations. In 2007, repayment rate of the community organizations to the rural banks stood at 100 percent while on-time repayment rate of members to their organization stood at 98 percent and net income per peso loan stood at Php 0.04 (Source: ACPC reports).
- The CUES (Credit Union Empowerment and Strengthening) project of WOCCU grafted a microfinance approach in its credit union model – forming of women savings and credit groups who are then linked with the cooperative. Along with lending and savings services, the field staff provides education to women on topics such as health and nutrition. The members of the women groups eventually become regular members of the cooperative.
- The Microenterprise Access to Banking Services (MABS) Project, a USAID-funded project in partnership with the Rural Bankers Association of the Philippines (RBAP), introduced to rural banks a business approach to microfinance. The approach used business management tools such as market research in designing loan and deposit products, introduced individual lending using household cashflow in determining debt payment capacity of borrowers and emphasis on loan collection-called "zero tolerance" on loan delinquency. In its 10 year period, the 335 participating rural banks disbursed cumulative loans of US$ 250 million to 375,000 micro-borrowers (source: www.rbap.org). Business development services (consultancy, systems development, training) are provided by the MABS office to interested banks for a fee. A rural bank pays around US$ 7,200 for the business development services. MABS Office is a technical assistance provider and does not extend any loan to the participating banks.

Most of the rural banks participating in MABS also adopt features of the Grameen model as most of these banks borrow wholesale funds from the Peoples Credit and Finance Corporation (PCFC) – a subsidiary of the LandBank. The PCFC microfinance program was supported by a US$ 34.7 million ADB-IFAD Rural Microenterprise Loan Project. PCFC extends wholesale loans to private microfinance institutions (MFIs). The ADB-IFAD project supported the replication of Grameen methodology but allowed modifications by local implementors during the mid-project period. The modifications of the Grameen model included loan terms, group size and rules of loan release, meeting cycles, roles of groups and "centers" resulting to minor variations amongst local microfinance institutions. As of project completion, rural banks' loan clients accounted for 52 percent of all participating institutions while NGOs accounted for 16 percent. From an outreach of 1,097 clients and a handful of replicators in 1997, the client outreach of PCFC reached 1.7 million in 2005 and Grameen replicators grew to more than 200 institutions. Operating efficiency of microfinance institutions stood at 104 (Source: ADB-IFAD Evaluation Report). In July 2006, the outreach of PCFC reached 1.8 million clients and loan collection rate of 97.86 percent from 201 partner MFIs (Source: PCFC report).

Credit Plus Approach Bayaua (1999) described the "credit plus approach" as a credit-based initiative in poverty alleviation that combines provision of financial services with non-financial services such as social services, enterprise development, technology extension services. Credit plus approach is the term used by NABARD and APRACA-CENTRAB in their training programs to describe the approaches of the new Microfinance Institutions that emerged in India in the late 1990s. One among the documented successful cases is BASIX.

Established in 1996, BASIX (of India) is a group of companies that perceives itself as a "new generation livelihood promotion institution" (World Bank, 2005). BASIX promotes livelihoods through livelihood financial services (credit, savings, insurance), human resource and institutional development services, and agricultural and business development services. Samruddi, registered as a non-banking finance institution is the main operating entity that delivers credit. The Indian Grameen Services (IGS), registered as an NGO, is involved in the provision of technical services. In 2001, BASIX got the license to open a local area bank – the Krishna Samruddhi Local Area Bank in two districts. BASIX lends to rural poor (landless rural women), small and marginal farmers and non-farm microentrepreneurs. In 2003, BASIX – operating in 18 districts of four states of India – had outstanding loans of Rs 325 million, with performing assets of 94.7 percent (assets that are not past due within 180 days) and 73,764 livelihood employment generated.

BASIX adopts mixed methods in reaching out to the different market segments and lends to its clientele through three modalities (APRACA-CENTRAB, NABARD, 2003): (a) direct lending, (b) direct lending with collaborating institutions such as agri-business firms, cooperatives and non-government organizations; and (c) indirect lending through intermediaries such as loan agents, seed producer organizations, self-help groups and SHG federations. Loan agents are full-time non-employees of BASIX who originate loans and collect payments remunerated on the basis of repayment percentage. Customer agents BASIX likewise link with various institutions for technology sourcing and market link. BASIX links with institutions for technology and the market of farm produce. Technical assistance and support services include: identification of livelihood activities, competence building, forward and backward linkages, business support services and technology upgrading. Financial services include: savings, credit, insurance, commodity futures, and provident fund.

D. INNOVATIVE LOAN PRODUCTS

Innovative financial products create additional value and expand the frontier of finance if they create access to the formal financial system by groups previously without access, if they reduce transaction cost of the financial services provider or the clients or both (Buchenau, 2003). The products that have evolved are either an offshoot of the efforts of rural financial institution to stay relevant, remain competitive or simply to survive as an institution or deliberate attempts to develop new products (e.g. introduced by a donor or by the government) in response to recognized constraints. Products discussed in this section are based on a review of published case studies and report documents from APRACA member institutions.

Microfinance. While there are distinct design features among four major Asian microfinance models (Grameen, ASA, BRI and SHG Banking), there are notable common features. **Table 6** summarizes the comparative product design features of these four microfinance models. The common features of these four models are:

- Small loans and frequent repayments. The loan size varies per country and model, but it is designed to be "small" enough such that it attracts the targeted clientele and the amount and mode of payment are within their capacity to pay. In most cases, the loan is required to be repaid in frequent installments, e.g. weekly, fortnightly or monthly.
- Self-chosen income generating activities by borrowers. Loans can finance all types of income generating activities.
- Incentive for good payers is the access for succeeding loans, usually making them eligible for larger loans.
- Interest rates are set to cover operating and financial costs plus return.

Table 6. Comparative Loan Product Design Features of Major Asian Microfinance Models

	Grameen Bank	ASA	BRI Unit Desas	SHG Banking
APRACA Countries where model is practiced	Philippines Indonesia Malaysia China	Philippines India	Indonesia	India Nepal
Target clients	Poor	Poor	Low-income	Poor
Loan Purpose	Any income generating activity	Any income generating activity	Any income generating activity	SHG decides (consumption or income generating)
Loan size	Small (average of 9 percent to 15 percent of per capita GNI)	Small (15 percent of per capita GNI)	Wide range (average of 55 percent of per capita GNI)	Small (average of 15 percent of per capita GNI)
Mode of payment	Frequent amortization (weekly)	Frequent amortization (weekly)	Varied (mostly monthly)	Varied (mostly fortnightly, monthly)
Loan term	6 months to 1 year	6 months to 1 year	6-24 months for working capital Up to 3 years for investment loan	1 to 3 years
Loan Security	Group co-liability	No group co-liability	Pledge of Household assets	SHG joint liability
Incentive for good payers	Larger succeeding loans	Larger succeeding loans	Larger succeeding loans; Interest rebate	Incentive is based on savings 1:1 or 2:1 for first loan Up to 4X succeeding loans
Savings	Requires collateral savings (mutual fund, personal savings)	Requires collateral savings (personal savings)	Voluntary personal savings	Group savings required, savings loaned out to members

Note: GNI = Gross National Income; Loan size in per capita GNI (**source:** MixMarket).

