

Industrial initiatives towards reducing water pollution

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Abstract

In 2016, the water crisis was determined as the global risk of highest concern for people and economies for the next 10 years (WEF, 2016). Our ability to cope with current and future stresses on freshwater resources is a core challenge of the 21st century (CDP Global Water Report, 2017). Ensuring adequate water quality and quantity are of increasing importance in recent times owing to climate change related uncertainties and pollution related activities. The immediate source of water pollution is waste water discharge from various sources. Ocean acidification, plastic contamination, creation of dead zones is some of the visible effects of anthropogenic intervention. Companies and industrial sectors across the world are recognizing the crucial role water plays in the sustainability of their operations. Water related risks and opportunities are being accounted for and organizations are working together to alleviate the pollution causing effects of their operations. Measures include finding alternate modes of fuel, researching alternative modes of packaging, coming up with newer ways to have circular resource management, forward and backward integration, committing to reduce their water consumption per unit of production, among others. These measures may be small but contribute towards responsible resource consumption and showcase an organizations commitment towards contributing their bit. Actions taken today will determine if we have the possibility of

water secure tomorrow. We can categorize pollution by where we find it — in air, water or soil — or we can look at different pollution types, such as chemicals, noise or light. Another way to look at pollution is to go to its sources. Some pollution sources are spread out, such as cars, agriculture and buildings, but others can be better assessed as individual emission points. Many of these point sources are large installations, such as factories and power plants. Industry is a key component of Europe's economy. According to Eurostat, in 2018, it accounted for 17.6 % of gross domestic product (GDP) and directly employed 36 million people. At the same time, industry also accounts for more than half of the total emissions of some key air pollutants and greenhouse gases, as well as other important environmental impacts, including the release of pollutants to water and soil, the generation of waste and energy consumption. Air pollution is often associated with the burning of fossil fuels. This obviously applies to power plants but also to many other industrial activities that may have their own onsite electricity or heat production, such as iron and steel manufacturing or cement production. Some activities generate dust that contributes to particulate matter concentrations in the air, whereas solvent use, for example in metal processing or chemical production, may lead to emissions of polluting organic compounds.

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