Rural Remote Microfinance and Selfish Genes

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July 1, 2006

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Executive Summary

- The remote poor need access to the financial system and not merely financial capital.
- Savings-based semi-formal financial institutions such as self-help groups serve this need well. However, semi-formal institutions may require different supports than microfinance institutions that seek permanence and scale. They have capacity to be self-replicating.
- In order for these semi-formal financial institutions to really have an impact in terms of breadth of outreach, they need to adapt within their context.
- Transforming into a more formal financial institution is not the only option. Several cases have demonstrated that semi-formal institutions can remain decentralized if they are appropriately linked. They key is to draw on both the "local" and the "linked."
- Self-management draws on local leadership significantly reduces the transaction cost substantially, making it possible to reach remote areas and/ or reduce the lending cost of capital.
- However, to broaden the scope of products and other inputs such as increased funds for growth, being linked is also helpful. There are many ways for semi-formal institutions to be linked: becoming members of a financial institution; becoming networked but retaining some management autonomy and becoming networked in a centralized management structure.
- Donors and regulators have the capacity to facilitate or impede these linkages. It is essential to understand how these semi-formal institutions fit into the broader macro-environment.

Remote Rural Microfinance and Selfish Genes

Introduction

Evolutionary biology and remote rural finance are not two disciplines that normally interact. However, selfish genes may provide an interesting metaphor for microfinance institutions particularly member-owned institutions in remote, rural areas.

Richard Dawkins has written at length about what he calls the selfish gene. He used this term to explore the notion that certain genes are able to survive over time through seemingly conscious adaptive behaviour. Particularly relevant for this discussion are the characteristics of selfish genes that allow them to learn and create stable systems over time that survive. This is especially true of rural areas where it is challenging for microfinance programs to survive in costly, unpredictable environments.

Nevertheless, it is essential that solutions are sought in these contexts. The majority of the world, in particular the world's poor, live in rural areas. In some areas such as Sub-Saharan Africa more than 80% of the population is rural. Microfinance cannot have a significant impact on poverty, nor can it claim to support inclusive financial systems, until it is able to significantly penetrate these areas and populations.

There has been some success in rural finance especially as the "New Rural Finance Paradigm" is gaining broader consensus. The new paradigm has replaced a focus on subsidized, targeted credit through poverty alleviation programs that met with little success, with a market-based approach to offering a range of services in a sustainable manner[1]. Products in rural areas

[1] Dale W. Adams, Douglas H. Graham, and J. D. Von Pischke, eds., *Undermining Rural Development with Cheap Credit* (Boulder: Westview Press, 1984); and Richard Meyer, and Geetha Nagarayan, *Rural Finance: Recent Advances, and Emerging Lessons, Debates and Opportunities* (Washington: Ford

have, in some cases, expanded beyond basic services to include a variety of loans and savings products, insurance, money transfers, even micro-leasing and e-banking. Specialized financial services such as crop insurance, trader and agricultural credit have been improved upon. Finally, both the validity and delivery of non-financial services such as enterprise development, social intermediation and market analysis have improved as have the type of institutions offering financial services in rural areas.[2]

Remote, rural communities, however, still remain largely underserved except for informal means. These economies are characterized by low levels of cash liquidity, seasonality of incomes, highly segmented markets, and increased covariance risk. In providing services financial institutions can expect high transaction costs, low rates of internal capital mobilization due to poor physical infrastructure and a low density population making outreach expensive.

Member-owned institutions (MOIs) have been identified as one of the most viable means to reach the poorest and the most remote areas.[3] Member-owned institutions have the potential to push the rural frontier into more remote areas because they are both self-replicating and adaptive. They are able to build on the best of the local and the most strategic of linked arrangements. In these ways, MOIs resemble selfish genes that are capable of surviving, creating stable systems in unpredictable environments. In order to survive MOIs need more than just financial capital. They need to become part of the financial system.

Member-Owned Institutions: Key Player in Financial Systems

Member-owned institutions can be distinguished from other microfinance institutions by their ownership structure. That is, the members have the

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Foundation, 2005)
[2] Nagarajan & Meyer, *Rural Finance*
[3] Ibid, *Rural Finance*

responsibility for owning, managing and operating the financial institutions at the same time as they are the main, sometimes only, customers of those same institutions[4]. It is the ownership by its members through the purchase of shares or other joint financing that permits collective decision-making. Some examples of member-owned institutions include Rotating and Accumulating Savings and Credit Associations (ROSCAs and ASCAs), Self-Help Groups (SHGs), Village Associations (VAs) , Financial Services Associations (FSAs), Savings and Credit Cooperatives (SACCOs), Credit Unions (CUs), and Multi-purpose Cooperative Societies (MCS) that provide financial services, among other services, to their members.

Member-owned institutions play an important role generally in the provision of financial services, urban and rural. According to the World Council of Credit Unions 2004 Statistical report, 30,168 credit unions serve over 34 million members in Asia, Africa Latin America and the Caribbean the Eastern Europe and the Newly Independent States.[5] The chart below positions cooperatives credit unions in terms of other registered financial institutions based on of number of accounts.

Figure 1.0: Types of Financial Service Providers according to Number of Savings and Checking Accounts (in thousands)[6]

	MFIs	Coops and credit unions	Rural banks	State/agricultural /development banks	Postal Banks	Total	Percent of total	Account per hundred people
Asia and the Pacific	107,255	14,579	17,677	140,752	277,388	557,651	83	17
Middle East and North	1,422	11	Not available	30,172	16,525	48,670	8	13

[4] Ibid, *Rural Finance*
[5] World Council of Credit Unions (WOCCU), *2004 Statistical Report* (Madison, Wisconsin: WOCCU, 2005)
[6] Christen, Robert Peck, Richard Rosenberg, and Veena Jayadeva, *Financial Institutions with a 'Double Bottom Line': Implications for the Future of Microfinance.* CGAP Occasional Paper no. 8. (Washington, D.C.: CGAP, 2004), quoted in Brigit Helms. *Access for All: Building Inclusive Financial Systems* (Washington, D.C: CGAP, 2006): 7.

Africa								
Sub-Saharan Africa	6,246	5,940	1,117	634	12,854	26,791	4	4
Europe and Central Asia	495	5,692	Not available	28	11,503	17,718	3	5
Latin America and the Caribbean	5,156	8,620	162	81	179	14,198	2	3
Total	120,574	34,842	18,956	172,207	318,449	665,028	100	13

Clearly, financial cooperatives play a larger role in financial services provision than MFIs in Latin America, Europe and Central Asia and to a lesser extent in Sub-Saharan Africa. However, even these figures under-estimate the relative role of member-owned institutions in rural finance since they do not include semi-formal (non-registered) member-owned bodies such as self-help groups and village-based savings and credit associations that dominate many rural landscapes.

In rural areas, postal banks dominate the landscape in both Sub-Saharan Africa and Asia. In Asia and the Middle East/North Africa state or development banks also play a major role. However, financial cooperatives are still considered the main provider of financial services in rural areas according to a postal survey by. They estimated that 60.5% of savings and 59.9% of loans are provided by financial cooperatives in rural areas.[7]

Data for rural remote outreach is less prevalent partly because the concept of rural remote is highly context-specific. However, in terms of sheer numbers and pervasiveness, informal MOIs have the broadest outreach. ROSCAs and ASCAs, including dedicated societies such as marriage funds and burial societies, are present in most countries in the Global South. They are the most prevalent and perhaps pervasive savings and loans "institutions" in the

[7] Manfred Zeller, *Models of Rural Financial Institutions* (Wisconsin: USAID; WOCCU and BASIS-CRSP, 2003)

world. At least one study suggests that ROSCA participation in rural areas of Liberia, Ivory Coast, Togo and Nigeria was between 50 and 95 percent of the population[8]. Given their highly decentralized nature, they can be considered the most accessible in terms of geographical access. Geographical access, however, is only one dimension of access.

What is Rural Remote Access?

Rural remote access is slippery as it is less a geographical location than a highly-contextual frontier with various aspects. One of the challenges of remote outreach, is the multiple and contextual definitions for poverty making benchmarking or comparisons difficult.

FinMark Trust in South Africa has developed a definition of access based on an access frontier that is useful for this discussion. Access considers outreach from a member perspective. There are three main dimensions:

- Geographic access
- Affordability
- Product features[9]

The objective, as he describes, is to broaden financial services options and alternatives for the populations in remote areas. Also, it is important to ensure that the access frontier is expanding over time.

