



INTERNATIONAL
FOOD POLICY
RESEARCH
INSTITUTE

2020
VISION
FOR FOOD, AGRICULTURE,
AND THE ENVIRONMENT

FOOD POLICY
REPORT

NETWORKS FOR RESILIENCE

The Role of Social Capital

QUINN BERNIER AND RUTH MEINZEN-DICK



NOVEMBER 2014

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ABOUT IFPRI

The International Food Policy Research Institute (IFPRI), established in 1975, provides research-based policy solutions to sustainably reduce poverty and end hunger and malnutrition. The Institute conducts research, communicates results, optimizes partnerships, and builds capacity to ensure sustainable food production, promote healthy food systems, improve markets and trade, transform agriculture, build resilience, and strengthen institutions and governance. Gender is considered in all of the Institute's work. IFPRI collaborates with partners around the world, including development implementers, public institutions, the private sector, and farmers' organizations.

ABOUT IFPRI'S 2020 CONFERENCE

The international conference "Building Resilience for Food and Nutrition Security," held in May 2014 in Addis Ababa, Ethiopia, was designed to inform, influence, and catalyze action by policymakers, nongovernmental organizations, the private sector, educators, researchers, and communities themselves to incorporate resilience into the post-2015 agenda and improve policies, investments, and institutions to strengthen resilience so that food and nutrition security can be achieved for all. Experts and practitioners from the resilience and vulnerability communities, as well as food and nutrition security, agriculture, humanitarian, and related development sectors came together to assess emerging shocks that threaten food and nutrition security, discuss approaches and tools for building resilience, identify knowledge and action gaps, and set priorities for action on this critical issue. For more information on the conference and its associated activities and products, go to www.2020resilience.ifpri.info.

This Food Policy Report is based on the peer-reviewed paper, *Social Capital and Resilience*, prepared for the conference.

IFPRI and its 2020 Vision Initiative appreciate the generous support of and active engagement with the consortium of partners for the 2020 Conference.



In partnership with the African Union Commission, IFPRI and its 2020 Vision Initiative are proud to contribute to the 2014 Year of Agriculture and Food Security in Africa.

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Editor: Andrew Marble

Design: David Popham

Layout: Lucy McCoy

Cover photo: © Giacomo Pirozzi/Panos

ISBN: 978-0-89629-567-4

DOI: <http://dx.doi.org/10.2499/9780896295674>

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ACKNOWLEDGMENTS

This report draws heavily on research by the CGIAR Program on Collective Action and Property Rights, in particular the work of Stefan Dercon, John Hoddinott, Pramila Krishnan, Tassew Woldehanna, Agnes Quisumbing, Scott McNiven, and Marie Godquin. This paper was originally prepared for the 2020 Resilience Conference and benefitted greatly from comments from Rajul Pandya-Lorch, Sivan Yosef, Gershon Feder, and Andrew Marble.

EXECUTIVE SUMMARY

This report investigates the under-explored role that local forms of social capital, in particular local organizations and social networks, play in enhancing resilience. The case studies used are of Ethiopian funeral societies and Filipino migrant networks.

MAIN FINDINGS

Local social capital systems can play a positive role in individual, household, and community risk-smoothing and risk-sharing practices by providing bonding, bridging, and linking capital that allow people to better cope, adapt, and transform. Impact is context specific, however, and can vary in the strength and the social group or groups covered. Community groups are also generally much more effective in dealing with shocks that affect individual members rather than many in the group, but face challenges when mobilizing resources that are outside of communities.

POLICY IMPLICATIONS

There are a number of steps governments can take to strengthen policy interventions designed to support and contribute to local-level resilience building:

- Do no harm—interventions that ignore or interact poorly with existing local forms of social capital can provoke a variety of unplanned negative impacts.
- Identify the bases and strengths of local social capital.
- Provide assistance for community groups to access external resources, be they from institutional entrepreneurs or local innovation support funds.
- Extend a long-term commitment to capacity building.
- Create institutional arrangements to encourage transformative investments from remittances.
- Strengthen inclusive social networks.

Resilience and Social Capital

THE GOAL OF IMPROVING RESILIENCE—THE CAPACITY OF AN INDIVIDUAL, HOUSEHOLD, community, or system to respond over time to shocks and to proactively reduce the risk of future shocks—is increasingly being incorporated into social protection policy.

As we seek to use public policy tools to strengthen resilience going forward, it is important to draw upon lessons from the past. Throughout history people have been facing shocks—both natural and man-made—and devising their own institutional responses to cope with, recover from, and prevent future impacts, even without government support or social policy.

Central to this coping capacity is the role of social capital. Social capital includes “features of social organization, such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit” (Putnam 1995, 66). More plainly, it can be defined as cooperation, trust, and social ties between individuals and groups of individuals.

Social capital can take many forms, but of particular interest to resilience, and thus to this report, are local-level organizations and less formal social networks. Understanding the contribution that these types of social capital, which exist prior to outside interventions, make to individual and community resilience is an essential first step for understanding government and policy interventions designed to support and contribute to local-level resilience building.

The contribution made by these social capital systems, however, has not been sufficiently examined. This report

helps fill gaps in our knowledge by looking at two case studies. The first, *iddirs* or funeral societies, is a type of local-level organization found in Ethiopia; the second is migrant networks in the Philippines. We use these case studies to begin to tease out the role these kinds of social capital play in individual, household, and community risk-smoothing and risk-sharing practices.

Based on this investigation, we then offer policy implications for addressing social capital in building resilience as part of an overall policy strategy of resilience building.

