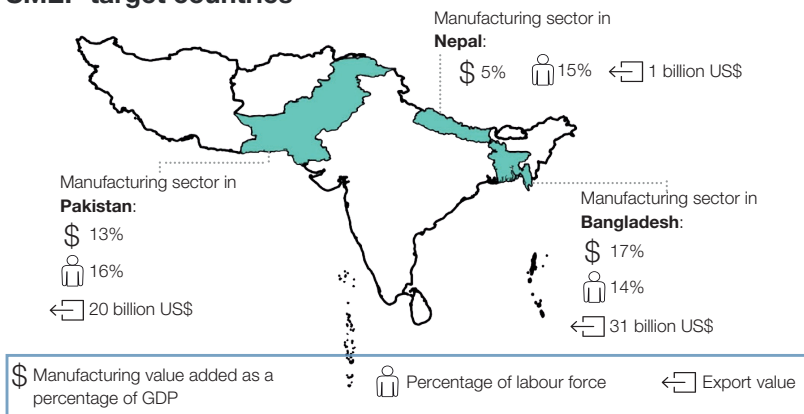


SMEP target countries



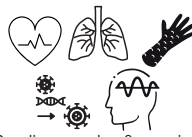



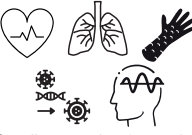



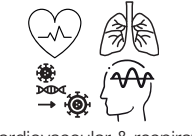

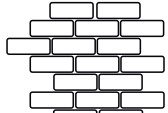





Manufacturing has enhanced development in South Asia contributing 12% to Gross Domestic Product (GDP) and accounting for 15% of the labour force across the South Asian SMEP countries. However it is often associated with high levels of pollution that can cause environmental degradation of air, water and soil and lead to poor occupational and public health.

Information from international data sets, academic literature, and stakeholder engagement were used to identify those South Asian manufacturing industries most likely to be causing human health and well-being impacts via environmental degradation.



The impact caused by manufacturing pollution is dependent on production processes, the treatment of waste, contaminant pathways of pollution (by air, water and soil), as well as the characteristics of the exposed population, such as their occupation, age, gender and socio-economic status.

Industry	Key pollutant types	Human health effects	Key pollutant pathways
 Textiles & wearing apparel	 Potentially toxic metals, dyes bleaching agents, air pollutants, noise	 Cardiovascular & respiratory effects, irritation & inflammation, carcinogenic, neurotoxic effects	 Water pollution, air pollution, soil pollution
 Leather & leather products	 Potentially toxic metals, dyes bleaching agents, air pollutants, noise	 Cardiovascular & respiratory effects, irritation & inflammation, carcinogenic, neurotoxic effects	 Water pollution, air pollution, soil pollution
 Pharmaceuticals	 Potentially toxic metals, dyes air pollutants, pharmaceuticals, noise	 Cardiovascular & respiratory effects, carcinogenic, neurotoxic effects	 Water pollution, soil pollution
 Non-metallic mineral products	 Potentially toxic metals, dyes	 Cardiovascular & respiratory effects, irritation & inflammation, carcinogenic, neurotoxic effects	 Air pollution, soil pollution

Interventions

Textiles and wearing apparel	Leather and leather products	Pharmaceuticals	Non-metallic mineral products
<ul style="list-style-type: none"> Effluent treatment plants Cleaner production techniques e.g. efficient water usage Improve understanding of business benefits of cleaner production 	<ul style="list-style-type: none"> Effluent treatment plants Alternative preservation methods Chrome recycling and recovery Bioremediation 	<ul style="list-style-type: none"> Substitution for less toxic materials Process modification Recovery and recycling Waste treatment using a hybrid of technologies 	<ul style="list-style-type: none"> Increase fuel efficiency through improved brick kiln design Incentivise the use of alternative construction materials