Pushing the access frontier into remote areas is challenging for both members and institutions. These households have lumpy cash flows, low levels of cash liquidity, seasonality of incomes and high covariate risk. Chao-

[8] F.J Bouman, "Rotating Savings and Credit Organizations: A Development Perspective," *World Development* 23, no.3 (1995): 37-384, quoted in M. K. Gugerty, *You Can't Save Alone: Testing Theories of Rotating Savings and Credit Associations in Kenya* (Washington: Evans School of Public Affairs, University of Washington, 2003)
[9] David Porteous. *Making Financial Markets Work for the Poor* (Midrand: FinMark Trust, 2004)

Beroff's depiction of remote economies in West Africa is relevant to other remote contexts for institutional development. She highlights high transaction costs, inadequate infrastructure, low monetary income, high exposure to crises, lack of innovation in rural institutions and distorted rural markets as challenges.[10]

Geographic access

Geographic access has to do with how far or near a client or member is from the point of service. Where service delivery points are located is one of the key aspects of access and outreach.

Poverty assessment tools were used to determine whether financial cooperatives and/or rural banks actually reached more poor than specialized NGO-MFIs. The research, by the Consultative Group to Assist the Poorest in Senegal and Ghana and IRIS/University of Maryland in Peru, found that, contrary to conventional wisdom, institutional type does not necessarily influence the poverty level of clients. For banks, financial cooperatives and NGOs the main factor appeared to be where they placed their branch offices. In Senegal a multi-purpose cooperative that sought membership in rural fishing communities reached the largest proportion of poor clients. In Ghana, rural banks had greater depth of outreach. Twenty-six percent of rural bank clients were among the poorest twenty percent of the population of Ghana mainly because they were located in the northern region where poverty is most intense and NGOs are absent. Finally, in Peru the cooperative in this sample achieved the deepest outreach followed by a regulated micro-bank network and a rural savings and loan bank due to placement of branches rather than institutional form (Hashemi, BCEAO [Central Bank for West Africa] and CGAP in Helms, 2006, p.43).[11]

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[10] Renee Chao-Beroff, *The Constraints and Challenges Associated with Developing Sustainable Microfinance Systems in Disadvantaged Rural Areas in Africa* (New York: United Nations Capital Development Fund, 1999)

[11] CGAP and Central Bank for West Africa, *Determining the Outreach of Senegalese MFIs,* (Washington,

Hirschland in examining remote savings deposits also found that creative means of service delivery can improve geographical access cost-effectively. Such strategies included mobile staff, self-help groups, lockboxes placed in communities, and outlets in remote areas that are available on designated days or times, combining services with already existing activities such as milk collection or market days.[12]

Affordability

Affordability is the cost of basic access relative to member household's income. Transaction costs are, of course, high in remote economies. For example, in areas like the Dogon region of Mali where CVECA13 operates, the additional cost associated with the low population density has been estimated to be between 20-45 percent of the total cost of the program in terms of time spent traveling, capacity building and follow up, and equipment that must be replaced often. In remote areas, break-even for institutions is obviously more difficult as tailoring to the local context is crucial.[14]

There is debate as to whether these remote populations really do have high enough levels of monetarization or cash in circulation to allow for savings and loan repayment. Many studies have confirmed that, in fact, remote populations do save.[15] Liquidity shortage is actually not a key constraint to most households since they do find some way, even at considerable costs, to create lump sums for future activities.

D.C.: CGAP, 2004); and Syed Hashemi, *Linking Microfinance and Safety Net Programs to Include the Poorest: The Case of IGVGD in Bangladesh*. CGAP Focus Note, no. 21 (Washington, D.C.: CGAP, 2001), quoted in Brigit Helms, *Access for All: Building Inclusive Financial Systems*, (Washington, D.C.: CGAP, 2006)

[12] Madeline Hirschland, *Savings Operations for Very Small or Remote Depositors: Some Strategies* (Sussex: Institute of Development Studies at the University of Sussex, 2003)

[13] Non-mutualist member-owned institution somewhat similar to financial service associations within a network

[14] Chao-Beroff, *Constraints and Challenges* 22

[15] Rutherford, *Self-Help Groups as Microfinance Providers: How Good Can they Get?* (n/a: Mineo, 1999) ; Hirschland, *Savings Operations for Very Small or Remote Depositors*

High interest rates, depending on the terms of repayment, may be difficult for remote households. Harper shows that high microfinance interest rates that have been justified from the point of institutional sustainability may not be sustainable at the level of poor rural borrowers, especially those engaged in crop production. Using data from both off farm and on farm micro-enterprises, though not all in the same area, he found a low or negative margin between the cost of micro-loans and the returns from farm investments. He did not find this to be a problem, however, since many of the programs targeted women with non-farm activities. However, more remote economies and households largely dependent on agriculture or other resource-based activities may be limited in their ability to diversify.[16]

However, most MOIs and MFIs are not operating at optimal levels of efficiency so high transaction costs may be passed on to members. Zeller raises the question of the cost of member ownership. Member ownership that is often accompanied by member voting and decision-making creates transaction costs. Zeller questions what participation costs members and if they are finding the value in those additional costs.[17]

Grant and Coetzee analyzed the cost structures of institutions and modeled their capacity to reach poorer market segments. They found that the key factors for outreach were: cost of funds, management, loan allocation, financial security, and bad debt. Generally, informal bodies and formal financial institutions have low cost structures. Semi-formal bodies such as self-help groups, SACCOS and other associations have medium cost levels that can become quite high with bad debt and if the market rate of funds is part of the calculation.[18]

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[16] Malcolm Harper, "Farm Credit and Microfinance – Is There a Critical Mismatch?" *Small Enterprise Development* 16, no. 3 (2005)
[17] Zeller, *Models of Rural Financial Institutions*
[18] William Grant and Dr. Gerhard Coetzee, *The Role of Membership-Based Financial Services in Reaching the Underbanked, Primarily Rural Areas*, Background document for the August Conference on African Microfinance, (Pretoria: ECI Africa, 2005)

Affordability is also a donor policy issue. If and where access is not affordable, should donors and governments subsidize access? What are the benefits and potential dangers of doing so? Rhyne clarifies that the poverty/sustainability debate is ultimately about whether to subsidize interest rates.[19] Those who compromise sustainability to serve hard-to- reach populations are essentially saying that the poor cannot fully pay for their borrowing.

Still there are strong arguments that subsidies are likely to be needed for some time to reach remote areas. Donor Guidelines on Good Practice in Microfinance has suggested that "longer-term subsidies may be required by institutions that target sparsely populated, and otherwise difficult to reach populations since serving these client segments makes institutional viability harder to achieve".[20] Most confirm that the market forces, unaided, are unlikely to reach, remote areas. The question is how subsidy can be directed in a way that does not distort markets but can actually finance innovation and complement market-driven initiatives.

Product Features for Access

The characteristics and constraints of remote households affect their ability to take advantage of products and services offered. Remote households are motivated not only by income growth but by smoothing consumption, reducing risk, stabilizing income and resources, and reducing the cost of exchange resources.[21] They also are more likely to face forms of gender or social exclusion and lack clear title to property and assets.[22] In remote areas,

[19] Elizabeth Rhyne, "The Yin and Yang of Microfinance: Reaching the Poor and Sustainability," The *Microbanking Bulletin,* No. 2 (1998): 7
[20] CGAP. *Building Inclusive Financial Systems: Donor Guidelines on Good Practice in Microfinance* http://www.cgap.org/portal/site/CGAP/menuitem.929eeda637b63d5167808010591010a0/ (accessed June, 2006)
[21] Adams et al., *Undermining Rural Development with Cheap Credit* .
[22] Michael Carter et al., *Rethinking Rural Finance: A Synthesis of the Paving the Way Forward for Rural Finance Conference* (Madison, Wisconsin: University of World Council of Credit Unions, 2004)

there are context-specific time and labour allocation and traditions that give rise to persisting gender and age inequalities.[23] For example, credit unions, federations and cooperatives that require security and prior savings, may exclude members of remote communities, particularly women who have few or no property rights in both West Africa and India.[24]

To ensure remote outreach, service outlets extended to these areas may not be enough. Products and service delivery mechanisms must also be designed in a way that facilitate access and make participation worthwhile. These products need to be relevant and appropriate for remote households with lumpy cash flows and high levels of risk and unpredictability. Part of affordability for members is the nature of repayment: terms that make the transaction costs feasible given lumpy income streams for members.

