Impact of chemical fertilizers and pesticides on agriculture and allied sectors in the country

- The Standing Committee on Agriculture (Chair: Hukmdev Narayan Yadav) submitted a report on ‘Impact of chemical fertilizers and pesticides on agriculture and allied sectors in the country’ on August 11, 2016. Key observations and recommendations of the Committee include:

  - **Consumption of fertilizers:** The Committee observed that the consumption of chemical fertilizers in the country has been increasing along with the level of agricultural production. Agricultural production increased from 83 million tonnes in the 1960s to 252 million tonnes in 2014-15. Use of chemical fertilizers (such as those containing nitrogen, phosphorus and potassium) increased from one million tonnes to 25.6 million tonnes in the same period.

  - The country would have to produce 300 million tonnes of food grains by 2025 in order to provide for its population. The Committee noted that 45 million tonne of fertilizers would be required to meet this target. Of this, 6-7 million tonnes may be met from organic fertilizers, but the rest would be met by chemical fertilizers. It recommended that a comprehensive study should be undertaken to measure the impact of chemical fertilizers and pesticides on soil fertility and general health.

  - **Availability of fertilizers:** While the consumption of chemical fertilizers in the country has increased from 17.4 million tonnes in 2001-02 to 25.5 million tonnes in 2012-13, the domestic availability has only increased from 14.5 million tonnes to 16.1 million tonnes. This indicates that there has been an increase in the import of fertilizers.

  - **Imbalance in use of fertilizers:** The Committee observed that currently, 292 out of the 525 districts (56%) in the country account for 85% of its fertilizer use. In addition, the ratio of consumption of fertilizer has been skewed towards nitrogen. The ratio of usage of nitrogen, phosphorus and potassium fertilizers is 6.7:2.4:1, as compared to the recommended usage ratio of 4:2:1. The Committee recommended that a strategy should be initiated to promote the balanced use of fertilizers.

  - **Excessive use of pesticides:** The Committee observed that the consumption of chemical pesticides in the country increased from 55,540 tonnes in 2010-11 to 57,353 tonnes in 2014-15, while their imports increased from 53,996 tonnes to 77,376 tonnes in the same period. The Committee noted that excessive use of pesticides may have a deteriorating effect on the health of both humans and animals. However, inadequate funds are a constraint in taking up comprehensive research in this regard. The Committee recommended that a policy should be put in place regarding the import and usage of pesticides.

  - **Fertilizer subsidy policy:** The Committee noted that the present policy of fertilizer subsidy excludes liquid fertilizers, bio-fertilizers, and farm organic manure, among others. These are considered to be more effective in restoring soil health, and are environment friendly. The present policy has been ineffective in promoting the balanced use of fertilizers. The Committee recommended that the existing fertilizer subsidy policy should be revised, and a new policy which is more favourable to Indian conditions should be formulated.

  - **Promotion of bio-fertilizers and organic farming:** The Committee noted that there is a need to increase the use of bio-fertilizers, and move towards organic farming. It recommended that a Policy should be put in place to incentivise the use of bio-fertilizers. Farmers should be provided with financial and technical support to enable them to switch to organic farming on a large scale.

  - **Regulating authorities for fertilizers:** The Committee observed that the present system of certifying new fertilizers is time consuming. It recommended that a Fertilizer Development and Regulating Authority should be established to streamline the process of certification, quality checks, innovations, and fixing prices of fertilizers.

  - **Administration of pesticides:** While the production of pesticides is monitored by the Ministry of Chemicals and Fertilizers, their usage is administered by the Ministry of Agriculture. The Committee noted that there is a need to review the Insecticide Act, 1968, to provide for a regulatory framework for the pesticides sector. A Pesticides Development and Regulation Authority should also be created to regulate the manufacturing, import and sale of pesticides in the country.