RESILIENCE

Resilience was originally a term applied to ecological systems. As a concept, scholars now apply resilience thinking to a number of theories that move far beyond the original ecological foundation, including by development practitioners and theorists (Barrett and Conostas 2013). Although there are competing definitions, they all bring together some combination of lessons from vulnerability studies, climate change adaptation, social protection, disaster-risk reduction, and development.

Generally speaking, resilient systems are diverse and redundant, with built-in overlap to ensure that the systems can continue to function in the face of shocks and to allow for

reserve resources to draw upon in times of stress and need (Mazur 2013). In addition, scholars highlight the importance of governance arrangements that encourage local-level participation and control in decisionmaking (Béné et al. 2012). Empirical studies indicate that good leadership, broad-based collective action, and community cohesion are important for dealing effectively with uncertainty and change (Boyd et al. 2008; Duit et al. 2010; Schwarz et al. 2011). While assets and capital are important as indicators of resilience, resilience also necessarily involves process-oriented changes, including changes to the ways individuals and communities learn, take advantage of new opportunities, and respond to events (Tschakert and Dietrich 2010; Jones et al. 2010). Resilience is a continual process of adjustment and change, both incremental and transformative, rather than something that is achieved through building up assets and stocks of capital alone. Moreover, diverging from its original ecological application, resilience for development seeks a general improvement in welfare over time, rather than just maintaining the status quo (Barrett and Constanas 2013). Conceptualizing resilience as a process that goes beyond buffering against shocks and ultimately endeavors to improve material conditions necessitates recognizing power and agency relationships that reproduce inequalities and contribute to vulnerability (Pelling 2011; Berman, Quinn, and Paavola 2012). Ultimately, resilience recognizes that both change and stability are important in the future and that systems need to be able to contribute to both.

In this report, we define resilience as the capacity of an individual, household, community, or system to respond over time to shocks and to proactively reduce the risk of future shocks; these actions contribute to growth and development rather than merely working to maintain stability. Resilience requires a diverse set of capacities to meet the reactive and proactive challenges posed by economic, political, environmental, and social shocks.

According to the approach used in this report, there are three central capacities for resilience (see the review in Keck and Sakdapolrak 2013):

- *Persistence, or coping capacity* refers to the ability of resilient systems to cope with shocks, ex post, and to restore well-being to current levels after the events.

- *Adaptation, or adaptive capacities* are preventive actions that individuals or communities employ to learn from experience or to reduce the impact of predicted shocks. The skills and resources required for adaptation are different than those required for coping and may require mobilizing additional outside resources or knowledge.
- *Transformative capacities* refer to people's abilities to change the larger structures and systems in which they live, implying adaptation at larger scales and thus a more radical shift.

Systems possess these elements to varying degrees, yet scholars argue that a balance of all three is needed to move toward resilience (Béné et al. 2012; Keck and Sakdapolrak 2013).

Many projects and policies promoted by governments and development agencies can be associated with coping, adaptive, or transformative capacity, as indicated in Table 1.

SOCIAL CAPITAL

A key focus of this report is the role that local forms of social capital play in building, maintaining, and strengthening these three capacities. We draw on a growing literature that suggests the importance of social capital (1) in individual, household, and community risk-smoothing and risk-sharing practices (Fafchamps and Lund 2003; Hoddinott, Dercon, and Krishnan 2009), (2) as a vital component of adaptive capacity (Adger 2003), and (3) as a key factor contributing to postdisaster recovery (Nakagawa and Shaw 2004). Practitioners often assume that the poor can easily develop, acquire, and utilize social capital; however, as many studies have illustrated, the poor face significant challenges in building and using social capital (Di Gregorio et al. 2012). Moreover, social capital by itself may not be sufficient to encourage proactive adaptive behaviors and changes (Dasgupta 2003); external interventions may be necessary to strengthen indigenous associations and support for resilience, risk-smoothing, insurance, and climate change adaptation (Adger 2000; Adger et al. 2002; Pelling and High 2005; Wolf et al. 2010; Scheffran, Marmer, and Sow 2012).

TABLE 1 Policy and project interventions to increase coping, adaptive, and transformative capacities

COPING CAPACITY	ADAPTIVE CAPACITY	TRANSFORMATIVE CAPACITY
<ul style="list-style-type: none"> • Social protection • Social transfers • Pension programs • Public works programs 	<ul style="list-style-type: none"> • Social transfers • Livelihood diversification • Crop insurance • Access to credit • Asset transfers • Seed starter packs • Access to common property • Public works programs • Farmer federations for improved access to markets 	<ul style="list-style-type: none"> • Promotion of minority rights • Farmer federations to influence agenda • Participatory budgeting • Antidiscrimination • Social funds

Source: Adapted from Davies et al. (2013).

We draw a parallel between the three coping capacities introduced above—coping, adaptive, and transformative—and three types of social capital: bonding, bridging, and linking:

- *Bonding social capital* focuses on social cohesion, through peer groups, often based on ethnicity, location, religion, and shared values. It can be created and reinforced by working together.
- *Bridging social capital* refers to relationships or networks that cross social stratifications and identities, involving coordination or collaboration.
- *Linking social capital* creates the opportunity to engage with external agencies and to influence policy (Woolcock and Narayan 2000).

Woolcock and Narayan (2000) observed that while the poor tend to have strong bonding social capital and some bridging capital, they may often have very little linking capital. All three types of capital may exist simultaneously in a community, and each may play a different function in helping to improve the outcomes of different projects or interventions (Njuki et al. 2008).

Our contribution is to apply a framework to identify ways to complement and strengthen these activities, so that policymakers and practitioners might be better placed to understand and build on existing social capital and institutional arrangements. This framework is a useful way to evaluate existing social capital arrangements and to consider how policy interventions can build up, or at least not undermine, these different capacities in order to strengthen individual and community resilience.

