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## INDIA SKILLS-MATCHING AND PAYMENTS SOLUTION HELPS 128 MILLION LOCAL LABORERS FIND WORK



Rural poverty has been a defining characteristic of India for centuries. According to the World Bank, approximately 68 percent of India's 1.2 billion citizens live in rural areas and are dependent on agriculture.

A decade ago, the Government of India embarked on its biggest-ever poverty-alleviation project and passed a law guaranteeing every household a minimum number of days paid employment a year. The subsequent Act had to be implemented across all administrative districts which presented India's Ministry of Rural Development (MoRD) with a truly daunting challenge. Officials had to create an administrative system that connected every level of government in India, from the country's capital, New Delhi, to all 36 states, hundreds of districts, and tens of thousands of blocks and gram panchayats—or village councils. The system had to match each citizen's request with a works project nearby, track the activity, and make payments. To ensure that works projects were useful, it also needed to incorporate a project-approvals process. And to ensure accountability, every step of the payments process had to be transparent.

Officials had little margin for delay or failure. The Government of India hailed the initiative as one of the largest and most ambitious social security and public works programs in the world. To build this complex system, MoRD officials turned to Microsoft technologies. "First, we had to create a straightforward data-entry system that could be deployed on terminals in government offices at the block level," says Prashant Mittal, Senior Technical Director at the Ministry of Rural Development. "We had to produce it quickly, and rural administrators had to be able to use it without training. Our need for speed and ease of use led us to code our solution using the Microsoft Visual Basic development system and deploy it on the Windows operating system."

Called NREGASoft, the system was initially deployed as a standalone application and connected to Microsoft SQL Server 2005 databases in each state. As the rollout gathered pace—and as Internet connectivity spread across India—MoRD officials reconfigured NREGASoft as an online application, and Mittal's team quickly rewrote the interfaces using the Microsoft .NET Framework. Crucially, this meant that all rural officials could access NREGASoft via a browser—and so could officials at every level of government. District officials propose projects—such as the building of roads, bridges, and irrigation works—that officials at multiple levels review, approve, and monitor using the system's workflows. When job requests are submitted, district officials match them with approved projects, and a block official issues the applicant a job card. A third process enables central government officials to allocate funds for projects and then track payments for wages and materials.

By June 2015, NREGASoft was operational in 31 states across India and 599 districts, reaching 604,302 villages. This equated to 92.5 percent coverage. Today, the Ministry of Rural Development uses NREGASoft to help 120 million unskilled laborers find work on local projects each year. Officials have also relied on the system to help them manage, staff, and finance a total of 14.6 million projects.

Since NREGASoft is browser-based, every single transaction in the system is transparent and accessible to the public online, which improves citizens' faith in the government's ability to manage taxpayers' money. Anyone can go online and see exactly how much money is being spent and where—even down to the amount of money spent on labor in each gram panchayat."

