

Interventions to promote social cohesion in sub-Saharan Africa

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This article presents a synthetic review of impact evaluations examining the effectiveness of community-driven development (CDD) and curriculum interventions in improving social cohesion in sub-Saharan Africa. The review found weakly positive impacts of CDD and curriculum interventions on social cohesion outcomes, although only two findings were replicated across studies: one positive and one negative. Causal chain analysis of data on implementation and contextual factors relating to the CDD interventions found that broad and substantive participation was often lacking, suggesting the interventions have often not been carried out in accordance with the theory of CDD.

Keywords: social cohesion; social capital; evaluation; Africa; community-driven development; participation

1. Introduction

The role of social cohesion in promoting sustainable development has received increased attention in both development theory and practice in recent years. A number of studies have demonstrated a strong correlation between measures of social cohesion and development outcomes (Ritzen *et al.* 2000, World Bank 2005, Easterly *et al.* 2006, Ferroni *et al.* 2008, Hayami 2009). Based on such findings, recent pronouncements by governments and major international agencies reflect a widely-held belief that social cohesion provides a foundation for growth and development. The 1995 Copenhagen Declaration on Social Development formally promoted social cohesion, along with other social goals such as equity, to being a central tenet in current development practice (United Nations 1995). The World Bank subsequently established its Social Development Department, which associates improvements in social cohesion with shared and sustainable economic development (World Bank 2005). Attention to social cohesion is also evident in the mainstreaming of post-conflict reconstruction and peacebuilding programming in the major development banks and national development agencies. The World Bank has become increasingly engaged in post-conflict initiatives, and national development agencies have, over the past decade, expanded official development assistance regulations to include certain types of post-conflict interventions.

This appreciation of the role of social cohesion has prompted development agencies and non-governmental organisations (NGOs) to attempt interventions to increase its supply. With over a decade of such programming behind us, a clear sense of ‘what works’ is in high

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demand. This report thus provides the results of a synthetic review of development, reconstruction, and peacebuilding interventions in sub-Saharan Africa aiming to generate social cohesion. We focus on sub-Saharan Africa since it is the site of a significant share of social cohesion programming and because the continent is experiencing pressing development and peacebuilding challenges. While the continent exhibits considerable ethnic diversity, focusing on sub-Saharan Africa also allows us to hold within a reasonable range certain cultural and ethnic variables as well as levels of development, recognised as potential factors moderating social cohesion (David and Li 2008).

In short, we found weakly positive impacts of CDD and curriculum interventions on social cohesion outcomes, although only two findings were replicated across studies: one positive and one negative. We found inconsistencies between programme theory and implementation. We elaborate on our process and these findings in nine further sections. Section 2 provides some background to the research question by defining social cohesion, reviewing its relationship with development and peacebuilding, and overviewing interventions to promote social cohesion. Section 3 sets out the objectives and questions addressed in this review. The fourth and fifth sections describe the methodology of the review, dealing with inclusion criteria and search strategy respectively. Section 6 describes the included studies. Section 7 outlines the theoretical model of the two main categories of interventions to improve social cohesion identified in this review, CDD and curriculum interventions. Section 8 reports the results of the meta-analysis of social cohesion impact evaluations. Section 9 presents a causal chain analysis. The final section serves as a conclusion and provides recommendations for moving forward with research in this field.

2. Social cohesion in the literature

2.1. What is social cohesion?

While re-popularised in the 1990s, the term social cohesion dates at least to Durkheim (1984 [1893]), who studied the effects of modernisation and industrialisation on forms of solidarity. Today, discussions of social cohesion arise in analysing the causes and consequences of social upheaval, violence, misallocation of aid, entrenched poverty, slow or negative economic growth, and failures to realise welfare gains from market-oriented economic reforms (Colletta and Cullen 2000, Ritzen *et al.* 2000, Easterly *et al.* 2006, Winters 2008). Social cohesion is variously described as the ‘affective bond between citizens’ (Chipkin and Ngqulunga 2008, p. 61), ‘local patterns of cooperation’ (Fearon *et al.* 2009a, p. 287) and ‘the glue that bonds society together, promoting harmony, a sense of community, and a degree of commitment to promoting the common good’ (Colletta *et al.* 2001). More socially cohesive communities tend to solve collective action problems despite incentives for non-cooperation.

For the purposes of this review, social cohesion refers to behaviour and attitudes within a community that reflects a propensity of community members to cooperate (see Hooghe and Stolle 2003, p. 2). We can distinguish between inter-personal social cohesion, relating to attitudes and behaviours of different groupings of individuals within a community, and inter-group social cohesion, referring to attitudes and behaviours of individuals across key cleavages in society (see measures below). This is a different notion of social cohesion than one measured simply in terms of the number of potential lines of cleavage (Easterly and Levine 1997, Posner 2004). For the purposes of development and peacebuilding, we feel that our conceptualisation is more useful. Latent cleavages such as language differences, differences in descent, or caste-type distinctions cannot, or can only with great difficulty,

be manipulated by development or peacebuilding interventions. In contrast, the way people think about and act across these cleavages can, in principle, be transformed.

The term social cohesion is often used interchangeably with social capital (see, for example, Mansuri and Rao 2004). Indeed, our notions of inter-personal and inter-group social cohesion resemble the notions of ‘bonding’ and ‘bridging’ social capital popularised by Putnam (2000). It has also been suggested that the use of the concept of social capital within the World Bank corresponds to social cohesion (Beauvais and Johnson 2002). However, the term social capital is also used in ways that are different from what we mean here. Social capital is often seen as an individual-level asset that enables cooperation, as emphasised in Coleman (1990) and Hardin (1999). We prefer to use the term social cohesion to emphasise that we are talking about attributes of *groups*, and that we are speaking of patterns of cooperation directly, rather than the assets (for example, religious belief, altruistic dispositions, and so forth) that may give rise to them.

The literature on social capital includes many commentaries on how bonding social capital may undermine bridging social capital by reinforcing social divisions (see, for example, Hardin 1995). The same is true for our notions of inter-personal and inter-group social cohesion, and we have to be aware that inter-personal social cohesion may not aggregate to the inter-group level.

2.2. *What is the role of social cohesion in development and peacebuilding?*

A number of theories and frameworks provide support to the ideas that human and social dimensions are important factors in economic growth and development, including Chambers’ work on sustainable livelihoods (World Bank 2005), Sen’s (1999) capabilities approach, and theories emphasising the role of institutions (Chang 2002). And by the turn of the millennium, Woolcock and Narayan argued ‘there is a remarkable, if often unacknowledged, consensus emerging about the importance of social relations in development’ (1999, p. 32). However, in the literature on social cohesion, there is still debate as to whether social cohesion is a cause and/or consequence of other social and economic phenomena. As Beauvais and Johnson (2002, p. 5) note in their review of the literature:

there is no unanimous position on whether social cohesion is a cause or a consequence of other aspects of social, economic and political life. For some analysts and policy-makers, the condition of social cohesion in any polity is an *independent variable*, generating outcomes. For others, social cohesion (or the lack thereof) is the *dependent variable*, the result of actions in one or more realms.

In the field of international development, social cohesion is commonly treated as an independent, or intervening, variable in terms of its contribution to growth and sustainable development (World Bank 2005, Ferroni *et al.* 2008) and there is a growing literature suggesting a causal linkage from social cohesion to improved economic and welfare outcomes. A number of studies using survey data and regression analysis provide evidence of a correlation between social cohesion and economic growth and improved household welfare (Knack and Keefer 1997, Narayan and Pritchett 1997, Grootaert 1999, Grootaert *et al.* 1999, Maluccio *et al.* 2000, Grootaert and Narayan 2001). Real-world applications for development and peacebuilding also include management of common pool resources (Ostrom 1990, Wade 1994) and the settlement of resource disputes (Ellikson 1991). While the evidence may reflect a causal relationship from social cohesion to improved development outcomes, it is also likely that there are ‘feedback loops’ from improved development outcomes to enhanced social cohesion (Ritzen *et al.* 2000).

Research has suggested that social cohesion is important not just for its instrumental value as a means to improve economic development, but also for its intrinsic value – as an end in itself. This was one of the major findings of the large participatory research project, *Voices of the Poor*, which collected the views of 60,000 poor people in 60 countries. The analysis of these data found that poverty manifests itself in many non-material outcomes, such as feelings of powerlessness, lack of voice, exclusion, breakdown of the social fabric, dependency, and shame (Narayan *et al.* 2000). This work highlighted the importance of outcomes such as empowerment and social cohesion both in improving people's well-being directly and in gaining access to resources.

It is also commonly understood that social cohesion is an independent or intervening variable in relation to peacebuilding and conflict prevention. That is, social cohesion, or the (re)building of interpersonal and intergroup networks, trust, and reciprocity, is considered crucial for sustainable peace (Colletta and Cullen 2000, Woolcock and Narayan 1999). Moreover, the twin goals of development and peacebuilding are related. As a 2006 UK House of Commons review argued: 'preventing and ending conflicts and helping to ensure they do not recur will do more to create a climate for poverty reduction and development in countries affected than any amount of costly aid programmes' (International Development Committee 2006, p. 58).

2.3. How can social cohesion be fostered?

There are a number of different theories as to how social cohesion is fostered. Many accounts are rather pessimistic. For example, studies by Olson (1965) and Popkin (1979) concluded that collective action requires either the action of external entrepreneurs to organise material inducements and punishments or some overarching authority. Putnam (Putnam *et al.* 1993, Putnam 2000) argued that the creation of social capital is determined by long-duration historical processes, although its destruction can occur quite quickly as a result of technological change. Others have argued more optimistically that groups can improve social cohesion by establishing inexpensive self-monitoring and self-sanctioning mechanisms among themselves (Ostrom 1990, Wade 1994). The more optimistic view is what informs current interventions to generate social cohesion. Here, we are particularly interested in assessing the ability of relatively short-term external interventions to enhance social cohesion. Today, the literature on interventions to improve social cohesion in low-income and middle-income countries is mainly focused on participatory interventions. This follows a gradual shift from conventional 'top-down' approaches to development towards the re-emergence of more participatory 'bottom-up' approaches (White 1999, Wassenich and Whiteside 2004) and the idea that participatory processes contribute to the design of better policies and more successful long-term development (Stiglitz 2002).

Given the policy emphasis on social cohesion, development and peacebuilding actors have initiated efforts to strengthen social cohesion in aid-receiving countries. A pro-social cohesion orientation has informed major development interventions by international organisations such as the World Bank's Social Development Department and NGOs such as the International Rescue Committee. For instance, within the World Bank, where participatory development has been operationalised in the form of community-based development (CBD) or community-driven development (CDD) projects, there has been a rapid growth in the number of World Bank projects with a CDD or CBD component, with an increase from 2 per cent in 1989 to 25 per cent of projects in 2003 (Operations Evaluations Department [OED] 2005). It is thus timely to synthesise and assess results of interventions aiming to generate social cohesion.