Community Organizations

COMMUNITY ORGANIZATIONS, AS CONSIDERED IN THIS REPORT, HAVE A VARIETY OF functions and can occur in a variety of forms. We define community-based organizations as local groupings of individuals that can be either informally organized or formally registered. While some community-based organizations are founded through outside interventions, many have originated through local initiative, either recently or even generations ago. These organizations can undertake a wide variety of tasks, serving to implement and manage shared natural resources, collectively market agricultural goods, offer credit, or perform civic and religious functions. In addition, community groups are often used as mechanisms for interventions in order to achieve efficiencies in reaching more members and to facilitate the transfer of information and resources. This report focuses on their potential contributions to the three capacities outlined above: coping, adaptation, and transformation.

Bhattamishra and Barrett (2010) identify several different risk-management functions for community-based organizations: mutual insurance, insurance for major life events, savings and credit facilities, social assistance facilities, and public goods and services. Within these functions and groups, a diversity of arrangements exists, ranging from those with more formal codified rules to informal organizations that depend on social enforcement mechanisms. However, all are based upon bonds of trust and interpersonal relationships. In addition, Agrawal (2010, 179–189) identified three roles that groups and local organizations play in adapting to climate change: (1) local institutions structure environmental risks and variability, and thereby the nature

of climate impacts and vulnerability, (2) they create the incentive framework within which outcomes of individual and collective action unfold, and (3) they are the media through which external interventions reinforce or undermine existing adaptation practices. Thus, groups can have an important impact on resilience by building on relationships of trust and interaction, but also by increasing access to outside actors and resources (Di Gregorio et al. 2012) and encouraging the adoption of new technologies (Tumbo et al. 2013). Collective-action institutions, such as producer organizations, can effectively allow members not only to share risk but also to diversify income, access new markets, and learn new skills and technologies, all of which have important implications

for building diversity into social systems (Markelova et al. 2009; Hellin, Lundy, and Meijer 2009).

In addition to these roles, groups can facilitate the collective action necessary for the adoption of or coordination necessary for improved natural resource management (Knox, Meinzen-Dick, and Hazell 2002; German et al. 2012) and can play an important role in ensuring access to common-pool resources, which resource-poor households often rely on to supplement their livelihoods and as part of their household risk-diversification strategies (Beck and Nesmith 2001). Several studies have emphasized the importance of increasing diversity of income, livelihood strategies, and income sources for managing and smoothing risk and for escaping poverty (Krishna 2004; Krishna et al. 2004; Sabates-Wheeler, Mitchell, and Ellis 2008; Below et al. 2012)—groups can play a role in all of these functions. Ratner, Halpern, and Kosal (2011) and Ratner and others (2013) further demonstrated the role of local collective action for reducing conflict, which is another important source of vulnerability.

Development practitioners have long emphasized group- and community-based approaches because they theorize that community groups can help to ensure local participation, increase demand for good governance, reflect local priorities, make projects more sustainable, lend increased legitimacy and accountability at the local level, and, in the case of social protection programs, provide effective targeting services (Mansuri and Rao 2013). Local groups function effectively to manage risk because they are able to reduce information asymmetries and can rely on social mechanisms for enforcement; such groups are more likely to form in an environment of trust, such as among family, kin, and close friends and neighbors (Attanasio et al. 2012). One very well-known example of such a group is the microfinance organization, which pools community resources and offers credit and loans to customers who cannot access more formal credit opportunities.

These groups can evolve and take on new roles and new responsibilities over time. Starting small and based on relationships of friendship and kinship, self-help groups among the Kuria in Tanzania evolved to take on an expanding role in helping women and marginalized community members share risk, diversify their livelihoods, and learn new activities. Despite their expanding scope, the groups still based their legitimacy and acceptance on

their original foundations (Rodima-Taylor 2012). Grassroots Organizations Operating Together in Sisterhood (GROOTS) Kenya demonstrates a similar evolution. It started as a group to help people living with HIV/AIDS. Group leaders recognized the value of holistically and systematically addressing women's empowerment, and now group activities encompass legal activities, agriculture, and women's empowerment (Mwaura-Muiru 2006; Asaki and Hayes 2011). Other opportunities still exist for local groups to expand their role into new areas of responsibility, such as providing information on new technologies or agricultural practices. Understanding how local groups function and what services they provide for community members is necessary to understand their potential for building resilience and resilience capacities.

However, while they may facilitate the accumulation of assets and help members accrue various types of capital (economic, social, political), local groups may also operate on unequal terms, with barriers that exclude vulnerable members of the community through restrictions based on sex, religion, caste, or other socioeconomic divisions (Chambers 1983, 1997; Nabi et al. 1999; Cleaver, Cooke, and Kothari 2001; Agarwal 2001; Mwangi, Markelova, and Meinzen-Dick 2012). Moreover, the risk-sharing nature of these forms of local collective action are often limited to dealing with idiosyncratic shocks that affect only a few individuals or households, such as illness or death, as opposed to more widespread covariate risks, such as crop failures from droughts or floods (Mwangi, Markelova, and Meinzen-Dick 2012). With predicted climate changes, dealing with covariate risks will be increasingly important.