Harper found that there was a mismatch between most MFIs and loan products for rural households. MFIs in rural areas do not offer a variety of products yet rural loan demand can include sickness, petty trade, milking, crops and minor irrigation. Each activity requires slightly different product features: amount; lumpiness of investment; return on investment; timing of return; risks; seasonality; centrality to household income; gender targeting and need for other support such as market linkages.[25]

Hirschland held a virtual conference with over 255 participants worldwide to learn what remote depositors required.[26] They found that very poor people do seek secure, convenient and liquid deposit facilities that accept very small amounts on a regular basis. However, although small savers place a higher premium on liquidity, they still seek returns. Proximity and hours of service were also key factors. Very poor people often cannot use existing services

[23] John Friedmann, *Empowerment: The Politics of Alternative Development* (Cambridge: Blackwell Publishers, 1992)
[24] Chao-Beroff, *Constraints and Challenges; and* Hans Dieter Seibel, "Mainstreaming Informal Financial Institutions," in *Journal of Developmental Entrepreneurship* 6, no. 1 (2001): 83-95.
[25] Harper, "Farm Credit and Microfinance"
[26] Hirschland, *Savings Operations for Very Small or Remote Depositors*

because they do not have time to come to the office to make deposits. If clients do not have the opportunity to deposit cash when it becomes available, they often will spend it on trivial purchases.

She also found that it is important to think about designing savings products for small depositors in terms of trade-offs between security, liquidity, convenience and returns. For instance, some MFIs compensate for a lack of liquidity in savings services by offering access to savings or a loan in an emergency. In fact, the poor may prefer to take a loan rather than draw on their savings. Liquidity may take the form of credit. This fluidity or fungibility of household financial strategies for lump sum needs is consistent with Rutherford's repeated assertion that loan repayments are best understood as being made from "future savings."[27] Payments may not come directly from returns from a single enterprise. They may be part of overall productive and consumptive household strategies.

Targeting is an issue in a couple of important areas. Targeting crop production risks, in some contexts, can exclude women from access. Even targeting women, in some contexts, where the main livelihood source is controlled by the men in the household, may limit these households from being able to benefit from services. The assumption that demanding more regular payments will encourage diversification is not always realistic or feasible in some rural areas.

The targeting of individual vs. group is also important question for product design. Young found that individual, rather than groups, are more likely to reach the poorest because at an individual level there is the ability to tailor the services to their unique circumstances and cash flows.[28] Rutherford also

[27] Rutherford, *Self-Help Groups as Microfinance Providers: How Good can they Get?*
[28] Robin Young, *Development Alternatives: Comments on Zeller's "Models of Rural Financial Institutions"* (Madison, Wisconsin: USAID, WOCCU and BASIS-CRSP, 2003).

found that members often prefer individual services but are willing to be members of groups in order to access services.[29]

Again, careful attention to context and listening to members is needed. While some of these findings run counter to widespread notions that groups provide the most effective mechanism to reach large numbers of poor, it is important to distinguish an outreach mechanism (groups) from the ability of that body to provide tailored or flexible services.

Some Successes: Role of Self-Replication and Adaptation

Some MOIs have managed to achieve success in creating broad, affordable and appropriate access in remote, rural areas. It has usually meant that they have had to deal explicitly with the challenges and capitalize on the strengths of member-owned institutions.

Rural remote outreach is, again, highly contextual. Some of these successes include mutual organizations and financial service association in Africa that serve tens of thousands of households[30]. Self-help groups first took the world's notice in India where over 1.6 million self-help groups have been linked to financial institutions as of March 2006.[31] Now, self-help groups are being promoted by CARE, Oxfam and Path, international NGOs. CARE alone has supported over 500,000 self-help groups mainly in Africa[32]. In Africa, IFAD-promoted financial service associations numbered 160 in 2000 with over 50,000 shareholders[33]. In Latin America, some SACCOs and credit unions have managed to penetrate rural, particularly those that have linked

[29] Rutherford, *Self-Help Groups as Microfinance Providers: How Good can they Get?*
[30] Marjan Duursma, *Community-Based Microfinance Models in East Africa* (Dar es Salaam. Tanzania: Hivos, SNV Tanzania and Facet BV, 2004); Renee Chao-Beroff et al., *A Comparative Analysis of Member-Based Microfinance Institutions in East and West Africa* (Nairobi, Kenya: MicroSave, 2000); and Douglas Pearce and Briget Helms, *The Financial Services Associations – Story so Far* (Washington: CGAP, 2001)
[31] NABARD, www.nabard.org
[32] Hugh Allen, *CARE International's Village Savings and Loan Programmes in Africa: Microfinance for the Rural Poor that Works* (Tanzania: CARE International, 2002)
[33] Ahmed Jazayeri, *Financial Services Association (FSA): Concept and Some Lessons Learned* (Nairobi, Kenya: Micro-Save Africa, 2000), 19.

to village associations for greater rural outreach[34]. To illustrate, over 10,000 credit associations have been linked to 28 credit unions worldwide through Freedom from Hunger, 500 of these credit associations in Latin America[35]

All of these models warrant further research to better understand the conditions in which they were able to achieve outreach in remote areas. However, two aspects of how they were able to achieve this outreach are worth noting. These MOIs are both replicable and adaptive. In this way, selfish genes are an apt metaphor because they share these two characteristics with remote MOIs. More detail about each characteristic may provide useful insights for rural innovation.

Dawkins writes, at length, about what he calls the selfish gene. He used this term to explore the notion that certain genes are able to survive over time through seemingly conscious adaptive behaviour. While this book and these theories have been around for decades, they provide interesting metaphors for member-owned institutions and microfinance in general, particularly rural finance. Hawkins found that selfish genes can be considered selfish or able to survive and create stable systems due to two identifiable characteristics: they are self-replicating and adaptive.[36]

Self-Replicating

Hawkins found that stable systems last because there are "replicator genes" that make copies of themselves. He wrote,

[34] Eckart Koch et al., *A Decade of Pro Poor Institution Building in Nepal – Innovations and Lessons Learned from the Small Farmer Cooperatives Ltd. (SFCLs),* Working Paper No. 6 (Kathmandu, Nepal: GTZ, 2005)
[35] freedomfromhunger.org, 2006
[36] Richard Dawkins, *The Selfish Gene* (London: Paladin/Granada Publishing Limited, 1978)

> each entity must exist in the form of lots of copies, and at least some of the entities must be potentially capable of surviving---in the forms of copies---for a significant period of evolutionary time[37].

This phenomenon of bodies copying themselves has existed for centuries in the form of ROSCAs and ASCAs and some member-owned adaptations of them. These informal financial mechanisms show how groups self-organize without any external assistance. Moreover, in terms of rural outreach, they are the most pervasive. In rural areas these informal bodies are not simply a last resort. They are, in some contexts, a suitable and viable alternative though with their limitations. The key is understanding the trade-offs between different financial services, and helping clients and members to weigh those trade-offs.

Rutherford describes two approaches to achieving massive outreach that are helpful for this discussion:

1. Permanence and growth (i.e. MFIs, banks and cooperatives that seek institutional scale)
2. Repetition and time-bounded-ness (i.e. ROSCAs, ASCAs that are time-bound with a rotation cycle after which the members "cash out" and the body dissolves temporarily. At the beginning of the new cycle the body will resume).[38]

He added that more people are being served through the second approach than the first. Also, that most of the strategies in the second are, by definition, covering their own costs, and limit risk by being time-bound. Cost-recovery is a necessary but not sufficient condition for sustainability.

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[37] Dawkins, *The Selfish Gene,* 35.
[38] Rutherford, Stuart. *CMN meeting with Stuart Rutherford. Polokwane, August 28, 2004* http://www.cmfnet.org.za/Polokwane.htm (accessed June 2006)

Sustainability through self-replicability or repetition raises the important opportunity presented by groups or informal associations to act as financial intermediaries. Rotating savings and credit could include self-help groups in India, producer and fisher associations worldwide, various size and formalities of groups in Indonesia, farmer groups in Nepal, susu groups in Ghana, and savings and credit associations worldwide. Siebel has highlighted these groups or small associations, as playing a potentially powerful role in rural financial service provision with the right supports in place.[39]

We do not have clear terms or references to fully grasp what it means for these groups or associations to sustain themselves. However, without transforming into formal institutions, replicability or self-replication seems key. ROSCAs, ASCAs and many semi-formal bodies such as SHGs sustain themselves through copying the groups in the neighbouring village. Self-replicability is different than replicability that has been introduced or encouraged externally. In other words, methodology-led approaches that take from a particular approach or copy another program, could not be considered self-replicable. Self-replicability (not self-replication?) is the internally-motivated drive to self-organize, usually stimulated by existing groups.

