Beyond temporary breathers

Farmers’ distress requires devising long-term solutions and preventing the crisis of resources.

Srissaop Chaudhuri (/) | 26 March 2018 9:22 PM

While Mumbai witnesses an unprecedented rally of growing farmers, marching over 180 km with demands for crop loan waivers, farmers’ pension scheme, land rights for the indigenous, minimum selling prices (at least 1.5 times the input cost) etc., it
is time to ponder upon viable long-term ‘alternatives’ to boost the agrarian GDP that is on a nose dive. The need becomes more compelling as the farming sector still offers livelihood opportunities (accommodating 48 per cent workforce, 56 per cent of the total population).

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A major ploy to appease farmers’ unrest in present-day India has been waiving crop loans. Craftily used by several states to gain political mileage in the name of humanitarian aid and rural development.

The question is, how productive is this in the long-run noting that climatic variables have already taken a weird adverse turn to undermine our food-water-energy security paradigms, besides leading to appalling livelihood losses of farmers through the past few years?

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When will we start tackling the problem at the roots rather than just on the surface? In other words, when will we 'learn' to raise the demands for governmental aid/schemes to adopt climate-proof technologies in farming? Especially among smallholding communities, whose basic survival is keyed to land productivity?

Every passing season of drought snatches it by wee bits, shoving millions into an inter-generational cycle of debt, poverty, hunger, malnutrition, deprivation, and humiliation. Livelihood opportunities of over 330 million people across 15 states are already stretched thin by drought, irrigation water shortage and resulting land degradation-desertification issues.
Children have been forced out of school, women forced into informal sectors, families forced to sell out their asset-base and migrate – all with dire social and health ramifications. On top of it all, the corrupt loopholes in crop insurance schemes and procedural complexities in farmers’ credit policies have blown the agrarian plight out of proportion.

Under the circumstances, farmers’ demand should be for seeking government support to introduce long-term climate-proofing technologies, such as micro-irrigation (sprinklers, drips, pressurised pipes, rain guns etc.), rather than temporary breathers such as crop-loan waivers, to revitalise the irrigation sector. The idea should propagate long-term optimisation of input costs to maximise returns and not just respite from immediate downturns.

What makes micro-irrigation a coveted tool is its significantly higher efficiency (50-80 per cent) compared to conventional irrigation (30 per cent) practices. Higher efficiency means downscaling groundwater abstraction (a critical sustainability concern in India), as well as cuts in electricity consumption (translating into curbs in GHG emissions, air pollution, and ecosystem services loss). Transitioning to micro-irrigation from conventional gravity-flow irrigation can significantly raise the benefit-costs ratio with time for the Returns on Investment (ROI) ranging between 1.5 and 2.5 years.

The current union budget (FY 2018-19) has taken decisive steps at last, by spiking allocations for micro-irrigation under the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY, established in 2015).

However, there are still major stumbling blocks for mass scale implementation of micro-irrigation that include the lack of focus, appropriate technology support system (IT), team of devoted micro-irrigation technicians, targeted and ‘easy’ financial support specific to micro-irrigation, knowledge/skill transfer mechanisms (governmental workshops/field-days/focused group discussions etc.) besides sporadic changes in the relevant policy framework itself.

Another debilitating factor is ‘time mismatch’ – governmental infrastructural support to farmers willing to implement micro-irrigation is available only for about five months on an average, which often does not coincide with major growing seasons, thereby disincentivising micro-irrigation to farmers.

