AGRI STIMULUS

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Articles

News

Pesticides Management Bill, 2020 – A step towards restricting the use of spurious pesticides and regulating the pesticide market

In February 2020, the Union cabinet approved the [Pesticides Management Bill] (PMB), which is now tabled in the Rajya Sabha to replace the Insecticides Act, 1968. This newly proposed bill aims to regulate the pesticide market by ensuring safe production, distribution, storage, and disposal of effective pesticides. Currently, India is the 4th largest producer of agrochemicals and is one of the fastest growing segments in the Indian agri-input industry. The Insecticides Act, 1968, enabled the registration of 273 pesticides and 746 formulations for use in the country, however fake/ unregistered pesticides still account for nearly 25% of pesticides sales in India. The use of these spurious pesticides is harmful for the plant, environmental, and human health. The PMB 2020 is aimed at removing the spurious pesticides from supply chain and also incorporates several elements desired by industry for long.

The new bill, PMB 2020, proposes that each pesticide be registered separately and only after verification of the information in the application, will the registration certificate be issued. For the insecticides registered under the Insecticides Act (1968), the registration will continue till the license expires and fresh applications for registrations under the new bill can be made. The state level database of the registered pesticides will be easily accessible by the public and will empower the farmer with the factual knowledge about the pesticides, its benefits, risks, and alternatives. PMB 2020 will also ensure that all the pesticides and their source of origin be registered, thereby curbing any false/ misleading claim by the manufacturers. If found guilty of misleading claims, manufacturers will have to pay heavy penalties and up to five years of imprisonment. To ensure that the key features of PMB 2020 are enforced upon, it also proposes a Central Pesticide Board, Registration Committee, Licensing Officer, and a Pesticide Inspector.

The provisions of PMB 2020 support the farmers' interests by ensuring that the claims are made by the registered manufacturers which are verified and transparent. The bill also offers compensation to the farmers if there are any losses because of poor quality of the pesticides. But there are few other provisions of the bill which are of concern. Many committees including Pesticides Manufacturers & Formulators Association of India (PMFAI), Crop Care Federation of India (CCFI), Bhartiya Kisan Union, Bharat Krishak Samaj and others have strongly voiced their opinion on the PMB 2020 and have emphasized that certain provisions of the proposed bill, if passed in its current format will have adverse impact not only for manufacturers and the pesticide industry but also on the farmers' livelihood. Few key concerns include:

- **Re-registration of Insecticides:** Under section 23 of the proposed bill, the bill demands the re-registration of insecticides already registered under the Insecticides Act, 1968 within two years, which might disrupt the supply chain and affect the farmers as these products might not be available on demand based on the Registration Committees denial or delay in granting registrations.

- **Import of Formulations:** The recommendations to promote domestic and indigenous industries and agricultural exports from India offered in the Ashok Dalwai Committee, constituted in 2018, are missing from PMB 2020. The Agrochemical industry is already struggling owing to the increasing taxation, import policies and lack of investment in the sector. PMB 2020, will add to its burden by promoting import of formulations and limiting export of agrochemicals that are banned in India. Currently, the PMB 2020 does not ensure compulsory registration of Technical Grade Pesticides before importing the formulations in India. This will not only hamper the creation of generic versions of the Technical Grade material by MSMEs in the country but also provide leverage to imported formulations which might be containing unregulated, low-grade, or even expired technical-grade pesticides sourced from unknown sources. Imported formulation will also have price implications on the farmers as they will have to pay higher prices instead of value priced local alternatives produced in the country.

- **Registration and Rejection of Pesticides:** The registration process suggested in the PMB 2020, is complicated and tedious as it requires, central registration, licensing, and sale permissions in respective states (Section 18). The provisions in PMB 2020, also permit the Registration Committee to suspend, cancel or ban the usage of pesticides without evaluating the scientific basis (Section 22) and the State Government to ban any pesticide (Section 35) which might hamper the availability of the pesticides and affect the farmers productivity. As per the new bill, violation during manufacturing of one pesticide might lead to revocation of all licenses which will affect the functioning capacity of the manufacturing units (Section 30) and availability of the other pesticides produced there. Alternatively, an independent regulator may work with the registration committee to ensure the interests of the farmers and the industry are safe guarded.

