Early poverty reduction, rural and farm resources for the poor, transition and education

The agreed aim of development policy is to slash extreme poverty. The UN-OECD “international development targets” for 1990–2015 aim to halve the proportion of the world's people who are dollar-poor, i.e. who live on less that a dollar a day. Developing countries are producing “poverty reduction strategy papers” on how to achieve this, and to monitor progress. Developed countries are reorganizing aid, for each developing country, in support of the poverty reduction effort. Some of all this is rhetoric, but much is genuine.

Most of the poor are rural; their first need is food; and past success in mass poverty reduction rests heavily on getting resources for increased staples production, productivity, and consumption to smallholders and farmworkers. Yet most developing-country poverty reduction strategies are macroeconomic. They say little about resources for agriculture or rural development, or how to get those resources to the poor. Developed-country aid to agriculture has collapsed, from over a third of all aid in the early 1980s to 12 percent now. Policymakers act as if world poverty were best cured in towns: by increasing urban resources and getting them to the urban poor.

Many people think this makes sense: the poor are moving towards cities. But this is seldom very fast or successful. Seven out of 10 of the world's dollar-poor are rural. On the best projection, half the world's poor will still be rural in the year 2035! Also, extra urban workplaces cost far more than rural and farm workplaces — more in equipment, education, and infrastructure. Perhaps that's why most programs to help the urban poor create, not income and work, but better shelter. That is desirable, but welfarist; it seldom pays for itself. On the other hand, in rural areas many programs, some very successful, have slashed poverty by productive, and if well chosen sustainable, methods: water control, better seeds, microfinance, rural public works, land reform. Getting productive resources to the rural poor not only focuses on where the poor are, and can be cost-effectively reached. It may be the most effective way to attack urban poverty, by reducing the flow of migrants to the cities, where they push the poor's wages down and prices up.

Some say that, while poverty reduction requires rural resources for the poor, they should not be geared to farming, because the rural poor increasingly depend on nonfarm income and work. But

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1 This note, especially section 3, rests heavily on the Report on Rural Poverty of the International Fund for Rural Development (Rome 2001), for which I was “lead scholar”. Responsibility for this note remains mine.
rural trade, transport, and construction need customers. These are mainly smallholders, and the farmworkers that these employ. In areas of mass poverty and widespread dependence on stagnant, low-productivity or very unequal farming, poverty reduction starts by raising the productivity and amount of resources in the hands of poor agriculturists. Only then, as a rule, can the poor make major gains in nonfarm income.

In early development it is extra resources — technology, skills, land, water — for extra local food staples production that the rural poor need most. Usually, they get enough food only when they produce it themselves, or get paid work from those who do. In Asia and sub-Saharan Africa (which contain 93 percent of the world's dollar-poor), well over half of all employed and self-employed people still depend on farming — mostly staples — as their main income source. The proportion of the poor is perhaps two-thirds. Moreover, of the total value of consumption by the dollar-poor, 70 percent is food (50 percent is staples), most produced by poor local farmers or farmworkers.

No wonder that, in early development, rapid poverty decline almost always required fast growth of cereals yields, farm output, and rural employment. In China 1977–85, India 1975–89, Mexico in the 1970s, Indonesia in the 1980s and elsewhere, fast staples output growth and substantial shares of land and farmwork for the poor — often due in part to land reforms — were instrumental in rural poverty reduction. Less costly, more reliable food staples cut urban poverty too: for example, in India from 1957 to 1994, rural and urban poverty fell fastest when, and where, farm output grew faster (faster industrial growth did not speed up either rural or urban poverty reduction). But the poor need resources to gain much, even from agricultural growth. In Latin American countries — where the poor control a tiny proportion of land, while giant farms employ few people per hectare — agricultural growth does far less to reduce poverty than in Asia or Africa.

Poverty reduction does not depend on local food farming and employment for ever! A time comes for poverty reduction transition. In the 1980s and 1990s most East and Southeast Asian countries have succeeded — except for some dryland and upland regions, and some minority groups — in parlaying pro-poor farm growth into pro-poor cash-crop, rural nonfarm, and small-town development, as with China's township and village enterprises. But success came mainly because farm growth in 1960–85 had been fast and broad-based, usually smallholder-based, often (as in China, Korea, and Taiwan) during or after land reform. From the mass of dollar-poor — over half of rural East Asians around 1965 — came a broad class of potential entrepreneurs, savers and managers, sufficiently food-secure to function first as progressive small farmers, cash-crop growers, and buyers of nonfarm products, and later in the production system for such products.

