

A Case study of corruption: canal irrigation in South India

Prof. Esther Duflo

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1 Background and ‘data collection’

- Irrigation in South India.
 - Two seasons. First is rainy (June to December). Second is dry (December to May). Irrigation is needed during the dry season, and during emergency periods in the rainy season (drought).
 - Tanks are connected by canal, and water flows freely in the canal. In continuous irrigation system, water flows all the time, and farmers in an area open sluices (little doors) to get the water. The farmers downstream get much less water.
 - Lots of plots of land and irrigated illegally (non-zone irrigation).
- The organization of the system: see figure.

Wade will be concerned mostly with EE, AE, and Supervisors. He studies essentially Operation and Maintenance (O&M) divisions, which are responsible for the actually delivering the water and
- How to obtain data on corruption:
 - Long field trip
 - Gain confidence
 - Cross-validate responses

2 How to make money as an irrigation officer

- Maintenance contracts
 - Over-invoicing: EE gets 2.5% of the value of contract, AE and supervisors get 5% to share.
 - On the site: contractor puts less cement than he should, removes less stilt than he should, and benefits are shared. This brings an additional 5% to the AE (at least).
 - How does the EE overcome the competitive bidding process?
 - * They choose a contractor in advance and write the estimate for him
 - * Other contracts have to provide higher bids
 - * EE control the contractors through loans, and also because he is the one who pays the bills.
- Irrigation water (“ayacut”)
 - Farmers have to pay for irrigation in several occasions.
 - * Out of zones
 - * Downstream villages
 - * Emergency
 - * Upstream villages can always be threatened.
 - What bids the price up:
 - * Location
 - * Season
 - * Drought
 - * Crop
 - * Easiness to cut water
 - Incentives for the irrigation officers
 - * Create uncertainty
 - * “rumor mongering”

- Summary: how much does an irrigation officer makes?
 - EE: Typical budget for works: Budget is Rs.4,000,000, out of which 60% (2,400,000) is for works. He gets 2.5% of this 2,400,00 (60,000) plus 5% of the total budget (200,000), for a total of Rs. 260,000. Annual salary: Rs. 28,500
 - AE: He gets $25\% * 2.5\% * 2,400,000 = 15,000$ from savings on estimate, plus Rs 15,000 from savings on the grounds, plus 50,000 from the farmers: a total of Rs 80,000. His Annual salary: Rs 23,000.

3 Maintaining and controlling corruption

- Selling of transfers

Irrigation officers are normally transferred every three years. Post vary in their desirability: profit-making opportunities, quality of life, how easy it is to conceal bribes, prestige of the project, etc...

Post have a price:

- EE: Has to deal with the elected irrigation minister in the state government. Transfer may cost up to 300,000. About 100,000 in the example we considered last time.
- AE: Has to deal with the local MLA (the local politician). Will cost about 25,000 (in the previous example).

- Transfers as discipline devices

EE and AE can be instantly transferred if a minister or a MLA wants it. This appears in two situations:

- If someone refuse to participate in the system
- If someone takes too much bribes and the farmers complaint

4 Economic distortions

- On the demand side: Not too important (price of water in bribes is about 10 Rupees per acre per season, for a profit of 900 Rupees).

- Variability of the water flows.
- No local participation
- Poor design and construction of new projects
- Poor maintenance of existing structures

Is it true in this example that corruption ‘oils the wheels’?

5 Fighting corruption?

- Existing methods are not successful: An anti-corruption agency is supposed to deal with the matter when it is brought up by a superior that an EE, AE or supervisor is corrupt, but the charges may be dropped with political interference, and we have seen that politicians are part of the corrupt system.
- Establish a real market for water (like in the US or Italy)? What would be the problems?
- More inspections by the auditing department? What would be the likely consequences?
- More control by the people: How could it be organized?
- Looking for solution *outside* irrigation: Make electoral competition less costly.