- **Liabilities and De-criminalization:** PMB 2020 imposes broad liabilities on pesticide manufacturers. Also, it does not clearly address the liability for the manufacturers for the entire product life cycle of the pesticides, including disposal, which might be crucial for the environment. The following clauses if introduced into the bill will ensure lesser disruption of supply chain for the farmers and lesser burden on the manufacturers: a) If a violation occurs during manufacturing for the given pesticide, the liability should be for only that pesticide. b) if the violation occurs down the supply chain or at the user end, the manufacturer must not be held liable, but instead liability at each stage for each stakeholder must be introduced. The severe penalties introduced in the PMB 2020 might discourage investors investing in pesticide manufacturing and R&D. This might disrupt the availability of various pesticides to farmers. Alternatively, as in other laws such as the Food Safety and Standards Act, 2006 (Section 69), monetary fine instead of prosecution, may be introduced.

- **Bureaucracy:** PMB 2020, introduces committees and officers to regulate the Pesticide market. This might cause delay in accessing the pesticides and affect the quick action needed in the fields during pest attacks.

Although the bill emphasizes on provisions for farmers to have access to reliable, less harmful pesticides, there is concern of ease of access of these pesticides, and the importance given to the import of formulations might affect the accessibility by farmers and manufacturing by smaller domestic players. Also, PMB 2020 does not address the concern of providing technical assistance and training to farmers on pesticide usage. Empowering states to decide locally relevant norms and tailoring customised awareness programs, will be beneficial. Addressing these concerns by opening the bill for discussion by experts in the field, before passing it, will make the bill more robust and beneficial for the farmers and manufactures and will enable the growth of the sector.

Seed Bill, 2019: Time that new Seed Bill sees light of the day; becomes an Act in the near future!

The new draft Seed Bill 2019 aims to regulate the supply of seeds sold and facilitate the production and supply of these seeds to farmers. The bill aims at increasing competition in the seed industry by amending the Seed Act, 1966 and Seed Rules, 1968. The bill authorizes the Central government to reconstitute a Central Seed Committee (based in New Delhi) that will be responsible for the effective implementation of its provisions. As per the new draft bill, all the seed varieties for sale needs to be registered whereas only notified varieties needed registration as per the original act. All the seeds are required to meet certain prescribed minimum standards related to germination, physical and genetic purity etc. The 2019 draft bill tries to overcome the drawbacks of the 2004 Bill which was not passed due to several shortcomings. Breeders now would be required to disclose the "expected performance" of their registered varieties "under given conditions" as per the new draft bill. If the seed of such registered kind or variety "fails to provide the expected performance under such given conditions", the farmer "may claim compensation from the producer, dealer, distributor or vendor under The Consumer Protection Act, 1986".

The Seed Act, 1966 covered only the certified seeds of notified varieties of seeds and such varieties are mostly bred by public sector institutes like Indian Council of Agricultural Research (ICAR) & State Agricultural Universities (SAUs). Thus regulation of quality is also limited to the notified varieties.

The 1966 Act was enacted at the time of Green Revolution when the private industry presence was almost negligible and public sector engaged in developing the high-yielding varieties of the major crops i.e. wheat and paddy. But over the last three decades, private seed industry has been established particularly in the crops which are amenable to hybridization. These companies are currently selling their Truthfully Labelled (TL) seeds through self-certification process. The 2019 draft bill does away with the concept of notified varieties and the provision of self-certification has been kept voluntary. This TL certification has helped the growth of seed industry in the last 30 years and seed companies are also recommending keeping this provision. New bill provides for clear differentiation between the seed producers, processor and seed dealers for the licensing purposes. However, the National Level Integrated Seed Companies are not recognized which is one of the demands of private seed companies.

The new Seed Bill is different from the original Seed Act in terms of registration and licensing of seed producers and processors. The current legislative framework was inspired by the US systems where the variety registration is left at the discretion of the developer, while the new bill is inspired by the European system and defines parameters and procedures for the release of new varieties. Some of the salient features resembling the EU systems in the new bill includes compulsory registration of seed varieties based on VCU (Value for Cultivation and Use) evaluation and licensing of seed producers and seed processors. There are also provisions for price control in the event of an emergency, monopolization or profiteering.

The major challenge that the seed sector will face with the new Seed Bill is the increase in magnitude of crop registrations with more than 100 crops, different agro climatic zones and hundreds of seed companies with their Research and Development. The workload will be more than 100 times the current workload and the sector would need to develop capacity to address the additional workload especially the nationwide evaluation facilities. Several private seed companies can aid the government in this process as they already have the capacity to carry-out multi-location trials which is being used by ICAR even now. An empowered committee can be formed to accredit these facilities and also to evaluate all the data generated from such nationwide trials for fast track registration. Further, the varietal evaluation systems of seed companies can be subject to regular audit by the technical auditors appointed by this committee from time to time to ensure genuineness.

