Design and Implementation: Public Works

Carlo del Ninno
World Bank (Social Protection, Africa)

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Outline

• Defining Public Workfare
• Objectives Models and Rationale
• Benefits and Costs
• Design issues:
  • Targeting
  • Selection of beneficiaries
  • Benefits and wage settings
  • Share of labor cost
  • Other design features
• Monitoring and evaluation
• Examples: Ethiopia, and India programs
• Lessons & Challenges
What are Public Works programs?

- Public works programs are safety net programs that provide temporary employment at low-wage rate mostly to unskilled manual workers on labor-intensive projects such as road construction and maintenance, irrigation infrastructure, reforestation, and soil conservation, and more

- Important to distinguish different Objectives and Models

- PS: There are also Public works programs essentially for infrastructure development, with employment/income generation as a secondary objective – Not covered here
Objectives

Objectives varied by countries:

• Mitigation of covariate one-time shock (e.g. drought) with temporary employment/income support as primary motive

• Mitigation of Idiosyncratic shocks

• Poverty relief and food security – employment guarantee schemes

• As a bridge to more permanent employment (training)
Difference in objectives

- AFR
- LCR
- SAR
- MNA
- EAP
- ECA

1-time shock | seasonal | guarantee | anti-poverty | reintegr LM | bridge self empl
Models of workfare based on objectives/expected outcomes

- Public workfare mainly as a short term safety net to provide the poor with a source of income through temporary employment in labor-intensive projects that either create new infrastructure or maintain existing infrastructure; primary motive income support.

- Public workfare as a longer term safety net mainly as a poverty alleviation program, often providing employment guarantee for certain number of days (e.g., India’s NREGA).

- Public Works Plus, i.e., employing individuals on a temporary basis on projects but with components for training, savings, etc., to graduate participants out of poverty by enabling them to gain access to longer term formal sector employment or self-employment.
### Correlation of public works program models and objectives

<table>
<thead>
<tr>
<th>Primary objective</th>
<th>Model</th>
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<tr>
<td>MITIGATION OF COVARIATE SHOCKS</td>
<td>SHORT-TERM SAFETY NET (e.g., Ghana)</td>
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<td></td>
<td>LONGER-TERM SAFETY NET (e.g., Ethiopia, India)</td>
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<td>PUBLIC WORKS PLUS (e.g., Argentina, Djibouti)</td>
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<tr>
<td>MITIGATION OF IDIOSYNCRATIC SHOCKS</td>
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<td>POVERTY RELIEF AND FOOD SECURITY</td>
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<td>BRIDGE TO MORE PERMANENT EMPLOYMENT</td>
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Rationale

- Quite effective in consumption-smoothing
- Can perform an insurance function
- Can be rendered complementary to growth (via infrastructure building),
- Potential for self-targeting,
- Potential for regional targeting,
- World-wide experience, including OECD, Africa, Latin America, South and East Asian countries
Benefits and Costs

- **Benefits**
  - Transfer benefits = wage rate, net of
    - transaction costs – foregone income
  - Stabilization benefits if timing synchronizes with agricultural slack seasons
  - Second round benefits from assets

- **Costs to the government**
  - Administrative costs + wage cost + non-wage cost

- **Costs to participants**: transaction costs + forgone income
Scale of operations: Person days of Employment (PDE) generated

- Botswana: 7 million person days
- Ghana: 1988-91: 0.5 -do-
- India: pre-NREGA 1.1 million person days
- India: post-NREGA 2007-08: 1.44 million pde
- India: employment per person: 42/year
- Bangladesh FFW+TR.. 300,000 persons x 60 days
- Korea 140,000 to 200,000 pde
- Argentina: Bottom 20% households
Design, evidence, and Implementation

- Targeting methods
- Benefit levels, wage setting
- Institutional aspects, and funding
- Project selection
- Additional features, graduation

- Beneficiary selection
- Project selection
- Management information
- Financial reporting
- Worksite management
- Communications
- Procurement
- M&E

- Empirical data
- Literature
- Operational materials
- 7 case studies
1. Approaches to targeting

- Geographic targeting
  - From regional to local
- Individual targeting
  - Self selection – Wage rate
  - Community selection
- Reservations: e.g., quotas for women
- Administrative selection based on criteria that predicts household’s poverty (proxy means tests: targeting presentation)
2. Selecting Beneficiaries/Targeting

- **Self-selection:** Setting the wage rate below the market rate allows self-selection of the poorest into the program. This also saves on administrative cost of selecting the poor by other means and most important, prevents labor market distortions.

