Abstract

This study has monitored desertification phenomena in the Eastern Slopes of Central Palestinian Mountain and took Al- Qilt and Al-Ghar Basins as case study to make a comparison between them, because there are Reservation represented by Wadi Al-Ghar Reservations in southern part of west bank and unreserved area represented by Wadi Al- Qilt, in an area with similar physical characteristics such as climate and soil.

West- East transect applied in al qilt basin valley to cover three phytogeographical region, sub humid Mediterranean; Irano-Toranian and Saharo-Arabian, and the study extend march 2009 until may 2010.

The study aims to understand desertification phenomena and determine the natural and human causes to it and the ability to evaluate the danger of it, then finding the best solutions to stop the continuity of degradation. The study depended firstly on field work then on historical, descriptive explanatory and quantitative approaches.

In addition, Braun Blanquet Method is used to study natural vegetation cover and plant species by using 50cmX50cm quadrate to limit them, also another quadrate 100cmX100cm is used to determine above ground biomass in the study area, sixty quadrates in (2009) and other sixty in (2010) in al qilt area and twenty quadrates in same time in al ghar reservation were made to determine extent change in the above ground biomass and to evaluate it towards progressive or degradation.

The results of the samples analysis of vegetation cover show differences between what within and outside wadi al ghar reservation according to above ground biomass variable, where the weight of highest quadrates is about 200g/m inside it, and increasing of above ground biomass percentage for year 2009 and 2010, in the contrary of the sample of wadi al qilt basin, where as the study samples show retreat of the percentage for 2010, it is an indicator of rangeland degradation and increasing the tune of desertification degree in the area. Also the study list of the number of unpalatable and weeds plants that recorded in the area

which can consider an indicator of desertification and degradation of natural vegetation cover, and its link to a number of excessive activities such as overgrazing, uprooting under ground parts of plants, and changes in land use of the area.

The field study shows the degradation of physical and chemical properties of soil, through increasing of salinity and decreasing of organic matter percentage which decreasing towards east.

The study highlighted the role of Israeli occupation in degradation of the area, It seen through the building of colonies, military bases and confiscation pastures under pretext of security concerns. This companied by not pastorals to move freely, which caused increasing pressure on resources especially natural vegetation cover then soil erosion out come desertification.

The study suggested numbers of the best and suitable solution to restore the study area through cultivation adaptive plants and water harvesting to save water for dry seasons.