A key resource — enabling East and Southeast Asians (and many South Asians) to move from reducing their poverty by better food farming, towards doing so through nonfarm and urban work — was education. In particular, not only the poverty reduction transition, but also the efficiency both of economic change and of educational systems, depends on reasonably adequate and equal access to education by talented persons hitherto often denied this resource: children of the poor, girls, many rural people, and some minority language groups. In some Indian States, most of rural Pakistan and much of West Africa, fewer than 1 in 3 rural women have completed primary school. In a competitive world, few uneducated women will gain much from dynamic forms of nonfarm production. So the new growth sectors are denied efficient workers, and women are denied this escape from poverty. Where farming is progressive (though not otherwise), it too grows much faster where resource change is managed by literate, numerate farmers and workers. Yet the lags of rural areas, women, and minority groups in educational resources (as in health, and in poverty) are in most developing countries large and not shrinking. Both to accelerate pro-poor farm progress, and to ease its subsequent “parlaying” into pro-poor non-farm and urban growth, many
countries must urgently accelerate the spread of literacy, numeracy, and access to education to rural, remote and female populations. However, two warnings are needed.

- First, today's workers — not just tomorrow's — need basic education to escape poverty, yet many have passed “school age” unschooled. The average age of the workforce is rising in Asia and Africa, mainly because fertility started declining in the 1970s or the 1980s. It is new entrants to the workforce whose schooling can be improved. But in most low-income countries they are a sharply falling part of the workforce. This sharply reduces the speed at which, by just sending children to school, the education of the workforce can be improved! More and more, equipping poor workers with resources to escape poverty requires educating adults too.

- Second, though there can be a high rate of return — also in terms of reduced poverty — to extra education, this depends on other requirements for economic growth. Literacy and numeracy do help poor people to select and adopt (or adapt) new farm methods, and nonfarm activities, better and faster. But if new methods and activities are not available, profitable or readily traded — or are denied to the poor — education alone may not permit escape from poverty.

The switch to a non-rural emphasis, in getting resources to the poor and thus reducing extreme poverty, makes sense in lead areas of Southeast Asia, South and East China, and parts of India and Latin America. It makes no sense in the poverty heartlands where at least 80 percent of the world's 1.2 billion dollar-poor still live. Poverty reduction has as yet hardly affected most of Africa. In China and India the poorest are increasingly concentrated in “backward” areas. In many of these, poverty and growth returns to much rural investment — agricultural research, rural roads, education — are now higher than in the lead irrigated areas, where poverty has been slashed already. So there is a strong efficiency case for moving resources to some of the poorer rural areas.

Has “the State” a role in moving “resources” to help the rural poor to cut poverty?

Some claim that the State cannot bring the rural poor the resources they need to reduce poverty — that State withdrawal from rural areas, apart from basic law-and-order functions, would help the poor. There have been big follies and evils, harming growth and worsening inequality, in State-based farm production, regulation and extraction. But the State is not the source of folly, evil, or urban bias, but the reflector of society's capacity to control these, of its values, and of its power-structure. In successful societies, often open or democratic, the State has been held to a big positive role in rural poverty reduction: not just providing “public” goods, but building small-farm productivity, supplying the poor with schools and health, cutting land inequality:

- Many essentials of achieving early farm productivity growth, or of routing it to the small and employment-intensive — farm research, rural roads, some aspects of irrigation and of finance — pay socially but not privately. Some States seriously try to provide these; others do not.

- Better health and education make employment growth more pro-poor, but the poor can seldom afford them. Some States seriously try to provide these; others do not.

- Changed incentives, taxes, laws, consensus-building are needed for “normal” (not revolution- or invasion-driven) land reform. Some States seriously try to provide these; others do not.

There is a new “window of opportunity” for successful State action to get the rural poor the resources they need to escape poverty. In most of Asia and Africa, fertility declines in 1970–2000 promise dramatic rises in “labor supply” (adults aged 15–59) relatively to dependants in 1995–2025. That ratio is scheduled to double in Kenya and Bangladesh. In the 1970s, smaller rises greatly helped poverty decline in East Asia, thanks to labor-intensive small-farm growth. This created increasingly
rewarding productive work, so each extra working adult could provide better food, education and lives for his or her (fewer) dependants. This might work in South Asia and Africa in 2000–2025, but only if the improved ratio of workers to dependants reaches poor rural areas, and if the workers find affordable workplaces. For this, State action is needed to shift resources. First, fertility decline has long begun, even for poor groups in many lagging rural areas, but must be speeded up by the right (costly) incentives: lower child mortality, more female education. Second, even with fewer dependants, poor rural workers can cut family poverty only with better water control, seed technology, rural infrastructure, and in some areas land reform, to arouse small-farm productivity and employment from their sluggish growth in the 1990s.

