Name: Christiaan Kingsale

Student number: 155373

The sustainable goal I was given was the building of resilient infrastructure, promotion of inclusive and sustainable industrialization, and the fostering of innovation. The two targets I was given for this assignment are:

* By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.
* Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.

The indicator for the first SDG target is ***carbon dioxide emission per unit of value added***.

The indicator **CO2 emissions per unit of value added** represents the amount of **emissions** from fuel combustion produced by an economic activity, **per unit** of economic output (definition is from unstats.un.org). This indicator will monitor the first target by checking the CO2 emissions from the fuel combustion produced in companies. The target is to make companies as sustainable as possible, which means the reduction or removal of fossil fuels and addition of green energy for example. If we want to reach that goal, that means that the CO2 emissions per unit of value added will decrease, the more sustainable the companies get. The indicators for the second SDG target are research and development expenditure as a proportion of GDP, and researchers (in full-time equivalent) per million inhabitants. These indicators monitor the second target by checking (1.) how much is invested in research and development in both private and public sectors, since the target is to increase spending in research and development and encourage innovation, this means that as we are achieving the target, this indicator has to be rising. The second indicator will monitor de second target by checking (2.) the researchers per million inhabitants, since we want to invest in research and development, and increase the amount of research done, the amount of researchers per million inhabitants should be increasing as we approach the achievement of that target.

The first SDG target is important to Aruba, because here in Aruba there is a lot of pollution, including air, land and water. For example the diesel spill that happened at the Bubali Wetlands. It is important that we try to get to a point in where we don’t depend on fossil fuels anymore. The first SDG target aims to companies becoming sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes. All pollution done by companies and citizens in general piles up at the Parkieten Bos here in Aruba, then they burn it. This leads to an increased emission of CO2 in the atmosphere which contributes to global warming. So the first target helps avoid this and make our island as sustainable as possible.

The second SDG target is important to Aruba, because there is a really small amount of data being gathered here on Aruba. This focuses on the increase of research and development on the island which is much needed. Our island is economically highly dependent on tourism, the increase in research and development will highly benefit us in making our island more attractive for tourists as well as maintaining a sustainable environment in which this can all take place. So, it will benefit tourism, and at the same time cause no harm to our environment which is equally as important if not more.

The first SDG target relates to waste management in the sense that making companies more sustainable will cause less pollution, for example, by using solar panels and water and wind energy the use of fossil fuels will decrease, which also means that the wastes of fossil fuels combustion will decrease. Also by recycling for example, companies can segment their waste and use recyclable material to decrease the amount of waste being put out.

The second SDG target relates to waste management in the sense that the more hotels invest in research not only research on profitable tourism, but also about all the waste that tourists produce, the more bio-friendly the hotels can start to become. Waste is not a popular theme in the hotel industry, but it certainly is a really important topic to assess and develop new ways to produce less waste or to reuse some of it. The more research being done about waste in companies and sustainable ways to deal with waste, the more bio-friendly we can become.

The first indicator: CO2 emission per unit of value added is not being monitored in Aruba, the most recent data on CO2 emission in general in Aruba is from the year 2014. https://tradingeconomics.com/aruba/co2-emissions-kt-wb-data.html

I was able to find data recorded of CO2 emissions in Aruba per unit of GDP but it is from the year 2010, so it has been recorded but isn’t currently being done. <https://books.google.com/books?id=_sP24cgmPh8C&pg=PA27&lpg=PA27&dq=co2+emission+per+unit+of+value+added+in+Aruba&source=bl&ots=PhobPN1Obu&sig=M5chWtR8P6o2rwSJAFcmVuxx4eA&hl=en&sa=X&ved=0ahUKEwjrw8WuybrXAhUC6SYKHZ7CD9IQ6AEIJzAA#v=onepage&q=co2%20emission%20per%20unit%20of%20value%20added%20in%20Aruba&f=false>

The other 2 indicators: Research and development expenditure as a proportion of GDP and Researchers (in full-time equivalent) per million inhabitants. Research and development expenditure as a proportion of GDP is not being monitored, according to the World Bank Open Data: <https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS?locations=AW-AL&view=map&year=2014>

Researchers (in full-time equivalent) per million inhabitants is not being monitored either, according to the World Bank Open Data: <https://data.worldbank.org/indicator/SP.POP.SCIE.RD.P6?locations=AW&view=map>