While there are a number of publications reviewing impact evaluation evidence of such interventions on social capital or cohesion (Chase and Woolcock 2005, OED 2002, 2005, Wassenich and Whiteside 2004), to our knowledge there are no previous *systematic reviews* that focus on interventions aimed at generating social cohesion. Our review is complementary to work in other parts of the world, such as Chase and Woolcock (2005), who focus on the generation of social capital in East Asia. Our review is also complementary to other reviews of CDD (Mansuri and Rao 2004), as we focus specifically on social cohesion itself as the outcome of interest.

3. Objectives

This paper aims to provide a synthetic review of social cohesion interventions conducted to rigorous impact evaluative standards in sub-Saharan Africa. The review methods are consistent with Campbell Collaboration (C2) standards, and also consider context, mechanisms, and outcomes in the manner common to realist impact evaluation (Pawson and Tilley 1997). Meta-evaluation helps us answer: ‘what do we know at present on this issue and what is the level of confidence with which we know it?’ (Kusek and Rist 2004, p. 125). Realist evaluation ‘seeks to unpack the mechanism of *how* complex programmes work (or *why* they fail) in particular contexts and settings’ (Pawson *et al.* 2005, p. 21).

Our review considers evidence from experimental and quasi-experimental studies to answer the following questions:

- What projects or programmes in sub-Saharan Africa have been rigorously studied in terms of their impact on social cohesion?
- What did the studies find? In particular, what have they discovered about the possibility of fostering social cohesion?
- Do the findings allow us to make claims about moderating factors?
- What do the findings suggest about appropriately measuring social cohesion outcomes and moving forward to further synthesise knowledge in this area?

4. Criteria for considering studies for this review

4.1. Types of studies

We included studies on the basis of whether they evaluate a policy intervention that aims to affect social cohesion as defined in this review. The geographic scope is limited to sub-Saharan Africa. The temporal scope is limited to post-1995, the year of the Copenhagen Declaration that mainstreamed social cohesion programming.

4.2. Types of participants

Participants in interventions are geographically-based communities in sub-Saharan Africa. Measures were collected at the community or individual level. Aggregated individual measures were taken as indicative of community-level measures.

4.3. Types of interventions

We focus on community-level interventions measured in terms of their impact on social cohesion. Interventions must have a beginning and an end. For example, a policy change

towards decentralisation would not be considered an intervention for the purposes of this review, since it does not have a formal end. Types of interventions vary greatly, and our preliminary search revealed:

- CDD and reconstruction projects.
- Social fund projects.
- Education or media programmes.
- Organisation of social activities such as sports leagues, narrative theatre, or dance/movement therapy.

4.4. Study design

To determine study inclusion, we created a modified version of the Maryland Scientific Methods Scale (MSMS),¹ which has been recommended for systematic reviews (see van der Knapp *et al.* 2008). We assigned a rating of one to five based on design robustness, as illustrated in Table 1. Following the MSMS, we took a middle-ground approach and included studies that earned a rating of three or higher in our review. That is, we included studies with randomised treatment assignment or clear, quasi-experimental delineation of treatment and control groups, as well as pre-intervention and post-intervention measurement. These selection criteria are also consistent with systematic reviews included by the C2.

4.5. Outcome measures

We included studies that used a range of outcome measures. This flexibility was important since relevant outcome measures vary by context. Jones and Woolcock (2007) note, for example, that in totalitarian societies where the government can order people to work together, collective action is an inappropriate measure of social cohesion. Krishna (2007) similarly explains that the common measure of density of membership in formal organisations is inappropriate for some contexts, such as the communities in which he worked in India. Gugerty and Kremer (2002, p. 219) discuss how an increase in the number of community meetings is usually taken to indicate that social cohesion is increasing, yet a decrease in the number of community meetings might mean the same thing by indicating

Table 1. Methodological criteria for inclusion.

Research design	Treatment/control delineation			
	None (treated only)	Non-random, and no conditioning	Non-random, with conditioning on potential confounders	Random assignment
Pre-test and post-test	2	3	4	5
Pre-intervention confounder data or retrospective pre-test measures	1	NA	3	4
Post-test only	1	NA	NA	NA

that conflicts in the community are lessening, so fewer meetings are convened. Restricting our study to sub-Saharan Africa was in part an effort, although imperfect given Africa's great diversity, to lay a foundation for comparable outcome measures.

We included two types of primary outcome measures: attitudinal and behavioural. Research shows that attitudinal measures are important for measuring social cohesion (Krishna 2007, p. 945) and most studies survey participants' attitudes. Yet respondents may easily tell researchers what they think they want to hear and, even if accurately reported, attitudes do not directly translate into actions. Behavioural measures are consequently important, as deviations from most preferred behaviours are typically costly to the subject and therefore can be taken as more credible reflections of the subject's beliefs and preferences. Of course, the drawback of behavioural measures is that they are often confounded or over-determined: multiple combinations of beliefs, preferences, and structural conditions can result in the same behaviour, and these combinations are often simultaneously present. Therefore, some combination of attitudinal and behavioural measures is a particularly strong research strategy.

Our outcome measures were also divided across the two genres of social cohesion: inter-personal and inter-group. We provide more details below.

- *Inter-personal*

- (1) *Attitudes*. Any measure of participants' feelings of trust, harmony, and solidarity with other community members.
- (2) *Behaviours*. Measures of the regularity with which collective action problems are solved without coercion or compensation by some overarching authority, measures of participation in community initiatives, and other measures of community cooperation. These behaviours may be self-reported, measured via an activity organised by the intervention, or observed in routine behaviour.

- *Inter-group*

- (1) *Attitudes*. Any measure of participants' feelings of trust, harmony, and solidarity with members of other groups.
- (2) *Behaviours*. Measures of cooperative transactions, participation in community initiatives, and other measures of community cooperation between individuals of different groups or across major cleavages in society. These behaviours may be self-reported, measured via an activity organised by the intervention, or observed in routine behaviour.

5. Search strategy and methods of analysis

We searched 11 electronic databases, many of which included an emphasis on both published and unpublished sources: the British Library for Development Studies; C2 SPECTR; Cambridge Journals Online; ChildData; ERIC; Sage Full-text Collections; ScienceDirect; Social Sciences Citation Index; Social Sciences Full Text; Social Science Research Network; and Web of Science. We also searched the general purpose search engines 'Google' and 'Google Scholar' in an effort to identify unpublished studies. We used broad keyword/topic combinations – 'social cohesion' Africa; 'social capital' intervention Africa; 'community based development' Africa – in a format applicable to each database.

We also sought published or unpublished studies by identifying contacts and literature via 'snowballing' techniques (following one link that leads to another) through use of eight

list-serves (see International Initiative for Impact Evaluation (3ie) report for details of list-serves), as well as bibliographic back-referencing of studies identified for review (King et al. 2010). We made email contact with individuals working in this field and direct contact with participants at the 2009 Perspectives on Impact Evaluation Conference (Cairo) in order to identify further contacts, studies, and potential gaps.

We took an international perspective when searching the literature. The list-serves, direct contacts, and several databases are international. We were open to studies in English and in French since these are the dominant international languages in sub-Saharan Africa and are the operational languages of the key implementing agencies.

We made inclusion decisions by examining the titles and abstracts first, and then consulting the paper if necessary. Two researchers independently assessed each potential study, with conflicts resolved through discussion.

We assigned a modified MSMS rating to each study by consulting the descriptions of methods provided in each study. We also extracted other details, including whether the study was peer-reviewed, the country in which it took place, the type of intervention, the target population, the sample size, the duration of the intervention and timing of measures, the outcome measures used, and a synopsis of findings. We used this information to determine whether each study qualified for inclusion (see 3ie report for details of included studies (King et al. 2010)).

We conducted a statistical meta-analysis for a collection of studies that were similar in the nature of the intervention and outcome measurements. In the end, this was restricted to studies evaluating ‘community-driven development’ (CDD) interventions and the outcomes were restricted to a set of 15 measures that get at inter-personal and inter-group social cohesion in a general manner. These outcomes were all measured in terms of rates, although the measurement strategies differed – sometimes employing simple differences in means, other times employing statistical adjustment, difference-in-difference (that is, gain score), or relative risk measures. We converted all of these estimates to differences in probabilities (that is, risk differences), and transformed them all to probit scale coefficients. The conversion to probit scale coefficients had two purposes. First, because rates and percentages are bound between zero and one, percentage point variation near zero or one is not equivalent to similar percentage point variation near the middle of the scale. Intuitively, it is ‘harder’ to move from 5 per cent to 1 per cent or from 94 per cent to 99 per cent, as compared with moving from 50 per cent to 55 per cent. The probit transformation appropriately rescales effect sizes to account for this. Second, in some cases only probit regression coefficients were presented, in which case the conversion of other rates and percentages to probit coefficients allows for comparisons on a common scale.

We derived standard errors for the probit-transformed effect sizes as linear approximations, based on standard errors that were reported in the studies. This yields a conservative approximation with respect to the possibility of falsely rejecting the null (type I error). In some cases only significance levels for null hypothesis tests were reported. In these cases, we derived conservative (with respect to false rejection of the null or type I error) standard error estimates as follows: the estimated standard error was equal to the probit-transformed effect size divided by the lowest z -score test statistic consistent with the reported significance level. When non-significant values were reported without any other information, we imputed standard errors based by arbitrarily assigning a p value of 0.5. This was deemed a conservative choice, but with no other information with which to work we considered it a better choice than reporting no standard error at all.

Finally, we conducted a synthesis of causal chain information contained in the studies. This causal chain analysis sought to decipher how interventions unfolded, if the process

was consistent with theory, and, to the extent possible, what causal mechanisms were at work when interventions succeeded.

6. Search results

6.1. Description of studies

Our initial searches produced 983 potentially relevant studies (Figure 1). Most were discounted since they did not match the subject or aims of the review. Aside from hundreds of entirely irrelevant hits, the electronic searches returned hundreds of references that did not include an intervention (for instance, Hooghe and Fox 2003, Krishna 2007), used social cohesion as the independent rather than outcome variable (for instance, Easterly *et al.* 2006, Olken 2007), and/or were not based in sub-Saharan Africa (Attanasio and Phillips 2008, Labonne and Chase 2008). An additional 10 studies that met the basic inclusion criteria had to be excluded from the review since they did not meet the MSMS Level 3 criteria (Dovey and Onyx 2001, Rono and Aboud 2003, Cousins and Kepe 2004, Moore and Cissé 2005, Okot *et al.* 2005, Lemanski 2006, Babatunde and Setiloane 2007, Bolton *et al.* 2007, Bjorkman and Svensson 2007, Lesko 2007), leaving us with eight included studies reviewing a total of 10 interventions.

