Dedication

To the soul of my father
The struggle of my mother
Patience of my brethren
My sister, the only smile
To all those who love them
Acknowledgements

Praise is to Allah who gave me health, strength and patience to conduct this work. I would like to express my gratitude and appreciation to my supervisor Dr. khalifa Ahmed khalifa for his consistent supervision and patience, invaluable advice and guidance throughout the course of the study.

Finally, I would like to express my deep thanks and appreciation to my family members, special to my Elder -brother Eltaeib El sheikh. You are the best brother in the world thank for you

Thanks extended to Dr. Hozeifa El smani and Ola alyas for helping me in analysing the data collected
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ABSTRACT

This study was conducted to evaluate the mechanization system in the rain-fed sector at Habeela area south Kordofan State. The mechanization system was first introduced in 1968 upon request from the world bank for the development of this sector.

The basic data were collected through a field survey. A random sample of 200 farmers was interviewed using adequate questionnaire.
Complementary data were collected through interview and personal contacts with institution responsible. The collected data were analyzed using the statistical package for social sciences (SPSS).

The study findings indicated that the rate of energy used in the area is (0.23) hp/ha which is greater than rate used in Africa (0.05) hp/ha and Asia (0.09) hp/ha and less than the rate used in the United State of America (0.27)hp/ha.

The study showed that land preparation (90%) and seeding (91.6%) are the main mechanized operation which are realized simultaneously with the wide level disc. Harvesting is done in most cases and almost for all crops manually (70.5%) 

The majority of farmers did not own the tractors and implements they used, and in many cases had recourse to hire them during the season (43.7%).

This result also clarified that the main obstacles encountered mechanization in this area were. Low education level (illiterate + primary School .54.2%), high maintenance cost (55.8%), remoteness of service centers from the area (available but faraway from the area . 54.2%), weakness of training and extension services and the absence of qualified cadres. (10.5%), (11.6%), (13.7%).respectively.

The results of the newly introduced technology were inconsistent. This technology need intensive applied research before any adoption by farmers.

الخلاصه
أجرمت هذه الدراسة لتقييم منظومة الميكنة في القطاع الفطري بمدينة هبل جنوب كردناء. إن منظومة الميكنة الزراعية قد تم إدخالها لأول مرة في العام 1968م على اثر طلب تقدم من البنك الدولي لتنمية هذا القطاع.

لقد تم جمع المعلومات الأولية من خلال مسح ميداني تم خلاله استقصاء عينه عشوائية مكونة من 200 مزارع استعمال استبان كافي. تم تجميع المعلومات المكملة من خلال استقصاءات أتاصيات شخصية بمسؤولي المؤسسات. تم تحليل المعلومات المجمعه بواسطة برنامج الحزم الحصصائي للعلوم الاجتماعية (SPSS).

لقد أوضحت نتائج هذه الدراسة إن معدل استعمال الطاقة بالمنطقة هو (0.23) حصان / هكتار. إن هذا المعدل هو أكبر من معدل المستخدم في أقليقيا (0.05) حصان / هكتار واسبية (0.09) حصان / هكتار واقل من المعدل المستعمل بالولايات المتحدة الأمريكية (0.27) حصان / هكتار.

لقد أوضحت الدراسة إن عمليتي تحضير الأرض (90%) والبزار (91.6%) هما العمليتان الميكنيتان واللتان تجريان في نفس الوقت بواسطة المشتاق الفضي العريض. إن الحصاد غالبا ما يتم وللغالبيه العظمى من المحاصيل بدوبا (70.5%).

إن الغالبيه العظمى من المزارعين لا يمتلكون الحرارات أو الآليات الزراعية التي يستعملونها وغالبا ما يلجأون للإيجار خلال الموسم (43.7%).

لقد أوضحت الناتج ان العوائق الاساسية التي تقف أمام الميكنة الزراعية هي: احتفظ التعليم (ابتدائي + ثانوي 54.2%), ارتفاع تكاليف الصيانة (55.8%), بعد المنطقة من مراكز الخدمات (54.2%). ضعف التدريب والخدمات الإرشادية وانعدام الأطر المؤهلة. (10.5) (11.6) (13.7) على التوالي.

إن التقانات المسجلة حديثا للمنطقة قد أعطت نتائج غير محسومة وتحتاج هذه التقانات إلى أبحاث تطبيقية مكثفة قبل تبنيها بواسطة المزارعين.