

# Does Participatory Development Legitimise Collusion Mechanisms?

Evidence from Karnataka Watershed Development Agency

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### ABSTRACT

While examining participatory development projects, existing contributions have demonstrated how aid resources are often captured by local elites. This paper hypothesises that another possible source of corruption is collusion between project implementers and farmers. This is examined with evidence from the DFID funded KAWAD project in Southern India. There is a need to develop mechanisms for appropriate feedbacks and checks in India and this is an arena for further research and praxis.

Keywords: Participatory Watershed Development, Bilateral Donor Project, NGOs, Karnataka, India

JEL Codes: L3, L31

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# 1. INTRODUCTION

The 1990s were an eventful period for decentralized development, including attempts at watershed development in the rural areas of the country. Watershed development is an approach to raise agricultural productivity, conserve natural resources, and reduce poverty in the semi-arid tropical regions of the world, including the South Asian region (Kerr, Pangare and Pangare, 2002). In 1993, a constitutional amendment was passed in India granting constitutional status to the three-tiered locally elected bodies (Panchayats) and various functions devolved to these local governance bodies<sup>3</sup>. Learning from previous experience in implementing watershed development projects, particularly from successful Non Governmental Organisation (NGO) interventions, the Union Ministry of Rural Development formulated a Common Guidelines for Watershed Development (GoI 1994), stressing the importance of involving beneficiaries in the design and implementation of watershed development programmes. This was also a period of increased donor involvement of which Department for International Development (DFID)-funded projects like the Western India Rainfed Farming Project and the Eastern India Rainfed Farming Project are important examples<sup>4</sup>.

Based on the experience of these projects, DFID expanded their sphere of operations to southern India. In 1999, the Karnataka Watershed Development Agency (KAWAD) project was initiated in collaboration with the Government of Karnataka. The KAWAD project was a unique watershed intervention based on the concept of a demand driven approach, rather than the traditional ridge to valley approach<sup>5</sup>, incorporating the principles of cost sharing and farmer driven Soil and Water Conservation (SWC) treatment<sup>6</sup>, in both the planning and the implementation of the intervention. The KAWAD project envisaged crafting Community Based Organisations (CBOs) with the formation of Self Help Groups (SHGs), Area Groups, User Groups and Micro Watershed Development Committees (MWSDCs).

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<sup>3</sup> These projects have been criticized on various counts. Notably, Mosse (2004) criticized the Western India Rainfed Farming Project for failing to improve the development outcomes despite the substantial investment on participatory processes, while Kumar and Corbridge (2002) argued that, contrary to the objectives, the Eastern India Rainfed Areas Project actually strengthened the social capital of the better-off people.

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<sup>5</sup> Ridge-to-valley approach of watershed development means that treatment begins from the upper reaches of the micro watershed and proceeds in a sequential manner to the lower reaches.

<sup>6</sup> The SWC treatment undertaken in the KAWAD project includes farm bunds, boulder checks, gully plugs, ravine reclamation structures, and so forth.

These processes were undertaken based on the understanding that the local people had a better knowledge of their conditions and constraints, and that their motivation to participate would be stronger when they were free to choose their objectives. The intervention was to commence with a preparatory phase of building SHGs with the objective of creating the necessary capacity for participation. It was expected that the community would utilize the space provided by the CBOs which were crafted to exercise their voice and participate in concrete terms by contributing resources<sup>7</sup>. While the existing contributions (Platteau and Abraham 2002; Conning and Keavane 2002; Platteau and Gaspart 2003; Ravallion 2003; Bastiaensen, et al. 2005; Galasa and Ravallion, 2005) have demonstrated how aid resources are often captured by local elites, this paper argues that another possible source of corruption and resource capture is through collusion between the farmers and project implementers (NGO staff, Micro watershed Development Committee members, and others). The motivation for the enquiry was driven by the need to examine the belief prevailing among development practitioners (and to a certain extent among the academic community) that recent participatory projects, specifically the KAWAD project, have put in place fool proof participatory processes and feedback mechanisms to reduce corruption in participatory watershed development programmes.

The objective of this paper, therefore, is to examine the processes involved in implementing the watershed development project and the resultant outcomes. The question that we examine is the following. Has there been a capture of the project by collusive behaviour? Since the farmers who were supposed to benefit from the soil and water conservation treatment were themselves involved in the collusive behaviour, they would not provide an accurate feedback on the processes, particularly those relating to the quality of the SWC treatment leading to poor outcomes.

While local communities involved in participatory development projects enforce rules, monitor behaviour, and verify actions (Hoddinott et al. 2001; Bardhan 2002; Conning and Keavane 2002; Platteau and Abraham 2002, 2004; Platteau 2008) to improve project performance (Isham et al. 1995), there is also evidence showing that targeted beneficiaries may often choose not to participate (Zwarteveen and Neupane 1996; Adams et al. 1997; Vadivelu 2008). Their reluctance may be attributed to the presence of various constraints that hinder participation. First, individuals have opportunity costs (in terms of the time lost or the financial loss) in exercising their voice. Secondly, there are structural and resource constraints to involve communities, particularly sections who most need such interventions (Clever 1999)<sup>8</sup>. Participatory development has also been associated with another serious

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<sup>7</sup> Voice is defined as participation/protest to induce service providers to perform (Paul, 1992, p.1048).

<sup>8</sup> For a very useful typology to examine levels of participation, see Agarwal (2001, Table 1, p.1624).

problem – decentralized development has often tended to decentralize corruption. While most empirical work on corruption<sup>9</sup> is based on subjective assessments, there have been some studies which provide quantitative estimations (Di Tella and Schargrotsky 2003; Renikka and Svensson 2004, Olken 2006; also see Wade 1982 and 1985 for certain estimates in the Indian context). Studies have established that newly created participatory spaces not only fail to ‘mitigate the opportunism of local leaders’ (Platteau 2004: 225), but often enable local power groups to collude beyond the control of higher level institutions (Bardhan 2002: 192-194, Leonard and Leonard 2004: 62; Johnson, et al. 2005). Corruption and misuse of project funds can occur not just at intermediate levels of government but also within communities themselves<sup>10</sup>.