A long history of empirical work on collective action and local groups suggests that local groups may have limited impacts if not backed by external support (Meinzen-Dick, Knox, and Di Gregorio 2001) and that they are able to achieve greater power by connecting to higher levels (Di Gregorio et al. 2012). Federations of local groups or producer groups can sometimes effectively convert social capital to political capital, but they face the same challenges that local groups face in ensuring that such efforts are accessible to everyone in the community. One example is the Federation of Community Forest Users (FECOFUN) in Nepal, a federation of district and regional forest users' groups, which effectively lobbies at a the national level for

implementation of the community forest law. However, while the group is effective at the national level, local-level participation by poor and marginalized members remains limited (Timsina 2003). In addition, the services and benefits offered by federations and associations may not be accessible to all members; a review of the commercialization and agribusiness promotion efforts of the National Association of Smallholder Farmers in Malawi found that farmers with higher levels of household labor, assets, and food security were more likely to participate in and benefit from such programs (Chirwa and Matita 2012).

Despite efforts by policymakers and development organizations to support and deepen these collective-action institutions, few empirical studies rigorously demonstrate external impact on local collective-action organizations (Mansuri and Rao 2013). Moreover, interventions by external agents may not prove to be neutral. External funding for microcredit groups in Kenya raised their level of prestige; as a result, after the intervention, increased participation (and leadership) of wealthier, better-educated men and women, coupled with the exit of poorer, marginalized participants, altered the composition of the group (Gugerty and Kremer 2008). Indigenous funeral associations in Tanzania and Ethiopia view external support with suspicion because they have a checkered experience with attempts at state co-optation, which limits their ability to engage with non-governmental organizations (NGOs) and outside actors (Dercon et al. 2006). In addition, scholars fear that such external interventions could crowd out local, indigenous efforts. So far, however, the evidence on such crowding out has proven inconclusive (Barrett 2006; Bhattamishra and Barrett 2010). Some evidence from Mexico has suggested that poor households that receive cash transfers extend gifts and loans to other households in order to expand their risk-sharing networks (Angelucci and De Giorgi 2009), while Dercon (2004) provided some evidence that food aid “crowds out” traditional community transfers.

ETHIOPIAN IDDIRS

Iddirs in Ethiopia provide an example of local organizations that contribute to resilience. These are burial societies or funeral organizations in which members meet monthly and contribute a small payment. Upon death of a member, they make a payment to surviving family members. They are

formally organized, most often maintaining written records of contributions and payments. Funeral groups are found in many societies but are particularly prevalent in Ethiopia. They are an instructive case for examining the three outlined capacities for resilience (coping, adaptation, and transformation).

Our discussion is largely based on Dercon and colleagues' (2012) analysis of survey results collected by the International Food Policy Research Institute (IFPRI), the Economics Department of Addis Ababa University, and the Centre for the Study of African Economics at the University of Oxford. The survey found that respondents commonly reported facing drought shocks (46.8 percent); the death of a household head, spouse, or other person (42.7 percent); and illness of a head, spouse, or other person (28.1 percent). In addition to these shocks, households faced shocks related to pests or agricultural diseases, livestock diseases, crime, and access to inputs, as well as policy-related shocks. This section summarizes findings from the 2004 survey round, focusing on villages south of Addis Ababa, where illness shocks reportedly had the largest effects on consumption.

Membership in iddirs is widespread; 90 percent of survey respondents reported belonging to at least one iddir, with 41 percent of households belonging to more than one iddir. Only 4 percent claimed that the monthly contribution proved too steep. In the sampled iddirs, membership rules varied: some had no restrictions beyond payment, while others were limited to members of the same church or mosque, restricted to women, or had some other type of restriction.

Initially functioning just as funeral societies, iddirs have expanded to cover additional shocks that are harmful to members. Dercon and colleagues (2012) reported that in addition to assisting with funeral expenses, sampled iddirs also provided cash or loans for dealing with fire, loss of livestock, destruction of houses, weddings, illness, harvest loss, or other events. The authors particularly focused on iddirs that provided health insurance, which survey data have demonstrated to be effective at reducing the consumption-related impacts of health shocks.

In order to manage the provision of health insurance, iddirs created new rules and ways to manage and address issues of adverse selection and moral hazards. The survey found that iddirs that imposed membership restrictions were more likely to offer health insurance. These restrictions included

geographic and religious distinctions. All iddirs that provided health insurance also undertook additional efforts to overcome asymmetric information; geographic restrictions ensured that neighbors and family members could observe that the money destined for medical use was actually put to that purpose. Some iddirs also sent members to check that expenses were used for medical costs either by conducting house visits or verifying the need for such expenses before distributing loans. Iddirs that were likely to offer health insurance used a variety of mechanisms to ensure sustainability and viability, such as including members of diverse ages or creating payment schedules that were linked to group income.

ETHIOPIAN IDDIRS AND RESILIENCE

Below, we apply the framework introduced earlier to consider how iddirs contribute to social resilience.

Coping Capacity

Iddirs help to reduce the impacts of idiosyncratic shocks by covering health costs and expenses associated with burials. Innovations by iddirs ensure that payments are used for these activities and expenses, which have demonstrated impacts on poverty and household consumption. These groups, furthermore, are based on bonds of trust and reciprocity, deepening the bonding social capital of these communities. The collective-action literature suggests that these long-established relationships of trust and reciprocity may be effective for encouraging and motivating future collective action. Iddirs may work in tandem with the government-established Productive Safety Nets Programme (PSNP) to cover the basic needs of the communities. A limitation of such programs is that they do not seem to be able to deal with covariate shocks, only idiosyncratic shocks. In addition, if not all are allowed to be members, these groups may not be reaching those who need the assistance most. Furthermore, the limited funding for only healthcare costs may pose a larger problem for families who rely on agricultural labor or income, which is lost as a result of illness. Thus, the coping mechanism of the iddirs cannot smooth consumption for all families equally and may not be sufficient to help such member families “resist” shocks. The evidence does show, however, that these insurance mechanisms do manage to help their members avoid the worst of the consumption-related shocks that result from healthcare expenses. Healthcare

expenses have been demonstrated in many other contexts to be one of the key factors that contribute to and keep families in poverty (Krishna 2004; Krishna et al. 2004).