The models differ in approaches in terms of: (a) linking savings with loans and (b) imposition of group co-liability. While loans are tied-up to a savings scheme, the two varying approaches are: (a) "savings first before loan" as in SHG Banking model and (b) "collateral savings" as in Grameen and ASA models where borrowers are required a percentage of the loan as savings. The savings can be made together with the loan amortization. The savings are non-withdrawable during the term of the loan as a form of collateral. Group solidarity on loans is imposed in the original Grameen model and in the SHG model but is not imposed in the BRI and ASA models. As loan amounts increase, the borrowers are required to pledge personal or household assets as "collateral".

Agricultural Finance. Agricultural microfinance is relatively new concept, and so far, there are no published case studies yet from APRACA member countries. The **SHG banking** of **India** can be considered as an agricultural microfinance if the actual loan utilization by borrowers is considered. For instance, in the CGAP (2007) study on sample SHGs, the proportion of loans used for agricultural purposes was an average of 55 percent. The lending schemes developed by these SHGs would provide insights on designing loan products that fit the characteristics of marginal farm households. Among APRACA members and IFAD projects, there were two initiatives in piloting agricultural microfinance supplier-designed products.

In the **Philippines**, the ACPC in partnership with the Land Bank of the Philippines piloted an agricultural microfinance project (called ***Rural Household Business Finance*** or **RHBF**) starting 2002. The project tapped rural banks and cooperatives that already have good experience in conventional microfinance (e.g. Grameen model or MABS individual lending) to test out agricultural microfinance products. The RHBF targets borrowers from agricultural households using household cashflow based lending approach. The local implementers were allowed to design the particular loan products that fit their target client characteristics

but following some general parameters. Loans can finance farm, non-farm or combination of farm and non-farm activities depending upon the decision of the borrower. No lumpsum payments at the end of loan term are allowed. Instead, portion of the loan (e.g. 30 to 60 percent) are amortized in weekly, semi-monthly or monthly installments depending on the cashflow stream of the clients with the balance payable at the end of loan term. The loan product attracts farm households with diversified income sources. Results in the first three years showed good repayment results (98 percent repayment) from 14 institutions that lent to 3,207 agricultural households (source: ACPC report). The Project has recently been approved for expansion by the ACPC and LandBank with an allocated fund of US$ 22 million.

A similar agricultural microfinance pilot project has been initiated by IFAD in 2005 in **Bangladesh** involving the **Palli Karma-Shahayak Foundation (PKSF),** as a wholesaler of credit to NGOs for on-lending to small and marginal farmers. Innovations that were to be tried are: extending grace periods before repayments, extending repayment period from weekly to fortnightly, monthly or even quarterly, requiring regular payments of service charges during the first part of the loan period, offering seasonal loans with lumpsum payments at the time of harvest. However, it is too early to note which of these innovations has worked.

Among APRACA member institutions, **BAAC of Thailand** offers the rich experience in implementing agricultural loan programs. As of 2003, BAAC has 593 branches, 899 field service units, 5.37 million farmer borrowers or 93 percent of total farm families of Thailand. Loans were Bht 322 billion with 7.45 percent non-performing loans. BAAC reported good repayments (Nattaradol, 1996) have been achieved with their **joint-liability loan product** followed by individual loans (with mortgage collateral). Worst repayments came from cooperative lending. Joint liability loan facility allows famers who cannot offer mortgage collateral to avail loans from the bank. This attracts most farmers as most of them do not have proof of ownership of land. Under this financing facility, agricultural production loans are extended to informal groups of small farmers whose security is the joint-liability of members. Group members are self-chosen and vary in size from five to 12-15 farmers per group. The group members are encouraged to follow common production schedules to keep track of each other's production activities.

Value Chain Finance. A value chain involves a series of actors and activities needed to bring a product from production to the final consumer. It starts with the production, continuing with processing into a final product and ending with the marketing and distribution to the final end user or consumer. Actors in the chain have specific roles in contributing to the value of the product as it goes along in the chain. The linkages within the chain allow financing up and down the chain. For instance, inputs can be provided to farmer producers on credit and repaid from the sale of the product. When credit or other financial services flow through the actors, such as from buyers to producers, it is referred to as value chain finance.

Fries and Akin (2004) noted that based on literature, a significant percentage of financial services through the small farmers occurs through the value chain. The three most common value chain financing products are: (a) trader finance, (b) contract farming and outgrower schemes and (c) warehouse receipts. Trader finance, typically provided in value chains of commodities, involves short term or seasonal loans (or advances) between buyers and sellers of inputs and products. Loans are normally provided based on established personal contacts. In case of contract farming and outgrower schemes, loans are tied up to purchase agreements. Sellers are more in a formal or captive relationship with the buyer who in turn commits to provide additional service such as technology and technical assistance. In Malaysia for instance, many farmer organizations have contract growing arrangement with poultry companies (integrators) that supply them with all necessary inputs (chicks, feeds) and veterinary services on credit. (Kharoudin, 2004). Warehouse receipts on the other hand are issued to depositors of non-perishable commodities for storing the commodity in safe and secure warehouses allowing banks to use the deposited inventory as collateral.

There are very few documented case studies on value chain financing. However, anecdotal evidence suggests that value chain financing schemes have long been tried by a number of APRACA member institutions (such as BAAC, LandBank, and NACF of Republic of Korea). These institutions used terms such as "Agribusiness Approach" or "Integrated Approach" to refer to value chain financing schemes.

Warehouse receipts. India and the Philippines have the extensive experience in inventory credit using warehouse receipts. In the Philippine model, warehouse operators accredited by the Quedan Guarantee

Corporation (a government corporation), an APRACA member institution, issues warehouse receipts (called 'quedans') to farmers and traders that deposited their grain stock. The depositors in turn can go to an accredited bank for loans. To draw from the credit lines, the loan applicant presents to the bank the quedan receipt and stock inspection report by the Quedancor warehouse inspector. Loans granted by banks are then guaranteed by the Quedancor (Bathan, 1996).

India has a mixed marketing system with government procurement and distribution accounting for a quarter of marketed grain. It has efficient warehousing at national and state levels which provide secure storage. There are also appropriate warehouse laws and provisions for warehouse receipts that allow depositors of stock (traders, millers or farmers) to raise loans against the stored stock.