Financial sustainability has always been defined as the ability of financial income to cover financial, operational costs as well as the cost of subsidy and inflationary distortions. While this makes sense for institutions seeking permanence, there may be other nuances for groups that seek to sustain themselves by repetition. Ashe & Parrot in describing the work of SHGs in Nepal, expanded the concept of sustainability to include the self-replication of groups. The following is their definition of sustainability: "Large numbers of savings and credit groups able to operate independently after two or three years with little to no ongoing support. Groups spontaneously create new

[39] Hans Dieter Seibel, "Mainstreaming Informal Financial Institutions," *Journal of Developmental Entrepreneurship* 6, no. 1 (2001): 83-95.

groups thereby expanding outreach. Retained interest income builds each group's loan fund."[40] This definition is based on their observation that numbers of savings and credit groups were able to operate independently after two or three years with little to no ongoing support. Therefore, sustainable, in this context means that they have graduated to independent management and the groups themselves are self-replicating. The local population sees enough value in what they see of existing groups to mimic them.

International programs and some Indian NGOs supporting self-help groups such as CARE, Oxfam and Path have all reported incidents of self-replication; however, aggregate figures are incomplete. Oxfam began working with self-help groups last year and has begun to keep detailed records about self-replication. In their Mali program, about 20% of the 518 groups formed were what they called spontaneously created groups. The remaining groups were created by Oxfam animators and village agents (trained by Oxfam). One area found that it was helpful to invite women from neighbouring villages to attend groups meetings simply to observe and watch. This sometimes stimulated interest. Another contributing factor to spontaneous groups was the ability to have exchange visits between groups to share good practices.[41] Over time, it will be interesting to see what aspects of the existing SHG management are replicated by spontaneous groups. What areas, if any, require additional support either from other groups or from external agents.

Seibel identified "self-multiplication of SHGs" as a key growth and dissemination strategy for SHGs in India including having SHG members encouraging neighbours to form groups, women encouraging their husbands

[40] Jeffrey Ashe and Lisa Parrot, *Pact's Women's Empowerment Program in Nepal: A Savings and Literacy Led Alternative to Financial Institution Building* (Washington, U.S.A: Pact, 2001)
[41] Mariame Coulibaly, *Saving for Change Program: Narrative Report March 2006* (Mali: Stromme Foundation, 2006), 3.

to form separate groups, SHG facilitators providing skill inputs to new groups and promotion of village organization of SHGs.[42]

Independently managed and self-replicating groups would, indeed, be cost-effective outreach requiring little to no subsidy or external support. The aim is that, similar to subsidization of the start-up phase for microfinance institutions, subsidization could support independent groups that would then self-replicate and expand outreach.

Self-replication is not only a sound strategy for the semi-formal bodies. Small Farmer Cooperatives in rural Nepal found that self-replication was a way to reduce costs by up to 50% of normal start-up costs. The key was encouraging farmer to farmer replication with the support of The Agricultural Development Bank of Nepal and external service providers. They minimize the institution-building costs by the exclusive involvement of farmers from mature Small Farmers Cooperatives who usually have more relevant experience than bank or NGO staff anyway. They estimate that it takes three to four years of capacity building on social mobilization, financial management and accounting to have a replicated sustainable registered cooperative.[43] It is important to note that while self-replication may be an endogenous process, there may be strategic roles for external involvement in encouraging self-replication without external dependence.

Nevertheless, there are constraints to self-replication of these semi-formal bodies if we revisit the three key aspects of access. Geographical access could be well covered if semi-formal bodies were to grow and self-replicate improving upon endogenous, informal schemes. Services are also likely to be affordable depending on the terms of rotation, but these will be decided upon by members.

[42] Seibel, "Mainstreaming Informal Financial Institutions"
[43] Eckart et al., *A Decade of Pro Poor Institution Building in Nepal*

In terms of products designed for accessibility, there is mixed success. However, limited product diversification is one of the key constraints of these decentralized bodies that rely on largely rotating their own funds. Rutherford argues that technical support providers are usually interested in permanence and so base their design supports on ASCAs that may have potential for permanence rather than ROSCAs which are, by definition, time-bound and impermanent.[44] This may be a pity since, in some circumstances, time-boundedness, and therefore adapted ROSCAs, may be more suitable.

The other important advantage of these decentralized bodies is the relevance of products. By the very nature of their origin and design, relevance and accessibility are, in many ways, built in. Widely varying forms of distribution allow flexible, relevant systems that offer savings, loans and access to cash for emergencies (a form of insurance).

Adaptive

Self-sustaining or independent self-replicating semi-formal groups such as SHGs in India and Africa, may have many advantages in terms of breadth of outreach and perhaps other social goals. However, it is important not to romanticize them in terms of their ability to provide financial services. No doubt they play an important role in providing remote, rural services where little financial services exist or costs are high. However, even if all of the ROSCAs, ASCAs and more semi-formal self-help groups and village associations were to self-replicate, financial services would still be limited in some respects. They would not be able to diversify products, particularly longer-term and more flexible products[45], withdrawable savings, doorstep collection, insurance products including life and liquidity exchange.[46]

[44] Rutherford, *Self-Help Groups as Microfinance Providers: How Good Can they Get*?
[45] Rutherford, *CMN Meeting*
[46] Seibel, "Mainstreaming Informal Financial Institutions"

They are limited to grow funds. Given the size of the groups, the contributions and the localized nature of the process, it is much more difficult to capitalize the funds for its users the way a more formalized bank could. As well, many of these schemes do not charge interest on their loans limiting the potential growth of the internal fund. They are more likely to redistribute all of the savings or deposit the surplus in a local cooperative or bank earning very little. Finally, at worst, they could be limited to keep the money of their members' safe without proper internal control mechanisms or supervision.[47]

Semi-formal bodies move toward formalization or consolidation to gain particular advantages. These may include lower operating costs and more diversified and flexible products. However, there are different ways to gain the advantages of formalization. Transformation is only one of these ways. Some of the most interesting initiatives in remote areas are hybrid groups maintaining decentralized semi-formal MOIs with some level of decision-making autonomy while networking or linking to take advantage of the economies of scale from more centralized or formal bodies. Depending on the regulatory regime, not all of these hybrids are considered formal financial institutions.

In this way, these MOIs have been adaptive, the second characteristic of a selfish gene. Hawkins describes the most striking properties of survival-machine behaviour as apparent purposiveness or consciousness.[48] That is, it is able to act from its own internal drive toward a particular end. Selfish genes can problem solve in unpredictable environments because they acquire learning strategies. This is also true for MOIs in rural remote environments where operating is exceptionally costly and unpredictable.

A recent study on providing financial services to poor rural farming households concludes that membership-based organizations can facilitate

[47] Graham Wright and Leaonard Mutesasira, *The Relative Risks to the Savings of Poor People.*
[48] Dawkins, *The Selfish Gene,* 53.

rural access to financial services and be viable in remote areas. Lenders face lower transactions costs when dealing with associations as opposed to dispersed farmers — if the association can administer loans effectively.[49] That is, however, a fairly significant "if."

The key is finding the appropriate balance of the accessibility and relevance that comes from highly-decentralized systems with the diversification and efficiencies that more formal, at times, centralized systems can allow. In different contexts this has been done very differently with varied models and types of linkages. Common to all of these is an adaptation to the local context, similar to the characteristics of selfish genes, using:

- local leadership or governance key to keeping cost lows
- strategic linkages

The most successful programs have not adhered to any one methodology or blue-print but have built programs on local leadership and governance as well as taken advantage of timely and strategic external supports. In other words, they have managed to adapt using both local and linked strategies.

Right mix of Local…..

In such unpredictable environment to administer financial services effectively requires clever creativity. Drawing from local social capital and governance is a strategy for many MOIs.

