Socioeconomics Discussion Paper Series

Series Paper Number 34

Process Documentation Research and Impact of Community-Driven Development Grants Research in Rural India

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5/21/2015



CRISAT International Crops Research Institute for the Semi-Arid Tropics

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Acknowledgments

The authors would like to thank the executive members of Community Driven Development (CDD) committee, several key informants and the informal leaders of the six villages who have provided vital information in relation to implementing the grant in each of the villages, including the process adopted in providing the grant. We acknowledge valuable support from the ICRISAT–Village Dynamics Studies in South Asia (VDSA), and its project field investigators residing in the six villages studied in facilitating group meetings, namely L. S. Likhitkar, Anand Dhumale, and P. R. Bangar from Maharashtra, and Ramana Reddy and N Rama Krishna from Andhra Pradesh. We also acknowledge valuable inputs and support from the VDSA field supervisors Mr. V. K. Chopde and A. Sidhu in organizing the focus group discussions at each site. Likewise, valuable support and input from senior scientists of ICRISAT, Uttam K. Deb, V. R. Kiresur, R. Padmaja, and Sujoya Dutta, are gratefully acknowledged. We have benefitted from the intellectual guidance of Hans P. Binswanger and Tuu-Van Nguyen. The report was formatted by Kai Mausch and edited by Alastair Orr. The authors are responsible for all remaining errors and omissions.

Abstract

In 2011 ICRISAT gave experimental grants to six dryland villages targeted by the "Village Dynamics Studies in South Asia" (VDSA) project. Two villages were located in Telangana state (undivided Andhra Pradesh) and four in Maharashtra state. A grant of USD 7,000 (Rs. 315,000) was given to each villages to assess the role of local governance and institutions on agricultural performance, and to evaluate development pathways. The community was free to decide where and how to use the grant. Using the Process Documentation Research (PDR) framework, this report documents the activities of the ICRISAT-VDSA project team and the community implementation committee in using the grant, and lessons learned in the process. We also estimated the number of beneficiaries and the economic benefits from the grant. In two villages, the annual economic benefits from the grant were almost equal to the total grant expenditure. In five villages, the cumulative benefits over the last four years exceeded the total value of the grant. Unlike other publically-funded projects, large numbers of households from minority and socially weaker sections also benefited. The results suggest that, given the opportunity, local communities can effectively execute local infrastructure development projects through need-based collective action, while lowering the transaction costs of community action. By involving local community members in planning and implementing projects, the village grant provided benefits to a large number of households and generated substantial economic benefits. The experiment provides useful lessons for scaling-out village grants to other project villages, and for rural development agencies in India and elsewhere.

Keywords: Community Driven Development, Village Grant, Process Documentation Research, community governance, innovation, village studies, ICRISAT, India

JEL classification: H41, H49, H89, I30, I39, Q12

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Acronyms and abbreviation

AIVGIC- APGVB- CDD- DIVGIC-	Aurepalle-ICRISAT Village Grant Implementation Committee Andhra Pradesh Grameena Vikas Bank Community Driven Development Dokur-ICRISAT Village Grant Implementation Committee
ISKC-	ICRISAT-Shirapur Knowledge Centre
MLA-	Member of Legislative Assembly
MSCIT-	Maharashtra State Computer Institute of Technology
M&E-	Monitoring and Evaluation
PDR-	Process Documentation Research
RCC-	Reinforced Cement Concrete
SETU-	Maharashtra Government E-documenting Service
SHG-	Self-Help Groups
VDSA-	Village Dynamics in South Asia
VGIC-	Village Grant Implementation Committee
VGIM-	Village Grant Implementation Model

1 Introduction

ICRISAT started collecting household data in six villages in the Semi-Arid Tropics (SAT) in the states of Andhra Pradesh and Maharashtra in 1975, and has continued to collect panel data from these villages for the past 40 years. In 2009 this household survey was expanded through the project "Village Dynamics Studies in South Asia (VDSA)", funded by the Bill and Melinda Gates Foundation (BMGF). Under this project, in 2010 ICRISAT provided a one-time grant of USD 7,000 (Rs. 315,000) to each of the six targeted villages. Grants were made using the Community-Driven Development (CDD) approach, in which communities were free to utilise the grant to benefit as many villagers as possible (Binswanger and Ayer, 2004).

The general objective of this study is to document the process of grant implementation in each of the six selected villages. The four specific objectives are to:

- 1. Document and evaluate the process used by the project team in planning and implementing the village grant, including documenting bottlenecks in implementing the grant;
- 2. Assess how the communities selected a particular project, and analyze the management of the fund and the participation of beneficiaries;
- 3. Evaluate steps by the communities to implement the grant and the lessons learned; and
- 4. Measure the economic impacts of the village grant across the six villages.

Though the focus is across the six villages, the lessons from a comparative assessment are also applicable to similar projects in rural India.

The report is organized as follows. Following this introduction, the second section briefly reviews selected literature relevant for this study. The third section describes methodology, data, and the village sites. Section four reports research findings on process documentation research, preliminary impacts of the village grants, and major constraints in implemention. Finally, we summarise our conclusions.

2. Literature Review

A comprehensive review of the literature on CDD is beyond the scope of this discussion paper. Instead we provide readers with the background, concept, and procedures on projects implemented using this approach. We also describe how projects funded using this approach differ from conventional development projects.

CDD projects provide direct funding for development to community members who decide on how and where to spend this fund in meeting their local needs and requirements (Binswanger and Tuu-Van, 2005). World Bank project evaluation studies have shown that the CDD approach is more responsive to local demands, inclusive, and more cost-effective than development projects and programmes led by centralised agencies (Mukherji, 2013; Binswanger and Aiyar, 2004). Locally, CDD is supported by strengthening and financing community groups, facilitating community access to information, and promoting an enabling environment through policy and institutional reform (Dongier, 2002). The CDD approach is closely linked with community empowerment, targeting the interventions to need of the weaker section of community, collective action of community members, local capacity of community members, and process documentation research. Moreover, there is a considerable overlap in conceptual thinking and implementation between community-based development (CBD) and community–driven development (CDD) projects. However, aligning the CDD approach with local institutions is a concern and an unresolved issue in the CDD literature.

