

Employment Guarantee in Rural India

What Would It Cost and How Much Would It Reduce Poverty?

This article assesses the impact on poverty and the likely cost of an employment guarantee scheme providing 100 days of work to the rural people during the lean season. At the current statutory wage rate, the scheme may help reduce rural poverty to 23 per cent (30 per cent year round), at a cost of 1.7 per cent of GDP. But, given the extra cost of the scheme, a greater impact on poverty would be achieved by taking the same fiscal outlay and allocating it equally to everyone, whether poor or not.

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Workfare schemes aim to reduce poverty by providing low-wage work to those who need it. They are one of the oldest forms of direct intervention for fighting poverty, and are found (in various forms) in most countries, both developed and developing. India has had a long experience with such schemes, going back to famine relief policies in the late 19th century.

In 2004, a coalition led by the Congress Party achieved a (surprise) election victory in India and included as one of its main promises the introduction of a national employment guarantee scheme (EGS) to provide 100 days of employment on rural public works projects at a minimum wage rate. A lively debate ensued about this proposal, as summarised in *The Economist* (2005a,b). Supporters point to the potential for such a scheme to provide a secure safety net that is available to all, and does not require any form of administrative targeting. Critics are concerned about the fiscal cost, and the possibilities for corruption.¹

The debate on India's national EGS has not been well informed about the costs and benefits of such a scheme. Three concerns are notable. The first relates to how much impact it would have on poverty. Drèze (2004) claims that the scheme "...would enable most poor households in rural India to cross the poverty line". However, this appears to be based on the *assumption* that the poor – and (for the most part) only the poor – will turn up for such work and they will incur little or no opportunity cost in doing so. Yet, there may be potential EGS workers in non-poor families, and poor families with no such workers. While such a scheme can be expected to attenuate overall inequality, this effect may well be diminished by an increase in inequality amongst the poor, notably between the able-bodied poor (who will be in a good position to gain from the scheme) and others. Nor can it be assumed that the net income gain to participants is the entire EGS wage rate (as some observers have implicitly assumed). The poor cannot afford to be idle in the absence of an EGS.

Secondly, it is often assumed that the gains are confined to the actual participants. However (as we will argue), it can be expected that the gains from such a scheme will spillover substantially into the private market for casual, unskilled, labour. While ignoring foregone income clearly leads to an overestimation of the benefits to the poor, ignoring the likely positive spillover effects to non-participants will (equally clearly) lead to an underestimation of those benefits.

Thirdly, the methods of costing the proposed EGS appear to have been ad hoc, with little obvious relationship to the way in which the labour market is likely to respond to such an intervention; for example, the existing assessments of the cost of the proposed national EGS in India have assumed that all of the poor will participate, and none of the non-poor. Such cost estimates could be wildly off the mark, and so misguide policy-makers. This has been a concern amongst critics of the EGS proposal.

Past research on workfare programmes in India throws some light on these issues. Much of our current knowledge about such policies stems from past research on the Maharashtra Employment Guarantee Scheme (MEGS) introduced by that state in the early 1970s; MEGS continues today. This is often cited as a model safety net for a developing country [for example, Drèze and Sen 1989]. The evidence on MEGS does not indicate that *only* the poor will turn up for such work, and that all of the poor will do so; while MEGS does have an in-built self-targeting mechanism, it can hardly be considered to be perfectly targeted [Ravallion and Datt 1995]. However, it is also questionable that MEGS has acted as a true EGS, at least since the late 1980s; there is evidence that an access to the scheme was heavily rationed in the wake of a doubling of the minimum wage rate in 1988 [Ravallion et al 1993]. There is also evidence that the scheme's targeting performance deteriorated when the wage rate rose substantially [Gaiha 1997]. Possibly a true EGS would better reach the poor.

What would a true EGS cost? How much impact can it be expected to have on poverty? Would it be more cost-effective

than an untargeted transfer scheme? The rest of this article summarises the methods, data and results of our attempt to answer these questions, as documented in full detail in Murgai and Ravallion (2005).

