

EXTRACT FROM BULLETIN 5 - University of Reading Rural Development Communications.

Rural poverty: Its seasonal dimensions



The heavy task of fuel-gathering devolves on women in many societies: combined with farm work at peak seasons it puts severe stress on, particularly, pregnant and nursing mothers.

The wet season followed by harvest work is the low point of the year with higher incidence of illness, increased infant mortality together with unrelieved hard work

How severe are seasonal crises in the lives of poor rural people in the Third World? What are the main causes of seasonal deprivation and what are its short term and long term effects? Are there linkages between the numerous factors (particularly disease, farm work, crop production) which vary seasonally to impact on rural life? How can rural development planning and policy-making take account of seasonal factors so as to reduce their severity? A recent conference in the UK brought together both social and medical scientists in the attempt to answer these, and other questions.

Organised jointly by the Institute of Development Studies at the University of Sussex and the Ross Institute of the London School of Hygiene and Tropical Medicine, the conference was held at the IDS from 3-6 July 1978. Starting point of the conference's work was a 'scenario' outlining the main factors which have been observed — and recorded — to vary seasonally in many Third World environments, and attempting to describe how they may interact. The scenario is based on a wet season following a dry season and is outlined in note form below.

End of the dry season. There is a rise in the labour and energy requirements for fetching water, watering livestock, gathering food. Landless or small-farm households suffer sooner and more than others. They have smaller food reserves (because they grew less), fewer livestock, they lose a higher proportion of their food reserves in storage, have less money. They need to work to buy food but work is scarce and wages low at this time of year. Some migrate in search of work and food.

First rains. Future food supplies and cash income depend upon timely agricultural operations. Poorer farmers are constrained and delayed by lack of inputs (seeds, fertilisers, water or draught power) often supplied by richer farmers or merchants with whom they are forced into dependent and exploitative relationships. Their draught animals are weak. Their food intake is inadequate for the heavy manual jobs of land preparation, transplanting, weeding. Many people are in negative energy balance and lose weight. Food prices are high and transport difficult in the rains. Anticipating hard work, mothers terminate lactation. Food preparation becomes more hurried and the diet less varied and nutritious. Women spend less time on cooking, house-cleaning, water-collection, fuel-gathering and child care, and more on agricultural operations.

The wet season. This is the least healthy time of the year, with some of the more serious and debilitating diseases peaking during and/or just after the rains (malaria, diarrhoeal disease, Guinea worm, skin infections). Other stresses (noted above) mean low immune response, but failure through illness to meet peak labour demands (to cultivate, transplant, weed, harvest) may critically affect future income and food supplies. The poor and landless find work least difficult to get and wages highest so must work now in order to earn enough to tide them over until the next agricultural season — but may be prevented by illness. It is a bad time for mothers and children (births peak, but body weights of mothers and the weights of babies at birth are both low, neo-natal mortality peaks, calorific value of the milk supply of lactating mothers is low, pregnant and lactating women are weakened by disease and work). Poorer people are often driven to distress sales or borrowing. The poor are subordinated to the less poor or the rich; and within the family, the women may be subordinated to the men. Seasonal stress may be passed on down the line from the stronger to the weaker culminating in the women and children, the old and the needy.

Harvest time. Work in harvesting and post-harvest processing is hard. Weight loss is now at its greatest. Mortality, especially among older adults, peaks due to wet season stresses combined with the high energy demands of harvest work. Debts are repaid, but on the basis of low post-harvest prices which are also bad for those who need to sell crops to raise cash for the ceremonies which are soon to follow.

Post-harvest. Things improve. Food is available, and food intake recovers in both quantity and quality. Body weights rise, morbidity and mortality decline. Ceremonies, celebrations, marriages take place. Rates of conception peak and then gradually the cycle begins all over again.

The conference saw its main job as one of testing the accuracy of the scenario through consideration of some forty individual contributions. There were seven geographical area case studies from Africa and South Asia, and other papers concentrating on

Townspeople including administrators are ignorant of seasonal variations

But seasonal deprivation cannot be held solely accountable for tropical poverty

Action priorities that might relieve seasonal stress

specific subjects such as labour demand in agriculture, vital events, energy balance, disease incidence, the condition of women and children, social relations. In general the case studies confirmed that many of the adverse factors hypothesised in the scenario did indeed operate together in the way outlined, especially against the poorer people. Further, they led to the conclusion that seasonal deprivation, and particularly adverse conditions during the wet season, tends to be underperceived by non-rural dwellers — including administrators — for a complex of reasons. These include difficulties of travel in the wet season ('tarmac bias'), the tendency to observe agricultural activities in the fields rather than the sick and undernourished in the houses and villages, the failure of people to attend clinics when travel is difficult and the farm work urgent. The following qualifications to the generalised scenario, however, emerged:

- the forms of seasonality vary importantly and subtly between regions and over time: it is important not to assume that the scenario presents a picture of seasonal deprivation which is universally valid, nor, on the other hand to believe that areas of bimodal rainfall or irrigated areas are free from seasonal crisis. A case-study from Bangladesh, for example, showed complex seasonality in cropping and labour demand, and confirmed many of the scenario's hypotheses.
- care is needed in assessing whether, and to what extent, seasonalities can be regarded as causes of rural poverty, or as contexts in which it is sustained and deepened. While there are obvious senses in which tropical seasons help to keep poor people poor, there are also many other conditions and processes responsible for rural poverty.
- a distinction can be made between a seasonal *screw effect* — a cycle such as that outlined in the scenario — which presses people down regularly but allows them to recover; and *ratchet effects*, where disability or misfortune (sickness, flood, pregnancy, death) forces an irreversible downward shift from which recovery is not possible. Ratchets might entail the sale or mortgaging of land, jewellery, livestock, the coming crop or future labour; or the acceptance of a loan which would never be repaid. Thus a single bad year, if it has a ratchet effect on the poor, may be more severe in its impact than the regular cycle of seasonal deprivation.
- where off-farm income sources are available they may be important as 'smoothing devices' to mitigate the effects of seasonality: people in an area with uni-modal rainfall plus off-farm income may be more able to withstand climatic shocks than those in an area with bi-modal rainfall but no off-farm income.

What are the practical implications of these conclusions? A number of suggested priorities for action aimed at relieving seasonal stress emerged at the conference, some of them simple but with, potentially, an important impact:

- planning *public health action* to give priority to diseases which coincide with critical periods; ensuring that *delivery of health care* (distribution of drugs, deployment of staff) is most effective at times of most need.
- devising *agricultural technologies* which relieve the energy drain during periods of intense crisis, which relieve the drudgery of women's work, which reduce crop losses in store, which spread agricultural activities and ensure food and income flows more evenly throughout the year.
- concentrating *relief food supplies on vulnerable groups*, especially pregnant and lactating women (as well as its obvious direct benefit, this may mean that women can reduce their workload without net loss to the household's food supply): organising *communal child care* at times when women are most busy.
- paying attention in *rural planning* to seasonal problems especially as they affect disadvantaged groups; identifying strategies used by rural people to mitigate seasonal stress, and implementing programmes which support rather than weaken these.

A limited number of the individual conference papers and also a 20-page interim report of the conference are available at IDS. They may be obtained on a 'first come first served' basis by writing to:

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