Under the CDD framework, local communities and stakeholders are treated as assets and partners in the development process, and not just beneficiary groups (Binswanger and Aiyar, 2004). In implementing CDD based projects, the local community is in the driving seat in deciding the types of intervention, and in planning and implementation. The community is given the freedom to mobilise collective action, develop the project plans and build the projects, and to take responsibility for monitoring, supervision, including sustaining its progress in the future through sharing the project costs (Binswanger and Aiyar, 2004; Dongier, et al., 2003).

CDD minimizes the monitoring of interventions, because the community is better able to identify the poor than personnel from outside agencies, who may lack full information about the community, and ranges of tangible and non-tangible assets held by the individual members targeted. This is one reason for the enhanced performance of CDD based projects. Reviewing Community Based Training (CBT) project outcomes across several countries, Cannings and Kevane (2012) have suggested that CDD projects are relatively more successful in communities that have relatively egalitarian preferences, relatively open and transparent decision-making than that of the case of heterogeneous communities where people have multiple and conflicting identities. Heterogeneity and multiple goals in a community may also pose a challenge in implementing CDD projects because of competing incentives. Communities also vary in their ability to mobilize information and monitor disbursements, affecting the cost-efficiency of CBT. This creates opportunities for elite capture and corruption, if proper control mechanisms are not in place.

3. Methodology and Data

3.1 Methodology

PDR was conducted using the following steps (Shah, 1997; and Mosse et al., 2001), listed below:

- 1. We collected detailed information on the type of the project interventions set up under the grant, based on discussions with key stakeholders and community members in each village;
- 2. We took suggestions and feedback from informal leaders while selecting the scheme to be funded under the village grant;
- 3. We ensured that the ICRISAT field investigators (e.g., resident field investigators of the VDSA project) played only an observer role, providing expert opinion when asked but without influencing the selection or implementation of the grant;

- 4. We mapped out the village physical and social resources, resources and factors influencing people's participation, and community's choices for a particular project;
- 5. We established a close rapport with the committee members and other stakeholders in the village, while implementing the schemes;
- 6. We prepared a time-trend or chronology of the major events in each village during the implementation process;
- 7. We documented major issues discussed with the community stakeholders, and logged these as written reports; and
- 8. Field Investigators documented major events and interactions on a bi-annual basis.

3.2. Villages and data

Two villages (Aurepalle and Dokur) are located in Mahabubnagar district of undivided Andhra Pradesh, two villages (Shirapur and Kalman) are Solapur district, western Maharashtra state, and two villages (Kanzara and Kinkhed) villages are in Akola district, eastern Maharashtra (Figure 1). Detailed descriptions of the villages are provided in Table 1 below.

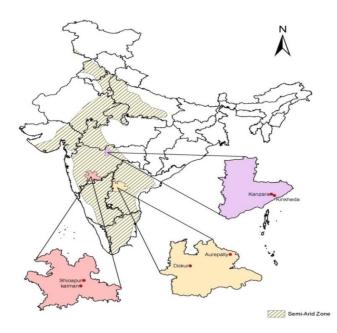


Figure 1. Villages that received village grants, 2010.

Village	State	District	Sub-district	Number of Households *	Population of the village*
Aurepalle	Andhra Pradesh	Mahabubnagar	Amangal	874	3504
Dokur	Andhra Pradesh	Mahabubnagar	Devarakadra	528	2785
Shirapur	Maharashtra	Solapur	Mohol	625	3039
Kalman	Maharashtra	Solapur	North Solapur	813	3958
Kanzara	Maharashtra	Akola	Murtizapur	385	1624
Kinkhed	Maharashtra	Akola	Murtizapur	221	914
Note: * Government of India Census, 2011.					

Table 1: VDSA villages in Andhra Pradesh and Maharashtra

This study uses both primary and secondary sources of data. Primary data on the functioning of the village grant schemes were collected across the villages using Focus Group Discussion (FGDs). During the discussion, the community members raised many issues pertaining to the village grant, possible impacts, and suggested their views.

We analyzed and documented the major issues, process, and activities taken the community members in implementing the village grant in each of the village. They include the implementation process, constraints faced, level of participation of beneficiary members while setting up the scheme, and the role of local government while implementing the grant.

The project team visited all six villages in 2011 and informed them of the grant implementation. Consultations were held with key informants and stakeholders. The FGD and community level consultations focused on identifying community needs and requirements. The ICRISAT project team evaluated alternate options and strategies identified by the village community to identify the most relevant and important scheme amongst the three-four alternative options, to decide funding for a particular scheme. We also analyzed the major constraints that the ICRISAT village grants team faced while implementing the grant.

4. Results and Discussion

4.1 Investment options for village grants

In each village the stakeholders suggested three-four alternative schemes to be funded under the village grant, as shown in Table 2.