Impact and Incidence of an EGS

There are potentially many designs for a workfare programme. The Box summarises the recommendations on the design of such schemes provided in Ravallion (1999). In practice, the most contentious of these recommendations is often the first one, on the wage rate. There are two arguments for setting a low wage rate. Firstly, it is expected that this will enhance targeting performance, by focusing the direct benefits on poorer households. That is, of course an empirical question, that should ideally be tested in each setting. Secondly, a low wage rate minimises dependency, in that it encourages those currently on workfare to take up regular (non-workfare) jobs when they become available. This feature lowers the economic cost of the scheme and also gives the scheme the flexibility to accommodate rotation of beneficiaries according to their need for this form of assistance.

The type of scheme in discussion in India is an EGS, which aims to provide work to anyone who wants it at a fixed wage. The attractions of an EGS as a safety net stem from the fact that access to the scheme is universal (anyone who wants help can get it), but that all participants must work to obtain benefits and at a wage rate that is considered low in the specific context. The universality of access means that the scheme can provide effective insurance against (idiosyncratic as well as local covariate) risk. This is desirable for its immediate welfare gains, given risk aversion. It also allows such a scheme to help risk-averse and underinsured households engage in high-yielding, but risky

investment strategies, such as adopting high-yielding varieties and through diversification into cash crops and non-farm activities. The work requirement at a low wage rate is taken by proponents to imply that the scheme will be self-targeting to the income poor. Self-targeting requires that there is a cost of participation that rises with income. That cost of participation is in large part the foregone earnings.

The cost-effectiveness of such programmes in fighting poverty is known to depend heavily on details of their design, including the wage rate and the extent to which the scheme is rationed. The theoretical analysis of the design choices outlined in Ravallion (1991) points to the importance of the choice between wide coverage at a low wage rate and more limited coverage at a higher wage rate, and identifies conditions under which one choice dominates the other in terms of the impact on poverty. While exceptions cannot be ruled out on a priori grounds, it is argued in Ravallion (1991) that under plausible conditions in developing country settings, wide coverage is likely to dominate.

The analysis of Murgai and Ravallion (2005) focuses on a wide-coverage scheme, mimicking the proposed national EGS in rural India. Attention is confined to the income gains transmitted through the direct impacts on labour earnings; we do not consider gains from the assets created by the scheme. We also make an estimate of the likely budgetary cost, consistent with our model of the labour market response. Our approach is designed to address the deficiencies in past attempts to assess the proposed EGS for India, as noted in the introduction.

The key feature of the scheme we model here is that, while in operation, it establishes a firm lower bound to the wage distribution, at the scheme's wage rate. This is what we expect if the guarantee is complete and fully enforced, for then no able-bodied worker would accept non-EGS work at any wage rate below the EGS wage. However, our analysis is confined to the schemes that do achieve a more-or-less binding minimum wage rate. We do not consider heavily rationed workfare schemes in which the benefits are confined to those lucky enough to get work.

The impact is found amongst those whose (actual or imputed) wage rate is below the EGS wage floor *and* who have labour market characteristics consistent with doing casual labour. In allowing for heterogeneity in labour market characteristics we recognise that the choice of whether or not to take up such work is not determined solely by a comparison of current wage rates; but will also be influenced by longer-term economic considerations (such as the security of work) and social factors (such as possible stigma associated with performing low-skilled manual work). Our method allows us to estimate the incidence of the programme outlays across different types of households, including across levels of living measured by consumption expenditure per person. Thus we can also estimate the programme's impact on measures of poverty and inequality, and its incidence through the whole distribution of consumption. Murgai and Ravallion (2005) provide details on the econometric models used for casual wage determination, participation in the casual labour market and unemployment.

In estimating the direct income gains from the EGS we assume that those workers currently employed as casual labourers gain according to the difference between the EGS wage rate and their current wage rate (when positive). It is more complicated for those workers who are attracted into casual labour after introducing the EGS. Here we allow for the fact that there are certain types of people for whom it is extremely unlikely that they would ever

Box: What Makes a Good Workfare Programme?