The interventions evaluated in the included studies fall into two broad categories, namely ‘community driven development’ (CDD) and curriculum interventions. Specific components of the interventions varied within each sub-group, but they have enough in common for the categories to be useful for analytical purposes. Target populations contrasted entire communities with subsets of communities such as women’s groups and schools, but most also considered the impact on wider social cohesion. Sample size, the duration of the intervention, and timing of measures also diverged significantly. All studies measured some form of attitudinal and/or behavioural inter-personal and/or inter-group social cohesion, but the specific outcome variables differed between studies.

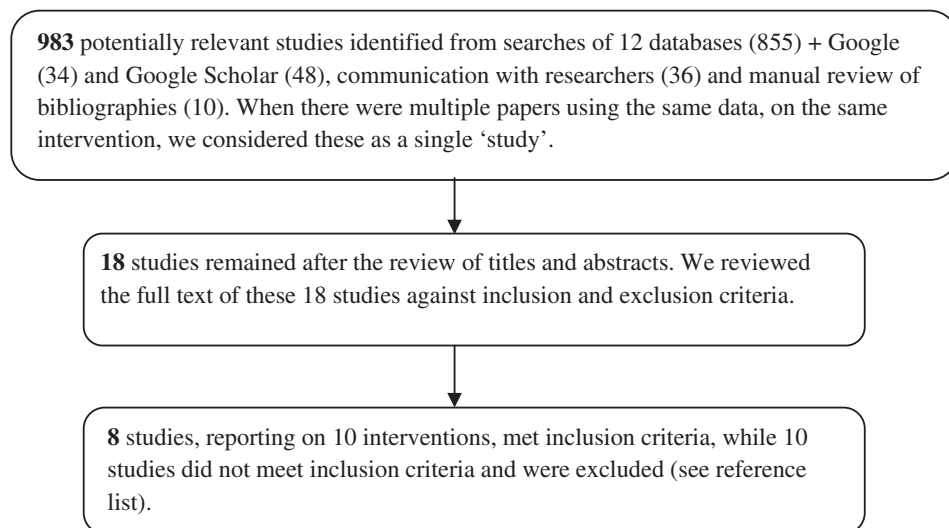


Figure 1. Search and review process.

Even apparently similar measures such as trust showed discrepancies, with some studies measuring generalised trust and others measuring trust in leaders.

The included studies represent the present state of the field. While we restricted the search scope to post-1995, we did not, to our knowledge, ultimately exclude any potentially relevant studies based on date. We planned to include studies that measured the social cohesion effects of various programmes quantitatively and/or qualitatively, yet found only predominantly quantitative studies that met the methodological standards we laid out. The studies that ended up meeting our requirements are innovators in their fields; the Chase and Sherburne-Benz (2001) study, for example, is the first quantitative impact evaluation of an African social fund, while the Fearon *et al.* (2008a, b, 2009a, b) study is the first randomised study of CDD involving behavioural games.

6.2. Study designs

As noted in the methodological criteria above, all included studies met a modified MSMS Level 3. They thus all included comparison groups that did not participate in the intervention in order to make strides towards answering ‘what would have happened if the intervention had not taken place?’ We examined the internal validity of studies that met the basic methodological criteria for inclusion. We noted whether treatment and control groups were random, matched, conditioned (for instance, with regression model adjustment), or other.

Randomised control trials are sometimes considered the ‘gold standard’ of impact evaluation, but they are particularly expensive and not practical in all contexts (Mackay 2007). Randomised assignment, in sufficiently large samples, ensures that there are no systematic differences between treatment and control communities. In all studies considered, treatment was assigned at the level of groups, or communities. Four included studies involved randomisation of treatment assignment (Fearon *et al.* 2008a,b, 2009a,b, Gugerty and Kremer 2002, Levy-Paluck 2009, and Pronyk *et al.* 2009), and two of these further involved randomisation within matched sets of groups (Levy-Paluck and Pronyk *et al.* 2006, 2008).

Two of the randomised field experiments reported substantial differences between treatment and control communities, perhaps indicative of some shortcoming in the randomisation strategy. As a result, the researchers made provisions to control for these differences. Fearon *et al.* (2008b, p. 31) ended up with more rural communities in the treatment than control groups, and Gugerty and Kremer (2002, p. 225) had programme groups with lower levels of debts at the start of the programme than the control groups. However, while Fearon *et al.* only controlled for these imbalances in their analysis of certain outcomes, Gugerty and Kremer controlled for such imbalances in all of their analyses. Levy-Paluck (2009) reported results of balance tests that showed no reason for concern, although she did control for pre-treatment covariates in her estimation of treatment effects, presumably for efficiency gains. Pronyk *et al.* (2008) reported mild imbalances between members of treated and control groups; their use of difference-in-difference estimation improved the power of their analysis. In their analysis of games outcomes, Fearon *et al.* (2008a, p. 11) also made provisions for other potential confounds relating to violation of their game protocol and the fact that their games were not all played in the same type of community.

The other studies were not randomised, and thus employed various methods to control for potential confounders. Chase and Sherburne-Benz (2001) used three different types of comparison communities: propensity-score matched communities and ‘pipeline’ matches

to control for community self-selection, and a representative sample of Zambian households. The World Bank OED studies, including OED (2005) and OED (2002), relied on input from local government, researchers, and staff to match treatment communities to comparison communities. Treatment effects were then estimated by controlling for individual-level attributes with multiple regression models. Vajja and White (2008) note that, due to the realisation that some of the presumed control communities had actually received the treatment, the OED (2002) evaluation had to revise the comparison strategy for the Malawi interventions. Both Chase and Sherburne-Benz (2001) and Vajja and White (2008) discuss how self-selection into the intervention probably affected their findings. Finally, Staub *et al.* (2005) did not employ randomised treatment assignment; rather, linear covariance adjustment was used to account for potential imbalances.

The conditions of the comparison groups varied by study. Some comparison groups received no intervention (Fearon *et al.*, Gugerty and Kremer, Staub *et al.*). Some were pipeline studies, with comparison groups receiving the intervention at a later date than the first 'treatment' group (Chase and Sherburne-Benz, Pronyk *et al.*). Some comparison groups received a different intervention: for example, a radio programme (Levy-Paluck) or non-participatory interventions in similar sectors (OED, Vajja and White).

6.3. Population locations

All studies, by selection criteria, were based in sub-Saharan Africa. Studies took place in Benin (OED 2005), Kenya (Gugerty and Kremer 2002, 2006), Liberia (Fearon *et al.* 2008a, 2008b, 2009ab), Malawi (OED 2002, Vajja and White 2008), Rwanda (Levy-Paluck 2009, Staub *et al.* 2005), South Africa (Pronyk *et al.* 2006, 2008) and Zambia (Chase and Sherburne-Benz 2001, OED 2002, Vajja and White 2008). Each study examined an intervention in just one country, except the OED (2002)/Vajja and White (2008) (Malawi and Zambia) studies and the OED (2005) study that examined several other cases not based in sub-Saharan Africa. These locations present wide variation across and within countries. For example, some of these communities are post-conflict, while others are not, and studies included a mix of rural and urban populations.

6.4. Participants

All studies measured outcomes on adult members of targeted communities. In some cases, participants comprised entire communities; while in others, participants represented only subsets of communities such as women's groups and schools.

7. Intervention characteristics and theoretical models

7.1. Community-driven development

CDD emphasises the central role of beneficiaries in important project decisions. CDD projects typically include two main components: facilitation and support for participation of communities in the selection, design and implementation of a development project; and funding for the implementation of development projects (Cliffe *et al.* 2003, OED 2005). Community participation is channelled through a community-based organisation made up of members from the community. In some cases, this function is performed by existing community organisations (for example, Gugerty and Kremer 2002, 2006). In other cases, new organisations might have to be established if existing organisations do not correspond

well with geographical coverage of the project or if they exclude disadvantaged groups (Dongier *et al.* 2002).

As outlined in Figure 2, at its broadest level the theory underlying CDD interventions is that projects promote social cohesion by supporting and building community capacity for decision-making and collective action through a process of participation. The hypothesis is that, by handing over control of decisions and resources to the community, the sub-projects will better meet communities’ needs and enhance ownership; and that the experience of being involved in this participatory process will empower communities, improve capacity for local development and improve social cohesion (Chase and Woolcock 2005, OED 2005). The main mechanism through which CDD projects aim to achieve their outcomes is the participatory process, although the specific causal pathways from participation to improved social cohesion, discussed after the meta-analysis below, are less clear.

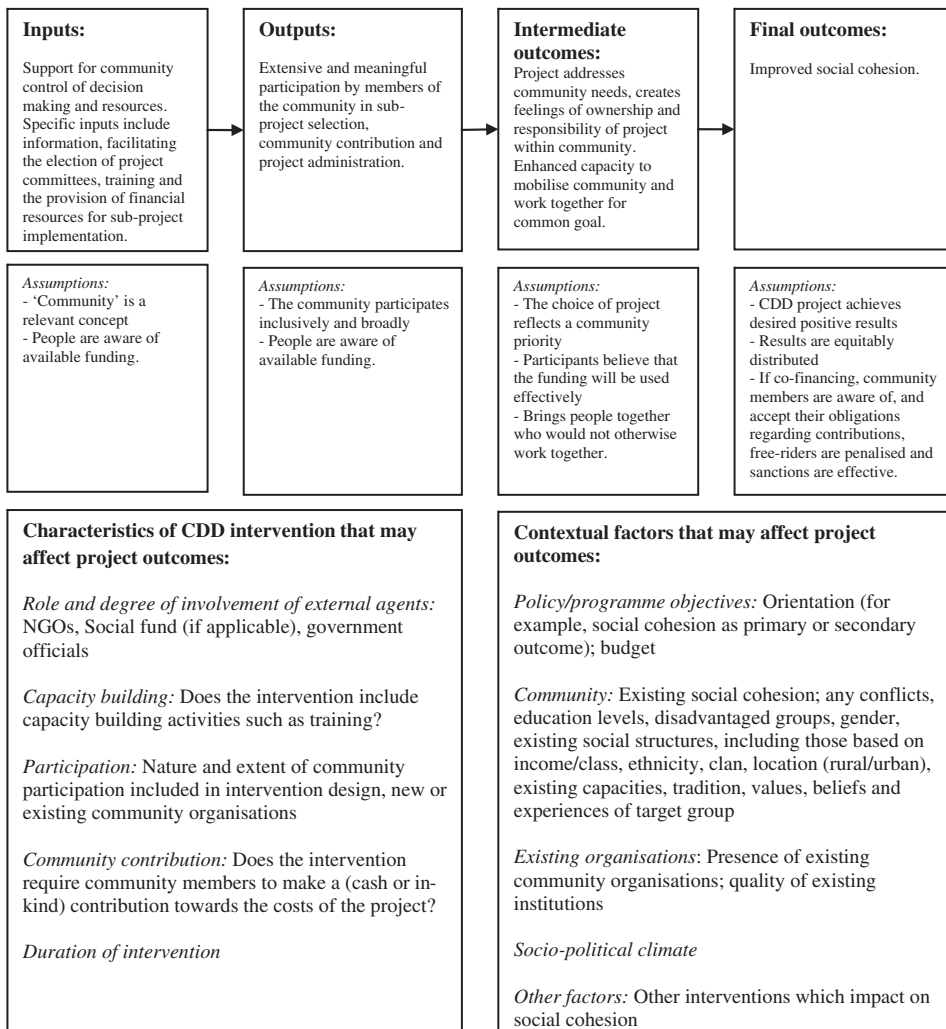


Figure 2. Community-driven development intervention programme theory. Source: draws on Chase and Woolcock (2005), OED (2005), and Vajja and White (2008).