Village	No. of alternate projects identified in initial FGD		Project finally implemented	Remarks
Andhra Pr	ades	<u>sh</u>		
Aurepalle	a) b) c) d)	Mini water tanks Primary health centre Veterinary hospital Computer centre and library in school	Mini water tanks construction	Drinking water was a major problem, so villagers decided to construct mini water tanks.
Dokur	a) b)	New pipelines for drinking water Transfer grants to SHG for loan purpose	Laying new pipelines for drinking water	Drinking water was a critical problem, so the villagers decided to rehabilitate the drinking water infrastructure.
<u>Maharasht</u>	ra			-
Shirapur	a) b) c) d)	Establishment of <i>jaggery</i> ¹ making plant Purchase sugarcane harvester Establishment of fertiliser briquetter ² Computer knowledge centre	Computer knowledge centre	Jaggery making plant or sugarcane harvester was outside of the grant fund. Setting up a fertiliser briquette making factory had logistics and maintenance problem. Hence, they decided to establish a computer knowledge centre.
Kalman	b)	Sewing machine Petty business for women Construction of community building Computer knowledge centre	Computer knowledge centre	Sewing machine, petty business for women, community building will provide benefits to limited households. Thereby, the majority stakeholders decided to establish computer knowledge centre in the village.
Kanzara		Agriculture Information centre Construction of public toilets Establishment of warehouse Construction of mini <i>dal</i> ³ mill	Mini <i>dal</i> mill	Decided to establish mini <i>dal</i> mill than other options. Construction of public toilet was out of budget and its regular cleaning was a big problem. Establishment of warehouse was out of budget.
	a)	Construction of mini oil	Computer	First, villagers decided to set

|--|

¹ *Jaggery* is a natural product of sugarcane juice. It is in unrefined form of sugar, prepared locally, and commonly used in rural India.

² Loose fertilizer materials that are compacted and prepared in tablet form for placement near plant roots.

³ *Dal* is a dried split pulse (legume), a very common food item in the sub-continent.

Kinkhed

high cost.

b) Construction of mini *dal*

d) Establishment of

c) Construction of public

mill

toilets

knowledge centre

up a mini *dal* mill but, due to declining pigeon pea area; they then opted to set up a computer knowledge centre, which will benefit more households.

Source: Information compiled from field notes by Field Investigators and from the authors' field visits. In some villages, additional schemes were also discussed but dropped from the list because of their

4.2 Village grants implementation

In each of the six villages, the ICRISAT project team adopted used the same procedures, based on the CDD framework:

- 1. Explored community needs by conducting FGDs with the community members and local leaders in each village to identify potential projects for funding by the village grant;
- 2. Prioritized alternative projects for the village grant based on the cost limitation and need of the wider community, based on intensive debate among community members;
- 3. Final proposals were approved from the *Gram Sabha* ⁴ through the *Gram Panchayat*⁵;
- 4. Villagers and community members were asked to take full responsibility in setting up the new project scheme and daily operations;
- 5. Formation of a village grant implementing committee (VGIC) to implement project activities under the grant, to buy materials and to mobilize collective action;
- 6. Formation of a village grant advisory committee representing elders and informal leaders, for advice and suggestions;
- 7. The VGIC prepared a business plan for implementation of the grant;
- 8. The VGIC submitted the required documents to the ICRISAT-VDSA project management team for transferring the fund to the village committee;
- 9. The grant was transferred from ICRISAT into a joint account of the VGIC; Purchase of materials and development of infrastructure at each site;
- 10. A supervision committee was appointed for new construction, purchasing materials, and for other suggestions related to purchase of materials;
- 11. Purchase of materials and development of infrastructure at each site;

⁴ A *Gram Sabha* is a problem-oriented meeting that includes all the adults in the village. The *Gram Sabha* has to conduct a meeting whenever there is an issue to be discussed and debated by the villagers. A *Gram Sabha* has a power even to change decisions taken by the *Gram Panchayat* committee.

⁵ The *Gram Panchayat* is the executive body of local self-government at village, or at small town level, in rural India. The elected head is called the *Sarpanch*.

- 12. Additional funds were collected from villagers or the *Panchayat*, or voluntary contributions (in kind or cash) to complete the scheme;
- 13. The VGIC hired operators (a computer teacher in the knowledge centre, a technician in the *dal* mill);
- 14. Annual or six monthly meetings (as the need arose) were held at each site; and
- 15. Some VGIC (eg. Kalman) prepared long-term business plans to expand activities in the village.

4.2 Village grant implementation model: a generic framework

The detailed steps followed and roles of key stakeholders in implementing and setting up the village across the six villages are summarized in Figure 2. The major stakeholders involvement in implementing the grant are: ICRISAT (financial support), VDSA team (catalyst/active agency), the VGIC (local stakeholders implementing the grant); and villagers and young school-going population (beneficiaries or end users).

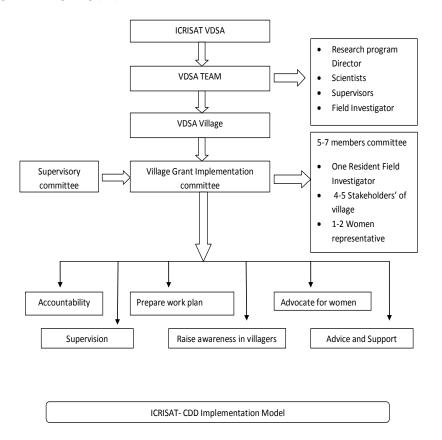


Figure 2. ICRISAT- Village Grant Implementation model

ICRISAT's VDSA project VGIC included the Research Program Director of Market Institutions and Policies (MIP), two VDSA scientists, and the supervisors and field investigator for each village. Likewise, the village level VGIC included four to five members from the community, with the Field Investigator as a guest member.

The VGIC prepared a business plan for project implementation, with details on daily supervision and monitoring of project activities. Of the six villages, three villages (Aurepalle, Dokur and Kinkhed) appointed a supervisory committee, with respected elders and village leaders, to provide advice and suggestion in implementation of the grant, and for resolving any future conflicts in construction and operation of the schemes. The advisory committees in these villages are still functioning well, which has provided stability in operation of the schemes.

4.3 Grant implementation in Andhra Pradesh

This section describes the major activities carried out in the two villages of Andhra Pradesh state (now Telangana). Results are summarized in Table 3.