To realise the potential for this class of anti-poverty interventions it is recommended that:

- The wage rate should be no higher than the market wage for unskilled manual labour in agriculture or the informal sector during the lean season in a normal year.
- Restrictions on eligibility or other forms of rationing should be avoided; the fact that work is wanted at this wage rate should ideally be the only requirement for eligibility.
- If rationing is unavoidable (because the wage rate is too high, such that demand for work exceeds the budget available at the wage set) then the programme should be targeted to poor areas, as indicated by a credible "poverty map", and confined to the time periods in which hardship appears to be greatest. However, flexibility should be allowed in future budget allocations, to reflect any revealed differences in demand for the scheme.
- The labour intensity (share of wage bill in total cost) should be higher than normal for similar projects in the same setting. How much higher will depend on the relative importance attached to immediate income gains versus (income and other) gains to the poor from the assets created. This will vary from setting to setting.
- The sub-projects should be targeted to poor areas, and try to assure that the assets created are of maximum value to poor people in those areas. Any exceptions, in which the assets largely benefit the non-poor, should require co-financing from the beneficiaries, and this money should go back into the budget of the scheme.
- Performance should be monitored using careful impact evaluations.

Source: Ravallion (1999).

participate in casual work of this sort, whether private or public. For example, individuals who are employed as regular salaried labourers are unlikely to participate in the casual labour market even if we find that some of them have a predicted wage rate for casual labour that is lower than the EGS wage rate. Rather than apply ad hoc filters, we use our participation regression for casual labour to identify the types of individuals who are unlikely to benefit directly. We do this by only attributing positive gains when it is more than likely that the person will participate in casual labour market.

The potential EGS workers may naturally expect to have otherwise become unemployed during the time they work for the EGS. So in calculating the gains from the programme (relative to the pre-intervention state) we discount the actual wage currently earned for casual work by the probability of employment to give an estimate of the expected opportunity cost. However, once the labour market adjusts to the EGS wage floor, not all of these workers will want to switch.

We ignore the labour demand response in calculating the cost of the scheme. The total is then the wage rate times our estimate of the excess supply of labour at the EGS wage rate, divided by the scheme's labour share in total cost. This may be an underestimate of total cost, to the extent that the higher wage rates induced by the scheme reduce private demand for casual labour while the scheme is in operation. However, note that the wage effects are only at the lower end of the wage distribution (at wages initially below the EGS wage); wages are assumed to be unaffected above the guaranteed minimum. It should also be noted that we are ignoring any effects of the assets created by the scheme. To the extent that the assets created increase the productivity of casual labour in the private sector this will at least partly compensate for the effect of the higher wage rates due to the scheme.

There are many potential alternative uses of the same fiscal outlay. Here we consider one possible alternative, namely, an untargeted family allowance scheme. Specifically, we simulate a uniform allocation of the same aggregate budgetary outlay, net of administrative costs, across the whole population (whether poor or not). We then recalculate the poverty measures for this new distribution.

The relative impact on poverty of these two policies is unclear on a priori grounds. Better targeting does not imply a greater impact on poverty for the same budget when (as is the case here) there is trade-off between *targeting performance* – the self-targeting mechanism should assure that the gains from an EGS are not uniform, but tend to be higher for the poor – and the *efficiency cost* – arising from the deadweight losses associated with the foregone incomes of participants and the extra non-wage costs incurred for non-labour inputs and supervision.

Data

Our analysis is based on the Employment-Unemployment Schedule ('Schedule 10') of India's National Sample Survey (NSS) for 1999-2000. At the time of writing, this is the most recent available "thick sample" NSS with the complete version of Schedule 10.² In addition to standard data on household characteristics (religion, caste, landownership, demographics, schooling), Schedule 10 includes detailed information on employment characteristics for all members of every household. For each person, information is collected on her principal activity

in the year preceding the survey and daily activities during the week preceding the survey.

Note that Schedule 10 also collected consumption expenditures (including imputed values for consumption in kind). We use these data for studying the impacts on poverty and inequality. However, Schedule 10 used an abbreviated version of the main consumption module used in the same survey round (but not linked to the same households), and the abbreviated version tends to give lower consumption levels (and hence higher poverty measures). We use the Planning Commission's official poverty lines.