The theory outlined in Figure 2 is an ‘ideal type’, in this case what Vajja and White (2008, p. 1148) call the ‘hippy model’ of community participation, ‘as it appears to suggest that all community members enter the decision making sphere on an equal footing, and can agree a common interest without intra-community conflicts’. However, as the bottom boxes of the figure highlight, context-specific factors such as social structures, existing levels of social cohesion, community capacity, and social and political traditions of participation are likely to influence both the functioning (Pawson *et al.* 2005) and implementation (OED 2005, Vajja and White 2008) of the project.

Despite differences in intervention designs, implementation and underlying assumptions, the theoretical foundations of the interventions classified as CDD, and detailed in Table 2, are similar. They all make explicit references to theories on social capital or social cohesion, and that drawing people together will improve trust and illustrate that communities can work together to promote social goods. Most of them share one common element; namely, community management of a sub-project selected by the community. In Malawi and Zambia the social fund organised information campaigns to promote the social fund and encourage applications from poor communities, while there is no mention of such activities in Benin (Chase and Sherburne-Benz 2001, OED 2002, Vajja and White, 2008). In Liberia, preparatory work was undertaken to sensitise communities to the projects and to get the approval of local leaders (Fearon *et al.* 2009a). In Malawi, Zambia and Benin (Chase and Sherburne-Benz 2001, OED 2002, 2005, Vajja and White 2008), community meetings were held to discuss the selection of sub-projects, although, as will be discussed below, in reality this was often already determined by the project committee or community leaders. In the case of the community-driven reconstruction programme in Liberia (Fearon *et al.* 2009a), project selection was determined through a community-wide process, although no more details are provided on this apart from the fact that the selection and implementation of sub-projects were overseen by community development councils (CDCs). These CDCs were directly elected from all the adults of voting age in the community. It is not clear how project committees in the CDD interventions in Zambia, Malawi and Benin were selected. According to Vajja and White (2008), if there was not already a project committee in place these were established at the appraisal stage; while OED (2002) suggest they were formed at public meetings. Leaders claimed this was done through an election, although this was not mentioned in focus groups (OED 2002).

The two interventions in Kenya (Gugerty and Kremer 2002, 2006) differ from the other CDD interventions in this regard; they both include an aspect of community management, but the sub-project was already chosen by the implementing NGO. In the case of the International Child Support (ICS) School Assistance programme, it was already decided that funds should be spent on purchasing school inputs, although the school committee decided the items on which to spend the money. Similarly, in the project supporting indigenous women’s groups, the nature of the sub-project was predetermined and the groups received inputs to be used for agricultural production on their collective group farms. This project also included a significant capacity-building element, providing training in leadership, group management and agricultural practices, mainly to group leaders. Thus, both of these projects involved existing community organisations for the implementation of the projects. The leadership of the women’s groups and members of the school committees were selected through democratic processes – school committee members were elected, while in the case of the women’s groups the leaders were selected either through voting or discussion and consensus.

Table 2. CDD intervention characteristics.

Study	Intervention (duration)	Location	MSMS score	Intervention involved information campaign?	Community selected sub-project?	Focus of sub-projects	Management of implementation	Community contribution?	Other information
Chase and Sherburne-Benz (2001)	CDD: Zambia Social Fund (unclear duration, survey in 1998)	Zambia, urban and rural	3	Y: Outreach activities used to target poor communities	N/S	Mainly primary school rehabilitation, also health clinics and water supply	Community managed implementation including financial input; degree of outside involvement unclear	Y: Up to 20% of implementation costs	Communities had to organise project committee and establish a bank account
Vajja and White (2008)/OED (2002)	CDD: Social Fund – ‘Social Recovery Project’ (unclear duration)	Zambia, rural and urban	3	Y: Promotion and outreach	Y: Demand for sub-project came from community (not mediated through NGO)	Education	Community selected contractor, procured material and oversaw construction. It was also responsible for maintenance (after receiving training); supervision by local government, who could veto material procurement	Up-front community contribution in cash and kind	Project committee formed at appraisal stage if there was not already one; unclear if community leadership election representative
Vajja and White (2008)/OED (2002)	CDD: Social Fund – ‘Malawi Social Action Fund’ (unclear duration)	Malawi, rural and urban	3	Y: Promotion and outreach	Y: Demand for sub-project came from community (not mediated through NGO)	Education	Community selected contractor, procured material and oversaw construction. It was also responsible for maintenance (after receiving training); supervision by local government, who could veto material procurement	Y: Up-front community contribution (in kind)	Project committee formed at appraisal stage if there was not already one; unclear if community leadership election representative

(Continued)

Table 2. (Continued).

Study	Intervention (duration)	Location	MSMS score	Intervention involved		Community selected sub-project?	Focus of sub-projects	Management of implementation	Community contribution?	Other information
				information	campaign?					
OED (2005)	CDD: Benin Borgou Pilot Project (approx. 12 months)	Benin, rural	3	N/S	Y: Selection of sub-project made at community meeting	Multi-sectoral: mainly focused on primary schools, health facilities and storage houses	Comite de Concertation given prime responsibility for monitoring project implementation at the village level, communities appear to have been responsible for maintenance; degree of outside involvement unclear	Y: Community contribution in cash or kind	Sub-projects operationalised through community level organisations that were created by the World Bank CDD projects	
Gugerty and Kremer (2002)	CDD: ICS School Assistance Program (duration unclear)	Kenya, rural	5	N/S	Y: Project developed in consultation with the women's groups and the local Ministry of Agriculture office	Agriculture inputs and training (training courses for leaders lasting two and five days)	NGO managed finances; community decided how to use inputs; training organised by NGO and provided by local facilitators	Y: Part of the group activities involved working together on land cultivated by the group	Group leaders typically selected by members democratically; consensus is used to make key group decisions	

Gugerty and Kremer (2002, 2006)	CDD: ICS support to women's self-help groups engaged in agriculture (12 months)	Kenya, rural	5	N/S	Y: The school committee proposed how to spend the grant, and an open meeting with parents and teachers made the final decision	Education: funds could be spent on books, classroom construction materials, furniture or other supplies	School committee decided how to spend the funds the ICS bought the inputs and delivered them directly to the school	N/S	Ministry of education selected 100 out of 333 schools, seen as being in particular need, to participate in the project	
Fearon <i>et al.</i> (2008, 2009a, 2009b, 2009c)	CDD: IRC Community Driven Reconstruction programme – post conflict (18 months)	Liberia, rural	5	Y:	Community sensitisation undertaken, including meetings to obtain approval of local chiefs and elders.	Y: Projects selected and implemented through a community-wide process, overseen by the CDCs	First one quick impact project, followed by larger development project; communities focused on building community facilities	CDCs managed implementation and maintenance after implementation; degree of outside involvement unclear – over the 18-month implementation period, around 18 staff worked full-time on the project	N/S	IRC oversaw the election of community development councils, with representatives selected from the village's adult population

Note: Y, yes; N/S, not stated.

In some interventions, community contribution – provided in cash and/or kind, or both – was a condition for receiving funding for sub-projects. This was the case, for example, in the projects in Zambia, Malawi, and Benin. There is no mention of any required community contribution in the study of CDD in Liberia. The community was responsible for maintenance in Benin, Liberia, Malawi and Zambia, but only in Zambia was establishing a maintenance committee compulsory. Training and practical advice on maintenance was provided in both Malawi and Zambia (Vajja and White 2008).

In all of the interventions the focus of the sub-projects was on either rehabilitation or construction of community infrastructure, with school and health facilities being the most common sub-projects. Project committees were mainly responsible for the management and implementation of sub-project activities. For instance, according to Vajja and White (2008), project committees in Zambia and Malawi were responsible for procuring materials, selecting contractors and overseeing the construction. In Benin the project committees were responsible for monitoring implementation of projects at the village level, although NGOs did act as intermediaries in some cases and it is not clear from the study whether this was part of the original project design (OED 2005).

The extent and nature of outside involvement appear to vary between interventions. Local government officials in Zambia and Malawi supervised project activities and they also had the authority to veto procurement decisions. In addition, they commonly provided assistance to communities preparing their applications to the social funds. In Benin, the evaluation report noted the lack of a clear definition of the role of local officials could be problematic. The implementing International Rescue Committee (IRC) employed around 18 staff full-time for 18 months in the Community-Driven Reconstruction intervention in Liberia, suggesting that external support and supervision was available, although the nature of their involvement is not specified in the documents we accessed.

7.2. Curriculum interventions

Education is another channel that has been highlighted for its potential to promote social cohesion (Heyneman 2003, Easterly *et al.* 2006). The curriculum interventions included in this review are short-term educational interventions targeting adults, designed to communicate specific messages intended to change beliefs, values, perceptions of social norms and behaviour, and to promote leadership skills, solidarity and collective action. Broadly, the theory underlying the curriculum interventions stipulates that the curriculums communicated to intervention participants will lead to these changes, which in turn will improve social cohesion. As with the outlined theory of CDD interventions, Figure 3 also represents an ‘ideal path’ of how the curriculum interventions influence social cohesion. As highlighted in the bottom boxes of Figure 3, contextual factors and specific characteristics of the different interventions are also likely to influence outcomes. Specifying these factors at the outset can help guide data collection for process and causal chain analysis.