Integrated Approach. An innovative integrated approach to agricultural financing initiated by a private rural bank is the case of PAIDCOR (Philippines). The Rural Bank of Panabo (now "One Network Bank") established marketing corporations jointly with farmers. The first corporation, set up in 1986, was capitalized with 40 percent by the bank, 15 percent by the individual owners of the bank and 45 percent by rice farmers. A second marketing corporation was set up in another town in 2000, with Landbank providing 40 percent of the equity capital. The rural bank provides loans to farmer cooperators who in turn "pay in kind" through the marketing corporation which buys the farmers' produce. Results however are mixed during the years of operation pointing to the attendant risk of the rice industry. While there were years of good profits, the corporation suffered net losses in 1999, 2002 to 2004 decreasing the number of farmer cooperators by as much as 70 percent. By 2004, there were 312 remaining farmer cooperators involving 669 hectares. The losses were attributed to spoilage during storage and depressed local prices of palay. The rural bank, however, was convinced by the scheme and has now instituted strategies to prevent similar losses such as: using mechanical driers and adopting a "supervised" credit scheme where the bank employs agricultural technicians who supervise the production activities of the farmers and introduction of high yielding varieties. The bank has also branched out to high value crops (banana, pineapple) in other areas using the same integrated approach coupled with formal marketing contracts with long term buyers. (Buenaventura, 2007).

The **integrated approach** has long been the scheme adopted by the agricultural cooperatives of the National Agricultural Cooperative Federation (NACF), an APRACA member institution in the Republic of Korea. Under the so-called "mutual credit program" of the cooperatives, credit is tied up with the supply of modern inputs such as high yielding varieties and fertilizer (Kim, 2004). The cooperatives have technicians who supervised and monitor production activities of the farmers. Farmers' produce is then bought by the cooperative that takes care of marketing. Two key factors were present in the Republic of Korea not found in most Asian developing countries – a Government price-support system for rice that protects the farmers from low prices and an efficient marketing system – effectively reducing the market and price risks normally faced by rice farmers in Asia.

E. RISK MANAGEMENT PRACTICES STRATEGY

Portfolio Risk Management Strategy. A financial institution can reduce its portfolio risk through geographic diversification, customer diversification and product diversification. LandBank and BAAC present two differing portfolio management practices in handling attendant credit risk of agricultural loans.

LandBank's Portfolio Risk Management Strategy. The LandBank aggressively diversified and expanded its loan portfolio starting the mid 1990s. Under an expanded mandate, the so-called "priority sectors" now encompassed a wide and customer base that includes apart from small farmers the following: small and medium-sized enterprises, agribusiness and other agriculture-related and environmental conservation projects. To reach these priority sectors, LandBank has diversified loan clients consisting of corporations, small to medium-scale entrepreneurs, local government units, rural banks and cooperatives. Lending to small farmers was done through cooperatives, portfolio of which was kept from 11 to 14 percent of total gross portfolio learning from its lessons when it aggressively lent to cooperatives as conduits for small farmer loans in the early 1990s resulting to arrearages problems. In 2005, the Bank had US$ 312 million loan outstanding from small farmers out of US$ 2.3 billion gross loan portfolio or about 14 percent of its gross loan portfolio (source: LandBank report).

This loan diversification move was coupled with a strong internal audit unit to strictly impose loan processing procedures and systems among the operating units and branches. Further in 2002, an internal credit risk rating system was established for its various client segments which comprise corporate accounts, small and medium enterprises, financial institutions and cooperatives. LandBank also computerized customer information and central liability system to provide management with accurate, real-time information and loan data of clients. The risk management strategy and practices have kept the bank stable, profitable and enabled the bank to consistently pass universal banking standards on risk capital and compliant ready for the capital adequacy requirement under the BASEL II accord.

The strategy of portfolio diversification is noted to be employed by the successful microfinance institutions in Latin America that ventured into agricultural lending. CGAP (Pierce, 2003; Pierce, *et al*., 2004) noted that among the microfinance institutions in Latin America (e.g. *Caja los Andes* of Bolivia sets agricultural loans at 9-10 percent of gross portfolio, *Calpia* of El Salvador at 15 percent, *Confianza* of Peru at 30 percent of gross portfolio) keeping a minor proportion of gross loan portfolio to agricultural loans appeared to be a sustainable portfolio risk management practice.

BAAC's Risk Management Strategy. In contrast to LandBank, BAAC of Thailand, by virtue of its mandate, has to maintain 100 percent of its loan portfolio to financing activities of farmers and members of farm households. Originally mandated to lending purely for agricultural activities, it was gradually allowed to lend to farmers for agriculture related enterprises (cottage enterprises) in 1993 and later in the following years, was allowed to lend also to non-farm rural enterprises of agricultural households (Fitchett, 1999). Since it had the built-in constraint in terms of customers, what BAAC did was to diversify its loan products, adjusting the portfolio mix based on the performance of particular products. Thus, BAAC has lesser proportion of low performing loan products (e.g. cooperative loans at 8 percent of total loans) and bigger proportion of total loans for higher performing loan products (e.g. joint liability loans). Despite being solely concentrated to farm households, BAAC was able to maintain a non-performing loan ratio within manageable level. Starting 1999, BAAC also began to rationalize its interest rate policy adopting a risk-based loan pricing – that is, pricing interest rates based on repayment performance classification of borrowers instead of the previous system which small loans are charged sub-economic price and cross-subsidized by income from larger loans.

But apart from loan diversification and risk-based loan pricing, Townsend and Yaron (2001) noted that BAAC has operated a unique "unconventional" risk contingency system to address loan delinquency. The system allows re-structuring of accounts not paid due to *force majeur*, principal and/or interest, up to three times. BAAC may be granted either as grant or subsidized loan by the Government to compensate for the loan loss. BAAC is also compensated for the differences in interest rates between what BAAC normally charges and the low interest rate offered to farmers as part of rehabilitation program for farmers in cases of large scale natural calamities. In other words, BAAC has a "built-in insurance system" that protects itself from "excessive loan loss" that may arise due to covariant risks (climatic and economic risks) faced by its agricultural borrowers.

Micro-Insurance

MFI Tie-up with Insurers. BASIX (of India) is a group of companies that promotes livelihoods through livelihood financial services (credit, savings, insurance), human resource and institutional development services, and agricultural and business development services" (World Bank, 2005). To diversify portfolio risk, BASIX balances 45 percent of farm and husbandry loans with 45 percent of non-farm loans and 10 percent of loans for general purposes. All loan clients start with small loans and graduate to larger loans based on repayment records. Starting 2004, insurance products were offered: group term life insurance under the "Credit Plus" scheme, death coverage insurance for cattle, and weather indexed insurance that provides automatic payments to farm borrowers in the event of rainfall deficits.

Under its business model, BASIX ties up with private commercial insurers serving as distributor of insurance products to rural customers. It has become a corporate agent of Aviva, a UK based insurance company for life insurance; Royal Sundaram for livestock and health insurance; and with ICICI Lombard along with the World Bank in piloting a rainfall indexed insurance. This weather insurance product was piloted starting 2005 covered 18,349 policy holders by 2006. In 2006, BASIX has insured 649,602 persons and settled claims of 3,364 persons.(source: basixindia.com/insurance). Given the short time of implementation of the weather indexed insurance, it is still premature to establish its viability.

