

Abstract

The importance arise from the cadaster is keeping the land ownership, is help to use the land by economic way and optimum use .

The management of ownership depend on the accurate definition boundaries of ownership that depend on the system of cadaster (Torrens' system) in the system the determine of boundaries depend on the large scale map as (1:5000).

The boundaries are subject of removal by the effect of natural and human causes. In this case the boundaries must relocated accurately.

In this study a method had been suggested to save the ownership boundaries coordinates in a digital layers, by observing few points by GPS as control point in the field.

The observed control point had been used for georeferncing the digital map of the agricultural parcels in arc map software.

Finally the coordinate of the boundaries of each agricultural parcel can be achieved for the digital map within 25 cm which as an acceptable accuracy in agricultural lands.

By this method the removal of boundaries had been re-determine without going to the field.

المستخلص

تأتى أهمية الكاداستر فى حفظ ملكيات الاراضى مما يساعد فى استخدام الارض بطريقة اقتصادية ومثالية.

نظام الكاداستر المطبق فى السودان هو نظام تورينز وهو نظام يعتمد على الحدود الثابتة وفيه يتم توقيع الحدود بدقة وذلك يعتمد على خرائط ذات مقياس رسم كبير (1:5000) ونقاط ضبط ثابتة على الارض.

حدود الأراضى الزراعية عرضى للإزالة بفعل الطبيعة والإنسان وفي هذه الدراسة يتم إعادة توقيع الحدود بدقة.

وفى هذه الدراسة تم اقتراح طريقة لحفظ حدود الملكيات لرصد نقاط قليلة في الحقل بواسطة الـ GPS كنقاط ضبط وتستخدم لضبط الخريطة الرقمية في برنامج الـ ARC MAP .

أخيراً إحداثيات حدود القطعة الزراعية يمكن استخراجها من الخريطة الرقمية بدقة 25 سم وتعتبر دقة مقبولة للأراضى الزراعية ، وبهذه الحدود المزالة يمكن إعادة تحديدها بدقة عالية وبدون الرجوع للحقل.

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