Both interventions in Rwanda attempt to deal with barriers to social cohesion, such as prejudice and mistrust, resulting from the genocide, and try to do so by focusing on messages of reconciliation and healing. Levy-Paluck (2009) reports on the impact of playing a radio soap-opera carrying educational messages aimed at influencing beliefs, social norms and behaviours to groups of participants from the same community. A research assistant visited the community monthly, and the groups gathered to listen to four 20-minute episodes while sharing local customary drinks provided by the research team. Staub *et al.* (2005) developed and implemented a nine-day training programme (Healing through Connection and Understanding Project) for community workers who regularly facilitated

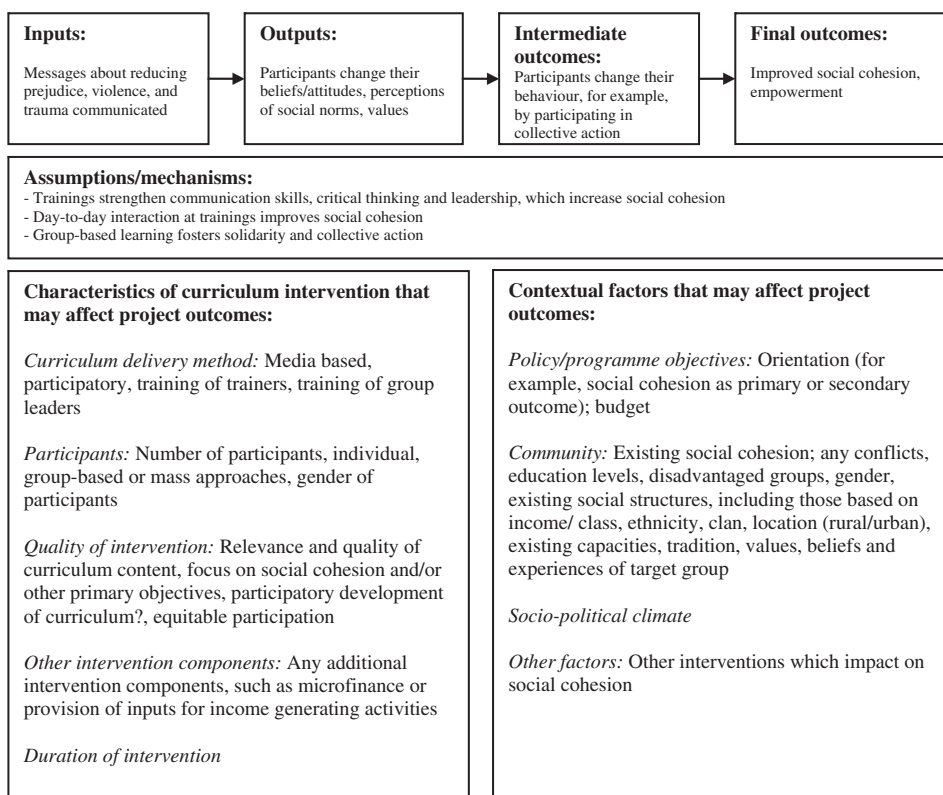


Figure 3. Curriculum intervention programme theory.

local groups. The facilitators then integrated aspects of this into their usual programme when working with newly created community groups. While attempting to promote similar messages, the methods used to communicate these ideas differed significantly. Also, while these studies measure outcomes of relevance to social cohesion, the outcome measures they use stand out from those used in the other studies and they are also the only two studies in this review that do not explicitly mention social cohesion or social capital. Instead, they make explicit references to a range of psychological theories of healing, reconciliation, prejudice, social norms, beliefs and behaviour. Levy-Paluck (2009) also cites theory on inter-group relations, group discussions, and the use of media for social change campaigns.

The remaining curriculum intervention combined training with activities aimed at supporting income-generating activities. In addition to providing training, the Intervention with Microfinance for AIDS and Gender Equity (IMAGE) assessed by Pronyk *et al.* (2006, 2008) followed a Grameen-style model to provide micro-finance. It targeted the most disadvantaged women, and set up loan groups as part of the intervention. Local instructors were employed to conduct the training, which was based on participatory learning and action principles. The curriculum focused on issues such as gender inequality, cultural beliefs, relationships and domestic violence. Contrary to the other two curriculum studies, this study makes explicit reference to theory on social capital, suggesting that intervention activities have the potential to increase social capital, both as an outcome in itself and as a pathway to improve other welfare outcomes.

Table 3. Curriculum intervention characteristics.

Study	Intervention (duration)	Location	MSMS score	Targeting	Additional intervention?
Levy-Paluck (2009)	Curriculum: educational radio soap-opera New Dawn – post conflict (allocation 2004, follow-up 2005)	Rwanda, rural	5	Sampling conducted to represent relevant political, regional and ethnic breakdowns in Rwanda (including genocide survivor and Twa communities)	No
Staub <i>et al.</i> (2005)	Curriculum: training of facilitators who worked for local organisations and subsequently worked with community groups – post conflict (three-week intervention; follow-up two months after intervention ended)	Rwanda, rural	3	Adults, genocide survivors	No
Pronyk <i>et al.</i> (2006, 2008)	Curriculum: Intervention with Microfinance for AIDS and Gender Equity (IMAGE) (follow-up two to three years after baseline)	South Africa, rural	5	Women who applied for loans, targeted poorest half of households in villages	Yes: Microfinance

The theoretical models for both CDD and curriculum interventions suggests that the impact trajectory of participatory projects is linear. Nonetheless, it is highly unlikely that this is how events unfold in practice (Woolcock 2009). Instead, as Woolcock (2009, p. 3) notes:

Even a cursory reading of social theory, for example, would suggest that in fact the most likely shape of such projects' functional form is a J-curve (that is, things get worse before they – hopefully – get better) or a step function (that is, long periods of stasis followed by a sudden rupture . . . in which prevailing norms and/or uptake by an influential local leader rapidly leads others to do likewise).

Thus, it is likely that the timing of impact evaluations of interventions will have implications in terms of the impact measured at the time of evaluation. Below, we consider the extent to which these issues have been dealt with in the included studies.

8. Statistical meta-analysis of effect estimates

The CDD interventions and their outcome measurement strategies were similar enough to permit at least a preliminary meta-analysis. This is described below. The curriculum interventions were so different in terms of the nature of the treatment and the measurement

strategies that a meta-analysis would be nonsensical. For the latter, we simply report that Levy-Paluck found that treatment was associated with substantial increases in the likelihood that a person approves of inter-ethnic marriage and an empathy index, while also being associated with an increased rate of believing that it is ‘not naïve to trust’, and no clear association with a sense of mistrust in one’s community (see Table 4 for effect estimates). Pronyk *et al.* (2008) found that their micro-finance and women’s empowerment intervention was associated with gains in the rate at which subjects reported that they participated in social groups, participated in collective action, and believed that the community would support them in a crisis, while finding inconclusive results on subject’s beliefs that their community would likely work toward common goals. Staub *et al.* (2005) use a factorised ‘positive orientation toward others’ index to record effects of their intervention, finding that the programme was associated with a difference measuring about 2.69 in terms of *z*-score deviates. While the individual findings are generally positive, they are from single studies only. We encourage future studies of curricular interventions aimed at social cohesion in order to provide the possibility for eventual meta-analysis.

The CDD interventions all contained multitudes of measures of social cohesion-related outcomes. We extracted measures on 15 outcomes that we believe get at general features of inter-personal and inter-group social cohesion. We should be clear that this selection of 15 outcomes was determined after having consulted the studies rather than having been based on any a priori determination of what kind of outcomes are most relevant. The effect estimates are displayed in Table 4. The effect sizes and standard errors are given in terms of probit coefficients, as explained in the methodology section above. We see that not all studies reported effects for all measures; indeed, the results matrix is quite spotty. The

Table 4. Effect estimates from curriculum interventions.

Study	Intervention	Country	Outcome: likelihood that an individual . . .	<i>b</i>	<i>se</i>	<i>b/se</i>
Levy-Paluck	New Dawn radio soap opera	Rwanda	Approves of inter-ethnic marriage	0.28	0.04	7.00
			Expresses empathy for other Rwandans ^a	0.17	0.08	2.13
			Believes it is not naïve to trust others	0.14	0.07	2.00
			Believes there is mistrust in one’s community	-0.10	0.07	-1.43
Pronyk <i>et al.</i>	IMAGE	South Africa	Participates in social groups	0.39	0.28	1.39
			Participates in collective action	0.97	0.26	3.73
			Believes community will support them in a crisis	0.61	0.27	2.26
Staub <i>et al.</i>	Psycho-educational training	Rwanda	Holds a positive orientation toward others ^b	(+) ^b		(+) ^b

Note: Effect estimates are measured on the probit deviate scale.

^aThis was based on an ordered index measure, and the effect was estimated as the coefficient in an ordered probit model.

^bThis effect was measured using a factorised score based on a set of survey questions. (+), the measured effect was positive and significant at the 90 per cent level.

right-most four columns show the results of a synthesis and homogeneity test, based on recommendations in Rothman *et al.* (2008, pp. 668–673). The synthesis provides our best guess of what is the ‘actual’ effect of a CDD intervention on the outcome in question given the available evidence.

The validity of a synthesised effect estimate requires that a set of homogeneity assumptions holds. These include that: the interventions are the same in terms of causal mechanisms that they initiate; and the outcome measures are the same in terms of the phenomenon that they capture and the manner in which the phenomenon is being measured. For these CDD interventions, *neither* of these homogeneity assumptions is particularly compelling in terms of face validity. The interventions were carried out by different agencies using different rules. With respect to measures, only the OED (2002) studies employed precisely the same instruments for a given outcome; for the other cases, the instruments were only roughly similar. The *p* value of the statistical homogeneity test provides a quantification of the likelihood of homogeneity, but this test only makes sense assuming face validity of the homogeneity assumptions.

With these caveats, Figure 4 suggests that the evidence of any pro-social effects from CDD programmes is quite weak. Evidence from only single studies is available for effects on eight out of the 15 outcomes, making it hard to draw broader conclusions. Many of these are from the Fearon *et al.* (2008a,b, 2009a,b) study, which reports that the CDD intervention in Lofa, Liberia was associated with increases in individuals’ likelihood of contributing full endowments in a public goods game and believing strong leaders are not necessary, while results are indeterminate for the initiation of agricultural, clean-up, or security activities. Of course, the latter can be taken as programmatic outcomes associated with the CDD intervention itself rather than as outcomes indicative of social cohesion effects. Gugerty and Kremer (2002) report a substantially positive effect on the likelihood that teachers would be present in their schools, which is understood as an indirect measure of the ability of community members to work together in holding public employees accountable. The OED (2005) evaluation is indeterminate in its results for effects on participation in social groups or beliefs that leaders will be responsive.

