Production and Consumption of Fertilizers in India

Although India has diverse types of soil but most of them are deficient in nitrogen and phosphorus. Over the years, the increased usage of chemical fertilizers has played a significant role in increasing the farm productivity. However, the current trends show that the marginal productivity of soil in relation to the application of fertilizers is declining. The key reason to this is a comparatively higher usage of the straight fertilizers (Urea, DAP & MOP) in comparison to complex fertilizers (NPKs); and either low or non usage of secondary and micro nutrients. The skewed utilization of fertilizers is mainly due to pricing of subsidized fertilisers.

Production, Consumption and Import dependency of Fertilizers

In 1950-51, consumption of chemical fertilizers in India was negligible. In 2010-11, per hectare chemical fertilizer consumption was 144 Kilograms. This value is still low in comparison to some of the developed countries such as South Korea (400 kgs), Netherlands (275 kgs), Belgium (225 kgs), Japan (340 kgs). The main reason of low per hectare consumption of chemical fertilizers is absence of assured water supply. Assured water supply is precondition for the usage of chemical fertilizers. Since most of the cultivated areas in India are rainfed; they consume only 20% of the total fertilizers.

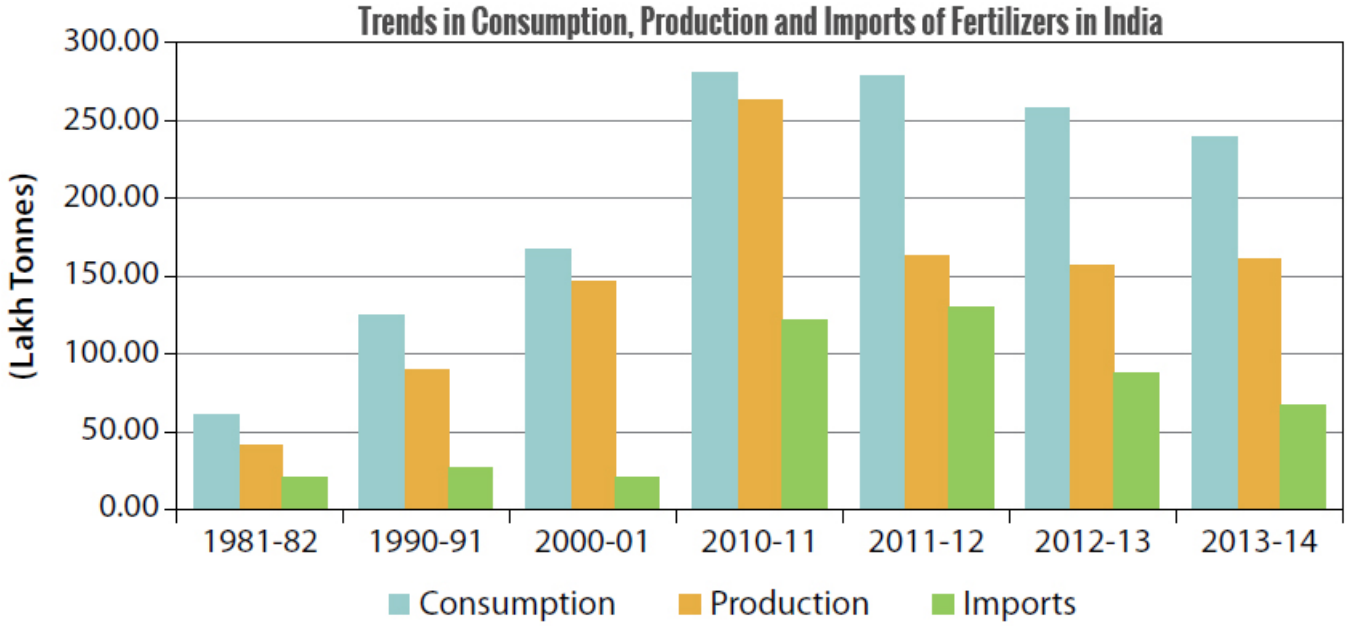
However, despite low per hectare consumption fertilizers, India needs to import fertilizers to fulfil the demand. Production, consumption and import figures of fertilizers in India are shown in below table:

Consumption, Production and Import of Fertilisers (Lakh Tonnes)

Year	Consumption				Production			Imports				C &.F Value of Imports (₹ Crore)
	N	P	K	TOTAL	N	P	TOTAL	N	P	K	TOTAL	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1981-82	40.69	13.22	6.73	60.64	31.44	9.49	40.93	10.54	3.43	6.44	20.41	716.62
1990-91	79.97	32.21	13.28	125.46	69.93	20.52	90.45	4.14	10.16	13.28	27.58	1335.82
2000-01	109.20	42.15	15.67	167.02	109.61	37.43	147.04	1.54	3.96	15.41	20.91	#
2010-11	165.58	80.50	35.14	281.22	221.56	42.22	263.78	45.64	37.38	38.81	121.83	8348.89
2011-12	173.00	79.14	25.76	277.90	122.59	41.01	163.60	52.40	44.27	33.35	130.02	15442.02
2012-13	180.36	59.55	18.13	258.04	121.94	35.41	157.35	46.90	27.78	12.30	86.98	15980.22
2013-14	165.25	54.58	19.76	239.59	123.78	37.14	160.92	38.08	15.9	13.33	67.31	-

There was no import of Urea in 2000-01, 2002-03 and 2003-04 in Government account.

The above table shows that in all kinds of fertilizers, India need to import to fulfil the domestic demand. Although Fertiliser industry has made rapid progress and there has been considerable increase in the domestic production of fertilisers over the years but it is not enough to keep pace with the growth in consumption. India is deficient in primary sources of fertilizer inputs (such as natural gas, rock phosphate, potash); it has sizeable import dependence for the intermediates like phosphoric acid and ammonia. The below graphics shows the production-consumption imbalance in the fertilizer sector:



The key reasons as to why India was not able to increase the fertilizer production are as follows:

- Firstly, setting up a fertilizer plant in India is a long process which generally takes five to eight years from time of issue of letter of intent to start of production. There was an absence of clear policy of setting up fertilizer plant in the country.
- Secondly, the government policy towards private sector players in fertilizers has never been clear. The business environment for fertilizer companies has been hostile due to urea subsidy and erratic supply of natural gas, which is raw material.

Further, India could not attract foreign companies to produce fertilizers here because they earn huge profits in exports to India. Thus, since local production is low, India is dependent on fertilizer imports.