



AGRI MAGAZINE

(International E-Magazine for Agricultural Articles)

Volume: 03, Issue: 09 (September, 2026)

Available online at <http://www.agrimagazine.in>

©Agri Magazine, ISSN: 3048-8656

When the Workers Leave, Where Are the Machines?

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For small farmers in Pernambut, rising labour costs and limited access to machinery are making harvest increasingly difficult

At harvest time, a farmer's biggest worry is not always the weather, pests or crop disease. Sometimes, it is finding enough people to harvest the crop. For Mr. Raghavan, a groundnut farmer cultivating about three acres near Morasapalli in Pernambut, this has become a familiar problem. When the crop is ready, the work has to be completed quickly, but finding agricultural labourers at the right time is becoming increasingly difficult. And when labour is unavailable, another question arises: where is the machine that can do the job? This question came up repeatedly during our Rural Agricultural Work Experience Programme in Pernambut block. During our interactions with farmers in Morasapalli, T.T. Mottur, Melpatti and Melkothakuppam, one concern stood out clearly—the changing availability of farm labour and the difficulty of accessing suitable agricultural machinery. Farmers explained that agricultural labour is becoming more difficult to find, while the cost of available labour is also increasing. At the same time, suitable machines for small-scale farming are not always available when they are needed most.

Agricultural labour in rural areas is changing. Workers today have more employment opportunities than in the past, including government employment programmes and non-farm work that can provide alternative sources of income. From a worker's point of view, the choice is understandable. Everyone wants a stable livelihood and a dependable income. But farmers face a different reality. A crop cannot wait. Groundnut, for example, has to be harvested at the appropriate stage, and delaying the operation because labour is unavailable can increase losses and affect the quality of the produce. This creates a difficult situation: workers are searching for better livelihood opportunities, while farmers are searching for workers. Neither side is necessarily the problem. The real challenge is that agriculture has not yet adapted sufficiently to the changing rural workforce.

The obvious answer seems to be mechanisation. If fewer workers are available, machines can take over some of the labour-intensive operations. But for small and marginal farmers, mechanisation is not always as simple as it sounds. Many agricultural machines are designed for relatively large and uniform fields, whereas small farmers often cultivate only a few acres, sometimes in separate or irregular plots. Purchasing a specialised harvesting machine may therefore not be economically practical for an individual farmer. Renting machinery appears to be a better option, but even then, availability can become a major challenge. What happens when the machine a farmer needs is not available at the time of harvest? The problem becomes a difficult cycle: there are not enough workers to complete the operation manually, but there are also not enough suitable and accessible machines to replace them.

It is easy to blame labour shortages on changing employment patterns, but farmers themselves understand why workers look for other opportunities. Agricultural labour is often seasonal, and employment can vary with the cropping calendar, rainfall and local demand.

For workers, a more predictable source of income can be attractive. Farmers, meanwhile, cannot simply wait for labour to become available because crops have their own biological timetable. This is why the issue should not be viewed as a conflict between farmers and workers. Instead, it should be understood as part of a wider transition taking place in the rural economy. The workforce is changing, and agriculture must find ways to change with it.

One important lesson from our interactions with farmers is that mechanisation does not necessarily mean machine ownership. A small farmer does not need to own an expensive harvester if the machine can be made available at the right time and at an affordable cost. This is where Custom Hiring Centres and village-level machinery rental systems can play an important role. Instead of purchasing expensive equipment, farmers could hire machinery according to their requirements and pay for the service by acre, hour or operation. Imagine a village where a small fleet of agricultural machines is available during the cropping season. A farmer needs a groundnut harvester, books it, and the machine arrives at the field at the required time. The operation is completed without the farmer having to make a large investment in machine ownership. Such a system could make mechanisation much more practical for smallholders.

Another important consideration is the size and design of agricultural machinery. Mechanisation should not be designed only around large farms. Small farmers need machines that are affordable, compact, easy to operate, suitable for small and irregular fields, easy to transport and available through local rental systems. Equipment should also be developed with crops such as groundnut and other labour-intensive crops in mind. A smaller machine that can efficiently serve several farmers may sometimes be more useful at the village level than a large machine designed for extensive holdings. The future of farm mechanisation may therefore not be about making machines bigger, but about making them more accessible and appropriate for the farmers who need them.

For decades, mechanisation has often been associated with ownership. But for small farmers, the more important question may actually be, **“Can I access the machine when I need it?”** A farmer does not necessarily need a machine sitting in his shed throughout the year. He needs it for a few hours or perhaps a few days during a critical farm operation. This makes shared machinery, Custom Hiring Centres, farmer groups, cooperatives and well-organised rental networks particularly important. Government support, agricultural extension services and local institutions can also contribute by encouraging the availability of appropriately sized machinery and strengthening machinery-hiring systems.

During our interactions with farmers in Pernambut block, the same concerns appeared in different forms. Labour is becoming difficult to find, the cost of labour is increasing, and suitable machinery is not always available when it is needed. These are not merely questions of convenience. For a small farmer, the timing of one operation can influence the economics of the entire crop. A delayed harvest can mean additional costs, an unavailable machine can increase dependence on scarce labour, and higher production costs can place further pressure on farm income.

The farmers we met were not asking for agriculture to become completely automated. They were looking for something much more practical—an alternative when labour is unavailable. Perhaps the future of mechanisation in villages does not lie in every farmer owning a machine. Perhaps it lies in shared access to smaller machines, village machinery banks, Custom Hiring Centres, farmer groups and affordable rental systems designed around the realities of small farms. The rural economy is changing, and workers are adapting to that change. Farmers need the opportunity to adapt too.

The question, therefore, is not simply, “Why are workers leaving agriculture?” The more important question is, “When workers are unavailable, can we make sure that the farmer has another way to harvest?” For the small farmer, that may be the real meaning of agricultural mechanisation—not owning a machine, but having access to the right machine when it matters most.