Some people oppose many State actions to get resources, of growing productivity, to the rural poor on environmental grounds. It is claimed that increasingly scarce and threatened land-water resources can no longer support substantial (or small-farm or labor-intensive) farm growth. Assorted lobbies — against dams, pesticides, some fertilizers, and even the (usually low-risk) methods of plant breeding based on genetic modification — have deterred some promising forms of spending by developing-country governments and donors in support of rural poverty reduction. In fact, fragile environments can be protected, against migration and over-exploitation by the desperate poor, only by scientific resource use and management (including more intensive farming) and resource shifts to the poor, especially in better-endowed soil-water environments.

However, the spreading water crisis — created by a partly justified shift of water to industrial and urban-domestic use, and probably exacerbated by global warming — does threaten, especially in drier areas, to constrain resource transfers to, and productivity growth for, the rural poor, and even the improvement of their often appalling drinking water and sanitation. A solution requires:

- better water markets and freer pricing as stressed by the World Water Commission, but also
- transfer of water-yielding assets, to the poor as families and as user groups, and
- a new thrust in technologies to use, economize and recycle water: a blue revolution as great as the last one, the taming of water for agriculture in Asia over two thousand years ago.

Meeting the dire water needs of the rural poor, amid tightening water constraints, demands scientific solutions. Yet research is underfunded and often undervalued, isolated and low-prestige.

Apart from water technology and “water reform,” the sharp fall in yield growth in main food staples in the developing world — 3 percent yearly in the 1970s, barely 1 percent now — and hence in employment growth, is for various reasons unlikely to be reversed without remedying the global misdirection of biotechnology research, away from the food needs of small farmers and workers, towards the marginal problems of the rich. Nor, without gene transfer from other sources, are we likely to see rapid gains in the yields or even the robustness of crops such as millet, sorghum, and some tubers, already adapted to the fragile conditions of semi-arid or upland areas. States need to take the lead in turning round, and reviving, the water and seed aspects of science-based agricultural development. The Green Revolution showed that the gains from this can be steered to poorer farmers and farm workers (no more environmentally depleting than big capital-intensive farms). But, with most biotechnology researchers, and some of the knowledge, locked into private firms — and with a new scale and type of water research required — the problems are not the same as those of getting Green Revolution research moving and poverty-reducing.

Pro-poor technical progress in seeds and water use has been, and remains, the most important anti-poverty resource that the poor can acquire. It will not be achieved by pretending that poor farmers can escape poverty (i) through indigenous technical skills and research alone — important as these are; (ii) through communications, without farm growth or assets — “let them eat the Internet;” and (iii) through the existing research in biotechnology or water-control “to feed the world.” Only
State-led public action — supplementing, drawing on, and changing incentives to, private agricultural research — can address these problems.

**Productive resources for the rural poor: some other and challenges**

Measures that reduce rural poverty cost-effectively are known. Returns to farm research (while hard to measure) are probably very high and certainly not falling. In the World Bank, recent farm-sector projects show similar returns to other sector-specific projects. Productive rural public works, and microfinance (though seldom reaching the very poorest), have shown their capacity to cut rural poverty.

Progress against rural poverty gains from the poor's involvement in institutions, technology, assets, and markets. Much has been learned, especially in rural finance and common-property resource institutions, about successful devolution and participation. In many fields (water control, credit, public works) it improves project efficiency, though not necessarily the poor's share of project benefits. So-called “social capital” — institutions of community trust and cooperation — also helps cut poverty, if the poor have access to it.

But the software and the hardware are getting out of line. Just as policymakers and analysts learn how to get some of the institutions right, farm technology improvement is faltering, water supplies are squeezed, and land distribution to the poor is sporadic. Just as the poor get more involved in the “how” of rural development, the “what” — technical progress, asset control — are slow or threatened. Yield growth has faltered badly since the mid-1980s and has not spread to much of Africa, which is largely “stuck” in crops where research is defensive rather than yield-enhancing. Poverty reduction in Africa — as in some of semi-arid Asia — depends on improved genetic potential, probably mainly via biotechnology. This is also probably needed to provide incentives to invest in land-water management. Africa has only 3–5 percent of cropland irrigated (as against 35–40 percent in Asia), and almost certainly needs much more irrigation, not all “hydraulically correct” small-scale, for major progress.

Asset control is crucial for rural poverty reduction. In developing countries, small farms are still generally at least as efficient as large, and create much more employment per hectare [though globalization increases small farmers’ need for shared marketing, quality-control and credit arrangements, if they are to remain competitive in export crops]. Land reform has been much more widespread, successful, and consensual than is generally believed, and may well be moving up the anti-poverty agenda again. International support for well-ordered action to shift land rights to the rural poor is justified — and, in very unequal conditions (Latin America, Southern Africa), is essential for rapid rural poverty reduction. Also, denial of access to land to women is highly inefficient, as well as unjust and anti-poor; experience in redressing it has been mixed.