Chao-Beroff found that making effective use of members and existing governance structures is critical in rural areas. Years of experience with member-owned institutions in West Africa including RCPB, FECECAM and CVECAs found that, in disadvantaged rural areas, governance that involves a

[49] Robert Peck Christen and Douglas Pearce, *Managing Risks and Designing Products for Agricultural Microfinance: Features and Emerging Models,* CGAP Occasional Paper No. 11. (Washington: CGAP, 2005)

high level of participation and strong feeling of ownership by members is not only desirable; it is crucial for survival. A particularly relevant factor is the assumption of responsibilities by local staff at a significant level and on a voluntary basis. Also, certain tasks are better performed by villagers than by paid staff such as: the analysis of loan applications for small economic activities at the village level; knowledge of borrowers and the reality of their situations; loan monitoring and recovery; and simple accounting. All of the cases studied had village management committees which served as a link between institutions and clients. These governance structures were used for product identification, selection of borrowers and in some cases the volume of loans and their recovery. In the case of FECECAM, they served as the governing bodies of the institutions.[50]

A study on community-based institutions in East Africa found similar results. Local leaders and local technical service providers were crucial success factors. Positive and active participation of both formal and informal leadership at the village level was required. As well, where local leaders or "mobilizers" were used, their capacity, attitude and creativity were central. Some factors related to these people included: their leadership/mobilization skills, literacy, willingness to serve the target group, trust from the community, facilitation skills and back-up support.[51]

The key to using local leadership is addressing governance problems inherent in member-owned institutions. Chao-Beroff argues that these governance issues - volunteer boards, domination of net borrowers, and domination of elites or leaders - are even more pronounced in rural and remote areas where local leaders yield more power and capacity is a bigger issue.[52] Successful MOIs in remote areas have had to squarely address these issues.

[50] Chao-Beroff, *Constraints and Challenges*
[51] Duursma, *Community-Based Microfinance Models in East Africa*
[52] Chao-Beroff, *Constraints and Challenges*

If these governance issues can be sorted, making use of local social capital is not only good for governance but is also crucial for cost-effectiveness. Costs are lower, particularly with decentralized semi-formal MOIs because the methodology is simple and low cost drawing on members. Wilson found that the start up costs per member are a fraction of what the start up costs are for an MFI - $10 to $40 dollars per member compared to $200 to $400 per borrower) and reaches a population not typically served by MFIs and SACCOs.[53]

However, it is important not to romanticize local or semi-formal either. As was described earlier, there are limitations in terms of capital, product diversification and sometimes even risk. Strong programs have brought in external agents in strategic ways. The linkages of SHGs to formal financial institutions, for example, seeks to combine the strengths of existing informal systems (e.g. client proximity, flexibility, social capital, reaching poorer clients) with the strengths of the formal system (e.g. risk pooling, term transformation, provision of long-term investment loans, financial intermediation across regions and sectors).[54]

And Linked….

As semi-formal MOIs choose more complex financial and product arrangements, they demand a more complex system of monitoring and management. This is true in almost all aspects of financial management from book-keeping to the design of contribution rules, allocation methods, rules for new rotation and even the decision of whether or not to have a surplus fund. Semi-formal MOIs may not always have the internal capacity and resources to respond to these greater demands so external support may be needed.

[53] Kim Wilson, "The New Microfinance: An Essay on the Self-Help Group Movement in India", *Journal of Microfinance* 4, no. 2 (2002)
[54] Zeller, *Models of Rural Financial Institutions,* 23.

The move toward a more formal institution potentially offers innovation through the diversification of products, and access to larger and more stable sources of funds. Interesting models, best noted in India, Indonesia, West Africa and parts of Latin America, have demonstrated that highly decentralized financial bodies, ranging from formal to semi-formal, do not necessary need to transform into formal institutions. They can stay quite decentralized as long as they are appropriately linked. Linkages may involve different types of second-tiers such as federations, apexes or clusters with varying levels of inter-governance. However, linkages could also be more arms-length where it is mainly a source for borrowing and depositing surplus capital. In the case of financial service associations in Africa, some self-help groups in India and some village associations in Indonesia, associations remain quite localized and decentralized using linkages only to deposit surplus capital. In almost all of these cases, their ability to remain localized has accompanied heavy technical assistance and capacity building.

In most cases, decentralized financial bodies can benefit from moving beyond an arms-length relationship with a financial service provider to more tied linkages. Then they gain some advantages of repetition (accessibility, risk aversion) and some from permanence (efficiencies and sophistication of scale). Specific benefits of permanence through linkages include economies of scale with corresponding reduced transactions costs,[55] liquidity exchange as well as the ability to cross-subsidize rural or hard to reach populations,[56] member access to longer term financial services, and the ability to save for life-cycle events.[57]

There seem to be a few choices for association linkages to broaden remote access. To add value beyond traditional ROSCA and ASCA forms, many

[55] Ajai Nair, *Sustainability of Microfinance Self-Help Groups in India: Would Federating Help?* World Bank Policy Research Working Paper 3516, (Washington: World Bank, 2005)
[56] Chao-Beroff, *Constraints and Challenges*
[57] Rutherford, Stuart. *Helping Mickles Make Muckles: Designing Suitable Swaps for the Poor* (London : Alternative Finance, 2004)

informal associations either link to another financing body or network themselves. They may become part of a centralized system or retain a fair amount of policy making and decision autonomy. Patterns of linkages and networking seem to fall along three broad categories. These associations can become:

- Members or clients of formal financial institutions retaining decentralized autonomy as financial intermediaries at local level
- Networked retaining some decentralized management autonomy
- Networked where management and policy-making is centralized and associations are more like branches

Figure 2.0: Routes to Broadening Access/Outreach for Associations

	Members of existing financial institution	**Networked retaining some management autonomy**	**Networked where management is centralized**
Examples	village associations and cooperatives (linkage programs); cooperatives and self-help groups	Networks of village associations in West Africa; Federations of self-help groups	Apexes of cooperatives; Federations and associations of SACCOs
	←	↔	→
Path to Expanded Access	Self-replication and profitability/scale	Profitability and efficiencies of scale (that allows cross-subsidization) combined with self-replication	Profitability and efficiencies of scale (that allows cross-subsidization) combined with self-replication
Notes	Potential for individual client graduation Not having to take on costs of other tiers or expertise of financial intermediation	Liquidity exchange Base units may out-source management functions (economy and capacity gains) Access to more flexible products	Liquidity exchange On-lending Systematization and streamlining Access to wider range of products and stronger product development capacity and efficiencies

Each option along the spectrum, of course, has its advantage and disadvantages, the conditions that allow this option to be feasible. It is helpful to examine the trade-offs between options.

Traditional Networked Structure

The traditional networked structure of a cooperative or credit union seems to use similar strategies for rural (remote) outreach as other MFIs. To reach

costly remote areas there needs to be a certain scale of operations to gain the efficiencies and profitability.

Though not specific to rural or remote outreach, the WOCCU credit union experience, illustrates how their credit unions have used scale to improve efficiency and cross-subsidization and reach poorer members and smaller depositors. WOCCU reviewed 85 credit unions in 2000. They found that once a credit union achieved a savings volume of US$ 1 million, its savings expense ratio significantly dropped. The stratification of the savings deposits showed that 94% had a savings balance of only $US 33.[58]

To answer the question how CUs can offer such small deposits feasibly Richardson conducted an analysis of the cost structures of 15 Latin American CUs. They found that the feasibility of mobilizing small deposits rests on two key variables: operating costs and savings volumes.[59]

Figure 3.0: Savings Expense Ratio60 by Savings Volume (as of December 31, 2001)[61]

Savings Deposit Volume (US$)	Savings Expense Ratio (%)
<1,000,000 1,000,000 – 5,000,000 >5,000,000	8.43 3.25 3.61
Consolidated 15 Credit Unions	3.65

Beyond overall savings deposits of US$ 1,000,000 they were able to significantly improve efficiency enough to allow small deposits to be feasible.

[58] World Council of Credit Unions, *Development Best Practices in Credit Union Supervision: Regulatory Standards* (Madison, Wisconsin: World Council of Credit Unions, 2002)
[59] Dave Richardson, "Going to the Barricades for MicroSavings Mobilization: A View of the Real Costs from the Trenches," *MicroBanking Bulletin* no.9 (2003): 9.
[60] The savings expense ratio is an expression of all the direct and indirect operating expenses related to the deposit-taking function, divided by the average outstanding volume of savings deposits for the year
[61] Richardson, "Going to the Barricades for MicroSavings Mobilization," 174.

