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**ECONOMY** **China**

# Small Infrastructure has a Big Impact in China

November 21, 2016

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A Chinese villager drives a tractor along a road in Xiaogang village, east China's Anhui province. In villages like this across China, small infrastructure projects, such as these rural roadways, are having a positive economic impact.

*Photo: STR/AFP/Getty Images*

It is a familiar dilemma to policymakers around Asia: How much infrastructure, and what kind, is enough? How should developing

economies prioritize when the needs are so great?

China's experience offers a surprising answer. While large-scale infrastructure sometimes generates GDP growth (it often does not), smaller is often better for poverty reduction.

One would not think of the word "small" to characterize China's infrastructure ambitions in recent years. The Three Gorges Dam, the Beijing Olympics, the Shanghai Expo and the high-speed rail system serve as striking symbols of the country's rise. Its new multilane highways snake throughout the countryside. Some of these link cities together; other roads and [bridges seem to go nowhere](#).

China [plans to spend \\$720 billion on transportation infrastructure](#) over the next three years alone, and that's in addition to the [\\$732 billion](#) that China planned to spend in its 2009 stimulus package. In fact, [China spends more](#) on infrastructure than Western Europe and the U.S. combined.

While most of this infrastructure development has centered on large-scale projects, some pockets of the country are thinking small—and poor people are benefitting as a result.

## Small Works, Even in China

In some parts of China, including areas in its poor southwestern mountainous regions, a few local governments have de-emphasized highways and large-scale infrastructure. Instead, they have [focused on rural roadways](#), telecommunications and infrastructure that reaches remote, poor areas.

For example, starting in the late 1980s, the poor province of Guizhou began building an impressive network of rural roadways—sometimes even well-constructed dirt roads. These roads link remote villages with marketing towns and even larger commercial counties. Through these

roads, farmers become connected to larger markets. They learn which agricultural products are in demand, and they start to shift accordingly. As they move gradually out of [subsistence farming and into commercial agriculture](#), they earn more money. This has allowed many to send their children to school, the elderly to healthcare and put more money into savings.

*Chinese communities have invested in rural roads and small-scale electric, water and sanitation projects.*

What is more, these roads allowed middlemen to come into the village to purchase commercial crops. Because these middlemen could reach further markets, they could offer higher prices to local farmers. Roads brought reliable information about migration opportunities, and allowed freer movement to and from places of off-farm employment.

Modest country roads are not as impressive as larger-scale highways, and they make less immediate impact on total GDP. But they are far less expensive and have the potential to spread the benefits of growth more widely and sustainably.

More broadly, as rural residents prosper, they tend to remain in their local communities, closer to their friends and relatives and their larger social networks. Such an approach can create a balance between rural development and urbanization, releasing pressure from migrant-clogged cities. As farmers diversify family incomes and emerge from

poverty, they begin to demand better clothes, better housing, and even simple consumer goods. In this way, growth emerges slowly—as a trickle-up process, rather than trickle down.

In addition to rural roads, many communities have invested in local, small-scale projects that bring rural electricity, clean water supply and sanitation systems. These translate immediately into improved wellbeing and productivity. They are much less expensive than most larger-scale projects that often shift natural resources from countryside to city, poorer areas to rich.

## Thinking Small for Sustainable Impact

China and the rest of Asia still needs infrastructure, and a lot of it. The problem is that large and impressive projects too often dominate the thinking of policymakers across the region. Big projects are impressive, and they often help link areas to a larger part of the economy. But **much of it is wasted and unproductive**, and does little for people who are not connected to the larger grid.

Indeed, China is at a crossroads. Many of the lessons learned from these pockets of bottom-up growth have been lost. The national policy appears to be shifting from one of rural development to wholehearted urbanization—one that embraces massive investment in large-scale infrastructure. The **policy has shifted away** from developing rural areas in an organic way that includes farmers to one that marginalizes farmers. There is therefore a need for a better balance between large scale infrastructure development and smaller projects.

This policy shift toward urbanization is not inevitable. As China itself has shown, bottom-up rural development is possible. In contrast to the “bigger is better” paradigm, a more micro-oriented approach to infrastructure development forgoes the advice typically given by development agencies, let alone governments. This approach means

more farm-to-market roads, fewer super highways; more basic irrigation, fewer mega dams.

Such a path may be less impressive than showcasing cities or massive-scale construction projects. The focus on these smaller-scale projects is uncommon outside of their local areas. Yet, this kind of micro-approach has demonstrated a dramatic long-term impact based on inclusive growth.

## China Infrastructure



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