CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The global warming is known as having a critical impact for the worldwide natural framework and the social and monetary exercises of people. It has long been the worldwide environment issue, to which researchers everywhere throughout the world focus. As indicated by the Intergovernmental Panel on Climate Change (IPCC) third assessment report (IPCC, 2008), the nonstop expanding of greenhouse gasses would improve the variability of the Asian monsoon and changes in monsoon mean duration and quality rely on upon how well the climate model mimics the occasional advancement of the storm (Bueh, 2003).

Climate change is a global issue for the time being, Malaysia is not exempt from this issue. Various human activities and natural processes all become a contributor to climate change. One of the main contributors is gases from greenhouse effect.

Usually the climate in Malaysia is divided into southwest monsoon season and north-eastern monsoon. Where both the monsoon has different characteristics. Malaysia equatorial latitudes between lines 1 and 2 north and longitude 100 and 119 East, influenced by the sea and the wind of change blowing from the Indian Ocean and the South China Sea.
Southwest monsoon (SWM) occurs from May to August and for Northeast monsoon (NEM) occur from November to February. During the NEM season happening at East Coast area which is Kelantan, Terengganu and Pahang receive a lot of rainfall intensity. Due to high intensity of rain occur the quantity of the water in river increase and cause flood to certain areas at East Coast of Peninsular.

Pahang is the biggest state in Peninsular also no exempt from this issue. The rainfall intensity is not consistent lately. Flood become more vigorously than before and temperature also increase by percent each year. It show that this state not exempted from receive this climate change.

1.2 PROBLEM STATEMENT

Quantity of gases from greenhouse increase day by day, usually the gases is naturally produce by natural phenomenon like CO\textsubscript{2} produce by living thing like human and animal. But the productivity of the gases increasing by invention and development by human rapidly toward to achieve successful develop country. Another type of Greenhouse gases are methane, carbon monoxide, nitrous oxide, chlorofluorocarbons (CFCs) and H\textsubscript{2}O (water vapour).

Climate change is largely attributed to anthropogenic activities by the human race such as industrial activities, energy generation and agriculture, resulting in the increase of greenhouse gases (GHG) in the atmosphere, to such an extent, that these gases exceed natural variation essential to regulate the earth’s temperature and to support life. These additional gases trap heat and thus enhance the greenhouse effect resulting in global warming and climate change. The three main anthropogenically-enhanced greenhouse gases are carbon dioxide (CO\textsubscript{2}), methane (CH\textsubscript{4}) and nitrous oxide (N\textsubscript{2}O) of which nitrous oxide (N\textsubscript{2}O) is commonly regarded the most aggresive. The concentrations of these gases have increased since the Industrial Revolution (1800). Based on Carbon Dioxide Information Analysis Center (CDIAC), the global figures show that carbon dioxide, methane and nitrous oxide have increased by 32%, 157% and 18% respectively from 1800 to 2005(Blasing, 2015).
Fuel consumption is become necessity to the people because it need to generate machine or equipment to produce something. Like a car need to be refuel by petrol to move from one point to another point. Then the car will produce carbon monoxide, so it will become poison to the environment and within home or office. Historically, the industry of automobile produce a lot cars that can produce carbon monoxide, after some research they manage to produce car that produce less CO. However, nowadays the quantity of cars is increase rapidly so the quantity of CO will be increased. Even gas appliance also could produce CO based on fact sheet conduct by University of Minnesota, One of the most common sources of CO problems both at home and at work is gas appliances such as water heaters and furnaces.

Carbon dioxide production from land degradation, monoculture and other no sustainable practices, methane through enteric fermentation of livestock and nitrous oxide from incorrect fertilizer management of soils are important sources that need to be quantified and managed. The CO$_2$ emissions primarily originated from the accompanying classes: energy, industrial processes and land use change and forestry. According to Malaysia’s Initial National Communication, it state that the total discharges of CO$_2$ were 97,342 Gg in 1994 (Mohan, 2002).

There is a variety of useful mitigation and adaptation options promoting soil and water conservation for agricultural production such as soil carbon sequestration (enhanced sinks), soil cover and improved crop and grazing management conducive to sustainable agricultural and soil productivity. The latter include improved agronomic practices, water and nutrient use efficiency, conservation agriculture and residue management, restoration of soil organic matter and restoration of degraded lands. The challenge to the agricultural sector is to promote the adoption of these processes. The intricate process involved in the adoption of best practice technologies is of the utmost importance and needs to be encouraged.

Climate parameters like temperature, rainfall and humidity are expected to change with global climate change, and thus may affect the ranging patterns of the rainfall intensity of Kuantan.