Graduation to formal cooperatives can be an important option for associations or other non-registered bodies that has regulatory implications. In India, federated SHGs, considered charitable societies, are unregulated. The state of Andhra Pradesh passed an interesting new law called the AP Mutually Aided Cooperative Societies (MACS) Act to allow them to transform into cooperatives. It has now been enacted in seven other states. By registering under this Act, the federations legally became primary cooperatives with a much higher level of autonomy. The trade-off is that they are not allowed to receive funds from the government. In other words they move from charitable to a regulated and higher risk status. Since there were several thousands of co-ups under the old act (around 50,000 in the state of Andhra Pradesh) the MACS Act would run concurrently with the old Act of 1956. As of June 1998 a total of 1150 coops were under the act, 31% being financial coops and 729 that chose to convert.[62]

The benefits of being networked in a formal cooperative arrangement, however, are not automatic. In fact, sometimes these can be counter productive and merely add costs and bureaucracy for the semi-formal bodies. Sriram, in comparing the Indian cooperative movement to the Canadian Desjardin movement, warned that the federated structure in Canada that Desjardin credit unions took might not be the best route for India cooperatives. He found that the federation operates "like a huge apartment complex where any tinkering in the design would affect all the occupants while individual flat ownership cannot do anything for their own flat, without affecting the whole structure."[63] The centralization required for greater product sophistication and streamlined systems may, for example, affect member participation in governance. Sriram noted that earlier in Canada's

[62] Nair, *Sustainability of Microfinance Self-Help Groups in India*; Lalith Mathur, *A Challenging Legal Framework for Co-operatives: The Experience from Andhra Pradesh*, Paper presented at the Second SAARC Consultation on Co-operative Policy (Hyderabad: Co-operative Development Foundation, 1998), quoted in M.S. Sriram, *Financial Co-operatives for the New Millenium: A Chronographic Study of the Indian Finanical Co-operatives and The Desjardins Movement, Quebec* (Ahmedabad, India: Indian Institute of Management, 1999)

[63] Sriram, *Financial Co-operatives for the New Millenium,* 11.

history, as currently in India, the credit committee played a large role in recommending if members should be given loans. This was useful because they had personal knowledge of the members and their finance being from the same community. Now with multiple sources for savings and increasing mobility the committee members are not privy to such info. Also with computers and sophisticated credit scoring models, there is no premium on this knowledge. This had reduced the involvement of members in governance. He suggests that more sophisticated products and services be out-sourced with the village-level coop acting as an interface. This ensures that the management of technology and operations would be simpler at the village level but would turn out to be more responsive to members and more member-controlled.

Networked with base unit autonomy

Some member-owned institutions have managed to achieve a networked system, as Sriram described. Being networked in this way can still provide the groups or semi-formal associations with greater access to capital, more diversified products, liquidity. Nair found that federating helps SHGs to gain economies of scale, product diversification (particularly micro-insurance products), reduced delinquency and reduced promotion or start-up costs.[64]

Fischer has a study that is helpful particularly in conceptual terms. In a comparative study of 13 mature networks (largely in the Global North) he distinguishes a "federated network" (FN) model from an "atomized competitive" (AC) model. The FN model resembles the traditional cooperative where systems are consistent throughout the branches and units and management is centralized. The AC model means that individual associations or cooperatives operate as units with their own separate identity, absence of a common brand name and there is no or limited monitoring by the federated bodies. Importantly, individual units can and do compete for specific market

[64] Nair, *Sustainability of Microfinance Self-Help Groups in India*

segments. He found that largely the FN model outperformed the AC model in terms of asset quality, market penetration, stability of the system and level of services offered to members.[65] It would be interesting to better understand the applicability of these findings to contexts in the Global South.

Nevertheless, the AC model of networking is interesting here providing some of the gains of traditional or federated network. However, there is enough decentralized autonomy to ensure member involvement in governance and some of the advantages of being close to the community. The CVECAs in Mali are an example of a network where they use a highly decentralized model.

The case of CVECAs argues in favour of a highly decentralized model of autonomous regional networks with technical services externalized to private companies. It allows contributors to i) measure concretely what they are paying for ii) control its quality, and iii) take steps to cover costs while being fully cognizant of their added value. In addition, decentralization gives rise to increased responsibility, involves more people and encourages locally-nuanced solutions to problems. This is all the more crucial in disadvantaged rural areas, which are still deeply rooted in tradition and chronically affected by crises.[66]

However, they out-sourced key financial functions that required more expertise. Many self-help groups in India also out-source key management functions. On one hand, it is good business sense to outsource functions to improve efficiency. However, with member-owned institutions, keeping the right mix of internal and external management and governance is absolutely crucial.

[65] Klaus Fischer, *Governance, Regulation and Mutual Financial Intermediaries Performance*. Centre de Recherché en Economie et Finance Appliqués (CREFA) Working Paper No. 1-11 (Québec, Canada: Laval University, 2002)
[66] Chao-Beroff, *Constraints and Challenges,* 39.

A couple of studies show that the extent to which these networks are member-driven vs. externally-driven seems to matter. Siebel compared the Kafo Jiginew (KJ) and the CVECA networks in Mali, both involved in linkages with banks. He found that KJ mainly benefits from the linkage in terms of liquidity exchange. The CVECA network benefits from the linkage in terms of portfolio expansion, liquidity exchange to a lesser extent and recently on-lending through the network. However, the CVECA network was much more dependent on external borrowings.[67] This potential of the institution to be dominated by net borrowers has been repeatedly identified as a governance concern that puts the financial viability of the institution at risk.

In India, as well, a study of self-help group federations found that there were different trade-offs in outreach depending on a number of factors. The key factors were: the nature of operations (finance or finance plus) and the nature of ownership (whether the network was member-controlled or largely controlled by a promoting organization). Of those that were finance only, they found that those controlled by promoters had the largest outreach numbering 30,000 to 60,000 members. Operations and policies were flexible but were implemented rigorously once handed down. Large outreach was achieved through two strategies: two-tier SHG cluster organizations or single multi-tier embedded organizations. In contrast, member-controlled federations (finance-only) had medium-level outreach of 5,000 to 6,000 members but with strong financial sustainability and potential for bank linkages. Those federations that were member-controlled and included finance plus social also had medium level outreach 5,000 to 6,000 and, with greater capacity inputs required, had low to medium levels of sustainability. Promoter-controlled finance plus federations did not fair well on either outreach or sustainability measures.[68]

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[67] Hans Dieter Seibel, *Linkages Between Banks and Microfinance Institutions in Mali: A Case Study* (Cologne: University of Cologne Development Research Centre, 2005)

[68] Sa-Dhan, *Stengthening Access to Financial Services for the Poor: Role of Community Based Organizations*, Report of National Workshop (New Delhi: Jacranda Hall, India Habitat Centre, 2002), 9.

It is also important to carefully analyze the added-value of second and third tiers in these networks. Just because a semi-formal body has become part of a network does not necessarily mean that there is added value. It is important to ensure that, where there are multiple levels of representation, or a relationship with a second-tier, that those added layers significantly add value to the MOI and do not compromise the self-governance. As has been discovered with some cooperatives, added layers of bureaucracy do not always add value for members. In fact, it might do the opposite.

In India, APMAS found many advantages of SHGs being networked: the benefits of being a subsidiary as described earlier to deepen financial services, opportunities to scale up and the power of collective bargaining. However, they also cautioned that there are limitations and that networking is not always the answer. First of all, those well functioning SHGs are already involved in bank linkages. India, as described earlier, has the largest branch network in the world, accessible distances to most villages. Many of the banks and financial institutions have built capacity for working with SHGs and even supporting them in self-replication. Therefore the network or federation is not necessarily needed to play a financial intermediary role for them. In fact, the absence of a federation gives the SHGs more choice in financial service providers. They also highlight the difficulty of making a federation viable, the subsidies and "handholding" required. These costs may have to be borne by members who cannot afford them. Also these federations are not properly regulated or supervised so there are frequent failures and frauds. Finally, federations are more vulnerable to political "hijacking" than smaller single SHGs.[69] Nair reinforced that federations have many advantages already mentioned. Constraints are both internal (systems and ability of SHGs to hold federations accountable) and external (capacity of promoting

[69] APMAS (Mahila Abhivruddhi Society, Andhra Pradesh), *Emerging Self-Help Group Federations and Challenges* (Andhra Pradesh, India: APMAS, 2005)

organizations and sound knowledge of federations and the capacities required).[70]

APMAS has made some progress in the analysis, documentation and systems development for federations. This organization studied SHG federations in India. They estimated 66,572 SHG federations across the country, 44% of which were in Andhra Pradesh. They have also designed a rating system for federations that includes governance; resources; asset quality; design of systems and implementation; efficiency and profitability; service to SHGs and SHG performance. Overall, performance is quite good with a B-. Areas less well-rated were asset quality, efficiency and profitability.[71]

Federating can present powerful opportunities for adding value and most are too young to show how these organizations will perform over time. In some cases, however, networking or federating may not be the right option. Informal or semi-formal MOIs may be in danger of losing member control, a crucial aspect of self-governance, without gaining the added value of networking such as liquidity management, greater product diversification and refinancing. In these cases, it may make most sense to allow the informal and semi-formal MOIs to remain informal and decentralized but encourage well-performing ones to link to financial institutions.

