The Forgotten Labourer: technological empowerment of rural labour

Or The Labourer First

It is ironic that most political parties woo labourers as voters but seldom consider them as target of technological development and empowerment . Why should the interest of those who vote in much larger number than any other social segment be addressed so indifferently. There could be many reasons for this neglect. But it is clear that the years of neglect has given rise to a situation when more than 170 districts in the country face moderate to severe extremist violence. During the period when economy grew in almost double digits, the number of districts where writ of the state did not run properly also grew. It could not have been only because extremist were more persuasive, or people were more gullible. The lack of opportunities for the poorest certainly has played a role in it. Can technological empowerment play any role in alleviating the distress, augment the skills and widening the decision making options of the labourers.

Agricultural and non-farm rural labourer have far more technical information about local resources, and variations in their use than the farmers. And if that is true, a very large body of non-monetary technologies can be transferred to the labourers, adding value to their knowledge to make them more productive. Hopefully, wages will then improve and so also the quality of life of these people.

To help labourers use more safe means for performing their tasks so that they face lesser risk and adverse consequences, their knowledge, skill and resource base needs to be expanded. Every contingency that leads to temporary or permanent disability affects them and their families often irreversibly. Thus, the need for occupational safety. But have many new tools been provided to labourers (if so , to how many) to break stones, or make or carry bricks or perform inter-culture or harvest panicles of paddy. Even the design or material of sickles has not improved much in most parts of the country. New technologies don't exist and where they do, are not diffused among the labourers because they have seldom been the target of extension programs. Is not it tragic that we will not give them opportunities of knowledge intensive work, and when manual labour is the only choice, their tools will not be upgraded for decades after decades. So much inertia, and no institutional guilt. What should labourers then do?

The concept of Farmers first has been talked about for at least twenty years, the Labourer First is yet to emerge as a priority even for the parties on the left. When struggles are waged for their rights, only the right to manual work without paying much heed to their technological and knowledge content is stressed. There are many technological and skill upgradation programes that need to be targeted at labourers in different sectors, spaces and seasons. Despite the known environmental and health effects of agro chemicals particularly chemical pesticides, one would almost never find any bill board advertising the safe way of using these chemicals. Not even a fraction of percent of labourers use safety gears anywhere in the country. It is obvious that the labourers suffer from adverse

health effects. There is enough scientific evidence about adverse effects of agro-chemical on human body. I have come across cases where labourers use empty cans of pesticides for their morning ebullitions.

Millions of women transplant paddy keeping their feet in water for long hours. Many of them develop fungal infections causing many secondary infections. Apart from the ergonomic strain caused by the posture of bending to transplant seedling, the affected feet make the life more difficult. Application of castor oil and some other such preventive measures can reduce the incidence. Manual or bullock drawn paddy transplanters are used only very sparingly, it at all. Innovations in this sector have not received much attention. No such preventive information or materials are provided to the labourers under any employment programme.

More than sixty per cent infections are water borne. Every time a labourer becomes sick, she losses few days work. There are large number of low cost water filtration and sanitation practices that need to be popularized such as Moringa seeds, Jamun wood, coconut fiber, charcoal, lime, alum etc. These practices have to be optimized and disseminated widely for meeting the objectives of public health and labour productivity.

If labourers can help in economizing input use, they can command premium in the labour market. The more differentiated labour market becomes, higher will be the incentives for learning, acquiring knowledge and sharing among local group members. Cross pollination of cotton for production of hybrid seeds is done by labourers, mostly from tribal areas and many of whom are women and children. There are practically no tools or specific technological messages to reduce drudgery or improve efficiency.

During the recent Shodh Yatra, a school boy, son of a labourer asked, 'If I have a small quantity of manure and I have to apply in a small field, how do I decide how much to apply where?' This was a question on the edge of the subject of precision agriculture. The implication was that if he had electronic sensor based probes, he could map micro nutrient profile of the field and then apply what is needed and where it is needed most. Once labourers develop this skill, they will obviously benefit the farming sector which suffering from serious problem of low productivity of external inputs. They will become service providers or service entrepreneurs. They could also be trained to use weeds as indicators of soil mineral properties by appropriate research backing so that they could help in managing the nutrients.

Large number of crop varieties developed by farmers in different parts of the country proves that farmers can make selection and do simple breeding, in some cases even crossing of different parent lines. In most agricultural research stations, the labourers do the crossing work. Once scientists transmit the science of heritability and important selection indices, labourers can make intelligent and well informed selection and crossing. The diversity will increase and so will stability and hopefully productivity. Higher diversity also will help in minimizing pest epidemics.

A labourer plucking leaves in a tea garden moves her hand several thousand times in a day to put leaves in the basket behind. Simple mechanical devices or other means can reduce this burden substantially. We may not realize the pain the labourers have to go through while plucking leaves, when we take our morning tea. But if this tea can become more joyful in its origin, it would not do any harm. Where is the Design Mission for addressing such persistent problems of labourers.

Malleshan was a labourer at a loom weaving Pochampalli sarees in Andhra Pradesh. For winding yarn for two sarees, his mother had to move hand up and down eighteen thousand times in a day. One day she complained that it caused lot of pain and therefore she wanted him to change the occupation. That was the moment, Malleshan decided to invent a machine. The full story is given elsewhere, after struggling for seven years, he invented an assu yarn winding machine with automatic option. Some people might argue that it would replace labour. My argument is why not give credit to labour to own this machine to become more productive. Why shouldn't labourers be moved up the value chain. It is distressing to hear when some parties still believe that adding value to local knowledge, reducing drudgery, improving productivity can harm labourers rather than benefit them. The relationship between capital and labour is a function of institutions. If we make a massive effort to reskill the labourers (instead of deskilling as is being done at the moment) and share with them technological and scientific messages which can equip them to do their job better, not only their lives will improve, they will also be able to buy more value added products and services. Despite several tree climbers having been developed by innovators like Appachan in Kerala and Mushtaq in Jammu and Kashmir not many labourers have this option. Almost every coconut you eat has been harvested manually and husked manually though husking machines had been invented by Jaysheelan.

Time has come when those who vote most are also kept at the center of technological and other developmental policies. Large scale rural tensions in many parts of the country are inevitable if we do not address the concerns of the forgotten labourers. Cheap food cannot be the long term answer. It has to be measures that enhance skills, improved productivity, reduced drudgery and better the quality of life that should command attention. Will antyodaya be practiced by the new government? Or districts under extremist groups believing in violence will continue to increase?