Adaptive Capacity

The iddirs demonstrate a commitment to learning, innovation, and flexibility, having evolved in their mandate to offer health insurance products for their consumers. Moreover, with their enforcement and accounting mechanisms they demonstrate effective governance rules and regulations. In addition, they help communities cope with uncertainties and unexpected expenses—yet often do not cover other additional expenses of ill health, such as lost income. They do not currently offer much in the way of proactive adjustments to shocks, although there has been discussion of using their existing social infrastructure for microfinance. Iddirs are further constrained by their need to rely on trust and interpersonal relationships. In addition to the monetary funding requirement, which reduces their diversity, Iddirs that offer health insurance all employ barriers to entry that can be geographic or social.

Transformative Capacity

Iddirs, by relying exclusively on local assets and capacities, seem to do little to build the transformative capacities of communities, households, and individuals. There is, however, potential for transformative capacity in the very nature of their governance and in the experience of having effective local institutions to work with and to build upon. Iddirs also seem to be constrained in this role because they have long been seen as separate from the state and may be reluctant to engage in politics. Furthermore, the space for engaging in politics may not be available to them.

Applying this framework suggests that while iddirs build social resilience for food and nutrition security mainly through their focus on coping capacities, they are not as focused on building the adaptive and transformative capacities of communities. Because not everyone has the same set of resources and access to iddirs, such voluntary community organizations with some form of “buy-in” may exclude the most poor and marginalized. Furthermore, even within the context of coping capacity, iddirs are not suited to deal with covariate shocks, such as a natural calamity that affects most members of a community at the same time.

Social Networks

WE DEFINE SOCIAL NETWORKS AS TIES, NOT BOUNDED BY ORGANIZED GROUPS, THAT facilitate the informal exchange of information or materials, such as seeds or fertilizer, or resources (Meinzen-Dick et al. 2014). Such ties can include kinship, ethnic, religious, friendship, or patron-client relationships. Social networks are important to consider in any discussion of resilience because they describe with whom and how individuals interact and also affect the distribution of resources.

Various studies have suggested that social networks can have a positive impact on the adoption of new technologies (Bandiera and Rasul 2006; Isham 2002; Njuki et al. 2008; Tumbo et al. 2013), and farmers often rely on social networks as a trusted and reliable source of information (Magnan et al. 2013). These networks include “strong” ties that facilitate discussion, experimentation, and the exchange of information on more complex subjects as well as “weak” ties between institutions and individuals that aid in the search for information (Spielman et al. 2010; Darr and Pretzch 2008). Different types of networks may be more effective at encouraging the adoption of different types of practices, information sharing, resource distribution, and contribution to different outcomes. For example, Kiptot and colleagues (2006) found that in Kenya the kinship and informal networks through which farmers shared information about improved fallow and improved fallow seeds were more effective at distributing the seeds than they were at ensuring the flow of accurate information about these practices and technologies. In addition, social networks

with bridging and linking functions may help communities and individuals secure access to resources outside of the community. Thus, the various dynamics of the different networks may have differential impacts on the outcomes.

Patron-client relationships are important for many smallholders around the world, distributing goods and information across a social hierarchy. In the best of situations, these relationships can enable poorer households to access networks of resources, power, and information, and provide recourse for the clients in a wide range of emergencies, from crop loss to medical and family crises. These have long played an important role in the livelihood strategies of the rural poor (Scott 1976) and continue to play an evolving role in the climate change adaptation strategies of farmers as another resource upon which to draw (Onta and Resurreccion 2011). However, not all patron-client relationships necessarily make the same contribution toward building resilience, inasmuch as they involve power dependencies and may further deepen inequalities (Pelling and High 2005). Putnam (2004) and Szreter and Woolcock (2004)

distinguished between responsive and unresponsive linking capital. Unresponsive linking capital tends to reinforce nepotism and concentrates power unequally, making such relationships exploitative. Periods of repeated and extended crisis can also alter the social fabric and the networks that individuals rely on. As Vervisch, Vlassenroot, and Braeckman (2012) argued, the extended food crisis in Burundi, resulting from civil conflict and recurring droughts, overwhelmed traditional safety nets and made people more likely to rely on unresponsive linking capital and patron-client relationships, reducing their resilience.

Norms and patterns of behavior create unequal opportunities between men and women to access and draw upon social networks. Bantilan and Padmaja (2008) found that in India, women developed bonding social capital through kin networks and women-only groups, while men developed bridging social capital, involving weaker, less dense ties, with farmers and acquaintances from different ethnic groups. They suggested that the development of these networks made it more difficult for women to access outside opportunities and reinforced female dependence on men. A recent study of men's and women's agricultural networks, again in India, found that while women's networks were as large as men's agricultural networks—and in the case of poorer households, larger—the composition of the networks varied in significant ways. Women were likely to connect with poorer households that were less likely to adopt new technologies, while men, even with smaller networks, tended to connect to wealthier farmers and more early adopters (Magnan et al. 2013). These differences would mean much less exposure to new technologies and practices for women, and likely lower adoption rates of these practices. In the same vein, since social networks are socially determined, it is difficult to correct for original disparities in structure, size, or reach. Quisumbing (2009) found that increases in male or female education in Bangladesh resulted in strengthened networks with different actors, largely because of the very different spheres of influence men and women have. The importance of social networks also may vary with socioeconomic status; Njuki and others (2008) reported a negative correlation between land size and bonding social capital for the adoption of soil and water conservation technologies in Mozambique, suggesting that social capi-

tal is less important for the larger landholders, who may have more alternatives.