Groups as Intermediaries through Linkage

Perhaps the largest linkage program in the world currently involves about 1.7 million SHGs have linked to over 41,000 branches of commercial banks, cooperatives and registered MFIs.[72] Here the semi-formal self-help groups become clients of the banks. However, this scale of formal branch networks is quite unique in the world, particularly rural areas. Clearly, the supportive infrastructure and enabling environment to allow branches to proliferate in

[70] Nair, *Sustainability of Microfinance Self-Help Groups in India*
[71] APMAS, *Emerging Self-Help Group Federations and Challenges,* 6-9.
[72] www.nabard.org, 2006

rural areas is as important as the viability and self-replication of self-help groups.

There are many other linkage programs that have been less highlighted but present interesting opportunities for commercial-oriented linkages. Siebel[73] profiles various linkage programs, mainly for depositing surplus capital, in the Philippines, Thailand, Indonesia and India and largely with agricultural or development banks.

He notes that these linkages have worked well in Asia where policy frameworks have favored financial innovations, cost-covering interest rates and institutional viability. For example, several states in India allow groups as well as individuals to be clients of financial institutions. This is a crucial policy area for linkage programs. In Africa, where policy environments are often unfavorable linkage banking has been more difficult. Nevertheless, there are some promising initiatives in Zimbabwe, Burkina Faso, Nigeria and Ghana in these regards.

The other noted linkage program is the link between credit unions and village banks or village-level associations. Freedom from Hunger, a US non-governmental organization assisted credit association with linkages to credit unions. The credit unions would also take on the associations as members. This arrangement again, allowed the associations to stay decentralized and keep those advantages while taking advantage of the credit unions. The credit unions offered them financing, expanded outreach, multiple products and opportunities for graduation to become individual clients.[74] Now, there is reportedly over 9000 village associations linked to about 30 credit unions in

[73] Seibel, Hans Dieter. "Mainstreaming Informal Financial Institutions." *Journal of Developmental Entrepreneurship* 6, no.1 (2001): 5.
[74] Kathleen Stack, and Didier Thys, "A Business Model for Going down Market: Combining Village Banking and Credit Unions," *MicroBanking Bulletin* no. 5. (Toronto, Canada: Calmeadow, 2000): 9-12.

Burkina Faso, Mali, Ivory Coast, Benin, Togo, Madagascar, Philippines and Ecuador.[75]

Done well, these linkages can also be financially sustainable at both levels. There is preliminary support in the case of SHG linkages[76] and also for credit unions involved in credit association linkages in Latin America within three to five years where there is excess liquidity from urban credit unions.[77]

Whether a linkage, a network with autonomy, or a centralized network is the most sound option is a contextual question. The successful MOIs that have been adaptive in nature have been able to answer that question using the right mix of local and linked based on member demand. External supports have been strategic.

Essentially the story of selfish genes is about self-organizing systems that are smart enough and stable enough to last. There are two characteristics of selfish genes that are important in this regard. They are self-replicating and adaptive. These concepts are helpful for member-owned institutions that are, at their best, self-organizing systems. Nevertheless, it is equally important not to be romantic about them. There are many lessons from microfinance institutions that are helpful. Essentially, smart, stable MOIs achieve the simple strategy of mimicking what works but adapting it to the local context.

Self-replication is important because it focuses on the potential for informal and semi-formal groups and associations to significantly push the rural frontier through broadened outreach. However, self-replicating semi-formal

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[75] Bobbi Gray, Personal Communication, May 2006; and www.freefromhunger.org [Information retrieved April 11, 2006].
[76] Hans Dieter Seibel and Harishkumar R. Dave, *Linking banks and Self-Help Groups: Social or Commercial Banking? The Experience of India* (India: National Bank for Agriculture and Rural Development (NABARD), 2002)
[77] Larry Frankel, Gloria Almeyda and Jeffery Ashe, *Bridging the Gap: Cooperative Development Organizations and Private Voluntary Organizations* (Washington DC: AmaTech for United States Agency for International Development, 1999)

bodies are not enough on their own to really deepen financial services for remote populations.

Innovative MOIs have also been adaptive in taking the best of what is decentralized and local and combining it with the efficiencies and diversification offered with scale. Some have transformed or created formal financial cooperatives. These have potential to reach remote service outlets through cross-subsidization. Networking is also a possibility for semi-formal bodies. Depending on the amount of autonomy at the most decentralized level that makes sense, this arrangement could be a network or a linkage program. The sophistication of the semi-formal bodies, the strength and outreach of the formal financial sector and other factors such as regulation and supervision will determine which path is appropriate.

Why does this matter to Practitioners?

I once asked field staff of an organization why they had organized groups into twenty when clearly members were not showing up in those numbers and so disbursements were being stalled. Later, she replied that the Grameen uses 20 people. Grameen, of course, is in Bangladesh and this program happened to be in Southern Africa where the endogenous ROSCAs and ASCAS numbered 10-12.

Some models and methodologies are promoted in a manner that can take precedence over the local context. Informal, local forms of saving, borrowing and hedging risk are often toted as the basis for microfinance institutions. However, there is not always a careful understanding of the relative role that these informal bodies play and how, if at all, supports can add value to them.

Groups and populations should be able to carefully weigh their options. Rather than focusing on the limitations of informal finance, or romanticizing its benefits it is helpful to know precisely what the trade-offs are in moving

toward formalization, transformation or any kind of linkage or networking arrangement. Formalization is not always better for members; at worst, it can only add costs and levels of bureaucracy.

In terms of pushing the rural, remote access frontier, selfish genes are helpful. Self-replication and means to catalyze it is crucial for broadening geographical access. It builds on what is already there. As we have seen, self-replication is not exclusive of creative, home-grown and strategic linkages or networking arrangements. In fact, combined can sometimes give the best of both worlds.

If properly structured, networking and linking will provide more affordable, more relevant products and product choices. Remote members, like anyone else, want increased choice and opportunities. They want flexibility, liquidity, security and returns for a range of livelihood activities, some of which are highly seasonal and lumpy.

It is essential to distinguish institutional limitations from what members really demand. At times, these two are conflated. For example, mandatory savings is often called a service that remote members need to build discipline. It is essential to distinguish what part of this story is about the member and what part is about the institution. It is true that illiquid deposits are a strategy by remote populations to force themselves to save in the same way that locked in products for anyone keeps money from potential consumption. However, there is also high demand in remote areas for liquidity. Understanding under what conditions each is true, and what the trade-offs are, is important. If the mandatory savings is mainly a guarantee mechanism, then this is an institutional strategy not to be confused with member demand. The same can be said for groups as financial intermediaries that genuinely deepen and broaden financial services and group as joint liability mechanism or cost-reduction strategy.

Why does this matter to donors and technical service providers?

Selfish genes are helpful for policy makers and regulators to think about because they need to understand what survival means for remote rural financial institutions within the whole system. It matters because they need to understand the types of supports that are necessary to make stable interconnecting systems, and inclusive financial sectors. Analysis can be sharper and more contextual if there is not a bias toward formalization and permanent institutions but a genuine understanding of the relative role of various types of institutions and MOIs. In other words, donors and technical service providers need to be as adaptive and context-specific in their analysis.

