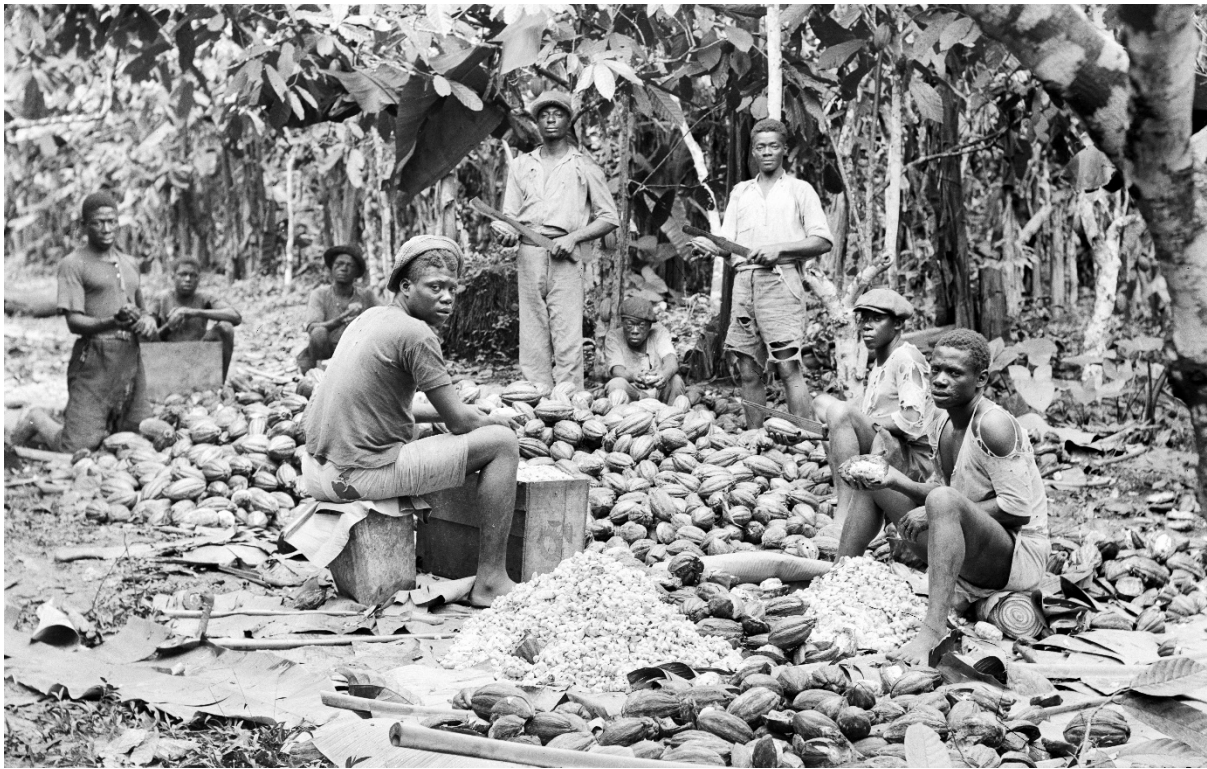


Supply Chain Management Challenge

How far do you know about chocolate? Or where does this supply chain and operations start?

Cocoa has been cultivated for at least three millennia and originated in Central and South America. It dates back to around 1100 BC when the Aztecs made it into a beverage known as *Xocolātl* or "bitter water" in English. Significant advances in chocolate-making occurred during the Industrial Revolution when mechanization in mills started to squeeze out cocoa butter from cocoa beans. Statista (a global provider of market and consumer data) points out that since the '80s, the volume of cocoa production jumped from almost 1,7 to 5,0 (tons/ year) in 2021. The leading countries in cocoa beans production are Ivory Coast, Ghana and Ecuador and three-quarters of world production comes from Africa. Ivory Coast also leads the cocoa beans processing, followed by the Netherlands. These numbers indicate how large the capacity of some countries to supply and process cocoa beans to attend the choco lovers.

