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PRELIMINARY ASSESSING THE ROLE OF MICRO-CATCHMENT WATER HARVESTING TECHNIQUES IN IMPROVING GRAZING COVER VEGETATION IN HAMA STEPPE (DEBAH SITE) -SYRIA

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ABSTRACT

To evaluate the performance of micro-catchment water harvesting techniques in combating desertification and the land degradation in the arid and semi- arid areas in Syria, this study was conducted at Debah Site of Hama Steppe / Syria, about 100 km north east of Hama city, about 70 km of Salamieh city and about 60 km north east of Hamra area. Community-based approach was introduced as an alternative to better manage the available and degraded resources. The micro-catchment water harvesting techniques were tested at the site (manually prepared semi-circular, contour ridges). Tow spacing (6 and 12m), and three fodder species: *(Atriplex halimus*, *Atriplex leucoclada* and *Salsola vermiculata*) were compared. Statistical analysis of the 2011-2012 showed high efficiency of micro-catchment water harvesting techniques in improving land productivity through increasing soil moisture content and shrub growth and shrub survival rates as compared to the control without water harvesting. *Atriplex halimus* recorded the highest survival rates and biomass as compared to other species.

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