Technical support, in the case of member-owned institutions, at worst can actually be quite harmful. The right timing, amounts and balance of hot to cold money is well-documented. Siebel recounts that history has important lessons for us, particularly with member-owned institutions. The strength of the cooperative movement in Germany, Ireland, and other continental-European countries, rested on several interrelated factors: a self-help movement throughout (self-managed and self-financed) which had started from informal beginnings; association formation with apex services for the member institutions; self-regulation and (delegated) supervision through self-organized auditing federations; and, perhaps most importantly, the absence of government and big donor involvement.[78] Similarly, a comparative study of MOIs in West and East Africa found that in West Africa the networks that have innovated most in recent years were those that had either shaken off technical assistance from the North, had restricted it to an advisory role, or in some cases had never received technical.[79]

[78] Hans Dieter Seibel, Personal Communication, May 2006; and Hans Dieter Seibel, "History Matters in Microfinance," *International Journal of Microfinance and Business Development* 14, no. 2 (2003): 10-12.
[79] Chao-Beroff et al., *A Comparative Analysis of Member-Based Financial Institutions in East and West Africa*

So, the first crucial question for donors and technical service providers is what shouldn't we do? With that as a starting point, it is helpful to determine where strategic inputs can enhance self-organizing MOIs and MOI systems. Knowing when to step forward is just as important as when and how to step back. It is essential that technical service providers and donors are aware of the myriad of options so as not to be quick to promote a particular path.

What then is the role of subsidy? Most confirm that the market forces, unaided, are unlikely to reach remote areas. The new paradigm, states Zeller sees financial market liberalization as a necessary but not sufficient condition for deepening financial systems.[80] The required technological and institutional innovation needed to deepen the financial system and to serve the poorer segments of the population can be readily copied by for-profit financial institutions. The resulting free-rider problem prevents the private sector from sufficiency investing in such innovations. Therefore, public investment in pro-poor and pro-rural financial innovation is required.

Chao-Beroff reminds us that in a remote, disadvantaged area, competition does not come from the commercial sector but from subsidized projects. In the case of the Sahelian region of Burkina Faso, where both the PPPCR and the CVECAs are operating, most of the donor-funded programs are not aiming for sustainability. They are socially-oriented projects that may have a credit component. Interest rates also varied from 0 to 40%.[81] This type of competition seriously distorts the market and gives the risk of bad credit driving out good. Therefore, in order to achieve sustainability in this context, institutions need to be not less strict and less expensive, but rather more strict and rigorous and to persevere with an interest rate policy that permits self-financing.

[80] Zeller, *Models of Rural Financial Institutions*
[81] Chao-Beroff, *Constraints and Challenges,* 39.

McCarthy echoed these findings in his study of Vietnam where he found that the prevalence of government funds in the sector had increased the availability of credit to both rural and urban households. However, access was only part of the solution. Interest rates were not enough to allow attractive rates on savings account and many poor rural households still lacked access to government bank loans. The interest rates levels lead to a "crowding out" of the NGO sector in its ability to compete with government loans and did not encourage a deeper penetration of NGOs into remote rural areas.[82] Many poor rural households continued to rely on relatives and private money-lenders for short term consumption credit. This scenario is not unique.

In remote areas, the issue is not one of subsidies or not, but how they can best be used. The key is smart strategic subsidy. There is evidence of positive impact of moderate levels of subsidies to microfinance organizational operating in rural areas.[83] In spite of the negative experience in the past, the current consensus is that donor funds are crucial in remote rural areas and moderate levels of "smart" subsidies in well managed organization can be justified from a social point of view.[84] As has been described earlier this could include support in networking, mainstreaming, linkage programs and appropriate prudential regulation and delegated supervision.[85] Klaehn of WOCCU adds that it is important that subsidies fund innovation, institutional strengthening and new model second-tier entities.[86]

The CVECA networks have demonstrated an example of "smart subsidies" that are used to support innovation but phased out systematically over time as the network gains capacity and ownership. In the initial phase, the

[82] Adam McCarthy, *Microfinance in Vietnam: A Survey of Schemes and Issues* (Hanoi: State Bank of Vietnam and Department of International Development (DFID), 2001)
[83] Jonathon Morduch, "The Microfinance Schism," *World Development* 28, no. 4 (2000): 617-629.
[84] Robert Peck Christen, Timothy R. Lyman and Richard Rosenberg, *Guiding Principles on Regulation and Supervision of Microfinance* (Washington: CGAP, 2003)
[85] Seibel, "Mainstreaming Informal Financial Institutions"
[86] Janette Klaehn, *Adding to the Challenges of Changing Financial Paradigms: WOCCU's Savings Mobilization Programs in Latin America* (Washington, D.C: World Council of Credit Unions Inc., 2002)

villagers and their fund cover the direct costs of operating, costs of the fund and the finance charges. The other costs, such as training, monitoring and auditing are borne by subsidies. This phase is used to create conditions of future viability. The second phase in which funds cover their direct costs and assume responsibility for the operating costs of their regional associations. They might also pay some training and auditing costs. In the last phase, the network covers all the direct costs and begins to assume responsibility for the costs of providing support services.[87]

Why does this matter to regulators?

A key remaining challenge includes the development of a regulatory and policy environment that encourages an inclusive financial sector that is broadening the access frontier for financial service opportunities over time.[88] However, as Staschen argues, the role of regulation is not to promote microfinance or any sub-group of financial institutions, but to support the financial sector broadly while ensuring that public deposits are safe.[89] Given the high levels of subsidy in rural areas and rural development and potential for distortions, it is crucial to get the mix of private, government and regulatory supports right.

There needs to be a supportive regulatory environment where many options are possible: linkage, networking and graduation. For example, there are some innovations in India such as groups being allowed to be considered clients as in West Bengal or the MAC Act allowing federations to transform into formal cooperatives. Otherwise, these initiatives will be treated as little more than social programs, require ongoing subsidies and rural market distortions are likely to continue.

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[87] Chao-Beroff, *Constraints and Challenges*
[88] Porteous, D. *Making Financial Markets Work for the Poor*. FinMark Trust, 2004.
[89] Stefan Staschen, *Commentary and Reaction to Theme Paper- Legal and Regulatory Requirements for Effective Rural Financial Markets by Heywood W. Flesisig and Nuria de la Pena*, (Germany: Institute of Rural Development; Georg-August-University Gottingen with USAID BASIS-CRSP and WOCCU, 2003)

Some argue that all MOIs can not be treated with the same rules. An inclusive sector allows for a range of institutions and services. There may be room and demand for semi-formal and formal, graduated and linked, networked and non-networked, the permanent and the repeating. Siebel,[90] for example, describes a system of incentives that could allow for the graduation of informal financial institutions.

Stepwise incentives for mainstreaming as a service to IFIs

Mainstreaming	*Incentive*
1. Registration	Basic training (accounting)
2. Reporting	Financial management training
3. Legal status	Consultancy services in good practices
4. Prudential norms	Liquidity exchange and refinancing
5. Supervision	Accreditation with a seal of quality

The key to protection for depositors is careful control and tiering or graduating the institutions based on the financial services they are providing rather than by the type of institution. More sophisticated financial intermediation should trigger prudential regulation and external oversight.

Conclusion

When learning and adaptation take precedence over blue-prints, there is innovation and outreach. Neither romanticism about local or informal methodologies, nor rigid imported methodologies, seems to be the answer. Innovative rural, remote finance can learn from selfish genes because like all stable systems, they last. They are adaptive and they are replicable.

Adaptive means that they have built programs soundly on the best of local leadership and governance as well as strategic external supports. Self-

[90] Seibel, *Mainstreaming Informal Institutions, p.4*

replication has potential to significantly broaden geographical access in remote areas while strategic linked or networked strategies can deepen financial services through greater product diversification. Inclusive financial sectors have expanded options for remote populations as well within a graduated or tiered system that allows outreach without compromising the safety of public deposits. Technical assistance and subsidies are strategic and supports are minimal, strategic and or phased out over time.

Stable self-organizing systems last because they know how to learn. Stable self-organizing MOIs have the same potential to reach out to remote, rural populations effectively and selfishly.

Acknowledgements

I would like to thank and acknowledge a number of people for their support in writing this paper.

First, this paper draws on the literature review (forthcoming) written with Ahmad Jazayeri and Madeline Hirschland as part of a Ford Foundation study by the Coady International Institute on Member-Owned Institutions offering financial services in remote, rural areas.

Drafts of the paper, or sections thereof, have been reviewed for comment by Rewa Misra, Alfred Hamadziripi, Anuj Jain and Stuart Rutherford. Conversations with Hans Dieter Siebel, Klaus Fischer and Gloria Almeyda also helped to clarify my thinking around particular concepts and identify key resources.

Derek Cameron, the current Program Assistant to the Community-Based Microfinance area at the Coady Institute, reviewed several drafts of the report and provided invaluable feedback, formatting and editing support. Gord Cunningham gave some helpful suggestions. Kate Reid also provided some useful edits.

Any errors or omissions, however, lie solely with the author.

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