- Not always possible, for very good reasons

**What if the program is oversubscribed?**

- PMT – rank households by income/expenditure proxy
- Ration access by following rotation in several different ways:
  - Smaller, more frequent projects
  - Shorter hours in the same project
  - Eligible workers work for fixed number of days so everyone gets a chance to work
  - Eligible workers selected by lottery
3. Benefits and wage rate setting: Self targeting and transfer gains

- Evidence is overwhelming that a relatively high wage rate attracts the non-poor to the program and reduces distributional gains.
- A relatively high wage leads to job rationing and even abuse of the program.
- The best option is to keep the wage above the statutory minimum wage, but below the prevailing market wage. Only Korea managed to accomplish this (see figure).
More on Wage setting

- The level of the wage rate is critical for determining 
  *distributional* outcomes,
- A number of options exist for determining the level of the 
  wage rate:
  - Keep it below the ruling market wage
  - Keep it equal to the minimum wage
  - Keep it higher than the market wage
- In case of first option, self-selection is possible and inclusion 
  errors could be avoided, but does not guarantee avoidance of 
  exclusion errors especially if the program is over-subscribed
- Country circumstances vary a great deal; not all countries 
  succeeded in the first option; not surprisingly varied 
  experience
Table 1: Public Works: Program Wage (PW), Minimum Wage (MNW) and Market Wage (MW) in Selected Countries

<table>
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<tr>
<th>Country/Program</th>
<th>PW in Relation to MNW and/or MW</th>
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<tr>
<td>2. India: (a) Cash For Work, JRY, 1991-92</td>
<td>PW=MNW&gt;MW</td>
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<tr>
<td>(b₁) MEGS: up to 1988</td>
<td>PW=MNW&lt;MW</td>
</tr>
<tr>
<td>(b₂) After 1988</td>
<td>PW=MNW&gt;MW</td>
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<tr>
<td>3. Pakistan: IGPRA* III, 1992</td>
<td>PW&lt;MW</td>
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<tr>
<td>4. Philippines: Cash For Work 1990</td>
<td>PW&gt;MW</td>
</tr>
<tr>
<td>Food For Work 1987</td>
<td>PW**&gt;MW</td>
</tr>
<tr>
<td>5. Botswana: Cash For Work</td>
<td>PW&lt;MNW, but &gt;MW</td>
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<tr>
<td>7. Chile: Cash For Work 1987</td>
<td>PW&lt;MNW=MW</td>
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4. Share of wages/Labor intensity.

- Typically in low-income countries, it varied between 0.3 to 0.6
- Depends on the nature of the asset being created, and the agency executing the program
- Useful practice: assess labor content of various projects, and pick highest, in line with community preferences
5. Other design features

• Choice of assets: community involvement
• Seasonality – best to run during agricultural slack seasons –
• Gender aspects: program design can be adjusted to make it acceptable to women
• Public/private/NGO/Donor participation
A GOOD M&E SYSTEM SUPPLIES FEEDBACK TO ENHANCE PROGRAM EFFECTIVENESS

Key impact evaluations are showing progress, mainly arising from income transfer. Impact of community assets are more difficult to discern:

- Jefes (Argentina) prevented an estimated additional 10% of participants from falling below the food poverty line, and allowed an extra 2% of the population to afford the food component of Argentina’s poverty line
- MGNREGS (India) wages for female casual workers have increased approximately 8% more in participating districts
- PSNP (Ethiopia) increasing food security and livelihood assets; especially when combined with other programs
A couple of examples: Ethiopia and India
The Public Works Program in Ethiopia - PSNP