Within kinship networks, moral obligations of reciprocity and sharing are supported by customs and norms, and may allow individuals to claim and receive assistance in times of need. These expected behaviors and the social pressures for redistribution among kin provide a form of safety net (coping capacity) as well as connections and opportunities for occupational diversification or advancement that contribute to adaptive or even transformative capacity. However, they may also reduce incentives to advance if the benefits must be shared with others, perhaps resulting in socially suboptimal outcomes or in evasive or less-than-honest sharing among communities and individuals (for example, see Di Falco and Bulte 2013).

Migration, as both a response and an adaptation to shocks, creates, disrupts, and expands social networks, with important implications for the resilience of individuals and communities (Scheffran, Marmer, and Sow 2012). Through migration, individuals whose social networks include out-migrants gain access to outside resources, can diversify income through remittances, gain knowledge, and spread risk across larger scales, increasing the diversity of their networks (de Haan et al. 2000). Migrants can help to build social networks that provide important sources of income. The networks of people from their own background or community that migrants themselves are able to tap into are crucial to short-term support in times of crisis, but also to longer-term occupational opportunities that lead to adaptive and transformative capacity. Remittances provide significant resources not only to individuals but to local and national economies (Canuto and Raffa 2011). Migrant networks can be powerful tools to tie communities together (Woodruff and Zenteno 2007). Yet migrant-sending households are necessarily investors, often sacrificing some of their household labor, which leads to a decrease in the intensity of farming operations back home (Deshingkar 2012; Rademacher-Schulz, Schraven, and Mahama 2014). In addition to labor shortages, research from Mexico and India finds that outmigration contributes to disintegration of local governance and community organizations, and reduces access to natural resources and livelihood options for the remaining community members (Robson and Nayak 2010). Thus, migration is a double-edged sword for resil-

ience; while it may promise extra resources and information, it may also reduce the ability of communities to rely on certain resources. Moreover, international and skilled migrants tend to remit larger amounts of money, compared with regional or unskilled migrants (Deshingkar 2012), suggesting that such migrants may increase the inequality of initial conditions between poorer households and those that are able to educate and finance sending members abroad.

PHILIPPINE MIGRANT NETWORKS

Quisumbing, McNiven, and Godquin's (2012) longitudinal study in southern Bukidnon in the Philippines provides an example of how social networks can affect resilience. The 2004 round of a survey conducted by IFPRI and the Research Institute for Mindanao Culture, Xavier University, interviewed parents who were original respondents and households formed by children who no longer lived in their origin villages. The analysis that follows is based on data for 305 of the parent households from the surveys. This study found that networks were quite common in this area and that respondents belonged to many networks dealing with social and economic issues. Virtually all households reported at least one person whom they could rely on for help in various matters. Of the various types of networks, 75 percent of households reported a network for smoothing economic losses, 69 percent for getting price information, 58 percent for assistance with family problems, 53 percent for care of the house, and 48 percent for technology adoption. The size of these networks did not depend on the number of groups that an individual belonged to but was correlated with human and physical capital, including education and asset level.

This study found that migrant networks and local social capital acted as substitutes for each other and that sons and daughters played different roles in social and economic networks. The authors suggested that this was due to the ways in which boys and girls are socialized: girls are socially obligated to support parents and families and, by virtue of living elsewhere, serve as important sources of information for new technologies and prices, while sons who live in separate households within the village are more likely to engage in agricultural production themselves and may be seen as a local source of technology information for parents.

The authors found that households that experienced more negative shocks between 1984 and 2002 belonged to more groups in 2003, which is consistent with the hypothesis that groups perform an insurance function. There was statistically weaker evidence that the number of shocks experienced after 1984 increased the number of persons to whom a household could turn for assistance in 2003. Households relied on pre-existing personal relationships for economic networks.

In this study, remittances appeared to have a consumption-smoothing function. The number of cumulative shocks up to 2002 increased the likelihood of receiving remittances and the amounts received. A daughter's education also increased remittance receipts, which indicates that "households' risk management strategies involve investing not only in local networks but also in migrant kin networks" (Quisumbing, McNiven, and Godquin 2012, 101). An increasing number of migrants per household was associated with a decrease in expenditures on clothing and footwear, family events, alcohol, tobacco, and health, but remittances, on the other hand, had a significant positive impact on spending on housing and consumer durables, and on the total value of assets. Remittances led to an increase in expenditures on clothing, footwear, and education.

PHILIPPINE MIGRANT NETWORKS AND RESILIENCE

Applying our resilience framework to Philippine migrant networks reveals the following insights:

Coping Capacity

The survey results suggested that social networks do play a coping role, for investment in these networks rises after a shock. To the extent that assistance through social networks is limited to family and limited by social obligations of reciprocity, such networks would have a limited effect on the ability to cope with more widespread shocks. However, the response of the Filipino diaspora to rebuilding in the wake of Typhoon Milenyo in 2006 illustrates that migrants can be a resource for resilience beyond their immediate kin. While donations channeled through the LINKAPIL Program (in English, Link for Filipino Development Program) flowed mainly toward migrant-sending regions, the diaspora donors directly funded areas that had suffered from natural disasters (Sawada et al. 2009).

Wealthier individuals seemed to have larger networks to rely on, thus making social networks a potential source of rising inequality in villages. Migrant networks increased the diversity of social networks, so the social networks thus expanded may have been more likely to help their members manage more widespread risks. However, the costs involved in sending migrants may have been prohibitive, again with inequality implications for a reliance on organic networks as a resilience-building tool. In addition, migrant networks seemed to act as a substitute for local networks, which may have counteracted the impacts of improved diversity.