Mutual Benefit Association (MBA). CARD Bank of the Philippines, on the other hand, established a separate entity to handle micro-insurance services for its microloan borrowers. The insurance entity, called "Mutual Benefit Association" (MBA) is owned by the policy holders (the poor), managed by professional staff and licensed by the Philippine regulatory agency on insurance. Insurance coverage from the MBA is compulsory to all microloan borrowers of CARD. The MBA which obtained the license as an insurance entity in 2001 evolved from the in-house mutual fund scheme of CARD typical of Grameen Bank replicators in the Philippines. By professionalizing the insurance services, particularly product development e.g. through the conduct of actuarial studies, the financial viability of micro-insurance services markedly improved. The MBA provides life insurance coverage, loan redemption insurance and provident fund (retirement savings plan) to microloan borrowers. Premiums were US$ 0.09 per week for provident fund, additional US$ 0.09 per week for life insurance and 1.5 percent of the loan for the credit life insurance. As of 2003, the CARD MBA had 116,395 policy holders with total assets of US$ 2.36 million, 581,975 insured lives and loss ratio (ratio of claims to premiums paid) of only 0.14 (McCord and Buczkowski, 2004). The MBA model is being replicated by other microfinance institutions in the Philippines (4 new MBAs obtained license while 8 others are in the process of establishing MBAs), Indonesia (1 MFI) and Cambodia (1 MFI) in partnership with the RIMANSI (Risk Management Solutions, Inc.) – a non-government organization technical assistance provider based in the Philippines.

F. USE OF ICT IN IMPROVING SERVICE DELIVERY

Information and communications technology (ICT) is increasingly being used by AgDBs and other financial institutions in improving their internal business processes (e.g. loan appraisal, loan monitoring) and in reaching out to clients (e.g. use of SMS in payment services). Japan's Agriculture, Forestry and Fisheries Finance Corporation (AFC), an APRACA member institution, has used ICT starting 2002 to improve its risk management. The features of the information system includes (Kurihara, 2005): (a) strengthening of business preparation and securing accurate credit evaluation by improving data bank on client information; and (b) automating credit rating system of loan customers. Similarly, other APRACA member institutions (e.g. LandBank, HNB) starting 2002 have also computerized their client information and credit rating systems in preparation for compliance with the BASEL accord.

Rural banks in the Philippines used mobile phones in providing microfinance services under its "Text-A-Withdrawal" program. The mobile phone services use the G-Cash, a mobile money platform of a Philippine telecommunications company. Launched in 2004, G-Cash turns mobile phones into "virtual mobile wallets". G-Cash can be converted to cash, or to pay for goods, services, bills and sent as remittances. The mobile phone services use SMS messaging in these transactions. There are over 1,800 authorized cash-in/cash-out outlets in the Philippines. From January to August 2007, rural banks processed 87,900 transactions totaling US$ 7.7 million (source: www.mobilephonebanking.rbap.org).

The privately initiated B2Bprice.com project supported by the LandBank introduced e-commerce among the assisted cooperatives and farmers. The B2Bprice.com is a free electronic bulletin board and market place designed to bring relevant market information to cooperatives. As an electronic marketplace, it aimed to minimize marketing intermediation (middlemen's fees) thereby allowing the farmers to reap the gains of lower costs and broader market reach. After three years since its launch, a total of 1,600 cooperatives have had postings with the total value of postings amounting to US$ 60 million (Source: LandBank report).

G. RURAL SAVINGS MOBILIZATION

Rural savings mobilization is now increasingly being recognized as equally important with credit provision in attaining sustainable rural finance. The feasibility of rural deposits as a chief source of loanable funds has been proven by Asian institutions, notably the BRI of Indonesia. The need to innovate is understandable as conventional deposit mobilization practices in urban areas may have limitations in applications due to differing rural deposit market characteristics. Among these are: lower per capita savings propensities (correspondingly the bank will have to contend with small numerous deposit accounts), erratic and seasonal patterns of savings behavior, poor infrastructures and communications, lower education levels and lower population density. Recognizing the demand for deposit services and its potential, rural financial institutions have evolved deposit products and services tailor fitted to local context. Charitonenko (2005) noted that

the innovations that have emerged in the two countries (Philippines and Madacascar) evolved from "getting back to basics" of customer service in order to appropriately address the needs and customs of rural clients.

Voluntary Savings Product Designs of Microfinance Institutions. Karlan, *et al.* (2003) conducted a survey in 2003 among 113 microfinance institutions from developing countries, 31 of whom are from Asia, to examine the different savings product designs. The savings products surveyed are those comprising the non-compulsory deposit liabilities of the financial institutions. The survey which yielded 124 savings products from 25 countries, examined the deposit side features – the features that help individuals to make regular deposits into savings account, and withdrawal side features – the features that deter individuals to withdraw. Among the findings were:

For deposit side features, the following are the most common schemes:

- 40 percent of savings products have a 'bonus' deadline (bonus refers to lotteries and raffles open to deposit account holders) reported to be popular among rural clients. A 'deadline' can be linked to accumulating tickets for lottery, e.g. one can only increase chances of winning if she makes a regular minimum deposit.
- 26 percent employed deposit collectors. Though this increases costs, this scheme is more convenient for depositors and encourages discipline to save consistently. The deployment of staff to do "door to door" deposit collection was subsequently studied by Asharaf, *et al.* (2006) in a rural bank in the Philippines (Rural bank of Caraga). The collection mimicked the door to door cash collection scheme of informal lenders quite popular in a number of Asian countries. The research confirmed that the use of deposit collectors substantially increased the savings of rural depositors. The research also found two factors as determinants of the deposit take-out rate, namely, proximity to the bank and being married (an indication of the importance of household savings decision patterns in rural areas).

For withdrawal, the most common feature is withdrawal fee (30 percent of deposit products) which serves as a means of the finance institution to cover cost of opening and servicing the account. This is intended deter individuals to withdraw money but for individuals with few discretionary expenditures, the authors noted, it may serve as incentive to withdraw money less frequently but in larger amounts. The other most common feature is restricted time (25 percent of products). Restricted time is a standard feature of term deposits and programmed savings accounts. The use of lock boxes (e.g. use of "piggy banks") is less common (used in only five products out of the 124 products surveyed).