The rural sample includes about 61,000 households, of which the vast majority (96.5 per cent) have at least one able-bodied adult. We base our analysis on the sample of 1,78,000 adults (15 to 59 years) from the 15 major states.³ The analysis is done at the level of the NSS region, and all results are then aggregated up with appropriate weights. The set of beneficiaries from an EGS is assumed to include all adults who are likely to gain from an increase in labour market wages, either directly (as EGS participants) or indirectly due to an increase in wages paid in the market as a whole. The beneficiaries need not be currently in the labour force.

Amongst potential beneficiaries, roughly 65 per cent participated in the labour force, 24 per cent were employed as casual wage labour (either on public works or private) and 8 per cent were unemployed for at least part of the time during the week preceding the survey. In terms of time allocation, on average, a person spent four days of the week in the labour force. The time spent in the labour force is much higher for males, who on average, spent 5.5 days employed and an additional half day seeking employment in the week preceding the survey. The survey gives daily wages earned by those employed as either casual or salaried labourers during the week. The average wage earned by casual labourers in the sample is about Rs 40 per day.

There are two obvious ways one might define a 'living wage' in rural India. The first is anchored to the official poverty line. At the average household size of five persons and average number of adults in the labour force of two, a daily wage rate per working adult of Rs 38 would be sufficient to reach the mean official poverty line in 1999-2000. Using instead the demographics of the poor, who have a higher dependency ratio (two working adults with mean household size of 5.8), the wage rate would need to be Rs 42.⁴

The second approach is to base the calculations on the existing (state-level) minimum wage rates. This has been advocated by supporters of the EGS in India. At the time of writing, a wage rate has not been set for the proposed national EGS, though supporters have proposed a wage rate (in 2005) of Rs 60 per day, being an average of the state-level statutory minimum wage rates. Adjusting only for inflation (using the consumer price index for agricultural labourers) this is equivalent to Rs 55 in 1999-2000. However, this is a deceptive comparison. While the statutory minimum wage rate refers to a full working day, and might be taken to reflect a reasonably high level of effort, the wage rates calculated from surveys average across workers with a range of effort levels and lengths of the working day.⁵ An alternative source of wage data is the series Agricultural Wages in India collected by the ministry of agriculture, based on their direct monitoring of male agricultural wages at district level. Aggregating up the state-level estimates for 1999-2000 (weighting by the shares of agricultural workers by state), the mean male

agricultural wage from this source is Rs 51 per day, which is 13 per cent higher than the male wage rate of Rs 45 from the NSS. Deflating the Rs 55 wage rate by the same factor gives a wage of Rs 49. Rounding off, we will use an EGS wage rate in 1999-2000 of Rs 50 per day as the comparator to the Rs 60 figure being discussed for the national EGS in 2005.

So one can defend at least two possible reference 'living wage' for an EGS, of around Rs 40 per day (which is also the average wage rate) and Rs 50.

Results

In modelling the determinants of casual wages in rural India we found that wages rise with age, marital status and education (though with little gradient above primary school). Returns to schooling are lower for women (indeed, there are no significant casual wage gains from female education for completed primary schooling or above). Correcting for selection bias (whereby only certain types of workers are attracted to casual work) lowers returns to schooling. Religion matters for male wages but not female wages. Higher landholding comes with lower wages (though the gradient is higher for men, once one corrects for sample selection).⁶ The detailed regression results (with and without corrections for selection into the casual labour market) are given in Murgai and Ravallion (2005).

We find that the probability of unemployment rises with age as does participation in the casual labour market. Marriage increases the probability of men entering the casual labour force, but decreases the probability of women doing so. Higher levels of schooling decrease the probability of both unemployment and participation (with a larger impact for men). Having more land decreases the probability of either supplying casual labour or being unemployed (though both effects are stronger for men). Having more male adults in the family decreases the probability of women entering casual labour. Murgai and Ravallion (2005) discuss the results further and also test sensitivity of results to an alternative specification in which household per capita expenditure is included as an additional regressor to help pick up the household income effect on individual participation in the casual labour market.

Armed with our econometric models of wage determination, participation in the casual labour market and unemployment we can predict who will gain from the EGS and so estimate the impacts on poverty. For the purpose of the present paper, we assume that the EGS only operates in the lean season, for 100 days (three months). (In Murgai and Ravallion 2005, we also give results for a year-long EGS.) We define the lean season as the first quarter in the NSS data, namely, June, July and August. This is also the monsoon period, which would make it hard to do most public works projects; in reality, much of the 100 days would have to be in dryer seasons. If anything, this would probably mean lower impacts on poverty than we report here.