4.3.1 Aurepalle village

In the first FGDs, the villagers suggested four alternative projects for the village grant:

- 1. Setting up a primary health centre;
- 2. Setting up a veterinary hospital;
- 3. Setting up a computer centre and a library in the village school; and
- 4. Constructing mini water tanks in the village for drinking water.

Availability of drinking water was a major problem in the village. Accordingly, within eight to ten days of the first FGD, the community unanimously decided to construct seven mini water tanks in the village - four in the main village, two in hamlet villages ⁶ and one in the village school premises. In a subsequent meeting, a VGIC was formed with five members, representing different castes and social classes, and the resident field investigator as a guest member. A supervisory committee with seven members was formed to provide advice and suggestions to the village grant implementation committee, and to resolve any potential conflict in construction, and implementing the grant.

A resolution was passed by the villagers in the *Gram Sabha* for setting up the mini water tank. The VGIC obtained a no-objection certificate from the block (sub-district) office for construction of mini water tanks on village communal land. The VGIC opened a joint account in the *Grameena Vikas* bank, to which ICRISAT transferred the village grant. The construction of the mini water tank was completed between February-May 2011. By late 2011, over 450 households had benefited from improved access to clean water from the mini water tank, which was supplied by the Nagarjuna *sagar* and Hyderabad water pipe network which passed close to the village.

4.3.2 Dokur village

In the initial FGD the village community identified two important needs:

1. Rehabilitation and laying out a pipeline for drinking water; and

⁶ A hamlet is a type of settlement, typically of communities not incorporated in a village settlement.

2. A village Self Help Group (SHG) – a lending society of women members – to offer members loans at a reasonable interest rate.

Since access to drinking water was a greater problem than credit, within a week of the grant announcement, the community had decided to rehabilitate the drinking water pipeline (replacing the old non-functional system with new pipelines) and connecting it with the village overhead tank.

A VGIC was then formed with five members representing different castes and social classes and including the resident field investigator as a guest member. A supervisory committee of thirteen members was formed to monitor day-to-day work and to monitor and advise the implementation committee.

Subsequently, the *Gram Sabha* passed a resolution giving permission to rehabilitate the old drinking water systems constructed by the village. A joint account was opened in the State Bank of Hyderabad in town, and the grant was transferred from the ICRISAT office in Hyderabad.

The estimated cost for rehabilitation of the drinking water system was greater than the sanctioned village grant. After discussion, the *Gram Sabha* decided unanimously to raise additional funds. The VGIC raised USD 7570 (Rs. 406,000) by collecting USD 50 (Rs. 2000) per new drinking water tap connection, and USD 13-25 (Rs. 500 to 1000) from households that already had an old tap connection but had not received any water for the last few years. The work of laying the pipeline was completed in August 2012, and from the next month onward, good quality drinking water was provided to the households from the rehabilitated and the new tap water connection system.

Description	Aurepalle	Dokur
Step-1. Explaining village grant to the communities, find out felt need through FGDs	Mini water tanks	 Laying in new pipelines for providing drinking water. Transfer the grants to the SHGs to provide loans to their members.
Step- 2 Projects prioritized	Mini water tanks	Laying out pipeline for drinking water through tap connections with overhead tanks.
Step- 3. To identify the socio- economic researchable issues and M & E	Impact of safe protected drinking water on health, nutrition, employment, and income generation of the villagers to be	Impact of safe protected drinking water on health, nutrition, employment, and income generation of the villagers to be

Table 3: PDR of village grants in Andhra Pradesh

Aurepalle	Dokur
assessed in the future.	assessed in the future.
Five members VGIC ⁷ (men and women belonging to different castes and class including ICRISAT Field Investigator ⁸)	Formed five members DIVGIC ⁹ (men and women belonging to different castes and classes, and ICRISAT Field Investigator)
 Resolution passed in the Gram Sabha for installation of the mini water tank from the grant. Estimate of item-wise expenditure 	 Resolution passed in the <i>Gram</i> <i>Sabha</i> for the pipe water rehabilitation under the grant. Estimate of item-wise expenditure No objection certificate from
 3.No objection certificate from <i>Mandal</i> Office 4.Joint account was opened in APGVB¹⁰ 	Mandal Office 4.Joint account was opened in State Bank of Hyderabad
Grant amount USD 7000 was transferred to a joint bank account opened on the name of Aurepalle-ICRISAT Village Grant Implementation committee	Grant amount USD 7000 was transferred to a joint bank account opened on the name of Dokur- ICRISAT Village Grant Implementation Committee
 Pressure from influential persons in the village to change the prior selected locations of on of water tank to a location closer their house. Two out of the seven sites for setting up of the water tank belonged to private owner, at 	 Political person influenced in prioritized project design and number of taps to be distributed by the scheme. Prioritized project estimation was more than the village grant budget. Local political support was required to raise the remaining needed fund
	 Five members VGIC⁷ (men and women belonging to different castes and class including ICRISAT Field Investigator⁸) 1. Resolution passed in the <i>Gram Sabha</i> for installation of the mini water tank from the grant. 2. Estimate of item-wise expenditure 3. No objection certificate from <i>Mandal</i> Office 4. Joint account was opened in APGVB¹⁰ Grant amount USD 7000 was transferred to a joint bank account opened on the name of Aurepalle-ICRISAT Village Grant Implementation committee 1. Pressure from influential persons in the village to change the prior selected locations of water tank to a location closer their house. 2. Two out of the seven sites for

 ⁷ Aurepalle- ICRISAT Village Grant Implementation Committee (AIVGIC)
 ⁸ Data enumerators) of ICRISAT who are placed in village to collect data of VDSA/VLS project.
 ⁹ Dokur- ICRISAT Village Grant Implementation Committee
 ¹⁰Andhra Pradesh Grameen Vikas Bank