The structure of the paper is as follows. In Section 2, we discuss the database and methodology of the study, followed by a description of the processes and outcomes of the KAWAD intervention (Section 3). Section 4 examines the issue of collusion within the local communities and we conclude in Section 5.

## **2. DATA BASE AND METHODOLOGY**

We have selected the state of Karnataka for our enquiry since it has a high proportion of dry land, 88 per cent, which is the third highest for any state in the country (Shah et al. 1998: 121). Dry Lands of the country have increasing importance as the objective of self-sufficiency in food production cannot be achieved only from irrigated agriculture and this is significantly dependant on the fortunes of dry-land agriculture (Shah et al. 1998: 109). Further, the unique nature of the KAWAD intervention strategy – with capacity building efforts preceding watershed development, makes it an interesting programme. Chitradurga district from Karnataka state was selected for the following reasons. This is a semi-arid<sup>11</sup> and backward district with 4,60,797 hectares of area requiring watershed intervention in 2004. The KAWAD project was implemented in the district under the leadership of MYRADA, an experienced NGO that has demonstrated its capabilities in initiating participatory approaches in the past. In all, 20 villages were covered by the KAWAD project in Molkalmuru taluk. All these villages come under the purview of Chinnahagari Watershed.

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<sup>9</sup> Corruption is defined as “dishonest or fraudulent conduct by those in power, typically involving bribery” by the Oxford English Dictionary.

<sup>10</sup> For a comprehensive review on corruption and development issues, see Bardhan (1997).

<sup>11</sup> The mean annual rainfall in the district was 565 mm during the 1901 to 1990 period. The rainfall in Molkalmur taluk has ranged from a high of 876.70 mm in 1999 in comparison to a low of 441.20 mm in 2002 (for the years 2000 and 2001, it was 591.80 mm and 562.70 mm, respectively). 1999-2000 is the pre-project initiation reference year, while 2003-04 is the post-project completion reference year for this study.

## 2.1 Village Selection

Primary data was collected from five villages. In one of the villages, MYRADA, one of the largest NGOs in the state with considerable experience in watershed development interventions, was implementing the project. In two villages each, GUARD (Group for Urban and Rural Development) and RSC (Resource Support Centre) were the agencies implementing the project. These two NGOs were relatively inexperienced in watershed development interventions. This provides the opportunity to examine whether the experience of MYRADA has been able to effectively check collusive behaviour of the nature hypothesized in this study.

The profile of the study villages indicates that the area surveyed is predominantly dry land with irrigated area ranging from 3 per cent to 33 per cent of cultivated land. Bommalinganahalli village has the highest proportion of irrigated area (Table 1). The average farm size ranges from 3.4 acres to 20.6 acres with an average land holding of 10.1 acres among the sample farmers. The caste composition shows that a significant proportion of the households (46 per cent) belonged to the Scheduled Tribes category<sup>12</sup>, with most of them belonging to the Nayaka caste.

**Table 1:** Agriculture Profile of the sample villages

Name of the village	Marlahalli	Tumkurlahalli	Rayapura	Bommalinganahalli	Devarahatti
<i>Number of house-holds</i>	204	433	382	211	180
<i>Total Area (ha)</i>	666.35	1166.45 <sup>a</sup>	436.95	411.01	720.56
<i>Dry land (ha)</i>	386.75	630.31	290.93	112.8	405.48
<i>Irrigated area (ha)</i>	43.22	63.6	91.54	134.82	19.92
<i>Per cent irrigated area</i>	6.49	5.45	20.95	32.8	2.76
<i>Cultivable waste land (including Gauchar and Groves) (ha)</i>	386.75	165.94	81.45	83.85	122.23
<i>Area not available for cultivation (ha)</i>	27.54	32.38	18.8	27.85	42.11

Note: a = The MWSDC selected for the study belongs to the uninhabited village of Advimallapura, which has a total area of 361.55 hectares.

Source: GOI 1991 and MWSDC records.

<sup>12</sup> Scheduled Tribes (STs) are members of certain tribes who have been historically economically and socially depressed. In post-Independence India, Article 342 of the Constitution provides a list of all STs under The Constitution (Scheduled Tribes) Order, 1950, to facilitate affirmative action targeting such social groups.

## **2.2. Data Collection and Methodology**

The basic information for the farm households was collected during the walk undertaken by the author from the upper to the lower reach of the micro watershed. This information was used to stratify the households and select the sample households. Two levels of stratification were followed. At the first level, the reach of the farmer (upper or lower reach) was identified based on the location of the plot in the micro watershed. The demarcation of the watershed into upper and lower reach was done during a walk with the help of cadastral maps and in discussion with key informants and officials. At the second level, farm households were classified into small, medium, and large, based on landholding size. The stratification across location and landholding size was undertaken to study the differential processes and outcomes. From the list of farm households, on whose land the soil and water conservation treatment were undertaken, 25 per cent were selected from each stratum using the lottery method. A total of 175 households were interviewed from the above six strata using a pre-tested structured schedule. This was substantiated by interviews with key informants such as Micro watershed Development Committee (MWSDC) members, contractors, and NGO staff.

The survey was conducted between February and June 2004. In addition, secondary data was collected at the taluk (administrative unit below the district level), hobli (administrative unit below the taluk level), and village level. The indicators used to capture participation are membership in SHGs, compliance of contribution norms, and decision making on treatment. We examine the reasons for the processes of the project by examining the role played by the farmer, actors at the village level, and the NGO staff. Second, we compare the outcomes achieved, in terms of crop productivity and livestock ownership. The household level data has been analysed qualitatively at the strata and village level. In addition, econometric analysis helps identify determinants of a key variable – ‘Adjustments’ (using the Ordinary Least Square method). The term ‘adjustment’ refers to a monetary estimate of corruption. We explain this in detail later.