We assume that the guarantee is effective during the scheme's period of operation, meaning that anyone who wants work can get it at the going EGS wage. In making our simulations for the lean season, we only use data for the first NSS quarter, and we use the parameters estimates from our regressions corresponding to that quarter in each state.

Table 1 summarises our findings on the incidence of gains from the EGS and the impact on poverty. We find that 30 per cent of the expected gainers come from the poorest quintile, and

this changes little at the higher wage rate. Murgai and Ravallion (2005) show that the deterioration in targeting performance as the wage rate rises occurs at lower wage rates, and even then it is not dramatic. So our results do not suggest that there is a high gain in terms of targeting performance in setting a low wage rate.

The main reason why the self-targeting mechanism is less effective than might be expected is that the distribution of adults with predicted wages less than the EGS wage turns out to be nearly uniform across the distribution of household consumption per person [Murgai and Ravallion 2005]. In other words, predicted wages for casual labour are poorly correlated with household consumption per person. Furthermore, this is affected little by changes in the EGS wage rate. The main reason why we find that there is a self-targeting mechanism at work is that willingness to do casual labour falls with consumption. This too is little affected by the EGS wage rate.

No targeting mechanism is ever perfect. And one might question whether we are using the right welfare indicator; possibly some of those we classify as 'rich' according to current consumption (as measured in our survey data) would be deemed poorer by other (unobserved) criteria. So one might not want to overstate the significance of our finding that the self-targeting mechanism is far from perfect. However, the results in Table 4 do warn against the robustness of the generalisations made by some advocates of the EGS.

At the Rs 40 EGS wage rate, the gain from the scheme represents 30 per cent of pre-EGS consumption for the poorest quintile, falling to 3.5 per cent for the richest quintile; at the higher EGS wage rate the corresponding percentage gains are 51 per cent and 6.6 per cent. The Rs 40 wage rate brings the headcount index in the lean season down from 37 per cent to 27 per cent, while the Rs 50 wage rate cuts a further four points off the poverty rate. However, note that this is the impact during that season. We also give the annual impact on the headcount index. At the Rs 40 wage rate, an EGS operating solely in the lean season brings the annual poverty rate down from 34 per cent to 31 per cent, while at the Rs 50 wage rate poverty incidence falls by an additional percentage point. For that case, we find that the cost of the lean-season EGS is equivalent to 1.3 per cent of GDP at a living wage of Rs 40, and rises to 1.7 per cent at Rs 50. We estimate that 35 per cent of casual labourers would be employed by the EGS at the Rs 40 wage rate, rising to 36 per cent at the higher wage. The overall labour supply elasticity with respect to the EGS wage rate implied by our results is about 0.2.

What are the characteristics of those likely to benefit from the scheme? In Murgai and Ravallion (2005) we compare a range of descriptive statistics between the adult sample as a whole, those

Table 1: Impacts on Poverty and Estimated Cost of a True EGS for Three Months

EGS Wage Rate (RS/day)	Percentage of Gainers		Gain from EGS as Percentage of Pre-EGS Consumption for		Headcount Index of Poverty (Per Cent below Poverty Line)		Cost as Per Cent of GDP
	Poorest Quintile	Richest Quintile	Poorest Quintile	Richest Quintile	In Lean Season	Annual Equivalent	
Pre-EGS					37.3	34.0	
Post-EGS	40	30.2	80.8	30.3	26.9	31.4	1.3
	50	29.3	9.6	51.4	22.7	30.3	1.7

who gain from the EGS and the sub-sample of gainers who are attracted into casual work by the scheme. We find that about three-quarters of the adults likely to benefit from an EGS are already in the labour force, and most are already employed as casual labourers. New recruits to the casual labour market (including the EGS) tend to have less schooling than current casual labourers who gain (who are in turn less well educated than the adult population as a whole), are less likely to have a literate head of household and are more likely to be from scheduled caste/tribes.