Among the seven outcomes that were measured in more than one study, statistical homogeneity holds at 90 per cent confidence for the measures of community meetings/non-traditional events to discuss general problems, participation in general collective action, and inter-group relations. With respect to effects on participation in meetings and non-traditional events to discuss general community problems, we found evidence of a weakly positive effect. We think that this result should be qualified, however, because it may speak more of the programmatic features of the intervention than of lasting social cohesion effects. The results from the two OED (2002) studies show no substantial effect on participation in general collective action. A second repeated finding is that of substantially negative effects on individuals’ perceptions of inter-group relations. Note that the average effect is calculated only from the two OED (2002) evaluations; the results from the Fearon *et al.* (2008b) study could not be included because they used a three-way index that was not on a comparable scale. Their point estimate is also negative in direction, although the 90 per cent confidence interval was far from being bounded away from zero. All in all, however, the current evidence is not comforting about effects on inter-group relations and suggests a very important avenue for future research.

The remaining four outcomes that were measured in more than one study were associated with substantial heterogeneity across studies. In the case of measures of beliefs that one community would help another, the OED (2005) reports a strong positive effect, while

Measure category	Outcomes	Effect estimates [i]										Synthesis [ii]			Hom. [iii]							
		Chase and Sherborne-Benz		Fearor et al		Gegerly and Kremer		Gugerly and Kremer		OED (2005)		Vajja and White; OED (2002)		Vajja and White; OED (2002)		B	se(B)	B/se(B)	p-value			
Intervention		ZAMSIF (I)		Lofa-CDD		ICS Block Grants		ICS Womens Group		CDD-Benin		MASAF		ZAMSIF (II)								
Country		Zambia		Liberia		Kenya		Kenya		Benin		Malawi		Zambia								
	Likelihood that an individual...	b	se	b	se	b	se	b	se	b	se	b	se	b	se	B	se(B)	B/se(B)	p-value			
Participation	Believes participation in group activities is easy/easier.											-0.29	0.18	0.22	0.14	0.03	0.11	0.25	0.03			
	Is aware of/participates in community meeting/non-traditional event to address general problems.			0.21	0.13	0.05	0.08	-0.16	0.33	0.08	0.12					0.08	0.06	1.42	0.77			
	Participates in general collective action.													-0.14	0.21	0.01	0.01	0.97	0.48			
	Participates in social groups/traditional events.									0.17	0.25					0.17	0.25	0.68				
Collective interest/trust	Is aware of/believes in possibility of one community member assisting another who is in need.					(+)	~	[iv]		0.35	0.14					0.35	0.14	2.50				
	Contributes full endowment in public goods game.			0.25	0.10											0.25	0.10	2.50				
Community capacity	Has agricultural initiatives undertaken in his/her community.			-0.12	0.12											-0.12	0.12	-1.00				
	Has clean-up initiatives undertaken in his/her community.			0.08	0.13											0.08	0.13	0.62				
	Has school initiatives undertaken in his/her community.	0.43	0.04	-0.13	0.10											0.35	0.04	9.50	<.01			
	Has security initiatives undertaken in his/her community.			-0.05	0.10											-0.05	0.10	-0.50				
	Believes that community can reach consensus.			-0.11	0.08					0.73	0.28	0.05	0.07	0.35	0.13	0.05	0.05	1.05	<.01			
Community empowerment	Has teachers in his/her community that are regularly present in school.					0.28	0.14									0.28	0.14	2.00				
	Believes that leaders will be responsive.									0.13	0.19					0.13	0.19	0.68				
	Believes that strong leaders are not necessary.			0.27	0.08											0.27	0.08	3.38				
Inter-group	Believes that inter-group relations are good/better.			(-)	~	[iv]									-0.08	0.12	-0.50	0.19	-0.20	0.10	-1.97	0.17

Figure 4. Synthesis of effect estimates from CDD interventions.

Notes: The synthesis is based on recommendations from Rothman *et al.* (2008, pp. 668–673). [i] The effect estimates and standard errors are in terms of differences in endpoint probabilities (that is, risk differences) for individuals in treated versus control communities, as measured on the probit scale. In some cases, studies reported relative risks or differences-in-differences (that is, gain scores), in which case we had to convert them to risk differences. For some studies, standard errors were not reported but the authors indicated that the effects were ‘not significant’. For these, we imputed a standard error corresponding to a *p* value of 0.5. This was done for ‘participates in general collective action’ for the Zambia and Malawi studies, for ‘believes that inter-group relations are good/better’ for the Malawi study, and for ‘believes that leaders will be responsive’, ‘participates in social groups/traditional events’, and ‘is aware of/participates in community meetings/non-traditional events to address general problems’ for the Benin study. [ii] Inverse variance weighted estimates: $B = (\sum b_k * se_k^{-2}) / \sum se_k^{-2}$, and $se(B) = (\sum se_k^{-2})^{-0.5}$ for studies indexed by *k*. [iii] This gives the *p* value for a chi-square-based homogeneity test. The homogeneity test statistic is $\sum se_k^{-2} (b_k - B)^2$, which is distributed chi-square with degrees of freedom equal to the number of studies minus one. The *p* value gives the probability of observing a test statistic as large as the one computed under the null hypothesis that the different studies are measuring the same underlying effect. [iv] Effects on these outcomes for these two studies were measured using multi-category indices, meaning they could not be converted to a comparable scale. For these cases, (–) indicates that a negative effect was estimated, and (+) indicates a positive effect. The ~ sign in the standard error column indicates that the size of the standard error for the estimate is such that we would not reject the null at 90 per cent confidence.

Gugerty and Kremer (2002) compute a positive point estimate whose 90 per cent confidence interval is far from being bounded away from zero. The latter use an index measure that is not comparable with the OED (2005) outcome measure, and thus the two effect estimates could not be combined. We can take the two results as weak evidence of the fostering of trust. Across studies, effect estimates point in different directions for effects on beliefs that participation in group activities is easier, beliefs that communities can reach consensus, and the initiation of school-related activities.

Our conclusion from the statistical meta-analysis is that the evidence of pro-social effects is weak. Only for 'the possibility of one community member assisting another who is in need' do we find evidence across more than one study of a positive social cohesion effect that clearly reflects more than programmatic aspects of the intervention. At the same time, the most compelling result of our meta-analysis – although more evidence would be helpful here too – is the negative estimated effect on inter-group relations. The other results are either a one-off that await replication, too heterogeneous to be considered consistent, or otherwise indeterminate in terms of whether the effect is likely to be positive or negative.

The meta-analysis raises some issues about the manner in which social cohesion effects should be measured. Social cohesion is a complex concept. There are reasons to be very pessimistic about whether some common protocol might be developed to definitively measure social cohesion effects, much less reduce such effects to a few dimensions comparable across contexts. Behavioural manifestations are highly context specific, and attitudinal manifestations rely on abstract concepts that, when translated into terms that are meaningful to subjects, are also highly context specific. The ability to reduce these diverse measures to a few dimensions comparable across contexts requires that such measures can be anchored to valid, context-free constructs. More work needs to be done to see whether any measures can be validated across contexts and to otherwise determine which measures are comparable in which settings.

Several questions remain: How should we deal with multiple outcomes from a single study? What might be required so that future evaluations contribute to the accumulation of knowledge rather than adding to the number of idiosyncratic findings? The multiple outcomes problem was a serious point of concern with the evaluations that we reviewed. Only one study (Pronyk *et al.* 2006, 2008) contained a protocol for interpreting mixed results, although the primary outcomes that they designated were not related to social cohesion. A protocol for aggregating or interpreting multiple treatment effect measures should be fixed prior to the estimation of treatment effects. Once the estimation has taken place and the various estimates have been viewed, the conditions for objective inference are undermined. There is great temptation to base one's aggregation strategy on the estimates themselves, and this damages the credibility of the findings.² Failure to specify such strategies for multiple outcome measures was a weakness across the board.

Three strategies could be considered with respect to multiple outcomes in evaluations. First, the standard practice in fields such as medicine is to designate primary outcome measures. This practice has the benefit of establishing a clear litmus test, but also has the drawback of requiring that one or another measure be reasonably considered as close as possible to a gold standard measure. In social programme data, such measures may be difficult to identify. Second, in lieu of direct primary measures, an aggregation method can be proposed. However, as discussed, if aggregates are to be comparable, they should be based on a common formula. There is no current basis for determining an appropriate formula, and we do not see this being resolved any time soon. Third, the various outcome measures could serve the purpose of measuring intermediate outcomes or mediators that are used to determine whether one or another purported causal mechanism is operating.

This last approach – teasing out causal mechanisms, and employing particular measures to get at them – strikes us as the most practical and theoretically appealing.

9. Causal chain analysis

Asking why programmes succeed or fail involves identifying causal pathways. Sometimes pathways are explicit, as in Carvalho and White's (2004) study of social funds, applied in Vajja and White (2008), and in Fearon *et al.*'s (2009b) discussion of possible causal mechanisms. Other times, finding pathways means looking for implicit assumptions and arguments. There are a range of possible pathways from the CDD process to social cohesion, and determining these pathways assists us in answering how and why interventions work or not.

Going beyond questions of effectiveness and looking at how and why interventions work enhances the relevance and utility of systematic reviews for practitioners and policy-makers. We followed the approach of Greenhalgh *et al.* (2007) and applied the ideas of realist review (Pawson *et al.* 2005) after having completed the effectiveness review. Through repeated reading of the included studies we extracted additional information that could help in explaining the results, paying particular attention to any data on the causal chain and how interventions unfolded in practice.

Unfortunately, impact evaluations do not commonly engage with these questions and few collect the data needed to trace the impact from the intervention to final outcomes. The majority of the studies in this review make some comment on these issues, but the extent to which the studies collect primary data that throws light on the causal chain, from intervention activities to social cohesion outcomes, varies. Five studies include data from qualitative research, such as focus groups and key informant interviews, while the remaining studies are based solely on quantitative data collection. The Fearon *et al.* (2009a, 2009b) study stands out among this group of studies in that it includes data from a behavioural game in addition to an extensive survey. In what follows we present a detailed analysis of the available evidence on *how* the interventions worked, arranged by themes.

9.1. Community-driven development interventions

To elucidate how the interventions are intended to work, we synthesised statements and hypotheses relating to causal pathways across the studies.³ Through this synthesis we identified three broad categories of possible causal pathways, through which the main mechanism of the interventions are posited to lead to improved social cohesion:

- (1) CDD process increases *participation* and *ownership*.
- (2) CDD process enhances community *capacity* for collective action.
- (3) CDD process illustrates that participation in collective action can lead to *results* including production or receipt of high quality public goods or services.