## **3. FINDINGS**

### **3.1 Guidelines and expected processes in KAWAD**

A unique feature of the KAWAD project was the preparatory capacity building phase that preceded actual land treatment. The first step by the NGOs in the villages was holding village meetings to explain the aims of the project. Household members were later met at their doorsteps by the NGO staff to convince them of the need and utility to join Self Help

Groups (SHGs)<sup>13</sup>. The benefits of savings and the possibilities of provision of loans to the SHGs, under the KAWAD project, were explained. After a sufficient period of mobilization and the formation of SHGs and MWSDCs were initiated; the committee also included two members from each SHG which are under the purview of the MWSDC. To plan the Soil and Water Conservation (SWC) treatment, the MWSDC members along with the NGO staff and some farmers undertook a transect walk from the upper reach to the lower reaches of the micro watershed. During the transect walk, a decision on the SWC treatment to be undertaken is made. This plan is finalized in consultation with the farmer requesting for a particular SWC treatment, given the technical feasibility of the treatment. The farmer is also informed of the contribution norm for the specific treatment requested and that she is supposed to pay, and the contribution amount that is to be paid upfront by cash. The share of own contribution varies from 10-50 per cent of total cost, depending on the nature of the SWC treatment to be undertaken. The farmer has an option of getting a loan from the SHG to pay the contribution.

The culmination of such individual treatment plans get translated into an integrated action plan at the MWSDC level and which is submitted to the NGO overseeing the scheme in that village. The NGO sends this action plan to the KAWAD Secretariat in Bangalore through the Implementing Agency, MYRADA, whose office is in the taluk headquarters (administrative unit below the district level) of Molkalmur in Chitradurga district. Once the MWSDC action plan is sanctioned and authorized by the KAWAD secretariat, the NGO informs the farmer that the treatment plan is approved and he/she can go ahead and execute the SWC treatment. NGO officials, particularly the Engineer, are supposed to provide technical guidance in executing the treatment. Finally, the NGO team is supposed to assess the quality of the SWC treatment and then pay the farmer the sanctioned amount (project amount as per the norm) for the SWC treatment by issuing a cheque in the farmer's name. The project aimed to be transparent and accountable by ensuring that the list of beneficiaries, financial assistance provided, and beneficiary contribution received by the farmers were displayed in a public place in the village. Another significant attempt to ensure devolution of power was the transfer of funds to the MWSDC account and one of the MWSDC representatives was supposed to be a signatory of the cheque. This indicates the importance assigned to processes in the design of the project (KAWAD 2002).

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<sup>13</sup> The SHGs were largely Thrift and Credit Groups, rather than bodies undertaking any production activities. However, the process of being a part of the SHGs is a 'learning' and, in some sense, empowering experience for the members. By collectively managing the credit activities, the SHG members, in particular and the village community, in general, provide a more conducive environment for the Project Implementation Agency to embark on the task of achieving higher-level objectives in terms of building up other village-level organisations (Fernandez 1994).

## 3.2 Processes and Outcomes in the KAWAD Project

### *Participation*

In the KAWAD project the area to be treated by each MWSDC was less than 500 hectares, which meant that the number of targeted beneficiaries was less in comparison to government watershed projects where the area to be treated tended to be more than 500 hectares. The objective of focussing on a small micro-watershed area was to ensure visibility and more face to face interaction between the farmers and MWSDC members, and it was expected that this would lead to more efficient provisioning of the collective good (Olson 1965). Further, it was expected that the incorporation of SHG members in the MSWDCs would lead to greater involvement of the targeted beneficiaries in the planning and implementation of the SWC treatment. In all the five study villages most of the families were represented in the SHGs formed under the project. While 77 per cent of the farmers had at least one of their household members in an SHG, about 26 per cent of the farm households had two representatives in SHGs.

Despite the capacity building attempts, actual involvement of the farmers in decision-making was less than satisfactory. An important element of participation in the planning process was the transect walk. This was supposed to be undertaken by the MWSDC representatives and the NGO staff, along with the farmers, to plan the type and location of the treatment in the plots. In 18 per cent of the cases the farmers were not aware of the transect walk. Forty per cent of the farmers knew of the walk but choose not to participate. While 42 per cent farmers had participated, 7 per cent they were present when the walk was being held on plots belonging to other farmers but were not present when decisions were taken on their land. Therefore, there is the surprising result that participation in the transect walk, per se, did not mean that there was active decision and in 7 per cent of cases the farmers did not participate in the decision making process pertaining to the SWC treatment for his land.<sup>14</sup>This was because the transect walks usually took place over a three to four day period and, in these cases, while the farmers had participated in the transect walk pertaining to decisions being made for the land of other farmers, they were not present during the decision-making for their own land<sup>15</sup>.

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<sup>14</sup> Interestingly, 82 per cent of the farm households without any representatives in the SHGs did not participate in these transect walks.

<sup>15</sup> In addition to the qualitative analysis, logit analysis was undertaken for the variable. decision-making on the Soil and Water Conservation Treatment in the plot. For the sake of brevity, we are only reporting certain key results. The analysis found that farm households who were a member of an SHG and those who had participated in the transect walk, and were aware of the existence of the MWSDC had better forms of decision making. The econometric results confirm the qualitative inference that there were better forms of decision-making in the MYRADA village of Devarahatti as compared to the GUARD and RSC project villages.

