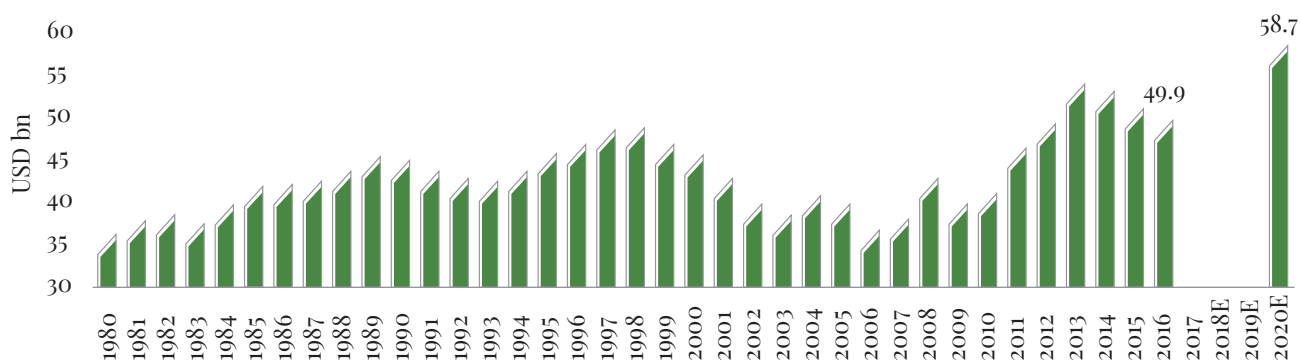
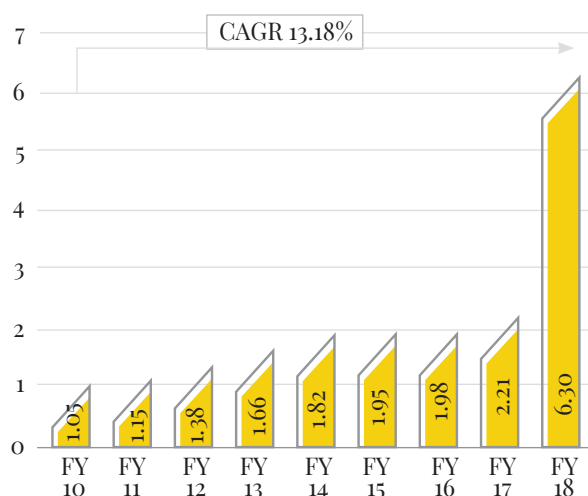


Exhibit 56: Global crop protection market expected to grow at a CAGR of 4% over 2016-2020



Source: Philip McDougall

Exports of Crop protection chemicals* (USD billion)



(Source: IBEF)

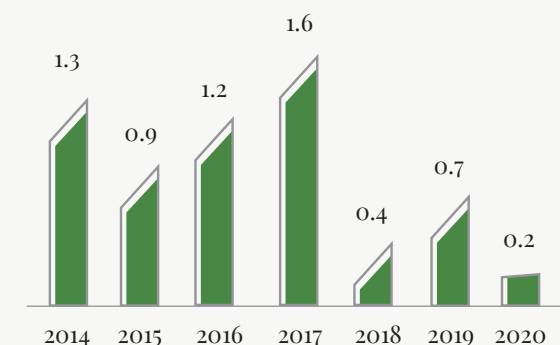
kilograms compared to US (5-7 kilograms per hectare) and Japan (11-12 kilograms per hectare). In India, paddy accounts for the maximum share of crop protection chemicals consumption around (26%-28%) followed by cotton (18% -20%). The eight states including Andhra Pradesh, Maharashtra, Punjab, Madhya Pradesh, Chhattisgarh, Gujarat, Tamil Nadu and Haryana account for usage of >70% of the crop protection chemicals used in India. Andhra Pradesh is a leading consumer of crop protection chemicals with a market share of 24%.

Generic crop protection chemicals: A promising opportunity

Generic crop protection chemicals account for ~60% of the global crop protection market, while proprietary off-patent and patented crop protection chemicals account for the remaining share. Of late, falling agricultural commodity prices, and in turn, falling profitability have been driving US and Latin American farmers towards less expensive generic products. The US and Latin American markets account for ~18% and ~27% of the global crop protection chemicals market, respectively,

and the shift to generic crop protection chemicals coupled with multitude of products going off-patent is expected to open up attractive avenues of growth (estimated to be worth ~USD 3 billion between CY17 and CY20) for the generics industry. Products worth USD 3.7 billion have already gone off-patent between CY15 and CY17. While this would result in a contraction in the American and Latin American markets in value terms, it would widen opportunities for Indian crop protection chemicals companies.

Exhibit 8: ~USD3b opportunity size as products go off-patent over 2017-2020



■ Crop protection chemicals going off-patent (USD bn)

Source: FICCI & Tata Strategic & Management report