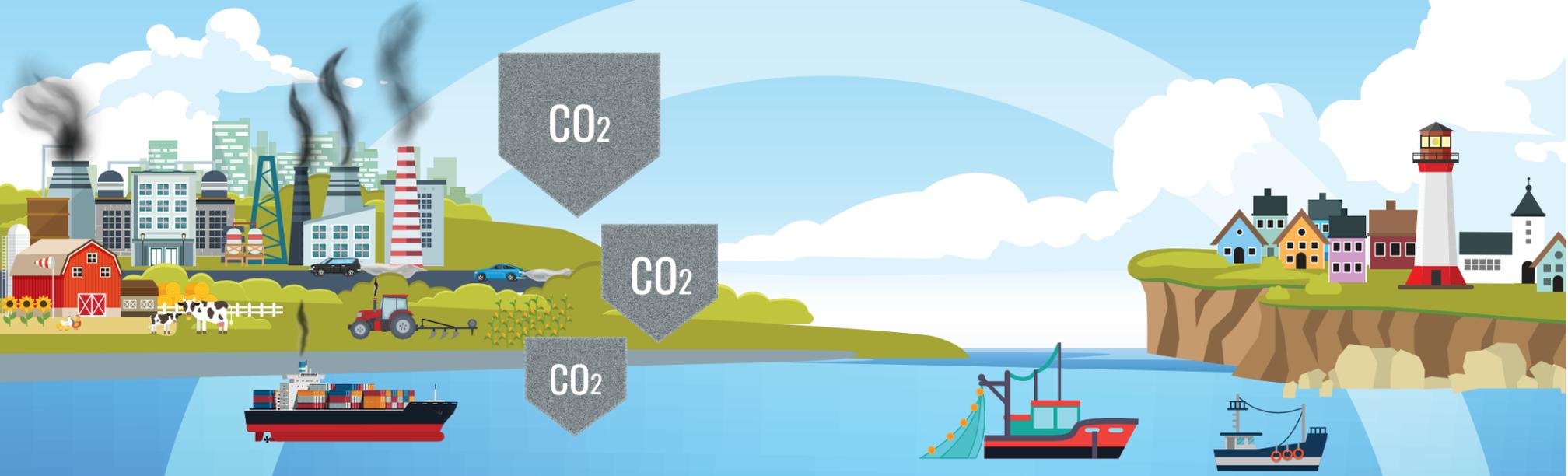




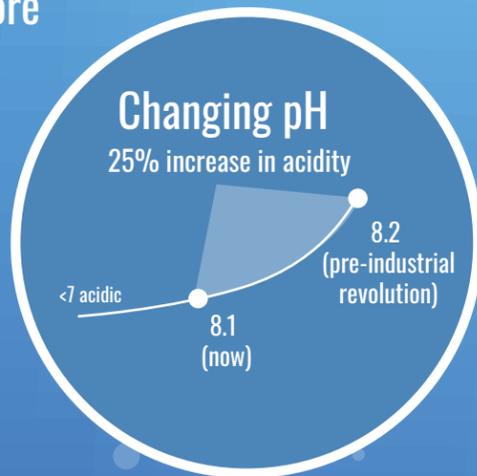
# OCEAN ACIDIFICATION

## How Carbon Dioxide (CO<sub>2</sub>) Affects the Oceans

**1** As the amount of CO<sub>2</sub> in the air increases from human activities, the excess CO<sub>2</sub> enters the ocean. This changes the chemistry of seawater.



**2** When CO<sub>2</sub> enters the oceans, it dissolves and reacts with water. This chemical reaction creates carbonic acid which lowers the pH of the ocean; making it more acidic, and reduces the availability of shell-building materials. It can also cause a range of biological effects such as reduced growth and reproduction, and changes to metabolism.



**4** As a result, ocean acidification is likely to affect coastal communities which depend on marine resources for their livelihoods.

**3** The effects of ocean acidification on the tiny plants and animals (phytoplankton and zooplankton) that are at the base of the marine food chain can limit the food available to larger organisms.