- Main objective to develop sustainable community assets
- Improve the natural resource base and the social infrastructure
- Ultimately, aimed at developing the watersheds
- … thereby increasing productivity and improving livelihoods
Ethiopia: Targeting

- First level geographic targeting...poorest provinces selected first
- Selection of individual beneficiaries involved a complex mix of objective criteria and community judgment and screening
- Qualified participants eligible to receive 6 months transfer, determined by household size
- Each household member allotted 5 days of work per month
- Thus in a 5-member household, if there is one adult labor, he/she provided with 25 days of work for six months, at a wage slightly below market wage, $0.50 in 2006, food-inflation adjusted, now about $1.0
Examples of achievements in Annual Program

- Soil and Water Conservation
  - 1.936 million kms bunds
  - 47, 378 km terrace
  - 1.38 million ha closed
  - etc
- Small-scale irrigation
  - 412 rivers diverted
- Rural roads constructed
  - 32,896 km
  - 527 concrete bridge
  - 101 wooden bridges
Ethiopia: Impact evaluation

- Several econometric evaluations, mostly led by IFPRI with World Bank economists, have shown highly positive impacts on:
  - Reduction of food insecurity (3 months of food insecurity reduced to 1 month or less)
  - Substantial increase in income
  - Solid progress in agro-climatic infrastructure, especially irrigation related
  - Significant increase in farm productivity (13% to 22%)
  - Distress sales prevented
  - Asset holdings (livestock) increased
  - Impact on income *growth* over time limited

*Virtually no leakage of funds*
India’s NREGA – design features

- 100 days of work per rural household per year guaranteed upon demand
- State-specific agricultural minimum wages (cash) paid on piece rate basis (based on rural schedules of rates)
- State-specific minimum wage served as program wage
- Unemployment allowance if state fails to provide work for HH within 15 days
- Types of works eligible have a heavy focus on water/irrigation activities, as well as connectivity
- Village level democratically elected bodies implement the program with significant resource in control
NREG – experience to date (2)

- Female participation far higher than previous PW programs
- Objective of flushing money through GPs has been realized despite risks/flaws
- Appears that program awareness high relative to other public works and safety net programs
- Works carried out largely water conservation (60%), road connectivity (16%), land development (13%)
- Major issue: governance/corruption especially in some States (Bihar); inter-state variation in performance
- Considerable state-level innovation – ICT; social audit; financial inclusion
What do we know from this varied experience?

- Undoubtedly **provided transfer** benefits and consumption-smoothing after natural calamities
- Effective use in **post-crisis situations** (e.g., Korea, Argentina, Sri Lanka, Latvia)
- Encouraged women’s participation
- Success depends on careful attention to design and implementation logistics including creative approaches to targeting, community participation and oversight
- What do we take home from this experience?
CHALLENGES AND OPPORTUNITIES

1. THE USE OF PUBLIC WORKS IS EXPANDING
   PWs have emerged as a critical social protection response tool, in situations of increased risk and vulnerability. It has shown promise to promote gender empowerment through participation.

2. PUBLIC WORKS PROGRAMS ARE COMPLEX, BUT CAN BE CUSTOMIZED

   In addition to low income settings, public works now play an important role in middle income countries, fragile states, and countries facing social tensions, e.g., Arab Spring. This typically involves customization in design to expand program objectives beyond income support, i.e., promoting labor market participation and pathways out of poverty.
3. INNOVATIONS ARE MAKING PROGRAM IMPLEMENTATION SMARTER AND MORE EFFICIENT
Many countries are developing stronger IT based MIS to automate program processes. This helps leapfrog implementation bottlenecks in facilitating beneficiary identification, tracking, payment, and program monitoring.

4. A COMBINATION OF PROGRAM LEVEL AND BENEFICIARY INPUTS CAN HELP PROVIDE THE CHECKS AND BALANCES NEEDED AGAINST ERROR, FRAUD, AND CORRUPTION
Combining top-down and bottom-up processes helps to promote transparency, and reduce issues of corruption that have pervaded public works schemes in the past.

3. EMPIRICAL GAPS REMAIN
More needs to be learnt about the effectiveness and impact of new experiences and new approaches and to address issues including governance and the impact on poverty and the labor market.