The failure to ensure participation by the majority of farmers in the transect walks affected their involvement in the decision-making process. In about 22 per cent cases, farmers were neither involved in deciding on the appropriate SWC treatment to be undertaken on their own land, nor had their consent been sought. This proportion was particularly high in Marlahalli (Table 2) as the collusion between the women MWSDC representative and NGO staff lead them to take arbitrary decisions without consulting the concerned farmers. In 37 per cent of the cases, farmers passively gave their consent to the decision made by the MSWDC representatives, Book writer,<sup>16</sup> and NGO staff. Only in 42 per cent cases did farmers participate actively in the decision-making process<sup>17</sup>. Clearly, the opportunity costs of participating in the transect walk was perceived to be high, particularly when farmers could get their land treated for free riding on the efforts of the NGO officials and MSWDC representatives.

Table 2: Distribution of Farmers across Village on Decision-making for the Soil and Water Conservation Treatment on the Plot (%)

<b>Village</b>	<b>No participation in decision making</b>	<b>Passive decision making</b>	<b>Active decision making</b>	<b>Total</b>
Tumkurlahalli	16(6)	18 (7)	66 (25)	100 (38)
Devarahatti	11(4)	45 (17)	45 (17)	100 (38)
Bommalinganahalli	9(3)	56 (19)	35 (12)	100 (34)
Marlahalli	62(18)	14 (4)	24 (7)	100 (29)
Rayapura	19(7)	47 (17)	34 (12)	100 (36)
Total	22(38)	37 (64)	42 (73)	100 (175)

Note: Figures in parenthesis indicates sample size.

Another indication of low participation was the degree of interaction with the Field Officer. The Field Officer was responsible for community mobilization (formation of SHGs) and initiating the processes related to the planning and implementation of the SWC treatments. Despite the important role of this officer, the level of interaction with him was quite low. Fifty eight per cent of the farmers stated that their interaction was functional in nature, that they just got the SWC work implemented through him. A significant proportion of the farmers (23 per cent) had no

<sup>16</sup> The book writer is a member of the MWSDC who maintains the accounts in the MWSDC and receives a monthly payment for this work

<sup>17</sup> Interestingly, among the farmers who had actively participated in decision-making, 26 per cent were not aware of the existence of the Field Officer. This implies that the request for land treatment was made to some other official, possibly MWSDC representatives in the transect team.

contact with the Field Officer. This proportion was particularly high in Marlahalli village (35 per cent) as the farmers contact with the project was through the women MWSDC representative.

### *SWC treatment*

At the time of the survey, 64 per cent of the land had been treated, mostly in the upper medium (85 per cent), upper large (79 per cent), and lower small (86 per cent) strata. Village-wise coverage was also satisfactory, with only Marlahalli lagging behind<sup>18</sup>. Information pertaining to the SWC treatment was obtained from the farmers. The responses from the farmers were cross checked during a walk undertaken by the author along with farmers who were willing to show to him the SWC treatment undertaken on their land.

Although the coverage was high, we found considerable evidence that the quality of SWC treatment was below acceptable norms in many cases. In boulder checks, for instance, in several cases after the payment was received, the structure was broken down and the same stones were taken to construct another structure downstream, as one of the farmers commented:

“The contractors break the stones from one structure and use it for another one. The Engineer gives the contract to the same person. If the fence eats up the crop, what can we do<sup>19</sup>? We are in a minority, we cannot protest. They constructed the boulder check on our land without our permission”.

Similarly, in Tumkurahalli, a key informant revealed that inside the boulder checks kada kallu (local boulders) were used while outside contractors put good boulders. Rubble-filled check normally required 2 to 3 cement bags, but they were constructed with only 1 bag. Further, the contractors after completing a structure broke it, and took the stones to another plot. In many cases, the actual height of the farm bunds constructed was one foot or lesser, which was below the normal height of 2-2½ feet. We also received complaints that the amounts of tank silt applied/deposited in the farmer’s plots were substantially below the amount stated in the records. At the same time, in several cases small ravine reclamation structures were constructed in inappropriate places where technically the water flow was too low to warrant the necessity of such structures<sup>20</sup>.

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<sup>18</sup> The village-wise coverage under KAWAD is as follows: Tumkurahalli (86%), Marlahalli (62%), Devarahatti (100%), Rayapura (80%) and Bommalinganahalli (83%).

<sup>19</sup> This statement is a literal translation of a proverb in Kannada language, which is the local language in the field area.

<sup>20</sup> Further, the farmers in Tumkurahalli had successfully lobbied with the NGO that they should also be paid the Standard Schedule of Rates (SSR) as was being done in the neighbouring village of Devarahatti (MYRADA micro watershed village)

## *Outcomes*

Not surprisingly, the outcomes of the intervention were not satisfactory. In this paper we focus on the productivity levels with respect to two SWC treatments – farm bunds and boulder checks – pertaining to the groundnut crop which is the predominant crop in the kharif (rainy) season, and among most dry land farmers in the region, the only crop cultivated in the agricultural year.

The average productivity of groundnut during 2003 kharif in farm bund treated plots was only 2.34 quintals/hectare in contrast to a productivity of 7.14 quintals/ hectare in 1999. The average productivity in plots where removal of boulders activity was undertaken was 2.13 quintals/ha in 2003 as compared to 8.63 quintals/ hectare in 1999. The impact on livestock was also unsatisfactory. There was large scale depletion (due to death and sale) of the livestock in 2003 with the decline being the highest in the case of small ruminants (goat and sheep, which depleted to the extent of 56 per cent and 54 per cent, respectively, as compared to 1999 levels). In large ruminants the depletion was higher for cows (37 per cent) relative to buffalo (30 per cent) and oxen (26 per cent). While some ruminants succumbed to diseases, the lack of fodder was the major reason for such depletion. There were some efforts undertaken in Tumkurahalli village by the MWSDC to close/restrict grazing on the commons to allow them to rejuvenate. This did not succeed as there were widespread violations of the norm<sup>21</sup>.