In summary, the rural poor need labor-using, yield-enhancing technical progress, especially in staples production, to escape poverty. They also need access to adequate land and, to the extent feasible, controlled water. Education — too often still denied rural people, especially women — is essential for skill acquisition, and for mobility both within and out of progressive agriculture. Returns to outlays that develop such resources (and enable the rural poor to obtain them) are known to be high — at least as high on small farms as on big ones; not systematically less in Africa than elsewhere; and often higher in appropriate rainfed areas than in irrigated “lead” areas.

The poor can gain from liberalization and globalization, but this is much likelier if they obtain the tools, not just to reach markets, but to compete in them. This means education, good advice (but not compulsion) linked to competitive credit, better rural roads if affordable, but also low-cost and if possible competitive means of personal and shared transport and storage. There are indeed niches for information and communication technology in guiding farmers, including some poor ones, to the best
market options; but Bill Gates has rightly dismissed “let them eat the Internet” as a way to reduce the poverty of hungry, ill and illiterate persons.

Afterword: Resources for the rural poor and the international poverty targets

In the 1970s and 1980s, a poor person's chances of escaping dollar poverty improved dramatically. If the developing world does as well in 2001–15, the “global development target” for poverty reduction will probably be met: the 1990 proportion of the world's people living on below a dollar a day will be halved by 2015. Unfortunately, poverty reduction was far slower after 1990 than in the 1970s and 1980s. If each main area in the developing world does as well in 1998–2015 than in 1990–98, only 40 percent of the UN poverty reduction target will be met.

The main reason for the sharp slowdown in poverty reduction has been a slower increase in the rural poor's productive resources: land, yield-enhancing technology, water, education, and hence access to productive work. Increasing such resources is crucial and achievable in early development through a focus on agricultural growth, especially smallholder food production, and its technical base in national and international seed and water research; and on access to land for the poor. In 1970–88 that happened; since then it has slowed right down, and so has poverty reduction, while the share of aid going to farming has collapsed. If — but only if — these errors are corrected, the poor can gain sufficient productive resources for the poverty targets to be met.
ABSTRACT

1. Most of the world's poor will remain rural for at least three decades. Low-income countries that achieved substantial poverty reduction almost always did so initially by getting resources to the rural and farming poor, and raising productivity of such resources. This brought rising income from affordable, productive employment, and self-employment, on small farms — especially to produce staple foods for local use. This is still usually the most cost-effective way to reduce rural and urban poverty, in regions with widespread low incomes and food insecurity. After this, poverty reduction comes to depend on a transition to employment-intensive cash-crop, rural nonfarm, and small-town development. Where the “poverty reduction transition” works, it depends heavily on education, and on correcting anti-rural and anti-female biases in access to it.

2. States, reflecting the societies in which they are embedded, have often impeded rural poverty reduction. Yet it now requires appropriate, and often expanded, State action. This has to make available prerequisites for small farm growth that, while socially profitable, are undersupplied by private firms; and to create laws or incentives that shift such resources to poor (e.g., by land and water reform), and stimulate more employment-creating methods of production. Fertility declines in recent decades is sharply raising the ratio of workers to dependants in many very poor countries — giving a “window of opportunity” for State action to ensure that this is matched by more demand for labor. This is affordable mainly from agriculture, but requires faster, publicly supported technical progress in seed development (almost certainly including biotechnology) and in dealing with the tightening squeeze on rural water supply.

3. State managers have learned much about the advantages of decentralized, participatory institutions in rural poverty reduction. Provided States create the policy environment for such institutions (and do not retreat excessively from their irreplaceable functions), the software will continue to “come right,” as recent experience in microfinance, community forest management, and water users' groups shows. But even good software runs badly on dated or rusting hardware: better technology and more assets suitable for poor producers, especially the remote, rural, female poor.

4. Both the real value and the share of agriculture in international aid have collapsed since the late 1980s. Domestically, many States have reduced their efforts for agricultural research, rural roads, irrigation, and land reform. If these trends are reversed, in the context of major national and international effort on seed and water development, the international target of halving dollar poverty in 1990–2015 can be met. However, we are at present achieving well below half that target. There will be no major improvement without a major turn to rural and farm activity — where poverty mainly is, and where it is most cost-effectively addressed.

Note: The views expressed in this summary note are those of the author and are not necessarily endorsed by or representative of IFPRI or of the cosponsoring or supporting organizations.