Description	Aurepalle	Dokur
	construction of the tank on their private land.	from the villagers (households).
Step - 8 Implementation of project work	Constructed six mini water tanks within the hamlets, and on the premise of the village school.	Assistant Engineer from Rural Water Supply & Sanitation department helped in planning and laying out pipelines for proper
	Construction of tank was completed in May 2011, providing benefits of clean drinking water to beyeeholde	distribution of water. Construction work was completed in August 2012, and water is coming to villager's courtyard since then.
Step - 9 Appointment of supervision committee	Seven member Supervision Committee was formed to supervise the day-to-day work progress and to give suggestions.	Thirteen members Supervision Committee was formed for monitor day-to-day work, and to advice on any future conflict.
Step - 10 Collected additional funding to complete the development	The village grant was sufficient to construct the water tanks, so additional fund was not collected.	The village grant was adequate, so additional fund of Rs. 4,06,000 (USD 7570) was collected from the villagers by charging Rs. 2000 per new tap connection, and Rs. 500- 1000 per old tap connection (@ per household level).
Step - 11 Completion of the project work and beneficiaries	Construction work completed in May 2011. Total of 325 households from different social groups and 325 students (per year in the school) are getting benefited these schemes.	The rehabilitation work was completed in August 2012. Since then, all 420 households in the village are getting water at their courtyards. Everyone is now happy who have saved lots of their water fetching time.
Step - 12 Sustainability of the project in the long run	Decided to charge maintenance fees of Rs 5/household/month. However, majority of the users did not agree to pay the monthly fees. Thereby, the maintenance task was handed over to the <i>Gram Panchayat</i> to take care of maintenance in the future by <i>Panchayat</i> fund.	<i>Gram Panchayat</i> is charging Rs 18 per month per tap to pay monthly salary of two persons (waterman and maintenance persons) who are doing monitoring and regular check-up of the system.

4.4 Village grant implementation in Maharashtra

Using the PDR framework, this section presents the major activities carried out by the four villages in Masharashtra.

4.4.1 Shirapur village

At the FGD the villagers expressed interest in the following schemes:

- 1. Establishment of plant for making jaggery;
- 2. Purchase of sugarcane harvester;
- 3. Setting up a fertilizer briquette machine; and
- 4. Establishment of a computer knowledge centre.

After consultations, the majority decided to set up a computer knowledge centre in the village high school, to enable the village youth and school-age children to learn computing. A VGIC was set up, with six members representing different castes and social groups, including the resident field investigator. A joint bank account was opened in the name of the VGIC at the district credit co-operative bank in Solapur. The *Gram Sabha* approved the computer knowledge centre, which opened in September 2011. Nearly all the high school students in the village, and other residents, have benefited from the computer knowledge centre knowledge centre in Shirapur.

4.4.2 Kalman village

The FGD identified the following schemes for the village grant:

- a) Establishment of sewing machine centre;
- b) Businesses for village women: making papad (snack) and noodles;
- c) Construction of a community building; and
- d) Establishment of computer knowledge centre.

After consultations, the village decided to establish a computer knowledge centre in the local high school. A resolution on this topic was passed in the *Gram Sabha*. A VGIC was formed with five members, representing different castes and social groups, including the resident filed investigator. The VGIC opened an account with the Bank of Maharashtra, in Mahol, the nearest town. The computer knowledge centre opened in July 2011. All the school students in the village have since received hands-on training in computing and farmers and older people have also benefitted by being able to print certificate forms easily from websites.

4.4.3 Kanzara village

In the initial FGD, several alternative schemes were prioritised for consideration by the ICRISAT village grant, including:

- 1. Establishment of an agriculture knowledge centre;
- 2. Construction of public toilets;
- 3. Construction of a warehouse for storing agricultural produce; and

4. Establishment of a mini *dal* mill.

At a second meeting the community decided to establish a mini *dal* (split pulses), since there was a large area planted to pigeonpea and other pulses in the village, and in surrounding villages. A VGIC was formed to construct the *dal* mill. The *Gram Sabha* approved the construction of the mill, and the VGIC opened an account with a local bank. The *Gram Panchayat* gave permission to the VGIC to acquire 0.5 acres of *panchayat* land and set up the mill, but the Revenue Department refused the VGIC permission to acquire *panchayat* land. One of the committee members provided the land and infrastructure to establish the mill on a temporary basis, until a permanent solution is found. The *dal* mill was established in March 2012, and is in functioning well, but only a limited number of households have been able to use the mill to the fullest scale.

4.4.4 Kinkhed village

The FGD suggested one of four schemes to be considered for the village grant:

- 1. Construction of a mini oil mill;
- 2. Construction of public toilets;
- 3. A warehouse for storing agricultural produce; and
- 4. Construction of a mini dal mill.

In the second round of meetings the village decided to establish a mini *dal* mill, since they had difficulty splitting pulses at home. The nearest *dal* mill was at more than 10 km away. A VGIC with six members was formed representing different castes and social groups, including the resident field investigator. A joint account was opened in a bank in Murthijapur town.

After a month, however, the VGIC and the villagers showed a stronger preference for setting up a computer knowledge centre, because the area planted to pigeonpea in the village was decreasing, and because a *dal* mill had already been established in a village nearby. Accordingly, the VGIC recommended establishing a computer knowledge centre. This development followed intensive discussion among community leaders and other VGIC members on the relative costs and benefits of the *dal* mill versus a computer knowledge centre, and increasing demand from the school to teach students computing. The government of Maharashtra also enforced a rule that all applicants for government service had to have a basic knowledge of computing, and a computer course certificate. This gave an additional incentive for the villagers to teach computing in the local school.

The ICRISAT project implementation team therefore reversed its earlier decision, and granted permission to establish a computer knowledge centre. In August 2013, the VGIC rented a room in a new, cement-built house for the computer knowledge centre, managed by a supervisory committee of eminent persons in the village. These committees included a computer centre management committee (five members), a school student committee (eleven members), and a women's committee (seven members).

