

MEGHALAYA'S FARM MECHANIZATION

Create space for the youth

Last updated Sep 14, 2021

SPECIAL ARTICLE

By KN Kumar

Agricultural labour is both scarce and expensive in Meghalaya, particularly so, when the farmers need them the most – so much that even mobilizing labour is a challenge to them during the peak agricultural season. Most farm activities are time-bound, so labour shortages during the critical phases of cropping season and the consequent higher wage burden create both managerial and financial stress to the farmers. When agriculture becomes unviable, small, and marginal farmers (who hold 83% of our land holding) slowly move out of agriculture, unable to bear the persistent losses. Some farmers do use their own family labour and continue farming, but at a very basic subsistence level. One way to pull the farmers out of this mire is to make appropriate farm machinery available to them. The more a farmer deploys agricultural machinery during a crop cycle the less will be his cost of cultivation and therefore, better returns accrue on the capital employed. Appropriate and timely usage of agricultural machinery reportedly increases the productivity up to 30% and reduces the cost of cultivation by 20%. To my mind, one key handle to accomplish the stated desire of the Prime Minister to double the farmers' incomes by 2022 is to lower the cost of cultivation through farm mechanization.

Half of India's population would be urban by 2050 and therefore the percentage of agricultural workers in the total work force will drop from the present 41.49% to 25.7% by 2050. That means about 2 crore labourers will move away from agriculture in 30 years. Declining availability of manual labour is an-going national phenomenon, but the situation is far more acute in hilly and low population-density states like Meghalaya. The 2011 Census report informs us that the percentage of agricultural labourers in Meghalaya is a very low 16.7% (as against the national availability of 41.49%) – which is as it is, far lower than what India would have by 2050, or later. One can imagine how acute the labour shortages are, in our state.

High labour wages determine the viability of our agriculture because most important cereal crop of Meghalaya is also the most labour- intensive one. A hectare of paddy will need at least 100 man-days of labour. From land preparation to the final milling, there are at least dozen stages of the crop when manual labour will be required, therefore, a farmer spends a minimum of Rs. 45,000/- per hectare, on labour alone. (Meghalaya's market wages being about Rs.450/- per day). The average yield of Paddy is about 2.6 M.T. per hectare and at an MSP of Rs.18680/- per tonne (2020-21), the price realization is Rs.48,568/- per hectare while the cost of cultivation (all inputs included) of Paddy per hectare is more than Rs.85,000/-. With such economics, who on earth would do farming?

Now let us consider where we are, as a state in farm mechanization. NABARD reports that only 40-45% of Indian agriculture is mechanized. 95% of the USA's agriculture is mechanized. In India, the north-eastern region is the least mechanized, and Meghalaya is even below Tripura and Assam in terms of farm power availability. While the all-India average is 2.2 Kw/Ha our state's per hectare farm availability is just 0.8938 Kw/Ha which is not just low but is also growing slowly. At a bi-annual growth rate of 0.0152 Kw/ha the state will take at least 125 years just to reach the national average. Who has that kind of time?

Then what have we been doing all these years? To begin with, there are only two state schemes – (1) Supply of subsidized agricultural machinery for the farmers to buy and, (2) Government Custom Hiring Centres (CHCs), to lend machinery to farmers who cannot afford to buy. The former scheme is limited only to power tillers, but the scheme is constrained for funds. We must increase the allocations ten-fold under this scheme annually. The

subsidised hiring charges being attractive to the small and marginal farmers, they flock to the CHCs. The state has only 7 CHCs in the old districts. The proposals to establish new CHCs in the four new districts have not yet been approved, despite the repetitive requests made by the Directorate for nearly four years now. The Commission took stock of the available machinery in the CHCs and their deployment to the farmers over a three-year period. In all, there were only 139 power tillers, 8 tractors, 46 Power Paddy reapers, and 3 Excavators. While the number of requests for power tillers by the farmers during 2020-21 was 1474, the actual allocation was limited only to 333. In other words, only 22% of the farmers who indented for power tillers have been provided with them. The availability over demand was 58% in 2018-19, 21% in 2019-20, and 22% in 2020-21 – a declining trend. Power Tillers are the most in demand and 70-80% of the total revenues of the Mechanical Wing are generated by the Power Tillers alone.

Another point of concern here. Most agricultural machinery currently being provided by the Mechanical Wing is cereal-centric, more specifically Paddy-centric. Commodity processing machinery viz., Turmeric Slicers, Dehydrators, Expellers for Oil Seeds, Millet dehullers, or plantation crop machinery like the Arecanut Tree Climbing Scooters, or micro irrigation machinery viz., zero energy pumps, micro irrigation pumps etc. are not on its radar. The Mechanical Wing has essentially limited itself to the very basic functions of processing paperwork relating to the tried and tested machinery and not experimenting with new machinery for newer crops, nor is it mandated to procure next generation machinery. Artificial Intelligence in Agriculture, Drones in Agriculture, and Blockchain technologies – are not even on the table. I am certain that this is no reflection on the field engineers because they are doing their best within the mandated framework. This is not an operational slip-up; it is a conceptual failure. The Agriculture Department should examine all these issues deeply to re-orient the approach. Undeniably, the Mechanical Wing has the best potential to serve the farmers of the state and it should live up to its full potential.

The Government of India tried to establish private custom hiring centres in the past, through its Agri-Clinics and Agri-business Centres Scheme (ACABC) in 2002 for the unemployed agricultural graduates. However, there were not many takers at that time in the state because (1) unemployed agricultural graduates were fewer at that time (2) non-agricultural graduates were not considered and (3) The viability of the scheme was suspect because ours was still a low-volume agriculture at that time. However, the times have changed and a fresh effort to give space to the private sector is now needed. The Agriculture Infrastructure Fund launched by the Government of India creates a perfect enabling ecosystem and an amount of Rs.190 crore earmarked for the state remains unutilized.

So, I suggest that the state department conceptualizes a scheme for the participation of the unemployed and educated graduates of the state by grounding a at least eleven Agribusiness & Technology Solution Garages (ATSGs) in each of the districts of our state. An investment of Rs 25 lakh per unit on a 10:40:50 ratio – 10% being the beneficiary's contribution, 40% being the subsidy support and 50% loan will be reasonable enough to move forward. The net results: (1) the burden on the government is minimized (2) youth will be productively engaged (3) the farmer's needs will have been met and (4) agriculture becomes more productive, and the farmer incomes will improve.

To cut to the chase – the state must intensify its investments in farm mechanization by ten-fold annually if it does not want to disrupt its food security. Launching a Farm Mechanization Mission with a one-time investment of Rs 100 crore will bring a radical change. Is Anyone listening?

(The writer is Chairman, Meghalaya Farmers' (Empowerment) Commission. Email :upointia@gmail.com)