The extent to which the studies speak to these mechanisms varies; not all of the possible theories are espoused or examined (explicitly or implicitly) in all of the studies. Note that the causal pathways are not mutually exclusive – several may be at work at the same time or they may occur at different points of the intervention's impact trajectory.

We were particularly interested in assessing Pathway 1 since, as detailed in Section 7 above, participation is of key importance to general theories of CDD. We were also able to

garner the most evidence relating to this pathway. We only briefly explore the other causal pathways.

Paying attention to causal pathways allows analysis of instances in which outcomes precede interventions. For example, Carvalho and White (2004, p. 158) argue that ‘social funds have operated as users rather than producers of social capital’ since communities with high levels of social capital are likely to be more successful in self-selecting themselves into social fund interventions.

9.1.1. Pathway 1: participation and ownership. Apart from the study of block grants to school committees in Kenya (Gugerty and Kremer 2002), all studies include some suggestion that the intervention might lead to improved social cohesion through causal Pathway 1. Nonetheless, we found that the main underlying theoretical assumptions (see Figure 2) often did not hold. In other words, projects did not proceed in accordance with theory, leaving questions about whether the pro-social cohesion results would have been stronger had implementation resembled theory, or whether the theory itself is flawed.

Information and awareness of the intervention was often low. Three of the projects involved awareness-raising activities at the beginning of the intervention, through public information campaigns (OED 2002, Vajja and White 2008), or outreach to community leaders (Fearon *et al.*) or targeting certain groups (Chase and Sherburne-Benz 2001). The results in terms of community awareness were generally poor. As noted by Vajja and White (2008, p. 1153), the ideal model of CDD assumes that ‘all people are equally aware of the social fund and its purpose, and all are equally equipped to deal with it’. In Zambia, Vajja and White (2008, p. 1153) found that people, and in some cases even local leaders, did not know of the sub-project menu – as one female focus group member from one of the project communities noted: ‘we do not know anything about MPU [the social fund], but we were just told to go and work at the school’. In Zambia, knowledge of the social fund was also higher among men than women. The remaining three interventions did not report on community sensitisation or information campaigns, and the study of the CDD interventions in Kenya also did not report information on community knowledge (Gugerty and Kremer 2002). While in Benin the majority of people were aware of the meeting for sub-project selection, a large share also reported they had no information about the costs of the sub-project. There were also no changes in communities’ access to relevant information such as on project costs (OED 2005). As noted in OED (2005, p. 121): ‘When information is not disseminated widely, communities are likely to be dependent on a few informed individuals for accessing development opportunities, and as the focus group interviews in Benin and India reveal, these tend to be the local leaders’. Overall, both awareness-raising activities and communities’ access to information about the projects were limited. As one of the studies noted, this has implications for both the ability of communities to hold local leaders accountable and highlights the general lack of broad-based participation in these projects (OED 2005).

Substantive and broad-based participation was generally lacking. The participatory process was a key feature of all the CDD interventions and all studies include some discussion, and often also data, on this issue. Apart from the two interventions in Kenya (Gugerty and Kremer 2002, 2006),⁴ all studies include some data on the decision-making process. In four of the interventions, active participation in decision-making by the whole community was limited (Chase and Sherburne-Benz 2001, OED 2002, 2005, Vajja and White 2008). While attendance rates at the meeting for sub-project selection were relatively high in both Benin and Malawi (72 per cent and 58 per cent), a much smaller proportion spoke at the meetings. Only one study measured differences in participation rates between men and

women (Vajja and White 2008/OED 2002). In Zambia, but not in Malawi, participation rates were lower among women, and in both countries a lower share of women than men spoke at the meetings. Qualitative evidence from focus groups suggests that only a small group of people was actively involved in deciding on and managing the sub-project. Vajja and White (2008) found that in the communities they studied in Malawi and Zambia, the decision on the sub-project was often already made by the time of the community meeting, and that instead of being consulted on the choice of sub-project at the meeting, community members were told which sub-project had been decided upon and informed of the need for the community to contribute inputs. In contrast to this, in Liberia the survey evidence indicates higher levels of substantive involvement in decision-making (Fearon *et al.* 2009b) with a large and statistically significant impact on respondents stating they had a say in the selection of the project.

There is also evidence to suggest that, as one might expect, some people participate more than others. As Vajja and White (2008, p. 1154) state, the ‘hippy’ model of participation ‘does not take into account the importance of an individual or small group in initiating the project and carrying it forward’. In addition to knowledge of the social fund, active participation also requires certain skills, such as social skills, literacy and numeracy. It is unlikely to be the average villager, but rather, as was the case in Malawi and Zambia, a professional, such as a head teacher or nurse. Vajja and White (2008, p. 1154) call this person the ‘prime mover’. They also note the small group that is actively involved in the identification and management of the sub-projects can be described as an ‘existing social unit’ – in Zambia this was often centred round the headmaster or the Parent–Teacher Association.

All studies apart from Fearon *et al.* provide some information about community contribution in the CDD process. One study found a negative impact of the intervention on community contribution in urban communities, but no statistically significant impact in rural communities (Chase and Sherburne-Benz 2001). In Kenya there was no impact of the school block grant intervention on community contribution, while there was a positive impact in the case of the women’s groups. Another study (Vajja and White 2008/OED 2002) found evidence of high levels of community contribution in both Malawi and Zambia (91 per cent and 83 per cent), but in these projects household contribution was compulsory and community members faced sanctions if they failed to comply. This is supported by evidence from focus groups in both countries. For instance, a young male in a focus group in Zambia stated: ‘people who refuse to participate are taken to the chief/headman for punishment proceedings’ (Vajja and White 2008, p. 1156). The authors argue that:

the very high percentages of community members making contributions are a result of the way in which the participatory process is embedded in existing social structures (for example, with social sanctions imposed by community leaders), and indicates that social funds in these countries crowd-in local resources. (Vajja and White 2008, p. 1159)

Qualitative evidence from Benin (OED 2005) indicates that project communities view their participation in the CDD process as largely being to meet the required community contribution, but that they see the benefit of contributions if it enables them to leverage more resources to their village. The report suggests that when participation is interpreted in this way, communities and their leaders use their energy and existing social capital to maximise the financial resources coming into to their village.

Elite capture and rent seeking did not appear to be a widespread issue. All studies apart from Chase and Sherburne-Benz (2001) and Fearon *et al.* (2009) comment on the issue of elite capture and rent seeking, although Gugerty and Kremer do not collect any data in the

case of the block grant intervention, but state that ‘the inputs provided to textbook schools were not easily diverted to private use’ (2002, p. 232). Vajja and White (2008) note that social funds include mechanisms to prevent elite capture, such as standardised construction designs, auditing of the budget by technical staff, and limits on the sub-project menu so that only projects with non-excludable benefits can be funded. While there is no evidence to suggest elite capture and rent seeking was a widespread issue across the interventions, a couple of studies indicated this might have been an issue. In Benin there were concerns over the potential role of NGOs in a number of the projects and the multiplication of NGOs established by elites, and the orientation of these NGOs towards donors with resources.

The evaluation of CDD and women’s groups in Kenya stands out in that it found evidence of diversion of inputs to individual production, especially to the farms of leaders, suggesting the intervention presented opportunities for the leaders of the women’s group to benefit from substantial rents, and potentially encouraged rent seeking. There was also an increase in visits from local government officials (chiefs, elders and district officials), leading the authors to argue this indicates ‘a move towards more vertical, patron-client relationships between government officials and groups’ (Gugerty and Kremer 2006, p. 16). This was the only included study where there was clear evidence of an impact on rent-seeking behaviour and this might be explained by the individual, as opposed to public goods, nature of agricultural production. As the authors note: ‘Encouraging collective activity in areas that are more naturally conducted individually, such as agricultural production, may create opportunities for rent seeking, thereby weakening social capital rather than creating it’ (Gugerty and Kremer 2002, p. 214).

Some potentially negative impacts of participation in the various interventions were also observed. The two studies in Zambia found evidence of negative impacts for some indicators when compared with the outcomes of comparable projects (Chase and Sherburne-Benz 2001, Vajja and White 2008). In addition, two studies included evidence suggesting potentially negative impacts on factors other than quantitative social cohesion outcomes. For instance, one participant in the Zambia project said ‘the method was worse this time because it was slavish’, while a young male from another district stated that ‘the MPU assistance caused a lot of divisions’ (Vajja and White 2008, p. 1161). In the case of the women’s groups in Kenya, the provision of external funding and training seems to have had a number of potentially negative impacts. In addition to the diversion of resources and potential contribution to rent-seeking behaviour reported above, changes in the dynamics and membership characteristics of the included women’s groups were also reported; women with higher levels of education and men were more likely to take up leadership positions. The evidence also indicated the project led to a doubling of the exit rate from the group due to conflict and a two-thirds increase in the exit rate of older women, a group who described as especially isolated in this context.

In Pathway 1, the participatory process is the main mechanism through which the projects are expected to improve social cohesion, and for this to materialise, an underlying assumption is that this process should be both broad and of substance. Overall, the evidence on participation from the included studies suggests the extent and quality of participation is often limited, particularly with regard to decision-making. This role is taken on by a smaller group of individuals, who possibly already represent an existing social unit within the community, and as such the participatory process is likely to reflect and reproduce existing social structures. The rest of the community might be involved, but their engagement commonly seems to be limited to providing the required community contribution. Hence, as noted by OED’s Social Fund Evaluation, it appears that the participatory interventions are ‘users’ of existing social capital rather than ‘producers’ of it. Using social

capital may ultimately contribute to its increase, but this increase does not seem to be of the kind envisioned in the studied interventions. The social capital that appears to be strengthened is that which can ensure that each community has the best opportunity to attract the maximum external resources (OED 2005, p. 22).

Unfortunately, due to the limited information on project design and implementation in the included studies, it is difficult to determine whether the weak results from these interventions result from a flawed theory, project design, or issues related to implementation. The discrepancy between the importance of the participatory process in the theory of CDD and the lack of evidence of much positive impact on indicators related to the extent and quality of participation does suggest, however, that efforts to address this gap through both the design and implementation of future CDD interventions could have a beneficial impact on social cohesion outcomes. We are still left, however, with questions about flaws in the programme process versus theory failure.

9.1.2. Pathway 2: capacity-building. CDD did not generally improve capacity-building. Evidence on the impact of the interventions on capacity-building and skills development was included in four of the interventions included in this review. Through quantitative analysis, Fearon *et al.* (2009) find ‘speculative’ support for the hypothesis that community-led democratic institutions improve organisational capacity and thus collective action or social cohesion. In general, however, it does not appear that CDD improved capacity-building. Indeed, in Malawi and Zambia there was less improvement in managerial skills in intervention areas than in control areas. The authors suggest this can be at least partly explained by the small number of people who participated and the fact that this group tended to be those who already had skills, something that was confirmed in focus groups.