4.5 Time-lags implementing village grants

There was a time gap between selecting a scheme and implementation. Some administrative steps had to be completed before ICRISAT released the village grant. After the VGIC had opened bank accounts, ICRISAT transferred funds in February 2011. In many cases (Dokur village), the estimated budget exceeded the limit for the village grant, in which case additional funds had to be collected as user fees. Table 4 summarizes these time-lags across the six villages.

In Aurepalle, Shirapur, and Kalman the grant-funded schemes were completed more quickly than in the other three villages. The schemes in these villages started to function by late 2011, well ahead of the others. In Dokur and Kanzara, the scheme started to function in middle of 2012 – nearly one and half years after the grant fund was transferred to the village. In Kinkhed, the computer knowledge centre started to function only from September 2013. Changing the decision from *dal* mill to computer knowledge centre required substantial time by the villagers and the ICRISAT team.

Village	Fund transferred month/year	Month/year project start functioning	Remarks
Andhra P	radesh		
Aurepalle	February- 2011	May-2011	Work started in February 2011 and completed in May 2011
Dokur	February- 2011	August- 2012	Delayed work due to lack of sufficient fund, less interest shown by the village president who was head of implementation committee.
<u>Maharash</u>	<u>tra</u>		
Shirapur	February- 2011	September- 2011	Delayed due to time require for preparing computer rooms wall plastering, electricity fitting, etc.
Kalman	February- 2011	June-2011	Longer times required to take decision on purchasing computers, and other items.
Kanzara	February- 2011	March 2012	Delay in acquiring land. For temporary purpose <i>dal</i> mill was establish in one private land and when government gives permission then transfer it on government land.
Kinkhed	February- 2011	August-2013	Delayed in setting up the computer centre due to change on the initial prioritized project (changed from <i>dal</i> mill to computer knowledge centre).

Table 4:Time-lags between project selection and implementation of village grants

4.6 Role of local institutions

Village grants were implemented in co-operation with local government institutions. In Aurepalle, for example, the *Gram Panchayat* gave permission to construct mini water tanks on roadside land belonging to the *panchayat*. Likewise, the *Gram Panchayat* in Dokur gave permission to lay a pipeline under the roads within the jurisdiction of village *panchayat*, and to connect the drinking water pipeline to the village overhead water tank constructed by the village *panchayat* a few years ago (see Table 5).

In Shirapur, the local school management committee provided a room in the high school and furniture, electricity, and security guards for the computer knowledge centre. This saved costs and facilitated the smooth operation of the centre. In the same way, in Kalman, the local school management committee provided a room in its old school building for the computer knowledge centre. After the new school is completed, the computer knowledge centre knowledge centre will be moved there to run independently as the "Kalman computer knowledge centre."

The *Gram Panchayat* in Kanzara allotted 0.5 acres of land located in the centre of the village to the VGIC to establish the mini *dal* mill, in order to be more accessible to all households in the village. A new building is now being constructed in Kanzara to shift the existing dal mill from a rented house located 1 km away and re-locate the mill in the centre of the village.

village	Intervention	Local government linkage	Remarks
Andhra Pr	adesh		
Aurepalle	Mini water tanks	The village <i>panchayat</i> owned land was allocated for construction of mini tanks by the panchayat president.	
Dokur	New pipeline for providing drinking water	Pipelines were laid under village roads, and were connected to the overhead tank constructed and managed by the village panchayat.	The local government earlier had also laid down the water pipes.
Maharash	<u>tra</u>		
Shirapur	Computer knowledge centre	School committee (Indira Shikshan, Prasarak Mandal) provided infrastructure (room) to start knowledge centre in the village.	The cost of 340 square feet RCC ¹¹ room was Rs. $200,000 (USD 3730)^{12}$.
Kalman	Computer knowledge centre	School committee (Pandit Jawaharlal Nehru Shikshan Prasara, Mandal) provided infrastructure and appointed a full time teacher to run the computer knowledge centre.	The cost of 400 square feet RCC room will be Rs. 225,000 (USD 4195)
Kanzara	Mini <i>Dal</i> Mill	<i>Gram Panchayat</i> allotted 0.50 acre of land to the Committee but it was late in getting permission from revenue department for new constructions	The cost of 0.5 acre land is Rs.250,000 (USD 4660)
Kinkhed	Computer knowledge centre	School committee (Andha Apang Shikshan Sanstha) has decided to give one room for the ICRISAT village grant computer uses established under the grant support	The cost of 400 square feet RCC room was Rs. 200,000 (USD 3729)

Table 5: Village grants and linkages with local government

¹¹ Reinforced cement concrete

¹² 1 USD = Indian Rs. 53. 65 in 2011

4.7 Constraints implementing village grants

The VGIC encountered several problems implementing schemes under the CDD framework. Table 6 summarises the major problems facing the VGIC, and how these were resolved.

Village	Major problems in implementation	How these problems were solved			
Andhra Pra	Andhra Pradesh				
Aurepalle	Local political leaders and SHG's members pressurised the VGIC to change the sites for construction of the tank to closer to their houses from the earlier agreed sites.	The VGIC convinced the political leaders to serve large number of households, especially to poor families, within the budget limit set.			
Dokur	Instead of the village grant work, the <i>panchayat</i> head (<i>Sarpanch</i>) ¹³ gave a high priority for construction	Water scarcity was a major problem in the village, all most all villagers decided to lay new pipeline for drinking water.			
	of other public works like repairing of railway station, repairing of <i>Gram Panchayat</i> building, etc. The supplementary grant from the village was not provided on time. The panchayat head wanted to have full control on the village grant spending. Securing remaining fund from the <i>Panchayat</i> was a problem for a long time.	The committee decided to speed up the construction by collecting Rs. 2000 per household (37 USD) for the new tap connection, and Rs. 1000 per household for the old tap connection. The beneficiaries raised a total of Rs. 406,000 (7568 USD); which is 130% more than the total village grant.			
<u>Maharasht</u>	ra				
Shirapur	Initially, four members of the committee opposed establishing the computer knowledge centre at the school. This was because, in 1997, five computers were given to the school by the government (MLA fund), but the school management could not maintain	The villagers were eager to teach computer to their children. Not having computer centre in the village was a major problem for all households, especially for girl students who could not travel to the nearest town. After discussion, all members agreed to establish ISKC in a different mode than			
	(MLA fund), but the school	discussion, all members agree			

One local leader also pressurised

schemed was closed within a year.

independent

(management),

than

also

school

with

office

close

¹³ The head of a village is selected by ward members who are elected from each of the wards in a village.