ASA, one of the largest microfinance institutions in Asia in terms of outreach reported to have recently continued to offer semi-liquid and high return savings attracting US$ 49 million. From among those surveyed, examples from APRACA member institutions are:

- **BAAC (**Thailand): *Om Sap Thawisin* Savings Card Deposits. The lottery savings cards deposit product is a type of deposit payable at sight upon request. A client may purchase as many cards as she chooses, each for a price of Bht 500. The card mature after three years. At the end of maturity period, the client may withdraw her savings and interest earned. Within the period the client has a chance to win prizes once every three months or 12 times during the life of the card. Awards are based on the two draws from the last three digits of the card, so the more cards, the more chances of winning.
- **BRI** (Indonesia): SIMPEDES, SIMASKOT and DEPOSITO. The most popular deposit products are SIMPEDES and SIMASKOT targeted to small rural and urban depositors respectively. The savings products are characterized by flexibility – clients are able to access unlimited withdrawals instantly. There is no minimum balance and clients earn positive interest rate. Account holders participate in a lottery that holds a price drawing every 6 months. DEPOSITO is fixed deposit interest with restricted timing of withdrawal.
- ***Gami Pubuduwa*** (Village Re-awakening). Program of the **Hatton National Bank (HNB)** of Sri Lanka. In the late 1990s, the HNB was the largest privately owned commercial bank in Sri Lanka. In mid-1989 it opened the GP program serviced by barefoot bankers. By 1997 the

program generated deposits higher than loan outstanding. The deposit facilities (passbook savings, fixed deposits, savings certificates, children's accounts, savings lottery campaign) comprise a range of features that are suitable for microsavers such as low amounts to open accounts and earn interest and use of deposit collectors for convenience to the depositors.

In India, few MFIs offer savings services. Among these MFIs is *Vivekananda Sevakendra O Sisshu Uddyon* (VSSU) – an NGO with about 6,900 clients in West Bengal as of 2002. The VSSU has Daily, Monthly Deposit Plans. The main deposit products are contract savings plans with regular daily or monthly deposit amounts. The most popular is the daily deposit plan with regular daily fixed amounts collected at the doorsteps of the clients by deposit collectors. Withdrawals are permitted but incur a fee to the client. Clients also receive incentives including cash gifts on successful maturity and some insurance cover.

Linking Savings with Loan Services. The other approach in savings mobilization is by linking savings with loan services. Two modes evolved in Asia: (a) loans provision coupled with compulsory savings (e.g. Grameen, ASA models), which some termed as "credit led approach" and (b) savings first before loans. Apart from the SHG linkage banking model, another approach that espouses the savings led microfinance is the 'village banking' model. "Village banking" is a term used by several international NGOs, such as PACT, to describe their approach of forming informal savings and loan groups. A village group is typically smaller than a cooperative, e.g. 20 members, operates on local savings and credit traditions with no injection of external loan fund. A Project that implemented this model is the PACT's Women Empowerment Program in Nepal. Launched in 1998, the program trained 240 NGOs to organize 6,265 self-help savings and credit groups with 130,000 women. The fee to the NGO was about US$ 39 per month for each SHG for an 18 month period. Total cost, however, over a four year period was US$ 42 per participant with US$ 5.20 per member as direct cost (fee) of the NGOs. The SHGs were organized into savings and credit groups without any external loans. After four years, the program generated US$ 2 million in savings and self-financed US$ 1.5 million loans to more than 45,000 members (average of US$ 33 per loan) and 74,000 women were able to read and write. Village groups meet weekly and custody of cash is handled with metallic lock boxes with three keys for control. Each village group is responsible for collecting, managing and lending its own savings. While it is too early to ascertain its sustainability, the program proved the savings potential of rural women in meeting their own loan requirements. (Ashe and Parrot, 2001).

Moving from contractual savings towards voluntary savings. DEPROSC Development Bank (DDB) of Nepal transformed from being NGO into a for – profit bank in 2001. Realizing the importance of voluntary deposits in its operations, it developed its capacity to mobilize deposits. As of 2006, its deposit base comprise: compulsory savings (US$ 134,072), group savings (US$ 101,610) and voluntary deposits (US$ 103,560), contractual savings (US$ 21,602) and gross loans of US$ 2.75 million. DDB delivers its financial services to women groups geographically dispersed in hard to reach locations. To save on costs, it decentralized operations but using standardised operations and products. The same staff delivers credit and savings deposit services. Its operating self-sufficiency is 112 percent (Dhakal, 2007). DDB's technique is managing cost by integrating deposit with credit services, standardizing procedures and products, training staff on savings services and designing incentive schemes for staff. Cost of mobilizing deposit declined from 3.2 percent to 1.8 percent while client to staff ratio improved from 178 to 215 per staff.

Enhancing savings mobilization capacities of cooperatives. Cooperatives have untapped potentials in mobilizing deposits. Apart from the WOCCU credit union model, there are local initiatives that sought to enhance savings mobilization activities of cooperatives. The Land Bank of the Philippines in 1995 initiated a savings mobilization campaign project called "Member Savings Operation" (MSO) among the bank's 559 assisted cooperatives. The methodology entails: (a) adoption by a participating cooperative of an entire set of systems, forms and procedures including office construction or renovation; (b) establishment of accounting and recording system for members savings; (c) hiring and/or re-tooling (training) of staff for the MSO (d) training of core management on savings products design, pricing of products and liquidity management. (Dingcong, 2005). The MSO is an offshoot of the APRACA's Linking Banks and Self-Help Groups Project.

Deposit mobilization in rural areas by rural banks. The Cooperative Bank of Benguet, an average size rural bank in the Philippines and a partner institution of the ACPC**,** provides interesting lessons in designing and marketing appropriate deposit products for rural clients. The bank offers two simple savings products: one

liquid (passbook savings) and one semi-liquid (term deposits). To ensure accessibility to low-income clients, the bank established lower minimum deposit (US$ 2 which is about 5 to 10 times less than conventional minimum deposit required by other rural and commercial banks). Rather than having products for different market segments, the Bank segments its promotion campaign. Personalised service and high profile advertisements (e.g. television ads) promotion strategies are used for large-balance depositors while for small balance accounts, it relies on good community relations and friendly relations of field staff in the communities it operates. Small balance accounts constitute 91 percent of all deposit accounts with average balance of US$ 300. As of 2006, the Bank had 12,163 deposit accounts, with 11,700 passbook deposits amounting to total value of US$ 1.98 million. The Bank has 3 branch offices and total loan portfolio of US$ 1.57 million in 2006 (Lab-oyan, 2007).

Deposit mobilization by an Agricultural Development Bank. Apart from BRI which is considered to have successfully mobilized rural savings on a massive scale, BAAC of Thailand in recent years launched a rural savings program, called the "Save and Get a Chance" (*Om Sap Thawi Choke*). The program rewards savers who open and maintain savings accounts with prize drawings and parties that celebrate savings. By 2002 (six years after the start of the program), there were 2.3 million rural savers with total deposit of about US$ 248 million with average deposit of US$ 108. Goodwin-Groen (2003) in a case study of the program, cited the following as the key contributing factors for the success of the deposit campaign: (a) bank's stability and image that it can provide safe and secure savings services; (b) product design matched customer requirements using market research; and (c) allowing sufficient time in scaling up the program. The design features found to have matched clients requirements were: security of deposits, convenience, low minimum balance, liquidity (can withdraw anytime) and attractive yield. The program involved a series of steps that took 24 months from market research, product design, pilot testing, re-testing on wider scale, until the nationwide launching and implementation.