What would be the impact on poverty if the same budgetary resources were simply allocated on a uniform basis, with everyone receiving the same amount (whether poor or not)? Table 2 addresses this question. We take the same estimated gross cost of the EGS and allocate it uniformly to all, whether poor or not and we assume that 10 per cent of the budget available for transfers must be set aside to cover administrative costs.⁷ We provide calculations for two assumptions about the extent of cost recovery from the assets created by the EGS. In the first case, we assume no cost recovery, as appears to have been typical of past experience with workfare programmes in India; then 90 per cent of the gross EGS cost is available for the hypothetical untargeted transfer scheme. In the second case, we assume that all of the non-wage cost of EGS can be recovered by charges to (non-poor) beneficiaries, so that only the wage cost of the EGS is available for the transfer scheme. Notice that we are allocating the same budget across the rural population only, so there is a sense in which our counterfactual transfer scheme is targeted, but only to rural areas as a whole, not within.

The striking finding in Table 2 is that at any given EGS wage rate, a budget-neutral untargeted allocation has a greater impact on poverty.

Conclusions and Caveats

In assessing the likely impact of an EGS in India, we have allowed for foregone earnings from other work and have derived the incidence of gains empirically. In calculating the labour supply to the scheme, we have allowed for the fact that it must in all likelihood employ some workers who become unemployed as a result of the scheme. Our estimates have been based on econometric models of wage determination, casual labour-market participation and unemployment, as documented in Murgai and Ravallion (2005).

For an EGS providing 100 days of work in the lean season at a wage rate sufficient for the average rural family to reach the poverty line, the poverty rate in that season falls from 37 per cent to 27 per cent. The annual poverty rate falls from 34 per cent to 31 per cent. At a higher living wage, corresponding more closely to the wage rate currently discussed for the national EGS, the poverty rate falls to 23 per cent in the lean season, and 30 per cent when averaged over the year. This impact on

poverty naturally comes at a cost, which we reckon to be equivalent to slightly more than 1 per cent of GDP at our lower living wage, and about 2 per cent at the higher wage. As expected, targeting performance deteriorates as the wage rate rises, but this effect is small in going between the mean wage rate and a wage rate 25 per cent above the mean. Predicted wages for casual labour are poorly correlated with household consumption, thus dulling the self-targeting mechanism.

We have compared our simulated guaranteed minimum wage scheme with a hypothetical family-allowance scheme, namely, a budget-neutral transfer targeted to rural areas but uniform (untargeted) across people within rural areas. We find that the untargeted policy would have a greater impact on poverty over the entire range of our assumptions. The cost in terms of leakage to the non-poor from untargeted transfers is not enough to outweigh the costs associated with implementing a guaranteed living wage.

We point to six caveats to our analysis. Firstly, these are ex ante simulations, under certain assumptions that may or may not hold. In addition to the level of the EGS wage rate, in Murgai and Ravallion (2005) we examine the sensitivity of our precise findings to changes in our assumptions related to the specification of explanatory variables for the casual labour force participation model, the cut-off point in probability of doing casual labour wage rate and the poverty line. Some of our results, including the cost of the scheme, are more sensitive than other; our conclusion that the EGS is dominated by untargeted transfers in terms of its direct impact on poverty appears to be quite robust.

Secondly, given that our purpose has been to assess the cost-effectiveness of a binding minimum wage rate in a developing rural economy, we have naturally focused on an employment guarantee scheme rather than the heavily rationed workfare programmes often found in practice. With rationing of the available work, one probably loses the bulk of the positive spillover effects to non-participants, and the assignment of work becomes prone to bureaucratic manipulation – in ways that may or may not be consistent with the aim of reaching the poor.

Thirdly, in modelling the scheme we have assumed that the work requirement is binding on participants; only those who do the work receive a payment, and all those who work are paid fully. This can also be subject to corruption in practice. Supporters of an EGS for India have argued that monitoring through social audits and local public disclosure of payments made would go a long way toward avoiding such problems [for example, Drèze 2004]. In support of that view, the little quantitative evidence available on the performance of gram sabhas (GS) (organised public meetings at village level called by the elected local government) suggests that when the GS is held, it does improve the performance of public programmes in reaching the poor in southern states [Besley et al 2004]. However, generalising from this evidence to the rest of India would clearly be hazardous; the panchayat system is thought to be weaker or virtually non-existent in some regions of India, including much of India's Bihar region.⁸ Strengthening the panchayati raj in such regions could well be crucial to the success of an EGS, and other social services intended for the poor. Even with strong local governments, experience with the implementation of living wage ordinances in the US suggests that advocates and NGOs are also likely to play a positive role [Luce 2005].