9.1.3. Pathway 3: results on public goods provision. In relation to Pathway 3, the success of the sub-project could be a factor affecting the impact of CDD projects on social cohesion – the theory and conceptual framework for understanding social cohesion presented above suggests that social cohesion leads to better development outcomes, but also suggests that there is a feedback loop from improved development outcomes to social cohesion. Thus we collected any data on this included in the primary studies. All the studies include some data on other project outcomes than social cohesion. In Zambia, Chase and Sherburne-Benz (2001) found a large positive impact on subjective evaluations of service improvement, and the improvement was particularly large in rural areas, where there also was a positive impact on social cohesion. There was some evidence that the block grant project in Kenya had a positive impact on students’ test scores and teachers’ efforts, but as there was no evidence of an impact on parental participation the authors suggest the impact on teachers’ efforts were direct, rather than through parents’ participation. There was also a small positive impact on production and value of outputs in the women’s group project in Kenya, but this was small and much less than what was possible with the inputs provided. In Liberia, there was some evidence of a positive welfare impact of the CDR projects, but the only statistically significant impact was on ownership of chickens. Evidence from Benin suggests that while schools were built through CDD projects, the government was often unable to pay certified teachers, with the consequence that communities had to pay for community teachers and potentially negative implications for the quality and sustainability of teaching.

Three studies also report evidence on the extent to which sub-projects met community priorities. Sub-project menus included multiple sectors and survey evidence from Benin, Malawi, and Zambia suggest that the extent to which the selected sub-projects met the communities’ top priority was rather low (12–15 per cent), although when using a broader

definition of communities' priorities, the match with implemented sub-projects was higher (22–50 per cent). This limited match between communities' top priority and implemented sub-projects was confirmed in focus groups – in Zambia all focus group interviews in two communities and some focus group interviews in the remaining three communities agreed that water supply was the top priority, while the sub-projects in these communities were in the health and education sectors.

The OED (2005) study provides qualitative support for the notion that participation in successful social fund action shows members that they can work together for more community change. One focus group in Malawi 'agreed that they would work together in the future having seen the fruits' of social fund activity (OED 2005). Pronyk *et al.* (2008), examined below as a curriculum-based intervention, also suggests support for this pathway.

9.1.4. Other pathways and contextual factors. There is also preliminary evidence that some other theorised pathways do not hold. Fearon *et al.* (2009a), for example, find that improved social cohesion does not derive from an increased capacity to hold free-riders accountable. We would like to see more exploration of this pathway.

Moreover, the theoretical model suggests that a range of contextual factors, including existing capacities, gender, and ethnicity may influence project outcomes. But, because of a lack of information on contextual factors in the included studies, we were unable to analyse the influence of such factors in any detail. One of the studies (Fearon *et al.*) explored the influence of gender by altering the treatment so that in half the communities only women were chosen to participate in the community-wide public goods game. While the study found a strong effect on collective action capacity in the communities where both men and women played the game, no evidence of a positive effect was found in the communities where only women could participate. This indicates that factors such as gender warrants further attention, both in intervention design and evaluation.

9.2. Curriculum interventions

Because of the small number of studies evaluating the effectiveness of curriculum interventions, and the significant differences in the design of the three interventions evaluated in the studies identified, we did not undertake a detailed causal chain analysis for this subgroup of studies. Levy-Paluck finds that the radio programme she studied, which emitted messages about prejudice, violence and trauma, changed listeners' perceived norms and behaviour, but did not change listeners' beliefs. In contrast, Staub *et al.* found that the training programme they implemented changed participants' orientation toward beliefs. Staub *et al.*'s findings also suggest mild support for the hypothesis that group-based learning fosters solidarity and collective action, as participants that received alternate group-based training still showed some improvement in orientation toward beliefs.

Pronyk *et al.* posit that possible mechanisms that could explain their results could be group-based learning, enhanced skills, and/or day-to-day interaction through training. However, they do acknowledge that while 'plausible shifts in social capital may have taken place in the context of the intervention, they may not explain the whole story'. They suggest the need for further analysis to 'unpack the black box' (Pronyk *et al.* 2008, p. 1568).

In sum, the studies begin to suggest possible causal pathways. The variation in intervention types, intervention contexts, and outcome measures, as well as the fact that most studies do not explicitly lay out and/or test causal pathways, however, means that we were unable to test claims about mediating effects. Future studies should pay careful attention to these and other potential mechanisms.

10. Conclusions and recommendations

We conclude by addressing the four questions we posed as the objectives of the review and by suggesting recommendations for future research in this field.

10.1. *What projects in sub-Saharan Africa have been rigorously studied in terms of their impact on social cohesion?*

Eight rigorous studies were identified, reviewing 10 interventions, although they differed substantially in their intervention types and outcome measures used. As always, reviews reflect the state of knowledge at their time of publication. Based on our conversations with researchers at the World Bank and elsewhere, it appears that the number of rigorous studies of interventions aiming to impact social cohesion will soon increase. We therefore recommend a follow-up review focusing on the impact of CDD on social cohesion, and perhaps a second on the impact of curriculum on social cohesion, with as much attention to intervention detail as possible.

10.2. *What did the studies find? In particular, what have they discovered about the possibility of fostering social cohesion?*

We found that only for one measure of trust in community members is there a replicated positive effect. In a measure of inter-group relations, there is a replicated *negative* effect. Otherwise, the evidence consists of a set of one-off estimates whose generality cannot be assessed, outcome estimates that are too heterogeneous to allow for general conclusions, or estimates whose 90 per cent confidence intervals are far from being bounded from zero. Aside from the problem of heterogeneity across studies, all studies contained within them some combination of positive, negative, and null findings, but only one of the studies had a protocol for interpreting such results.

C2 meta-analytic standards have been criticised for their emphasis on internal validity to the detriment of external validity (van der Knapp *et al.* 2008). At the same time, meta-analyses can contribute towards external validity by pooling the results of multiple studies. Unfortunately our ability to build external validity by comparing results from multiple studies is limited in this case. Increasing the number of studies, as they become available in sub-Saharan Africa, and expanding this study to other parts of the world, may go some way towards further generalising findings.

Moving forward, the possibility of adverse effects merits particular examination. As mentioned, the statistical analysis uncovered negative inter-group relation effects in multiple studies. Significant adverse effects were also detailed in the causal chain analysis, including, in some cases, rent seeking, elite capture and increased discord. These findings are consistent in studies of CDD in contexts beyond sub-Saharan Africa (see, for instance, Mansuri and Rao 2004, Labonne and Chase 2008, p. 7). Because the studies included in this review were so few, we could not investigate adverse effects systematically. However, we propose that this be an area of intensified focus.

The timeframe for a given study also needs further consideration. Gugerty and Kremer, for example, suggest that their timeline may have been too short to see results. OED (2005) similarly charges most World Bank Social Fund projects as being too short, and too quickly measured – further suggesting that positive results in Benin, in contrast to less positive ones in other places, may be due to the long-term relationship of the Fund there. Yet Fearon *et al.* argue that the International Rescue Committee initiative in Liberia ‘suggests that changes in community cohesion can take place over a short period of time’ (2008a,

p. 15). A number of the studies (for example, Fearon *et al.*, Gugerty and Kremer, Staub *et al.*) included a second post-intervention survey to see whether results endured several months after the intervention, finding that impacts did endure at least in the short term. We recommend further consideration of study timing in forthcoming studies and longer time frames.

10.3. *Do the findings allow us to make claims about moderating effects?*

The small number of studies and lack of information and analysis of the role of contextual factors in the included studies limited the consideration of context in the causal chain analysis. The OED (2005, p. 125) report on CDD interventions notes that individual communities have different capacity levels and socio-political settings, thus resulting in heterogeneous impacts. Indeed, future work may find that communities which demonstrate certain characteristics in the baseline, including levels and types of social cohesion, may show the most impact from interventions. Again, as the number of studies increases, we recommend attention to context being paramount. This might include post-conflict and non-post-conflict communities; ethnically homogeneous or heterogeneous communities; rural and urban communities; and mixed and single-gender committees.

10.4. *What do the findings suggest about appropriately measuring social cohesion outcomes and moving forward to further synthesise knowledge in this area?*

There are reasons to be pessimistic about whether some common protocol might be developed to definitively measure social cohesion effects, much less reduce such effects to a few dimensions comparable across contexts. Behavioural manifestations are highly context specific. Attitudinal manifestations rely on abstract concepts that, when translated into terms that are meaningful to subjects, are also highly context specific. The ability to reduce these diverse measures to a few dimensions comparable across contexts requires that such measures can be anchored to valid, context-free constructs. Our understanding of sociality is still too primitive to do so. There is also the likelihood that some indicators of social cohesion are substitutes; that is, some measures go up while others go down (Labonne and Chase 2008). Much work remains to see whether any measures can be validated across contexts and to otherwise assess comparability of measures.

We also emphasise the need for studies to establish protocols for multiple outcome measures. This was a weakness in the studies we examined. Future evaluations should designate primary outcome measures, establish an outcome aggregation protocol, or assign outcome measures to hypothesis about causal mechanisms derived from theories about social cohesion. This should be done prior to the estimation of treatment effects. Once the estimation has taken place and the various estimates have been viewed, the conditions for objective inference are compromised.

Additional attention to the details of interventions, to causal chain analysis, and to the exploration of competing causal pathways should be built into study designs. This includes fine-grained quantitative work as well as rigorous qualitative work. Mixed methods combine the breadth of quantitative work with the depth of qualitative methods (Jones and Woolcock 2007, p. 2) and could heighten our understanding of social cohesion interventions.

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Notes

1. The MSMS was designed by Sherman *et al.*, based on Cook and Campbell's (1979) seminal work, as a tool to evaluate methodologies for their review of over 500 crime-prevention interventions for the US Congress (for a summary, see Sherman *et al.* 1998). The scale has since been considered a key resource for appraising quantitative studies (for instance, Government Social Research undated). The MSMS is a five-point scale ranging from weakest (one) to strongest (five) in terms of the robustness of the causal claims, or internal validity. In short, only studies with both a strong comparison group and pre-test and post-test data provide solid evidence of impact.
2. We could have imposed our own solution to the problem by extracting a single outcome score by factorising the separate indicators. However, without access to the raw data from each study, covariances between various indicators within studies could not be estimated and proper factorisation was not possible. As such, we worked with collections of estimates for each study, appreciating that this makes it difficult to determine whether the findings are globally significant.
3. Tables with details of the data collected from the studies for the causal chain analysis are available in the appendix of King *et al.* 2010.
4. Neither of these projects involved sub-project selection by the community so this is perhaps not surprising.

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