Though there is a huge buzz around “Har Khet Ko Paani”, a part of the much-hyped PMKSY, the scenario looks far from promising. A study by Grant Thornton India LLP, in collaboration with the Indian Agricultural Institute and FICCI, found that current micro-irrigation coverage is alarmingly low (5.5 per cent of the total cultivable land area on average). Way lower than Israel (90 per cent), Russia (78 per cent), Spain (65 per cent), US (55 per cent), Brazil (52 per cent), and even China (10 per cent)!
The only states faring better are, Haryana (16.3 per cent coverage), Sikkim (10.8 per cent), Andhra Pradesh (10.4 per cent), Rajasthan (9.3 per cent), Karnataka (8.5 per cent), Gujarat (8.1 per cent), Maharashtra (7.3 per cent), and Tamil Nadu (6.4 per cent). In Haryana, the introduction of micro-irrigation technologies has already given huge returns in terms of energy (49 per cent) and fertiliser (37.5 per cent) cost-cutting. Fruit crop productivity soared by 38 per cent while vegetable crops by 22 per cent. Opportunities for new crop introduction have increased by 98 per cent.

However, the implementation of the micro-irrigation network has been highly variable in the country. In states like Punjab, West Bengal, Bihar, Jharkhand, MP, Odisha, Kerala the tally ranges between 1 and 2.5 per cent while in UP, Himachal, Uttarakhand, Tripura it drops below 1 per cent. Over half of the total cultivable land in India is still under rain-fed agriculture, which means, tied to the vagaries of unpredictable monsoon.

So what could be done to help farmers adopt micro-irrigation techniques?

One intervention for immediate effect is to make financial schemes more 'affordable' to farmers, who still largely lag on capital, as much as appropriate education/awareness to try latest innovations. A major reform could be implementing the 'direct benefits transfer (DBT)' model or direct cash transfer to farmers to promote 'on-demand' micro-irrigation. Presently, the government is offering 60:40 (90:20 in North-East) cost sharing on micro-irrigation which is first, not enough to encourage widespread adoption, and second, the subsidies are often delayed. The latter is a major disincentive for the farmers on the field. Often, projects are approved without the funds actually being available at all! It generates a backlog of subsidies and the process is ceaselessly delayed in being dispatched to the micro-irrigation support providers. This has to be remedied on an urgent basis.

The Grant Thornton report suggests three specific financial interventions: (1) guaranteeing and regularising micro-irrigation credit support (preferably, more of the collateral-free type), (2) sub-venting loans, and (3) welcoming privet financing. Only recently (in 2016), has the NITI Aayog begun welcoming privet financing of micro-irrigation projects, which only shows the lacklustre mentality of our policy bosses.

But, first and foremost, we need a more stable policy environment where micro-irrigation guidelines should hold stable over longer terms and support systems should be 'spatially-optimised'. Meaning, states lagging behind should enjoy more support than those already on track, to maintain a uniform national growth curve.

Also, experts suggest making micro-irrigation mandatory for rice, wheat, and sugarcane, the highest 'drinkers' in India, to conserve water resources and keep the drought-effects under control. But for that, the Command Area Development Authorities have to redesign their policy attributes to bring the maximum area under the micro-irrigation support.

India currently has a net area under agriculture of 142.0 million hectares with a net irrigated area of 65.3 million hectares. Which indicates that most of the land area is still under rain-fed practices, which in turn means, livelihood opportunities of a huge cross-section of our population are 'compelled' to rely on the vagaries of climate. Globally, India hosts the largest area under rain-fed agriculture, after Africa. With such a huge land mass, uneven (and increasingly variable) the distribution of precipitation patterns, different water requirements of different crops grown and the tropical climate leading to high evaporation rates, the need for increasing the gross irrigated area in India is of paramount importance.
But how are we faring on the need? The central theme of the Government of India’s recent ‘inclusive development’ paradigm is to revive the rural economy by fostering technological excellence in the agrarian sector. It’s time it became a sworn commitment, rather than a petty electoral slogan. Successful implementation of nationwide micro-irrigation demands a 24/7 IT-support (for real-time monitoring and transaction). For example, the DBT model for subsidy provides the farmers with the freedom to select their own technology provider (at a discounted rate) and is ideal for Indian rural socioeconomic conditions. However, it fundamentally requires a smooth IT-support team! But, the current Internet penetration in rural India is barely around 17 per cent! Let alone IT, we are yet to create any targeted micro-irrigation support team of any sorts, either at the Central or state level!

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