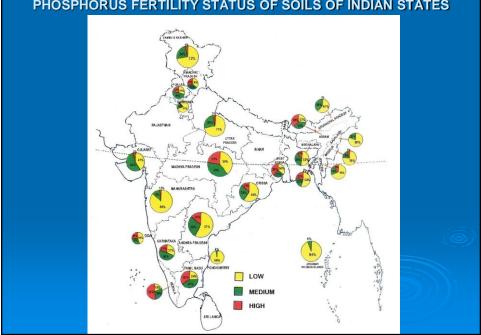
# OUTLOOK FOR ORGANIC P RECYCLING AND LONG-TERM P FERTILISER DEMAND IN INDIA

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#### FERTILITY STATUS OF INDIAN SOILS

- Deficiency of at least 6 nutrients (N, P, K, S, Zn & B) is quite widespread in Indian soils.
- Increasing deficiency of secondary and micronutrient have started limiting crop response to NPK application

Nutrient	% deficient samples
Nitrogen	89
Phosphorous	80
Potassium	50
Sulphur	40
Zinc	48
Boron	33
Iron	12
Manganese	5



#### PHOSPHORUS FERTILITY STATUS OF SOILS OF INDIAN STATES

# **TRENDS IN PHOSPHOROUS (P) CONSUMPTION IN INDIA**

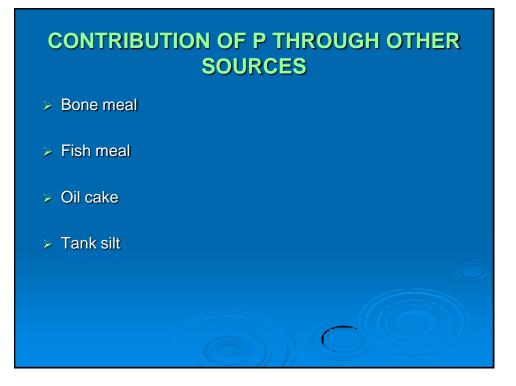
Year	Consumption of Phosphorus (P)	
	Quantity in ('000 tonnes)	Kg/ hectare
1960-61	53.1	0.4
1970-71	541.0	3.3
1980-81	1213.6	7.0
1990-91	3221.0	17.3
2000-01	4214.6	22.7
2007-08	5514.7	28.2
2008-09	6506.2	33.2
2009-10	7274.0	38.3

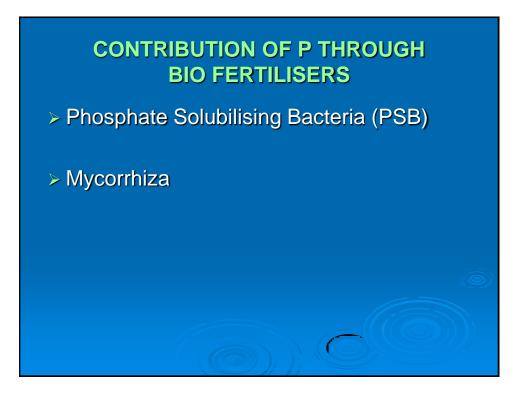
## INTER-ZONE VARIATION IN PHOSPHORUS USE – 2009-10

Zone	P use per hectare (Kg)	
East	30.2	
North	45.3	
South	52.7	
West	31.9	
All-India	38.3	
		2

#### CONTRIBUTION OF PHOSPHOROUS THROUGH ORGANIC SOURCES – 2007-08

Items	Million tonnes P <sub>2</sub> O <sub>5</sub>	
Farmyard manure	0.93	
Compost (rural and urban)	0.92	
Crop residues	0.015	
Vermi compost	0.023	
Other manures	0.069	
Total	1.96	





TRENDS IN PRODUCTION AND DESPATCHES OF PSB		
Year	Production (in tonnes)	Despatches (in tonnes)
2001-02	4502	3742
2002-03	3259	2887
2003-04	4005	3574
2004-05	5918	5575
2005-06	6076	5963
2006-07	6920	6847

## FUTURE DEMAND OF PHOSPHOROUS IN INDIA

Year	Demand for P fertiliser (million tonnes P)
2009-10	7.3
2020-21	12.0
2030-31	14.0

In addition, P nutrient would be available from other sources, such as farmyard manure, compost (rural and urban), crop residues, vermin compost, PSB and other sources. Current use of P through these sources is about 1.96 million tonnes.

## CONCLUSION

- > Deficiency of phosphorous in India is low to medium
- > P fertiliser use has grown considerably over the years
- Phosphorous fixation is high, solubalisation of phosphorous is essential
- > Organic sources enhances fertiliser use efficiency
- > Full potential of organic sources needed to be tapped
- > Organic sources can supplement nutrients in the soil but cannot substitute chemical fertilisers.