Adaptive Capacity

Migrant networks, and social networks in general, help their members connect to information sources and resources. These outside resources may diversify against local shocks and encourage proactive investment, initiate a learning process, and enable the accumulation of human capital through education (Sakdapolrak, Promburom, and Reif 2014). Investing in these migrant networks demonstrates some

foresight and planning itself. However, the social dynamics of relying on daughters and investing in migrant capital at the expense of local social capital may limit the exposure of households to new ideas at the local level.

Transformative Capacity

Migrant networks help to diversify and bridge across scales, though this effect is somewhat diluted if the migrant networks come at the expense of local networks. However, even if migrants return home, they would potentially bring home with them skills and new ideas.

Overall, social networks prove to be an important mechanism for coping and, through the addition of migrant networks, for bringing in additional resources. However, there is a risk that, because individuals are not able to draw on the same resources through their social networks, relying on these networks for resilience may increase social inequalities. In addition, severe communitywide shocks may overwhelm the capacity of social networks to respond and function.

Policy Implications

THIS REPORT HAS ARGUED THAT A BETTER UNDERSTANDING IS NEEDED OF THE ROLE that existing social capital can play in building resilience—in strengthening the absorptive, adaptive, and transformative capacities of communities and individuals. Resilience is clearly an interest of policymakers, who implement many projects and policies to build resilience at the community level. In designing interventions, therefore, governments should take care to ensure that their efforts work with and strengthen resilience-building capacities of locally occurring forms of social capital.

LIMITS OF SOCIAL CAPITAL

First, it is important to recognize the limits of local social capital. We should not be overly optimistic about the potential for local forms of social capital to contribute to favorable outcomes alone (Pretty 2003). How social capital relations function is a part of the existing social structure, and not all communities have an existing stock of social capital upon which to draw (Mansuri and Rao 2013). Some of the limitations of extant social capital are listed below:

- *Strength*: Local institutions that have been strong in the past may no longer function as well, especially when customary authority or mutual dependence is eroded, such as by migration or occupational diversification.
- *Exclusiveness*: Gender, poverty, wealth, and other forms of power relations certainly shape both groups and social networks, often excluding certain people,

especially the very poor, women, low castes, or marginalized ethnic groups. Thus, other safety nets, including state programs, are needed to provide more complete coverage.

- *Idiosyncratic versus covariate shocks*: Community groups are generally more effective in dealing with idiosyncratic shocks that affect individual members than in dealing with covariate shocks that affect many in the group.
- *Mobilizing external resources*: External resources can help to deal with covariate shocks, but one of the limitations of many local groups is that they are not effective in mobilizing resources that are outside of communities.

Understanding these limitations is important for identifying how interventions can complement local capacities.

RECOMMENDATIONS FOR POLICYMAKERS

The critical policy question thus becomes how to strengthen and deepen social capital using policy and interventions to fill gaps where and when necessary and without reducing its existing benefits. Below, we highlight our general recommendations for policymakers:

Do No Harm

A fundamental guiding factor for policy and programs should be “do no harm.” Interventions that ignore or interact poorly with existing local forms of social capital can provoke a variety of unplanned negative impacts, from elite capture to destruction of existing social capital (Kamoto et al. 2013). The most damaging cases are when coercive or absent governments suppress existing social linkages, or when they force vulnerable groups to rely on exploitative linkages (Adger 2003).

Identify the Bases and Strengths of Local Social Capital

The forms and strengths of local social institutions are context-specific, but a starting point is to identify the types of groups that are operating in an area. This requires looking beyond formal organizations (such as farmers’ cooperatives) to include unregistered or informal groups such as labor exchange, funeral societies, or religious groups. Consider which types of individuals participate in the groups and what functions they perform, both in normal times and when emergencies arise.

We often find that such groups have strengths in dealing with issues that require detailed local knowledge and can rely on social norms for enforcement mechanisms, such as iddirs’ monitoring of members who receive health insurance payouts. These practices are based on important norms of trust but may lay the groundwork for expanding their action in the future.

Social networks such as kinship groups represent another source of social capital for resilience. These networks may go beyond the local area. Migrant networks help to diversify livelihoods and bridge across scales, though this effect is somewhat diluted if the migrant networks come at the expense of local networks. However, even if migrants

return home, they would potentially bring home with them skills and new ideas.

Mobilize External Resources

Helping community groups access and use external resources may strengthen the ability of local organizations to build resilience to face covariate shocks. Some specific efforts have been used to support:

Institutional entrepreneurs: Krishna (2002) argued that social capital can be made more effective through local agents who connect communities to resources, helping them navigate through governments or NGOs. These lessons connect to the literature on the importance of “institutional entrepreneurs” who can help to ensure that innovations cross boundaries and that existing social networks are able to leverage connections and resources to effect changes (Moore and Westley 2011). Leadership development programs, local forums, local leaders, and externally funded facilitators can help to foster such institutional entrepreneurs, although these strategies do not guarantee that such entrepreneurs will emerge or be effective at encouraging proactive and forward thinking for adaptive and transformative capacities, nor at confronting widespread covariate risks.

Local Innovation Support Funds: A pilot project through the Dutch based NGO Prolinnova provided local innovation support funds to local farmers to test and implement new agricultural ideas. This project centered on three basic principles: (1) funds made accessible directly to farmers, not to development agencies for work with farmers, (2) funds used for innovation, experimentation and learning by farmers, and (3) farmers and their organizations play a strong role in decision-making about fund allocation. Prolinnova found that small amounts of money funneled directly towards farmers increased and supported innovation at the farmer level. In order to scale up such an approach, Prolinnova suggested a variety of institutional arrangements for housing such funds, including adding it to government ministries as well as establishing separate organizations.