Seed companies have welcomed the compulsory registration of all the varieties/hybrids to be sold, however, the industry wants the process of registration to be time-bound. The industry's main concern is the provision for regulation of sale price "in emergent situations like scarcity of seeds, abnormal rise in prices, monopolistic pricing or profiteering". This power of fixing sale price of seeds by the Centre and state governments is a concern for the companies. Their argument is that seed which is the basic need for agriculture and which contains all the genetic information essential for grain yield and quality, accounts for not even a tenth of the total operational costs in most of the crops, hence seed price need not be regulated.

The native varieties by farmers are exempted from the compulsory registration. However, this restriction is only for unbranded varieties which means if a farmer seeks to commercialize their own varieties, they will have to register the variety and obtain a certificate for selling the same. In the proposed Seed Bill, the government has proposed to fine farmers up to Rs 100,000 for selling their seeds without registration and certification. Also, the registration of all varieties/hybrids will be a costly and time-consuming process as envisaged by the Bill and may lead to increase the selling price of the seeds. This may also restrict the diversity of crops with limited seeds in the market.

With the recent passage 3 new agriculture related bills, the new seed bill is likely to become an act in the near future. Some provisions can be amended to meet the concerns of private companies and farmers like accreditation of national level integrated seed companies, continuation of truthfully labelled seeds, price regulation to avoid exploitation of farmers but at the same time not to control to the extent that it puts negative impact on innovation and research investments.

Farm Bills 2020 – A boon or bane for Indian farmers?

Aligned with the government objective of doubling farmers' income by 2022, the Union government has passed three new farm bills. These bills are expected to bring about a much needed revolutionary change in the agrarian economy by creation of a new marketing system. As part of this new ecosystem the farmers and traders will enjoy freedom of choice of sale and purchase of agri-produce. It will promote barrier-free inter and intra-state trade and commerce outside the physical premises of markets notified under the state promoted Agricultural Produce Marketing Committees (APMCs) as against the current system wherein the farmers sell their produce to state regulated mandis (APMCs) at Minimum Support Price (MSP). The three new farm Bills proposed and its key provisions are explained hereunder:

- **Bill on agri market**: *The Farmer's Produce Trade and Commerce (Promotion and Facilitation) Bill, 2020* aims to create an environment where farmers and traders will have the liberty to sell and purchase farm produce outside state registered APMC 'mandis'. The bill will aim towards promoting barrier free inter and intra state trade of farmer produce, provide a facilitative framework for electronic trading, shrink marketing/transportation costs and thereby benefit farmers by getting better prices.
- **Bill on contract farming**: *The Farmer (Empowerment and Protection) Agreement of Price Assurance and Farm Services Bill, 2020* allows the farmers to enter into contract with agribusiness firms, processors, exporters, large retailers for sale of produce at a pre-agreed price. This aggregation and contract model promoted by the bill will help the small and marginal farmers by enabling access to better inputs and modern technology and improving incomes by minimizing marketing costs, by allowing them to engage in direct marketing eliminating intermediaries for full price realization. This will help to transfer the risk of market unpredictability from the farmers to the contracting party. This model in. The contract will also allow the farmer to have a dispute resolution mechanism in place along with redressal timelines.
- **Bill on commodities**: The Essential Commodities (Amendment) Bill, 2020 aims to remove commodities like cereals, pulses, oilseeds, onion and potatoes from the list of essential commodities. This will help in withholding the imposition of stockholding limits on such commodities items except under "extraordinary

circumstances" like war, natural calamity etc. This change will eliminate fears of excessive regulatory interference in business operations of private investors and attract private sector/FDI into the farm sector. This will help in creation of a competitive market environment, stabilize prices for farmers and consumers and minimize loss of farm produce. Further, it is expected to attract investment for strengthening farm infrastructure like cold storage, modernizing food supply chain.

With the farmers allowed to sell produce independent of government controlled markets, they will be able to fetch better price for their produce. The major issue that these bills addresses is the over-dependence on middlemen, commission agents, officials and bureaucracy associated with current system. These bills will empower the farmers to shift to a more flexible system and eventually turn them into traders for their own produce and have better control over the process. This will ultimately help in addressing key agrarian challenges related to low prices for farm produce, overproduction, farm losses, high transportation costs as well as increasing debts and high-interest rates. This will only be a parallel system and the current MSP based procurement system will remain but will hamper the monopoly market enjoyed by the APMC mandis.

