CHAPTER 1
INTRODUCTION

Precipitation is any form of humidity that falls from the clouds in the air to the exterior of the Earth. Since precipitation refers to the liquid quantity and how much of it is isolated on the Earth within a given time, it is measured in volumes and concentration of precipitation on specific areas where the study is focused on. (Ramsey, 1998)

Rain is a group of droplets that tends to fall towards the land of the Earth. The cloud cannot already include the amount of cloud droplets present within it that is why the cloud needs to release these droplets and when they are released, these droplets are already called as rain. Rain is the only type of liquid precipitation, as opposed to non-liquid types of precipitation, which are sleet, snow, and hail. A presence of a thick layer of our atmosphere is needed by rain to maintain temperatures above the melting point of water on the surface of the Earth. When ice crystals within a specific cloud collide against each other, precipitation is formed. Ice crystals have different shapes. There are oblate crystals, round-shaped crystals, and crystals that look like a small sphere. (Ramsey, 1998) The major cause of rain production is moisture contrasts that are commonly called as weather fronts and some moisture moving along the zones of temperature. Based on the location of the Philippines, this country only experiences rain, drizzle, and hail among the other types of precipitation. ("Earth Science: The Philippines in Focus," 1983)

Since the precipitation is measured in volumes of water in a specific area, the best way to measure the amount of precipitation is to gather all fallen liquid on a specific area with the use of waterproof walls and bases to see how high the water would increase from ground level. An instrument used in this process with a similar mechanism is the rain gauge. The rain gauge is the most widely used weather instrument in measuring precipitation. The rain gauge is composed of a funnel and a cylindrical container where the water accumulates and is collected. However, a rain gauge is most effective when used in a perfectly flat area with its surroundings of the same level. When used in mountainous regions or areas with uneven ground levels, either the measurements