H. EMPOWERMENT OF THE POOR

A pre-requisite to empowerment is an opportunity structure that allows the poor to translate their asset endowments to effectively make purposeful choices that affect one's life (Alsop, *et al.*, 2006). Such opportunity exists when rural institutions allow more equitable rules and expanded entitlements for the poor. Membership based organizations offer this opportunity. By being owners or co-owners of the financial institution themselves, the poor are entitled to participate in its governance and exercise influence in policy making. Membership-based organizations (MBOs) can be defined as those which members elect their leaders and which operate on democratic principles to hold the elected officers accountable to the membership (Chen, *et al.*, 2006). A subset of MBOs is the MBOP or MBOs of the Poor. MBOP is distinct in that the organization is "of" the poor and not just "for" the poor. In MBOPs the governance structure is predominantly comprised of the poor.

A success case of a MBOP is that of **SEWA** (Self-Employed Women's Association) of India. SEWA is governed by its members who are working poor women in the informal economy. SEWA is a trade union registered in 1972 with main goal of organizing women to gain full employment. Supportive services include savings and credit, health care, insurance, legal aid, capacity building and communication services. It has a SEWA "Bank" – the members' largest cooperative, a first of its kind in India. The Bank is owned by the SEWA members as shareholders and policies are formulated by their own elected board of women workers. The Bank is professionally run by qualified management and staff. The SEWA cooperative was established in 1974 with 4,000 members and Rs 10 capital. As of 1999, it had 93,000 depositors, 27,980 shareholders, loans amounting to Rs 937 million, and deposits of Rs 1.18 billion (source: www.sewa.org).

The advantage of SEWA is that the cooperative can draw membership from existing membership base of the trade union. In case of self-help groups, federating them to form into a sustainable financial institution owned by them proved to be more daunting. In a study of the SHGs of NABARD that initiated federation building by (Nair, 2001), **SHG federations** were found to provide SHGs with organizational identity, generated economies of scale and provided value added services. SHG federations also reduced transaction cost and cost of promoting SHGs. The efforts however, as in the case of Nepal's SFCLs, during the time of the study were still on the initial years and operational self-sufficiency has not been attained. Constraints include: (a) governance – low education level and insufficient organizational management experience of board

members that may require either inclusion of educated individuals in the board or finding appropriate education tools on finance; and (b) staffing-staff requirements are being done by the NGO SHG promoting institutions.

V. SYNTHESIS AND RECOMMENDATIONS

Recommended Best Practices

APRACA member institutions and projects offer a rich menu of best practices that can serve as good models for other institutions in attaining outreach and financial sustainability.

Best Practices in Financial Services Delivery by Government Agricultural Development Banks

Four delivery approaches by government-owned AgDBs are recommended: (a) BRI Indonesia Village Banking approach; (b) BAAC's Group Lending approach; (c) LandBank's Wholesale lending approach and (d) NABARD's SHG Linkage Banking approach. **Table 7** summarizes the comparative features of the four models.

Table 7. Comparative Features of Financial Services Delivery Approaches by Government Banks (BRI, NABARD, BAAC and LandBank)

Particulars	BRI	NABARD	BAAC	LANDBANK
Country	Indonesia	India	Thailand	Philippines
Delivery Model	Unit Desas (Village Banking)	SHG Banking	Group Lending	Wholesale Lending
Features of the Model	Units operate as profit centers with deposit and loan services Retail lending (Individual lending with flexible terms) ▪ Any income generating activity ▪ Small loan size	Linking informal groups with local banks ▪ Social intermediation (formation of self-help groups) ▪ Flexible loans-autonomy of groups in setting loans ▪ "savings first before loan"	Retail lending thru joint liability groups ▪ Members co-liable with each other loan ▪ Loan size depends on projected sale of crop ▪ Farm loans	Lends to financial intermediaries (cooperatives, rural banks) that on-lend to farmer clients ▪ Credit Rating system ▪ Institution capacity building of coops
Clients of the Model	Low-income clients	Very poor (rural women >90 percent)	Small Farmers	Small Farmers
Outstanding Elements	Magnitude of outreach particularly on savings ▪ >30 million savers ▪ High deposit to loan ratio	Magnitude and depth of outreach ▪ 36,000 banking offices ▪ Reaching the landless and marginal farmers	Magnitude of small farmer outreach ▪ 5.4 million farmers ▪ Manageable loan loss of agricultural loans	Developing viable rural institutions ▪ Improved viability of rural financial intermediaries

Below highlights the strengths as well key success enablers of each practice.

BRI Village Banking *(Unit Desas)*. BRI is a good model for a Government-owned agricultural development bank engaged in retail banking services. Its strength is in achieving wide outreach while maintaining financial sustainability and good profitability. BRI is outstanding among the four banks in terms of the magnitude of mobilized voluntary savings in the rural areas and using such deposits in extending loans to rural clients, proving that a sustainable financial intermediation can work in rural areas. The success of BRI was attributed to the following key internal organizational factors: (a) high degree of autonomy in formulating operating policies; (b) policies that provide for staff accountability, investment in human capital, and reward and incentive system related to sound financial performance and sustainability; (c) innovative loan products with flexible loan terms adapted to local social, economic and cultural circumstances; (d) good monitoring of loan

performance and keep high on-time collection rates; (e) pricing of interest rates that ensure adequate spread; and (f) control of administrative expenses. Key external factors are: (a) conducive policy that allowed BRI market pricing of interest rates, and (b) high population density of rural areas. Indonesia has one of the highest population densities in Asia that worked in favor of BRI in attaining economies of scale.

BAAC Group Lending. BAAC achieved the highest penetration rate among the four models in terms of small farmers outreach. BAAC reported to have reached 93 percent of total small farm families of Thailand or up to 5.4 million farmers. It has implemented over the years various agricultural lending programs, in the process evolved lending schemes such as the joint-liability groups. Recently, BAAC embarked on wholesale group lending to microfinance groups and community enterprise groups. BAAC's institutional success is attributed to the similar factors as with BRI. A unique factor, however, in the case of BAAC in maintaining manageable loan loss from agricultural lending is the government's subsidy support to BAAC in absorbing excessive loan loss that arises from covariant risks (e.g. calamities and the 1997 economic crisis).