## *Feedback from Farmers*

The findings of this study, therefore, indicate that KAWAD did not succeed in achieving its targets. Our observations on the manner in which SWC treatment was undertaken reveals how malpractices had reduced the quality of such treatment resulting in an inefficient outcome in terms of land improvement, productivity increase, and livestock augmentation. One of the supposed advantages of community participation is that it provides a feedback mechanism through which the non-elite beneficiaries may report such corruption back to the neutral authorities at the top of the implementation hierarchy.

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where such rates had already been paid. The SSR are the prescribed rates for various SWC treatments fixed by the Government of Karnataka, which are generally higher than the local costs and, defacto, the payment of such rates means that the recipient receives more money than the actual cost incurred.

<sup>21</sup> Although a watchman was appointed by the MWSDC in Tumkurahalli, the watchman was not assigned the duty of guarding the commons during the night. Subsequently, when the grazing of the commons persisted during the night, the watchman was discontinued and the commons became defacto open access.

This feedback mechanism should, in theory, act as a check on corruption and ensure more efficient implementation of the programme. When we sought the opinion of the farmers on the performance of the officers and the quality and adequacy of the SWC treatment, the picture that we got was quite different from what we observed:

1. About 76 per cent of the villagers were satisfied with the Field Officer and only two farmers complained that the Officer did not undertake the SWC treatment as per the requirement.
2. Only a minority of farmers (14 per cent) were dissatisfied with the MSWDC members.
3. About 72 per cent of the farmers felt that the farm bunds were of good quality, only 10 per cent reported that the bunds disintegrated subsequently, and 2 per cent complained that they were of poor quality.
4. While a majority of the farmers (67 per cent) felt that the quality of the tank silt applied in their plots was of good quality, 33 per cent of them felt that the work was of poor quality.
5. About 80 per cent of the farmers expressed the view that the removal of boulders work was of good quality, while 40 per cent of the farmers in the upper small and upper medium reaches expressed the view that the work was inadequate as all the boulders in the plots could not be removed during this treatment work.
6. About 60 per cent of the farmers in the lower reach universally expressed the view that the quality of the rubble filled checks was satisfactory.
7. Finally, we found that only 45 per cent of the farmers stated that the treatment was inadequate in nature.

The contrasting farmer's reports about the quality of SWC treatment and the actual quality of the treatment are startling and comprise a paradox. It is an interesting question as to why the feedback mechanism did not function effectively to provide information on the compromises in the SWC treatment. Answer to this question is crucial in designing participatory development projects. This paper suggests that the reason for this phenomenon was collusion between the local staff, farmers, MWSDC members and 'new contractors'<sup>22</sup>.

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<sup>22</sup> We characterise them as 'New Contractors' as these people were essentially farmers and in some cases MWSDC members who emerged as contractors sensing the opportunities to generate income from the possibilities that the project provided of undertaking SWC treatment on behalf of the farmers.

## 4. CORRUPTION AND COLLUSION IN KAWAD PROJECT

This section explains how this collusion worked and its *raison d'être*. Why the beneficiaries accepted the poor quality of SWC treatment is best understood by re-examining the process of SWC treatment.

### 4.1 Corruption in SWC Treatment

As stated earlier, based on the information collected from the transect walks, SWC treatment plans were made for individual plots. These were subsequently integrated to form a plan for the concerned village by the MSWDC and submitted to KAWAD through the implementing agency. Meanwhile, the farmer's contribution was collected from them. After the plans were approved, the farmers were given the go ahead to undertake the planned treatment. Realizing an opportunity to appropriate funds, in each village, some of the MSWDC members became contractors who took upon themselves the task of undertaking the treatment. While the KAWAD guidelines permitted treatment to be done by the farmer, it was these contractors who generally did the work.

In, MSWDC meeting in Tumkurlahalli it was decided that farmers should get the treatment done by the contractors. In other villages, the contractors paid the own contribution to be made by the farmers (and in some cases paid him Rs 2000-3,000)<sup>23</sup> to book the treatment contract. The contractors also used to bribe the engineer Rs 2000 to ensure that they would be allotted the responsibility of undertaking the treatment<sup>24</sup>. Once the contract for the treatment was booked, the new contractors compromised on the quality of the SWC treatment.

Under the KAWAD model, it was initially envisaged that the work would be carried out with local labourers so that it would benefit people who are dependent on wage labour. However, this guideline was later relaxed on the grounds that local labourers were not readily available. There is indication that in many cases contractors were employed and, in some cases, machinery was used, violating the KAWAD Guidelines. Although the use of machinery for some activities was occasionally justified, particularly in activities relating to boulder removal and land levelling, it also enabled contractors to overstate the quantum of work done and inflate stated costs above actual level.

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<sup>23</sup> The conversion of 1 US Dollar is equivalent to Rs 45 Indian Rupees (Rs).

<sup>24</sup> This pertains to the GUARD NGO villages of Tumkurahalli and Marlahalli.

In order to verify whether the contribution was in proportion to the work undertaken on the farm plot, data on contributions from the farmers<sup>25</sup> was compared with figures available from the work registers maintained by the MWSDC. The data on the farmer's contribution was collected from the work register maintained by the Book writer of the MWSDC at the village. The amount stated to have been paid was noted from the work register and compared to what the farmer stated to us during the household interview. The difference in terms of the farmer's statement vis-à-vis the work register data was calculated to arrive at an estimate of 'adjustment'<sup>26</sup>. On an average an adjustment of Rs 2,012 was made per transaction. It was found that such adjustments were made in all villages – though they were highest in Marlahalli (Rs 11,127), followed by Tumkurlahalli (Rs 3,374)<sup>27</sup>. The high levels of 'adjustment' in Marlahalli was possibly due to the proactive role by the women MWSDC representative, who colluded with the GUARD NGO staff, in profiting from various malpractices.