> the committee members to purchase the computers from a private supplier suggested by him, and not to purchase the computers through open tender.

Kalman One political party leader wanted to establish the computer knowledge centre in the primary instead of in the high school as desired by other households. Initially, therefore, a few Gram Panchavat leaders did not co-operate with the VGIC in implementing the grant.

Kanzara Delay in acquiring the land by the VGIC was а problem for construction and setting up the dal mill. It took long time to find the suitable place for setting up the mill in the village

management and supervision by the VGIC than done in the past.

The VGIC resisted this pressure, and purchased computers through open tender. The cost was about 15% less than the rate quoted by the private supplier.

The high school children convinced their parents of the importance of a computer centre for their future career, and subsequently all recognised the need for computers with access to all.

The Gram Panchayat allotted 0.5 acre of land to VGIC for setting up the dal mill, but the Revenue Department did not give written permission to use the land. It took long time to resolve this issue. The dal mill was set up in a private house on a rental basis, until it is shifted to its own building constructed on public land.

Availability of separate and secure Kinkhed room for installation of computer sets, and students to use the computer systems independently permanent basis. was a serious problem in the village.

At present, this knowledge centre is being operated in a rented room. Once the new school is constructed, it will be relocated to the school building on a

In the two Andhra Pradesh villages, shortage of funds was a major constraint in implementing the grant. There were also political problems. Members of Self Help Groups (SHG) and the village president pressurised the VGIC to change the locations of the water tank (tap water site) closer to their own homes. Local leaders in the two Maharashtra villages also pressurized the VGIC to place new infrastructure in the vicinity of their home or within their own control. However, community members in these villages were able to resolve these issues successfully, and to use the grant to enhance the welfare of large numbers in their community.

4.8 Impact of the village grants

Table 7 shows estimates of the number of beneficiary households (or persons) for each village grant, and the total impact of the grant in monetary terms. In many cases, the benefits from the village grant are public goods and non-priced services. Consequently, it was not feasible to quantify and put a monetary value on all of the benefits and services that the communities have obtained from the village grants. For example, the water tanks in Aurepalle village have greatly helped to reduce the drudgery – particularly for women and children – involved obtaining drinking water, and have improved health and sanitation. By contrast, it is straightforward to estimate number of users for the computer knowledge centres in Maharashtra, and to give monetary values for the benefits and costs of these services.

Village	Intervention	Number of beneficiaries	Remarks
Andhra Pradesh	<u>1</u>		
Aurepalle	Mini water tanks	Annually, 324 households from different social classes and 325 students were benefited from the mini water tank (2013).	The imputed monetary benefits were Rs. 324,000 (USD 5,526) per annum, in terms of saving of labour time in fetching water. The non-priced benefits of improved access to drinking water on health and nutrition would be even higher.
Dokur	New pipeline for providing drinking water	Annually, 420 households from different castes and social classes are benefitted from improved tap water services (2013).	The imputed monetary benefits were Rs. 404,000 (USD 6890) per annum, in terms of saving of labour time in fetching water. The non-priced benefits of improved access to drinking water on health and nutrition would be even higher.
<u>Maharashtra</u> Shirapur	Computer Knowledge Centre	Annually, 335 students benefitted from the basic computer course (2013-14).	Annually, net benefits to the villagers in terms of saving on financial costs (reduced fees and transportation cost) were Rs. 142,000 (UDS 2422) in 2013.
		18 students benefitted from MSC-IT course.	
Kalman	Computer knowledge Centre	Annually, 450 students from the high school benefit from learning a basic computer course (2013/14).	Rs 204,500 (USD 3,488) annual saving on computer training course fees and transportation costs.

Table 7: Total number of beneficiaries and annual economic benefits from village grants for six villages

		19 Students benefitted from the MSC-IT course (2013).	
Kanzara	Mini <i>Dal</i> Mill	Annually, 20 beneficiary households processed 1400 kg pulses (2013)	Annually, Rs. 4,800 (USD 82) benefits (saving on costs) in terms of saving on transportation and milling charge compared to the next best available option.
Kinkhed	Computer knowledge centre	34 students per month got basic computer training over three months (0ctober - December 2013).	Rs. 38,000 (USD 650) (in 3 months in 2013), in terms of saving on transportation cost attending a computer course (3 months).

Source: Authors' estimates based on consultations and discussions with key informants in village.

Since the village grant activities are on-going, the benefits and impacts are increasing over time. Table 7 shows only the benefits attributable directly to the village grants. In addition, however, the village grants have provided significant benefits in terms of social development, institutional development, and other intangible benefits in the communities. Quantification of these benefits is beyond scope of this study.