NABARD's SHG Banking. NABARD has been the most successful among the APRACA member banks in adopting and scaling up of the APRACA SHG Linkage Banking model. The SHG Banking evolved into one of the rural microfinance models with the widest outreach. The key internal factors attributed to its success are: (a) participation of the clients (SHG members), who are mostly women, in decision making; (b) the introduction of "savings first before loan" approach that encouraged equity participation, risk pooling and improving propensities of clients to save; and (c) NABARD financial support and willingness to experiment a wide range initiatives. The key conditions that facilitated the wide coverage are: (a) a wide network of local banking institutions and wide network of non-government organizations that can do social preparation work and (b) a policy mandated loan quota for commercial banks and Central Bank's recognition of SHG accounts making possible for banks to accept deposits from SHGs and SHG loans as compliance to the loan quota.

LandBank's Wholesale Lending. While the other institutions de-emphasized cooperatives, Land Bank of the Philippines focused on cooperatives in reaching out to farmers and rural clients. The LandBank shifted its strategy from treating cooperatives as mere "credit conduits" in lending to small farmers into enabling cooperatives become viable financial intermediaries. The approach enabled the development of viable community supported financial institutions in the rural areas with capacities to mobilize deposits, manage and on-lend funds. The organizational factors that contributed to LandBank's success in cooperative lending are: (a) bank's support to capacity building of assisted cooperatives that required additional personnel and institutional development costs; (b) good credit rating system and (c) highly diversified loan portfolio. A key external factor is the presence of a relatively wide market of already existing cooperatives. There were 21,134 operating cooperatives in the Philippines as of 2005.

Rural Microfinance Methodologies

Among the microfinance methodologies that have gained wide adoption and replication with considerable success are: (a) Grameen and ASA microfinance methodologies; and (b) SHG banking. The Grameen model underwent modifications during the replication process in a number of Asian countries which can now serve as the new models for other interested institutions. The BRI individual lending model is a success in Indonesia and the best practice for retail banking targeting the low-income clients but it has not been widely replicated by others. A new approach that emerged is "Mixed Model" microfinance where either the MFI blends features of more than one model under one approach or "Mixed Method" where an MFI implements two or more methodologies for different client segments. Given the wealth of experience and number of institutions that implemented microfinance with considerable success, the two other countries apart from Bangladesh and Indonesia recommended as excellent sources of best practices on rural microfinance are Philippines and India.

Philippines: The private retail financial institutions (rural banks, cooperatives and NGO microfinance institutions) participating in the LandBank-PCFC and ACPC programs are an excellent source of diverse best practices on microfinance. Two approaches can be found in the Philippines: (a) group based approaches-lending to individuals who are required to be members of a group and (c) individual lending approach – where borrowers are not required to join a group.

India NABARD provides a wide array of best practices in SHG banking from among its participating commercial banks and self-help promoting institutions. Apart from SHG banking, India is also a source of best practices on "mixed model" approach.

Table 8 summarizes the features of the three major Asian microfinance methodologies.

Table 8. Comparative Features of Three Major Microfinance Methodologies

Model	Grameen Replication	BRI Village Banking	SHG Banking
Origin of methodology	Grameen Bank (Bangladesh)	BRI	APRACA-GTZ Linkage Banking Project
Country source of best practices	Philippines India	Indonesia	India
Type of MFIs implementing model	Private rural banks, coops, NGOs	Government Development Bank	Commercial banks extending loans to SHGs
Lending mode	Retail (loans to individuals but through groups)	Retail (loans to individual)	Wholesale (lending to SHGs that on-lend to individuals)
Features of lending scheme	Borrowers required to form into groups: ▪ small groups (5 members) that form a village 'center' (5-6 groups) Requires "collateral" savings Small loans, frequent payments (weekly), payable 6 months Larger succeeding loans Loans for any income generating activity	Small loans but wide range Flexible loan terms (payable in 3 to 24 months for working capital loans, 36 months for investment capital) Borrowers pledge household assets as collateral Incentive of interest rebate and increase of 100 percent for succeeding loan for good payors Loans for any income generating activity	SHG sets loan terms for members SHG uses own savings first in lending to members Bank lends after savings at 1:1 or 2:1 at first loan; then up to 4:1 on succeeding loans Larger succeeding loans Flexible loan terms ▪ borrower decides on purpose (consumption or productive), ▪ usually monthly installments payable in 1-2 years

Institutional Models for Private Retail Financial Institutions

The APRACA represented countries likewise offer a diverse menu of institutional transformation models for retail Microfinance Institutions. The following are the varying modes:

Transforming NGOs into Regulated Financial Institutions. A number of non-regulated lending institutions (NGOs) transformed into regulated banking or specialized finance institutions. The transformation improves the institutions' viability and sustainability. Examples of success cases are: Philippines (CARD Rural Bank, Dungganon Development Bank), Cambodia (ACLEDA Bank), and India (SHARE Bank).

Transforming Cooperatives into Commercially Viable Financial Intermediaries. The WOCCU credit union model shows the way in transforming lethargic cooperatives into bank-like financial institutions. The Philippine LandBank's 'champion' cooperatives and selected cooperative banks that participated in the ACPC programs also showcase the potential of cooperative institutions as viable community owned and community supported financial institutions.

Transforming Informal Self-help Groups into Formal Institutions. Nepal's Small Farmer Cooperative Ltd. (SFCL) offers a good institution building model for transforming informal village level SHG groups into formal financial institutions. The model offers cost-effective techniques in forming informal groups and organizational structural model in building networks (federations) among these village groups. As to the national apex bank established for the SCFLs, however, the financial viability is still inconclusive.

Private Commercial Bank Venturing into Microfinance. The HNB (of Sri Lanka) is a good model of a private commercial bank with wide coverage that ventured successfully into a financially sustainable microfinance. Even with microfinance operations the bank meets risk based capital requirements for commercial banks.

Various products and strategies in voluntary savings mobilization emerged among the Agricultural Development Banks and retail microfinance institutions in the APRACA represented countries. The savings product features that were found to be most common among the good practices were: (a) low minimum balance requirement of deposits (usually lower than those required by typical commercial banks); (b) bonus deadlines for savings products (winning of lotteries, raffles for deposit holders at defined periods, that appeared popular among rural clients); (c) convenience to depositors (e.g. personalized collection through deposit collectors or through mobile banking); and (d) attractive rates. Image of the institution's stability and ability to provide safe and secured deposits for clients was also found to be a critical factor in a successful deposit campaign.

The best practices on voluntary savings are BRI (Indonesia), BAAC (Thailand) and HNB (Sri Lanka) among APRACA members and selected partner rural banks and cooperatives of the ACPC and LandBank (Philippines).

Risk Management Practices

Managing Loan Portfolio. BAAC risk based pricing on loans and loan recovery practices can serve as good models for other AgDBs with restrictive mandates on agricultural lending. The BAAC's unique "risk contingency system" in handling agricultural loan delinquency provides an interesting innovative mechanism worthy to look at as most countries in Asia are similarly constrained by a weak agricultural insurance system. LandBank's portfolio risk management is more straightforward – i.e., loan diversification coupled with a good credit risk rating system for each of the different loan client segments. LandBank is a good model for AgDBs with more expansive mandates.