The key challenge with these bills are the lack of guideline, regulatory oversight and reporting. They do not specify the terms for larger context of State intervention in agriculture, and agricultural policy. The farmers demands for rolling back of all the three bills and the existing mandi system to remain in place. With the bills not having any provision regarding MSP, farmers fear that disrupting the mandi system of marketing will hamper the selling of products at MSP and they may even get prices lower than MSP's for selling their produce outside the mandis. However, it should be noted these new Bills are introducing an additional channel and will be running parallel with the existing one to ensure free trade. Farmers demand that MSP should be at least 50% more than the weighted average cost of production and if not paid it should be a punishable offence. Instead of these Bills they are demanding for a law that should be in place that guarantees payment from buyers through intermediaries and banks don't deduct money in the name of loan recovery.
Further according to these bills, the farmers feel they will be weaker in their ability to negotiate for the contracts with the big private companies, exporters, wholesalers for agreeing on terms and resolving disputes. Price limits for extraordinary circumstances are so high that they likely to be never triggered. Larger companies will still have the independence to stock commodities and dictate price and terms to the farmers. Moreover, with the farmers selling produce outside the APMC markets, states will lose revenue by not being able to collect mandi fees. Even through the government declares the MSP's for crops there exists no law mandating their implementation (except sugarcane). These new Bills raises question on the fate of state commission agents as well as the eNAM platform. Also, the ordinance does not mention anything directly or indirectly implying an end or phasing out of MSP based government procurement.

Although the government hopes that the new bills will help in improving farm gate prices triggered through competitive markets and higher private investments in the food supply chain, the bills require few regulatory and statutory provisions to optimize its full potential.

It would be advisable to include a regulatory backing to the MSP to do away with farmer fears. So as to realize the desired benefits of these bills the system needs to be strengthened with better roads for linking farmers to markets as well as climate controlled storage facilities powered with reliable electricity connections. To evaluate the impact potential of the bills on the food supply chain, the government would need to understand how the mean trade is shifting out of the APMC yards, wholesale price fluctuations, how the government procurement of food grains is changing as well as the implications on food implication. It would be important to monitor how private entities are holding stocks to avoid hoarding for manipulating retail prices. This calls for a transparent system on privately held stocks for stringent trade policy decisions. Even though these bills bring in the much indeed fresh breath in agri marketing systems, until the current flaws are addressed realizing its full potential is a far-fetched idea.

NEWS

Asafoetida (Heeng) to be cultivated for the first time in India

Institute of Himalayan Bioresource Technology (CSIR-IHBT), based in Palampur, have developed planting material for Asafoetida through agro-technology. Due to its requirement of cold and dry weather conditions for growth, farmers in the Lahaul valley in Himachal Pradesh have taken up the cultivation of this planting material for the first time in India. 6 accessions from Iran have been introduced and 300 hectares have been identified for its cultivation.

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Effective Bio-pesticide formulation created for insects in seed spice crops

A new aqueous suspension formulation technology of bio-pesticide using entomo-pathogenic fungus Verticillium lecanii was created by The Institute of Pesticide Formulation Technology (IPFT) in collaboration with ICAR-National Research Center on Seed Spices (NRCSS) for seed spice crops like fenugreek, cumin, and coriander. The bio-pesticide is safe for use and for the environment and has a good shelf life.

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Prohibition of unauthorized sale of fertilizers

Agriculture department reiterated the purpose of subsidized fertilizers after a violation came to light in Pollachi district of Coimbatore. Under Fertilizers Control Order, 1985 using them for any other purpose is considered as a crime. The allotted amount of urea, diammonium phosphate, potash and complex fertilizer to the district for the Rabi season should be sold only to the farmers having aadhar card.

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New rust resistant wheat variety doubles famers income

The new wheat variety (MACS 6478), also called high yielding Aestivum, was developed by Agharkar Research Institute (ARI). This variety is leaf and stem rust resistant and yielded 45-60 quintal/hectare compared to Lok1 (HD2189) which yielded 25-30 quintal/hectare. The variety has high chapati (8.05) & bread (6.93) making scores & matures in 110 days. Currently, certified seed production is being carried out for farmer's use.

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Dhanuka partners with Gramophone to benefit the farming community with digitized solutions

The association between Dhanuka and Gramophone will help farmers to get direct access to affordable crop intensive technology and to reach deeper markets to pave the way for better yields for farmers across the country. The collaboration also delivers agronomic intelligence with agri inputs like seeds, crop protection and crop nutrition products.