The prevalence of 'adjustments' was well recognized by even the KAWAD officials. In a letter dated 5 November 2001, the Executive Director of KAWAD wrote to the Project Directors/Coordinators of the Implementing agencies and NGOs:

"Raising the cash receipts without the actual collection of cash from the hope that the farmers would give cash in the future dates.... this is serious irregularity, for the reason that no cash receipts are expected to be issued without collection of cash" (KAWAD 2002: 34)

Another letter from the Executive Director, dated 4th May 2001, addressed to the Project Directors stated the following: innovative approach of the implementation of project guidelines through MWSDCs is bound to give scope for misuse of funds.

## **4.2 Collusion in Corruption**

The question then arises as to why the beneficiaries sacrificed the potential long term gains from land improvement that would follow if the SWC treatment was undertaken efficiently. Under normal circumstances, they should have provided (or at least attempted to provide) a feedback of the poor quality of SWC treatment being undertaken. Instead, we found that glowing statements were being made about the nature of SWC treatment to hide the inadequacies in treatment.

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<sup>25</sup> To minimize recall error, we looked at receipts issued to farmers by the KAWAD officials.

<sup>26</sup> To illustrate, a farmer states that he requires 10 Tractor loads of Tank Silt to be deposited in his/her plot. However, once this work plan is approved; only 4 tractor loads of silt are deposited in his plot. With the money 'saved' from the 6 tractor loads, the farmer is not only able to pay the contribution amount (50% of the costs for this particular treatment) but also pocket some money.

<sup>27</sup> The village-wise 'adjustment' levels are: Tumkurlahalli (Rs 3,374) Marlahalli (Rs 11,127), Devarahatti (Rs 1,529), Rayapura (Rs 1,246), and Bommalinganhalli (Rs1,693).

The reason for this apparently puzzling behaviour was that part of the ‘adjustments’ was paid by the contractors to the farmers to ‘buy’ their silence. <sup>28</sup> While it was not possible for us to obtain estimates of their share, we have anecdotal evidence from the farmers. In Tumkurahalli, for instance, the contractors used to give Rs 2,000-3,000 to the farmer to book the contract. However, this raises the question why the farmers should sacrifice the perpetual income flow resulting from land improvement in favour of the one-time bribe. The rationality of this choice made by farmers is explained below.

The farmer can gain from the KAWAD project through a lifetime increase in productivity and augmentation of the livestock. Let this be represented by  $\Delta Y$ , when

$$\Delta Y = \Delta Y_{t+1}/(1+r) + \Delta Y_{t+2}/(1+r)^2 + \Delta Y_{t+3}/(1+r)^3 + \dots \quad [1]$$

given a discount rate of  $r$ . If the SWC treatment is undertaken compromising quality and quantum of treatment by the contractor, then the additional income ( $\Delta Y$ ) gets reduced by a fraction  $\alpha$  ( $1 > \alpha > 0$ ), so that his income becomes:

$$\alpha \Delta Y. \quad [2]$$

The parameter  $\alpha$  may be interpreted as the degree of efficiency with which the treatment is undertaken.

If a feedback mechanism is introduced, whereby the farmer can threaten to report poor SWC treatment to the NGO, then the contractor would tend to improve his work.

Therefore, the additional income to the farmer without collusion will be:

$$\beta \Delta Y = (\alpha + \theta) \Delta Y = \alpha \Delta Y + \theta \Delta Y, \text{ if } \beta = \alpha + \theta \text{ (}\theta > 0 \text{ and } \alpha + \theta \leq 1\text{)}. \quad [3]$$

In this case  $\theta$  represents the impact of reporting corruption – it is the improvement in SWC treatment that the contractor will undertake fearing that the farmer will report his inefficiency to the NGO staff.

The other option before the farmer is to compromise by accepting the poor quality of the treatment and get a share of the excess profits made by the contractor (in the form of an upfront bribe paid by the contractor to the farmer, =  $B$ ). In this case, his additional gains will be:  $\alpha \Delta Y + B$ . [4]

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<sup>28</sup> However, there have been cases in Marlahalli village wherein despite farmers honestly paying the contribution amount as mandated due to the malpractices of the lady representative of the MWSDC who colluded with the GUARD NGO staff, many farmers stated that they suffered due to the very poor quality of the SWC treatment undertaken in their land.

The optimal strategy of the farmer depends upon the respective pay-offs from colluding and reporting, that is on the value of:

$$(\alpha \Delta Y + B) - (\alpha \Delta Y + \theta \Delta Y)$$

or,  $B - \theta \Delta Y$  [5]

If  $B - \theta \Delta Y > 0$ , income from colluding is greater than income from reporting corruption the farmer will collude with the contractor. On the other hand, if  $B - \theta \Delta Y < 0$ , income from colluding is lesser than income from reporting corruption, the farmer will report the inefficiencies.

Now, given the poor rainfall and crop production scenario before the KAWAD project was initiated, farmers were pessimistic about the possibilities and incremental gains that would accrue to them from SWC interventions. This implied that perceived  $\Delta Y$  was low. Further, farmers felt that the incremental gains from reporting (represented by  $\theta$ ) was low because the NGO staff were perceived to be corrupt and were receiving pay-offs from the contractor so that no corrective action would be taken. The corruption of the local NGO staff was particularly apparent in Marlahalli and Tumkurlahalli. In this situation, a bribe of Rs 2,000-3,000 would easily ensure that  $B - \theta \Delta Y > 0$  holds, so that collusion appeared more attractive to the risk-averse farmers.