Micro-Insurance. An emerging trend among the microfinance institutions is providing micro-insurance services to microfinance clients. CARD (Philippines) and BASIX (India) provide illustrative cases of microfinance institutions that engaged in micro-insurance. CARD Bank spinned-off a separate entity (called Mutual Benefit Association or MBA), licensed by the government regulatory agency in offering micro-insurance services and professionalized its management. CARD-MBA provides life-insurance products for loan clients. BASIX on the other hand tied up with private insurers in providing life insurance, livestock insurance and weather index insurance for agricultural borrowers.

Considerations in Promoting Innovations Among APRACA Member Institutions and Represented Countries

The innovations in APRACA members and represented countries are in the different stages of adoption, i.e., from pilot or development stage, to scaling up to mainstreaming. The following are recommended initiatives as well as the particular relevant study areas, taking into consideration the stage of development of the particular innovation:

Transforming Weak Institutions into Sustainable Financial Institutions

The experiences of the successful institutions (both AgDBs and private microfinance institutions) required the following conditions: (a) relative autonomy in setting business policies; and (b) good corporate governance and organizational management systems. The AgDBs that were successful had the advantage of setting cost-recovering and market competitive prices for their financial products and flexibility in managing loan portfolio. Critical likewise is the quality and structure of governance – particularly in the areas of policy making, risk management and in instituting responsibility, accountability and transparency systems. Incentive and reward systems and performance evaluation systems of the organization are important aspects in achieving and maintaining high levels of performance. Case studies on good practices on governance focused on the above concerns among AgDBs and private Microfinance Institutions will be worthwhile to pursue.

Rural Microfinance

Replication of mature microfinance methodologies is more of an art. The considerations in ascertaining applicability of a particular microfinance methodology are: (a) rural poor characteristics – extent of farm and non-farm activities, population density and accessibility, role of women, ease or difficulty of entry of income generating activities; (b) policy and regulatory environment – flexibility in setting interest rates, loan quotas, rules and regulations; (c) financial system – existing suppliers, presence of social intermediary institutions. Social dimension characteristics (e.g. education level of clients, presence of informal groups) are also important considerations in choosing the appropriate methodologies.

Innovative modes of replication have emerged, such as the "build-operate-transfer" mode, initiated by Grameen Trust, which was reported to be effective in countries where the model does not exist yet and where there are very few financial institutions. Another approach is the "franchising scheme" which involves installation of the operating systems of the microfinance methodology, training of personnel on the system and monitoring to ensure adherence to process standards. An APRACA initiative to prepare Technical Guides for Implementors on the mature methodologies (group-based lending, individual lending, SHG banking and mixed model) based on best practices from the APRACA members will be helpful in facilitating the transfer of technology.

Savings Mobilization

A key lesson learned in voluntary savings mobilization is the need to go "back to basics" of product design, marketing and customer service. This means undertaking market research to have a clear understanding of the deposit market, designing products that fit their characteristics and designing and implementing good marketing strategies. Depending upon the size of the institution – the process may take two years from design to pilot until full scale implementation for a large size bank (e.g. such as the case of BAAC experience) or just in a few months for a small sized institution (e.g. such as the case of the rural banks in the Philippines). An APRACA initiative on preparing technical guides on product development processes and marketing strategies for voluntary savings programs would be helpful. The practices of BAAC, BRI and rural banks in the Philippines can serve as reference in preparing these guides.

Agricultural Finance

The emerging trend is revisiting agricultural finance practices of the past but under the financial systems approach. Thus, while institutions adopt past practices (e.g. supervised credit schemes, contract farming, agribusiness approach, etc.), there is now emphasis on ensuring loan recovery and sustainability.

A key observation is that even for the best practices, on-time repayment rates on agricultural finance are lower than microfinance. But while this is so, actual loan loss can still be manageable, i.e., loan recovery among delinquent accounts can be achieved but it takes longer than conventional microfinance. Further, quality of loan portfolio is difficult to compare as there are differing methods employed by the institutions in the reporting and treatment of delinquent accounts and loan-loss provisioning. Given this, a different set of performance measures and standards may need to be worked out for agricultural finance as there are limitations in applying both conventional microfinance and commercial banking performance standards. An APRACA initiative in benchmarking and developing performance standards for agricultural finance would be a good undertaking as its members are the most experienced in this field.

Second is unlike microfinance, there is dearth of case studies on recent best practices on agricultural finance, such as value chain finance**.** Equally important are risk management practices on agricultural finance. Case studies on risk management practices should include: loan portfolio management, credit risk rating systems, and loan recovery practices (managing loan delinquency). Case studies on risk management practices of BAAC, LandBank, NACF (South Korea) and AFFFC (Japan) are recommended.

Empowerment of the Rural Poor

Among other types of resource institutions, Membership Based Organizations of the Poor (MBOPs) provide the best opportunity for the poor for an equitable participation and expanded entitlements. Success cases on this type of MFIs, however, so far are very limited. Thus, case studies on community owned and operated MFIs would still have to be pursued. The studies would need to look into: (a) governance systems and

structures and how the poor, especially the women can effectively participate, (b) asset build up strategies of community-based groups, and (c) sustainable network building schemes. The initial countries where the case studies are recommended to be undertaken are: India, Nepal and the Philippines.

Concluding Note

APRACA member institutions and projects in represented countries offer a rich menu of best practices on rural finance from microfinance, agricultural finance to micro-insurance. A common thread among these best practices is the shift of emphasis from mere credit provision to providing broader and sustainable financial services. While there are variations in the local contexts, particularly with regard to rural finance policy and differences in finance infrastructure, there is now a common greater emphasis on attaining sustainable fund base, cost recovery and providing efficient and responsive financial services. These practices have proved that providing financial services to the rural poor is not incompatible with achieving financial viability.

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ABOUT APRACA

The Asia-Pacific Rural and Agricultural Credit Association (APRACA) is an organization of institutions dealing with rural and agricultural finance in the Asia-Pacific region that facilitates cooperation and mutual exchange of information and expertise. From an idea born out of a regional seminar on agricultural credit for small farmers in October 1974, APRACA was launched three years later in the first General Assembly Meeting in New Delhi, India on October 14, 1977.

Since then, APRACA has grown to its current membership of 58 institutions from 24 countries. Through the years, APRACA has pursued its mission of promoting efficiency and effectiveness of rural financial systems by fostering cooperation in information exchange, research and publications, inter-country studies, training and personnel exchange. It facilitated rural finance projects between members and donors. It has developed strong working relationships with international organizations such as the IFAD, UN-FAO, World Bank, UN-ESCAP, GTZ, UN-ILO, Swiss Agency for Development Cooperation, German Foundation for International Development and the Association of Asian Confederation of Credit Unions.

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