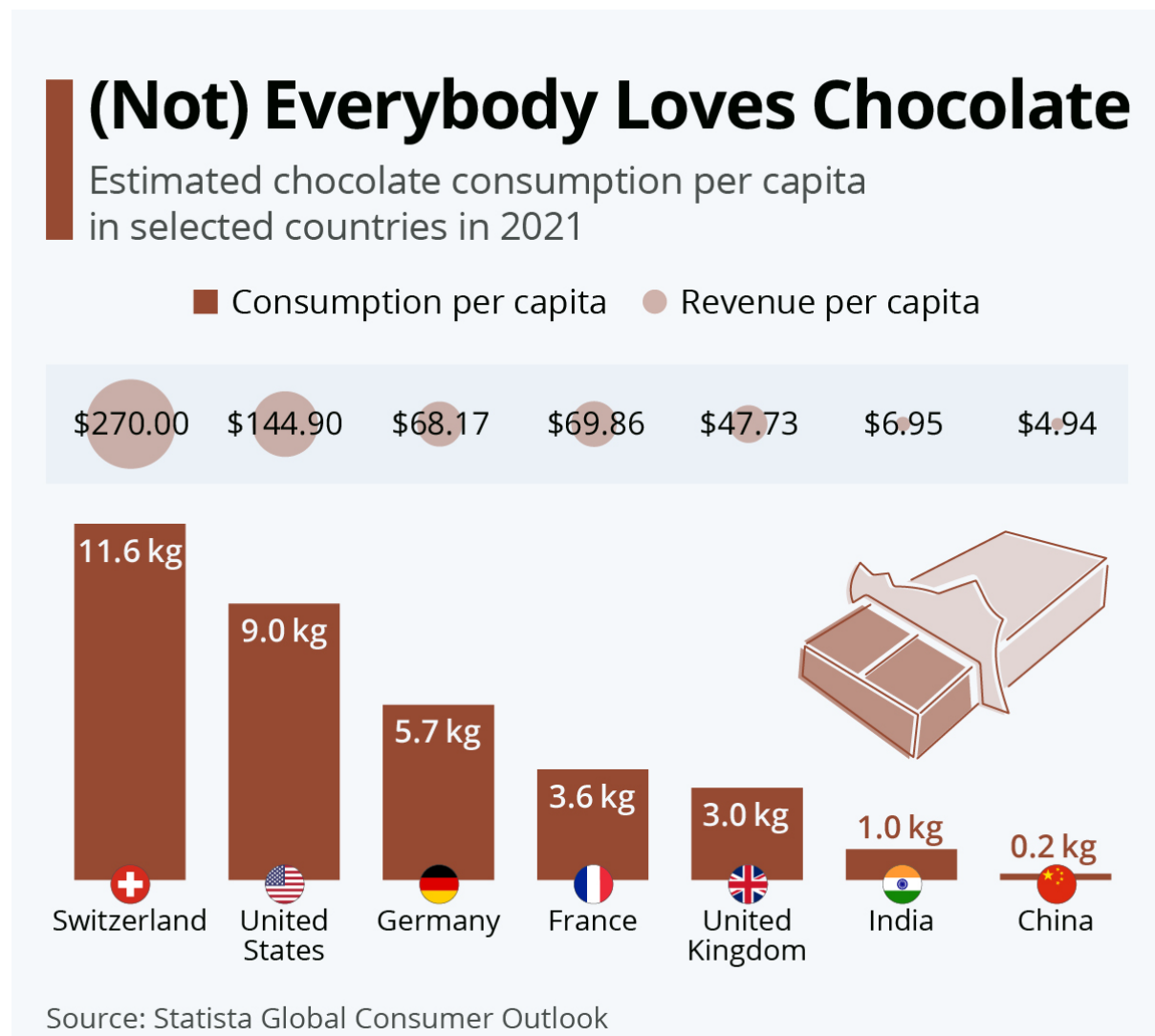


Source: Unsplash License (2021) – Copyright-free. This picture from cocoa beans production is believed to be from the later 1800s.

Does everybody love chocolate?

The United States is a world market leader for confectionery, estimated to be worth 9.67 billion U.S. dollars in 2021 (3 billion U.S. dollars come from imports annually). During the first year of the pandemic, U.S. consumers ate, on average, 10.8 kilograms of chocolate per person. This average increased by almost seven kilograms compared to the year before the pandemic. While cocoa-based products are very popular in large parts of Europe and the United States, many people in Asia prefer other sweets. With a well-recognized chocolate industry, Switzerland is

on top of the chocoholic league, with annual per capita consumption amounting to 11.6 kilograms in 2021. At the other end of the scale, India and China have considerably lower per-capita consumption at 1.0 and 0.2 kilograms, respectively, according to Statista (2022). These numbers show how demand size varies from one country to another.



Your Task

Prepare a poster (using something like PowerPoint, Prezi, Piktochart - whatever you wish) that covers:

- What are the steps (or processes) from farms to consumers regarding the cocoa supply chain?
- What risks are involved in the cocoa supply chain, and how does this supply chain deal with sustainability?
- Something from your favourite chocolate or sweet brand (if you are a chocolate or sweet lover, can you tell us which one and how this brand differentiates from other products?). Use whatever visuals you wish to make it look attractive, and do not be afraid to include your personal opinions about the brand.

How to Submit

Once completed, send your poster by email to Dr Marcelo Sa (marcelo.sa@northumbria.ac.uk). In induction, there will be prizes for the best entries!