Fourthly, we have treated aggregate demand for casual labour as fixed. The higher wage rates induced by the scheme may reduce

Table 2: Impacts for an Alternative Untargeted Allocation of the Same Budget

EGS Wage Rate (Rs/day)	Headcount Index under EGS	Headcount Index during the Lean Season for a Budget-Neutral Uniform (untargeted) Allocation Assuming 10 Per cent Administrative Cost	
		Gross EGS Cost	EGS Labour Cost
40	26.9	10.3	20.3
50	22.7	4.9	15.1

private demand for casual labour while the scheme is in operation. To the extent that labour demand contracts, we will have underestimated the cost of the scheme. Note, however, that the wage effects are only at the lower end of the wage distribution (at wages initially below the EGS wage); wages are assumed to be unaffected above the guaranteed minimum.

The fifth caveat is that our cost-effectiveness comparisons with an untargeted cash transfer scheme have ignored any benefits to the poor from the outputs of the work done under an EGS. However, it appears that these benefits would need to be sizeable to justify favouring this as an anti-poverty scheme. While the returns on the assets created with the labour employed would not need to pass a conventional cost-benefit test, we have seen that even returns to the government that can cover the entire non-wage cost would not be enough to tilt the balance in favour of an EGS (except at low wage rates and elastic labour demand). However, there are possible indirect benefits we have not considered. For example, a further cost saving is possible if the assets created are labour-productivity enhancing, thus attenuating the contraction in demand for private labour attendant to the higher wage rates under the scheme. Productivity effects could arise if the scheme is used to create local public goods that are cooperant in production with casual labour. (There is also a potentially important role here for the panchayats in assuring that the assets created are of value to the community.) Further indirect benefits might also be expected through previously uninsured people adopting new (farm and non-farm) income generating activities that were perceived as too risky to living standards in the absence of an effective safety net. (The consumption floor provided by a uniform transfer to everyone could also have indirect benefits, though without the property of an EGS that the extent of relief varies with the extent of the shock at household level.) Naturally, achieving these insurance benefits would require that the scheme operates as a true EGS, in that anyone who wants work at the stipulated wage rate can get it.

Finally, it should be noted that a complete assessment must also take account of how the scheme is financed. If the fiscal cost is covered by cutting other programmes that benefit the poor, or by raising the taxes they face, then the net impacts on poverty will be lower than our estimates suggest. Financing the scheme by borrowing will probably also entail costs to the poor, through effects on growth and employment. **[EJ]**

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Notes

[These are the views of the authors, and need not reflect those of the World Bank or any affiliated organisation. We have benefited greatly from discussions with Abhijit Sen and are grateful for helpful comments from Stephen Howes and Philip O'Keefe.]

- 1 A useful compilation of various contributions to this debate can be found at http://www.righttofoodindia.org/rtowork/rtw_articles.htm
- 2 The larger 'thick' samples are surveyed every five years. Smaller ('thin') samples are surveyed annually, with an abbreviated version of Schedule 10.
- 3 These comprise Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal.
- 4 The daily household expenditure requirement is calculated as household size times the $\frac{1}{30}$ th of the monthly poverty line appropriate to that household (depending on its location). The 'living wage' is then the

expenditure requirement for the day divided by the number of adults in the labour force.

- 5 Schedule 10 distinguishes a 'half day' from a full day though the former could be much less than four hours. (We take account of the full day-half day distinction in calculating wage rates.)
- 6 We assume that caste, religion and landholding are known by employers, which appears to be plausible in village labour markets where there is considerable common knowledge about such matters.
- 7 In a survey of administrative costs for transfer programmes requiring individual assessment in Latin America, Grosh (1995) reports a median administrative cost of 8 per cent of the budget.
- 8 For evidence on the differing performances of the panchayats across states of India see Mathew and Buch (2000).

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