4.9 Future plans and sustainability

In each village, the VGIC is in charge of managing and supervising the scheme, and they are functioning well. In many places, the local community has also supplemented the investment and expanded the coverage of the village grant to a wider area. For example, the computer knowledge centre in Kalman village, Maharashtra, has appointed a full-time computer teacher, purchased a set of new computers, adopted E-learning systems in the high school, planned SETU (Maharashtra Government E-documenting service), and is starting new advanced courses. In Dokur, Andhra Pradesh, the community has purchased a generator and plans to purchase a second to ensure continuous water supply in periods of load-shedding. The VGIC also collects funds (Rs15 per household per month) from users to maintain and repair the water supply system. Table 8 shows the present condition and future plans for each community.

village	Intervention	Community's long-term plan	
Andhra Prade	esh		
Aurepalle	Mini water tanks	1. To repair existing tanks with assistance from the <i>Gram Panchayat. Earlier,</i> the VGIC charged Rs.5 per month from each household to pay for routine maintenance. However, majority of the users were unwilling to pay, so the VGIC decided to hand over the seven tanks to <i>Gram Panchayat</i> so that the <i>Panchayat</i> would provide the maintenance funds.	
Dokur	New pipeline for drinking water	 Purchased one generator (UPS) set for Rs. 100,000 (USD 1,700), but also plans to purchase another generator to meet increased demand. <i>Gram Panchayat</i> charges Rs. 15/household per month as a water charge to pay salary for waterman and the system maintenance. 	
<u>Maharashtra</u>			
Shirapur	Computer knowledge centre	 Has appointed a full-time computer instructor Started E-learning at village high school and primary school Has purchased a new set of computers 	
Kalman	Computer knowledge centre	 Has started new advanced computer courses Has started E-learning class in the village high school and primary school Has purchased new sets of computers Has started new advanced computer courses 	
Kanzara	Mini Dal Mill	 Plans to shift the <i>dal</i> mill to a public building in the centre of the village Plans to purchase a grain grading machine (cereals, pulses and oil seed) 	
Kinkhed	Computer knowledge centre	 Plans to shift the venue inside a new school building Plans to start new advanced course Interested to appoint a full time teacher Interested to increase the number of computers in the centre 	
Courses lafe	tion compiled from	5. Plans to start "SETU" (Government E-document service) in the village discussions with key informants in each village.	

Table 8: Communities' long-term plan for village grant schemes

Source: Information compiled from discussions with key informants in each village.

4.10 Lessons from village grants

Village grants should not be given to an individual (village head, or local official). The implementation of the scheme, decisions on expenditure and related matters should be decided by all local stakeholders in a community, or at least by the majority of the committee members assigned for the task.

Securing support from the majority of VGIC members is important for ensuring participation, and the ultimate success or failure of the scheme. In this context, ensuring that VGIC members volunteer their time for project activities is a critical for the success of the project, as seen in the varied performance of projects across the six villages.

The nature of collective action among the community members is important for determining success or failure of the grant scheme. That is, active involvement of local community stakeholders in planning, selection, and implementation of the scheme is important for ultimate success of the village grant.

Likewise, the support of each of the local community level institutions, village officials, and formal and informal leaders is important for successful implementation. In Aurapalle, although the head of the *Panchayat* was initially reluctant to install mini water tanks under the ICRISAT village grant, informal leaders (retired teachers) in the village were able to convince him and in the end he gave his support.

The village grant should be used for setting up new projects, rather than for half-completed, large-scale projects. This avoids carrying over problems from half-completed project to the new schemes initiated using the grant.

ICRISAT staff (or the grant provider) should not be represented on the VGIC. This will ensure that the grant provider does not unduly influence the choice of the schemes.

The administrative cost of providing and implementing the grant should be minimised. This issue needs to be considered seriously when planning future village grants.

Altruism, or a feeling of welfare for the community as a whole, was an important factor motivating VGIC members to provide time and effort to implement the grant. This factor was found in all the villages except Kanzara.

The economic benefit was lower in Kanzara than in the other five villages. Only 20 households in Kanzara had benefitted from the *dal* mill. The explanation may lie in socio-cultural differences with the other five villages. In Kanzara, upper caste and better-off households were more heavily involved in selecting investment options for the village grant, which may biased selection to suit their own interests. Historically, collective action has not worked as well in Kanzara than in other villages.

The community members' perspective towards the village grant differed from that towards grants from government programmes. This may reflect a higher degree of collective action and community level participation. However, this requires further investigation.

5. Conclusions

One objectives of this study was to assess and summarise major lessons learnt while implementing the grant across the sites. A project prioritised for a community should be endorsed by (and of interest to) the majority of villagers, especially the poor and minority sections of the community. Likewise, the level of volunteering by VGIC members was critical for success of the projects. Active community involvement in planning, selection, and implementation of the scheme was important for ultimate success. Support from local community level institutions, village officials, and formal and informal leaders was also important. Village grants should not be given to a village head, or to any single local official. As far as possible, village grants should be used for new schemes rather than for half-completed or large-scale projects.

With a small investment of USD 7000, large numbers of households have benefited from these grants. In Aurepalle, more than 340 households have obtained access to clean drinking water. A similar impact was observed in Dokur. The socio-economic benefits of improved access to drinking water in a single year are much greater than the total cost incurred. However, benefits were lower in Kanzara, where only 20 households had benefitted from the *dal* mill.

If well implemented, village grants have the potential to improve local governance. Experience with village grants may also encourage community members to think of alternative options for local development, engage and participate more in the *Gram Sabha*, and in similar types of community development activities.

The community members' perspectives towards the village grant differed from the use of grants from government programmes. This may reflect a higher degree of collective action and community level participation. We may need a separate study exclusively focusing on these issues across the six villages.

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Appendixes

Appendix Note 1. Foreign Exchange Rate of Indian Rupees to USD, 2011-2014

Year	USD	Average India Rupees at current prices
2011	1	46.68
2012	1	53.63
2013	1	58.63
2014	1	60.85

Source: Reserve Bank of India (GOI) archival data sources. Available at http://www.rbi.org.in/scripts/referenceratearchive.aspx