There is some evidence on the extent to which the strategy of colluding appeared attractive to farmers. The same farmers who appeared satisfied with the quality of treatment paradoxically claimed that the SWC treatment was inadequate and demanded more treatments to be carried out in their plots<sup>29</sup>. Such a perception of the farmers was not based on the quality of SWC treatment on their land. Rather, they were motivated by the prospect of maximizing the gains that could be garnered from further SWC treatment by colluding with others. The village-wise evidence shows that such perception was present among more than 80 per cent of the farmers in Devarahatti, Rayapura, and Bommalinganahalli villages despite relatively better NGO staff effort to ensure the quality of the SWC treatment. In Tumkurlahalli village, since the NGO office was located in the village itself, the farmers were able to lobby and put more pressure on the NGO staff<sup>30</sup>.

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<sup>29</sup> About 85 per cent of farmers made this claim.

<sup>30</sup> The farmers also successfully lobbied with the NGO that they should also be paid the Standard Schedule of Rates (SSR). The SSR are the prescribed rates for various SWC treatments fixed by the Government of Karnataka, which are generally higher than the local costs and defacto, the payment of such rates means that the recipient receives more money than the actual cost spent. The lobbying took place after the farmers came to know that such rates had already been paid. in the neighbouring village of Devarahatti (MYRADA micro watershed village).

It may also be seen that if farmers themselves undertake the SWC treatment, compromising on the quality and quantum of work, they will tend to have a higher profit (which may be represented by an increase in B). The best option is for the farmer to undertake the SWC treatment and appropriate the entire surplus himself. We observed that this proportion was highest in the case of tank silt application treatment (79 per cent), followed by boulder removal (73 per cent), rubble filled checks (63 per cent), and land levelling (53 per cent). However, this trend was limited by the inability of some farmers to pay the initial contribution, or by their ability to enter in a bargain with NGO staff to have a collusive contract.

It is interesting to note that in the case of land levelling, where the farmers benefit perceptibly and immediately from the treatment ( $\Delta Y$  is high), we have  $B - \theta\Delta Y < 0$ . In this case, the rational choice will be to choose to be honest and ensure that treatment is undertaken efficiently. This is actually what we observed for land levelling activities, where most of the farmers generally undertook the work themselves.

### *Econometric Analysis of 'Adjustments'*

We also undertook an econometric analysis of the determinants of corruption. The determinants of 'Adjustments' equation is as follows. The explanatory variables are described in Table 3.

$$\text{Log}(\text{ADJUSTCA}) = \alpha + \beta_1 \text{REACH} + \beta_2 \text{TLAND} + \beta_3 \text{PERIRRIG} + \beta_4 \text{MYRADA} + \beta_5 \text{RSC} + \beta_6 \text{CASTE} + \beta_7 \text{MEMSHG} + \beta_8 \text{TRANSECT} + \beta_9 \text{AWARFO} + \beta_{10} \text{AWARMWSDC} + \beta_{11} \text{YEARSCHO} + \text{et.}$$

The regression analysis is confined to only those 129 cases wherein the amount stated to have been paid by the farmer is less than what has been stated in the work register (Table 3). In addition, there are also cases where the amount stated by the farmer is greater than what has been stated in the work register. This is also a case of 'adjustments', which we could categorise simply as cheating. In such cases, amount in excess of the norms has been collected from the farmer, with the extra amount being pocketed by the Book writer of the MWSDCs. Although such incidents have been reported in all villages, they were mostly observed in the villages of Bommalinganahlli and Rayapura, where RSC is the implementing NGO.

The regression results reveal that farmers in the upper reach (REACH), with a greater ownership of land (TLAND), higher proportion of irrigated land (PERIRRIG), were likely to be involved in collusive and corrupt behaviour regarding the contribution payments and profiting from 'adjustments' (ADJUSTCA). Interestingly, participation in decision making – either actively or passively – also leads to higher levels of 'adjustments' (ADJUSTCA). The

**Table 3:** Econometric estimation using Regression Analysis of the Determinants of ‘Adjustments’

Variable	Description	Coefficient	T
REACH	Reach in which the farmer’s land is located (0=Upper reach 1=Lower Reach))	-0.72***	-3.77
TLAND	Total land owned by the farmer (acres)	0.03***	3.16
PERIRRIG	Proportion of the land that is irrigated ( per cent)	0.01***	2.51
MYRADA	NGO – MYRADA	0.04	0.17
RSC	NGO –RSC	-0.55**	-2.39
CASTE	Caste to which the farm household belongs	0.44**	0.17
MEMSHG	Membership of KAWAD initiated Self Help Group (0=No, 1-Yes)	-0.07	-2.39
TRANSECT	Participated in the Transect Walk (0=No, 1-Yes)	-0.06	1.94
AWARFO	Awareness of the Field Officer (0=No, 1-Yes)	0.22	-0.31
DECISION	Decision made on the SWC treatment (0= without consent 1= Participatory decision making {consent taken or request made})	0.46	-0.29
AWARMWSDC	Awareness of the Microwatershed Development Committee (0=No, 1-Yes)	0.27*	1.01
YEARSCHO	Years of schooling of the head of the household (0= schooling below the secondary level 1=Secondary or above secondary years of schooling)	0.06	1.15
Intercept		7.24	1.94
N (Number of observations)		129	
F		4.08**	
R2		0.2967	

Note: \*\*\* significance at 1% level; \*\* at 5% level;\* at 10% level

village under RSC was less corrupt as compared to the villages administered by GUARD and MYRADA villages<sup>31</sup>. Farmers who were more aware of the existence of the MWSDC

<sup>31</sup> However, this finding should be qualified by pointing out that the analysis does not include those ‘adjustments’ when the amount the farmer had stated to have paid as contribution was greater than what was stated in the work register.

(AWARMWSDC) made higher levels of 'adjustments'<sup>32</sup>. Membership of the Self Help Group (FAMSHG), participation in the transect walk (TRANSECT) and awareness of the Field Officer (AWRFO) were not found to be significant. Years of Schooling of the head of the household (YEARSCHO) did not make a difference either. The reason is such membership or participation per se did not contribute in inducing a farmer to engineer 'adjustments'.