Adaptive Comanagement: Consider lessons learned from the adaptive comanagement of natural resources, a

learning-by-doing approach to sharing responsibility for managing natural resources such as forestry or fisheries. Under this approach, higher-level institutions support and engage local-level institutions and resource users, with particular attention to their capacity needs, leadership needs, and ability to evaluate and make decisions (Plummer 2013). Adaptive comanagement takes a long-term view, with multiple feedback loops for learning between local users, scientists, and higher-level institutions, and offers an approach that evolves over time in response to lessons learned and a changing context (Plummer et al. 2012). This approach requires careful consideration of how outside institutions and interventions support and engage with local-level actors through support with resources, enforcement, and monitoring (Berkes 2009).

If external resources are to be channeled through community groups, such as in response to a disaster, it is important to examine who will receive the benefits and who will be excluded.

Extend Long-Term Commitment to Capacity Building

Financial resources by themselves may not be enough; what may also be required is commitment to building the skills and investing in opportunities to increase local capacity. Building and strengthening local social capital requires a longer-term commitment to capacity building, as well as a state that is responsive to community demands and needs (Mansuri and Rao 2013). Achieving this requires attention to the arrangements that govern the distribution of power and the way in which those with decisionmaking authority interact with communities and community-based organizations.

External facilitators and actors can help to contribute to effective and deliberative decisionmaking and policymaking. For example, a project in Cambodia's Tonle Sap Lake used the appreciation-influence-control (AIC) model of participatory stakeholder engagement to create a shared understanding of the sources of vulnerability in fisheries livelihoods and to motivate collective action to support local level resilience. As a result of the AIC, the initiative achieved a number of successes, including the transfer of a large commercial fishing concession to community access, and resolution of a boundary dispute involving community fishery organizations in

neighboring provinces. The researchers suggested that, by introducing a structured process of stakeholder engagement, this approach allowed participants to develop new partnerships and patterns of interaction. These new partnerships contributed to collaboration around a wide range of initiatives, from local to national or regional scales (Ratner, Mam, and Halpern 2014). Similarly, the African Highlands Initiative found that external support for "horizontal" negotiations between local communities helped to broker greater collective action—especially when combined with inputs and resource support (German et al. 2012).

Engaging with community groups can at times run the risk of co-opting them or diverting them from their original goal. When higher-level government institutions work with local groups, they must recognize and assess the possibility of expanding the community groups' ability to engage effectively in the required capacities, while remaining ready to intervene when a different mechanism can be more effective.

Create Institutional Arrangements to Encourage Transformative Investments from Remittance

Some governments have capitalized on migrant remittance flows as a potential transformative source of capital for co-development schemes, which leverage the savings of migrants to invest in their home communities. The government of France (a migrant-receiving country) has programs that provide incentives for immigrants to invest in their home countries, in addition to other initiatives designed to support and build professional capacity (Panizzon 2011). Some migrant-sending countries, like Senegal, have explored ways of connecting with the diaspora to utilize their investments in public infrastructure and other areas (Panizzon 2011). In Mexico, a government-backed institution supplies mortgage insurance and backing to mortgage providers who extend financing to migrants (Gupta, Pattillo, and Wagh 2009). The crucial question is whether these arrangements complement or substitute for government investment and foreign aid flows (Baldé 2011).

In terms of harnessing the resources and potential of social networks, governments and policymakers should pay attention to the policy environment to ensure that institutions and incentives are in place for the productive use of resources and to allow remittances to complement gov-

ernment and donor expenditures and investments (Baldé 2011). However, to build transformative and adaptive capacities, these remittances must be seen as additional funding sources capable of amplifying the reach of traditional resources, rather than as replacements for government or donor support for infrastructure, livelihood development, and credit outreach.

To ensure greater investment in productive enterprises, governments should make efforts to provide opportunities and incentives that enable and encourage the flow of remittances into investments that reduce vulnerability to shocks, whether economic or climatic. This involves supporting the following efforts:

- The development of financial instruments to allow for remittances with low transaction costs (Gupta, Pattillo, and Wagh 2009)
- The development of national- and local-level institutional arrangements that encourage, complement, and facilitate investments in productive activities; this may require coordination between the public and private sector
- Communications technologies that strengthen interactions among network members, which is important both to maintain the quality of the social ties that motivate mutual assistance as well as to transmit ideas and knowledge that contribute to transformative capacity

Strengthen Inclusive Social Networks

Different types of social networks have different uses and strengths. Those implementing project and policy interventions must understand and appreciate the function of the social networks that the interventions employ, recognizing who is included, who is excluded, and what types of information and knowledge are passed along.

Project and policy interventions that improve interactions between individuals, communities, and outsiders can help to facilitate the development of social networks as well as the use of the higher-level skills of communication, experimentation, and so on that are necessary for improving adaptive and transformative policies.

Established fora for sharing and spreading knowledge play an important role in supporting and deepening village-level social networks in South Africa and Mozambique (Osborne et al. 2010). New technologies—such as mobile phones, video, and television—can help farmers communicate and expand their networks as well as learn about new practices (Zossou et al. 2009). However, policymakers should pay close attention to the inclusiveness of these networks, including understanding who gains access to new information and resources and who remains excluded. The literature on social learning suggests various techniques that can be used to help deepen and encourage knowledge and feedback among communities.

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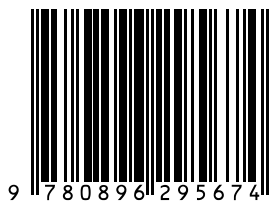
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ISBN 978-0-89629-567-4



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