Solid Earth
Discussions

EGU
Open Access

Interactive comment on "Vegetation Cover Change Detection and Assessment in Arid Environment Using Multi-temporal Remote Sensing images and Ecosystem Management Approach" by Anwar Abdelrahman Aly et al.

Anwar Abdelrahman Aly et al.

rasoul@ksu.edu.sa

Received and published: 14 April 2016

Anonymous Referee #2

Dear respective Reviewer

Thank you very much for valuable comments, below you will find our responds to the comments point by point:

Comment: After deep reviewing of the literature for NDVI calculation, I suggest the following modifications for the remote sensing part. Since NDVI is a calculated index,

you do not need to prove the accuracy of the results you get. This will increase the scientific value of your good research.

Respond: Thanks for comment, the accuracy removed.

Comment: Remove the last sentence of section 2.4, and replace it with the following: The NDVI images could be classified into three classes, namely dense vegetation cover (NDVI > 0.5), moderate vegetation cover (NDVI 0.25 − 0.5), and sparse vegetation cover (NDVI < 0.25), as shown in Fig (4).

Respond: The last sentence removed and replaced with the required sentence.

Comment: Section 2.5 should be removed completely Section 2.6 becomes 2.5.

Respond: The section 2.5 removed and the section 2.6 became 2.5.

Comment: N.B. you can choose different threshold values other than these values, according to the literature you have.

Respond: Ok, thanks.

Comment: N.B. you can add the area of each vegetation class, for each satellite image date in a table to show the changes in the vegetation cover (you do not need to convert the NDVI data into vector format for further analysis).

Respond: Table 1 include the vegetation class (Table 1 included below)

Comment: Regarding table 1, the title of the table should be renamed to "spatio-temporal ′ characteristics of Al-Kharj ecosystem.

Respond: Table 1 renamed

Thanks Again and Kind Regards.

Please also note the supplement to this comment:
http://www.solid-earth-discuss.net/se-2016-31/se-2016-31-AC4-supplement.pdf

C3

Table 1. Spatio-temporal characteristics of Al-Kharj ecosystem

Reference Year	Classified image	Vegetation cover areas (Km^2)			
		Dense (NDVI > 0.5)	Moderate (NDVI = 0.25 – 0.5)	Sparse (NDVI < 0.25)	Total
1987	Landsat4 TM	36	69	58	163
2000	Landsat7 ETM+	8	156	174	338
2013	Landsat8	6	91	148	245

Fig. 1.

C4