### 4.3 Role of NGO staff

Our survey found that the behaviour of the street level bureaucrats (Lipsky 1983) – the Field Officer and other staff – was inefficient in the case of the GUARD NGO staff. The reason for the tacit collusion of the NGO staff – in the form of either being a passive party to 'adjustments' or, in some cases, even engineering them – was due to their low salary. They became ready partners in the collusive behaviour. This proved to be a win-win strategy for both the farmer and the NGO staff, as both of them could garner money, in the villages of Tumkurlahalli and Marlahalli.

In contrast, the MYRADA and RSC staffs were honest, despite the low salaries they earned. The positive work done by the Field Officer at Devarahatti in initiating SHGs despite huge resistance from the villagers was recognized by many respondents as a worthy contribution. In this village, area groups formed by the Field Officer played a positive facilitating role, leading to the formation of the MWSDC. However, he could not prevent the corrupt behaviour of one of the members of the MWSDC who had emerged as a contractor. The RSC NGO staff were equally committed and attempted to initiate participatory process of planning, particularly in Bommalinganahalli village. In Rayapura, on the other hand, in quite a few cases, decisions were imposed upon the farmers from the top, particularly with respect to farm bund treatment as there was pressure to spend the approved money within a given time period.<sup>33</sup> In this village, while the Field Officers were not corrupt, they could not prevent the corrupt activities of the book writer of the MWSDC. In these three villages, the NGO staff can be said to be selectively efficient as they were able to put in place certain appropriate processes without being able to stop the corrupt behaviour of some of the other actors.

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<sup>32</sup> Although coefficient of AWARMWSDC is statistically insignificant, this is possibly due to multi-collinearity. The chi-square statistic between this variable and decision-making (DECISION) and REACH are 15.94 ( $p=0.00$ ) and 6.58 ( $p=0.00$ ), respectively. Further, dropping DECISION and REACH results in AWARMWSDC becoming significant.

<sup>33</sup> It was reported by certain farmers in Rayapura village that despite them stating that they do not want farm bunds to be constructed in their plot, farm bunds were constructed. This was due to the pressure on the 'street' level bureaucrats to ensure that their targets for expenditure of the funds were met. The KAWAD secretariat was also under pressure that the money received from DFID was spent with the time period for which it was earmarked.

## 5. CONCLUSION

The KAWAD mode of intervention was based on a model of SWC treatment wherein the farmer was given the right of treating their plot. Such an approach is based on an implicit assumption that the farmer would ensure that the quality of the SWC treatment for their own good. However, in an agro-system characterized by poor rainfall/crop failures, the traditional pessimism of the farmer created high discount rates. In this situation, the short-term gains from undertaking the treatment and compromising on the SWC treatment work or colluding with the contractors appeared to be more attractive to the heavily discounted long term gains from efficient treatment. This led to a high incidence of 'adjustments', with large scale collusion between the farmers and the newly emerging contractors. The collusive nature of corruption and malpractices with the involvement of the beneficiaries meant that the feedback mechanism was getting subverted, nullifying embedded systems and assumptions of participatory development projects to check corruption.

Ironically, the Executive Director of KAWAD had predicted the possibility of malpractices occurring during the early stages of the intervention. However, no effective monitoring mechanisms were put in place to detect such forms of collusive corruption<sup>34</sup>. The evidence shows that these functionaries themselves became party to the corrupt activities. The monitoring by the implementing agency, MYRADA, was not very effective, as there were no penalties on NGOs in whose micro watersheds the quality of the work was found to be poor. Further, there was no effort to address the crucial issue of malpractices relating to the violation of the contribution norm. The Mid-Term Evaluation Report of KAWAD (KAWAD 2003) surprisingly did not report the irregularities that were being committed<sup>35</sup>. This is a serious lacuna, especially in the context of KAWAD Secretariat being transparent<sup>36</sup> and open to constructive criticism which could have ensured mid-course corrections in the project. Timely inputs provided by the Evaluators could have probably ensured mid-course corrective action based on the concept of 'embracing error' and 'learning by doing' (Korten 1980).

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<sup>34</sup> The mere detection of occurrence of malpractices and the communication regarding this from the KAWAD secretariat to the heads of the Partner NGOs (PNGOs) did not lead to any corrective action. There was no initiative/sensitivity shown to alter the project design parameters (in terms of planning and execution of the SWC treatment, contribution norms) with respect to the constraints the farmers faced.

<sup>35</sup> When it was informally queried that as to why this was not reported one of the members of the Evaluation team stated that although this problem was known, there was no consensus (among the team members) that it should be stated in the report.

<sup>36</sup> The KAWAD Secretariat have been forthcoming in sharing their guidelines document which contain critical correspondence that they had with the project officials, including on malpractices while collecting the upfront cash contribution from farmers for the SWC treatment.

The results raise questions regarding the assumptions and methodology that NGOs and researchers should adopt in examining and evaluating participatory development projects. There is a need to develop more robust mechanisms and the ideas discussed on Multilateral Aid Reputation Mechanisms (Platteau 2004) need to be nuanced to the Indian context. This comprises an arena for further research and praxis. A detailed discussion on this is beyond the scope of this paper and, however, as our study shows that relying on farmer's perception may not provide an accurate picture as there may be an inherent tendency to misreport reality to outside agents. The need to triangulate farmer's perception with field observations made by neutral (third party) agencies and the need to garner data from a variety of key informants who are associated with the programme (or are knowledgeable about the project without being part of it) are necessary to unearth the real processes that have occurred<sup>37</sup>.

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<sup>37</sup> The KAWAD Secretariat have been forthcoming in sharing their guidelines document which contain critical correspondence that they had with the project officials, including on malpractices while collecting the upfront cash contribution from farmers for the SWC treatment.

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