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Recently developed 17 biofortified varieties can transform normal Indian thali into nutri-thali

On the occasion of 75th Anniversary of Food and Agriculture Organization (FAO) Prime Minister Shri Narendra Modi dedicated 17 recently developed biofortified varieties of 8 crops to the Nation. These crops will have up to 3 fold increase in nutritional value and are developed by utilizing the local landraces and farmer's varieties

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Robotic solutions developed by IIT Kharagpur for plant disease identification and pesticide spraying

IIT Kharagpur has designed a robotic system capable of identifying the plant diseases through the camera-captured image analysis and to spray the appropriate pesticide to help farmers in detecting the diseases correctly and to protect farmers from related health hazards. The robotic system is a tracked mobile manipulator that aims to achieve the conflicting objectives of increased productivity and improved quality.

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NEWS

Nanofibre bags to protect seed storage losses
Indian Institute of Technology, Hyderabad (IIT-H) have developed neem oil encapsulated electrospun polyurethane nanofibrous bags to protect post-harvest seed storage losses. The real-time applicability of these bags infers that any type of seeds can be stored for a longer duration at normal room temperature conditions.

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Farmers adopt drone technology to spray pesticides
To ease farming activities and to overcome the agricultural labour problems farmers have been using crop cutting and sowing machines so far. Now a farmer in Suryapet sprayed pesticide with the help of a drone in his agriculture fields which was witnessed by other nearby farmers.

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Syngenta buys Valagro in Biostimulant Segment
Syngenta Crop Protection buys Italy-based Biostimulant and speciality nutrient based company, Valagro. The company has 12 subsidiaries around the world with a significant footprint in Eurpoe and Latin America. Valagro will retain its management team, employees and facilities and will operate independently for research and development.

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Declining global cotton production may boost India's exports
The estimated global cotton production is 5% less than the previous year estimates whereas India's estimates is expected to increase. As per International Cotton Advisory Committee (ICAC) this is an opportunity for Indian cotton industry to increase the exports as the projected trend for consumption is higher than the previous year.

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IARI's Fungal Decomposer for in-field Paddy Straw and Stubble Management Practices
Indian Institute of Agricultural Research (IARI) has developed an innovation, Pusa Decomposer for stubble management in the Paddy-Wheat crop cycle. This technology is commercialized and is licensed to six companies as a substitute for burning of paddy stubble.

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India's agricultural exports rose by 43.4%
Indian agricultural exports increased by 43.4% to Rs. 53, 626 cr from Rs. 37,397 cr in the first six months of 2019-20 in comparison to the same period last year. The commodities which has recorded maximum jump are basmati rice, non-basmati rice, ground nut, refined sugar and wheat. This is an outcome of the new agricultural export policy launched in 2018 and the exports are likely to increase further with the announcement of Agri Infrastructure Fund.

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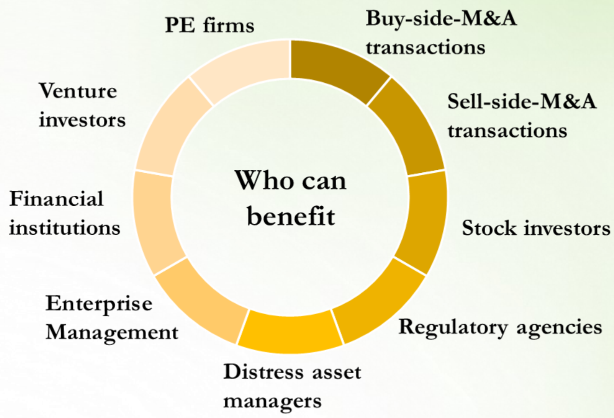
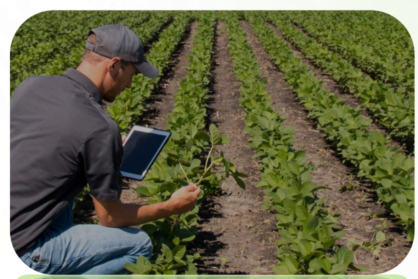


Agritech opportunities in India can broadly be segmented – Biotech companies, Precision Agriculture, Agribusiness companies, Market Linkages, Farming-As-A-Service, Big Data & ERP solutions etc

Case Studies

Augmenting innovative and relevant technology across the agri value chain leading to strategic growth for a progressive agribusiness company based in south India

Study of Seed Systems development opportunities in 15 African countries & business plan development for next 5 years for seeking



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