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الناشر:	الجامعة الأردنية - عمادة البحث العلمي
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( Environmental Degradation)

(Remote Sensing and Geographic Information Systems)

2003 - 1986

4000,000/1

Landsat. TM,EM

ERDAS Imagine V.8.5

(Layerstack Conditional)

(Ground Control Points)

Import / Export

(Geometric Correction)

AOI

1986

84

(Negative Change)

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195 2003

111

(Depletion of Natural Resources of the Environment)

(Development Projects)

The Natural Balance of the Marine )

(Environment

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2010/3/15

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2003 - 1986

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( 2003 – 1986 )

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ERDAS Imagine V. 8.5

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Arc GIS V.9.2

. 2003 – 1986

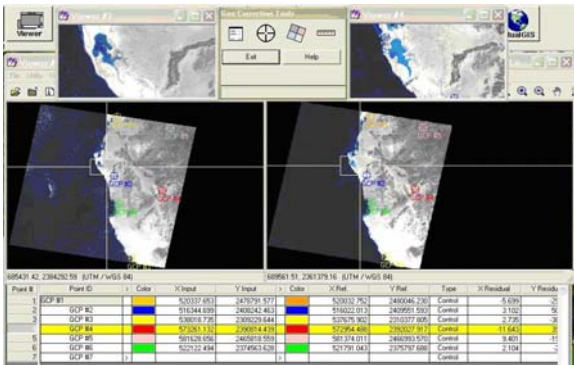
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(Change Detection) .5 .  
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Arc (Vector  
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(4)



Raw Data .1

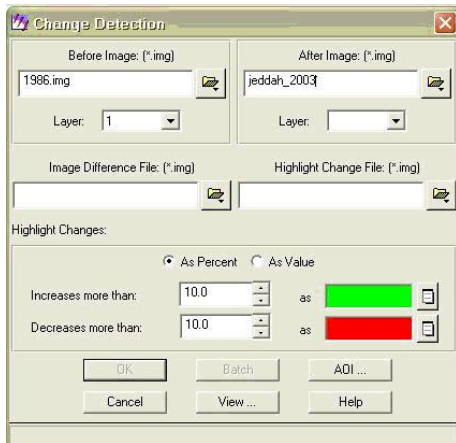
) ( ( 2003 - 1986)  
.(Path (170) / Row (45 (Landsat.TM,EM  
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ERDAS Imagine V. 8.5

LAYERSTACK Import/Export  
.Conditional  
Geometric .3  
Projection Type UTM Correction  
.Zone 38 WGS 84

Geometric ) (2)  
(Correction

ERDAS Imagine V. 8.5 :



Ground )  
GPS (Control Points

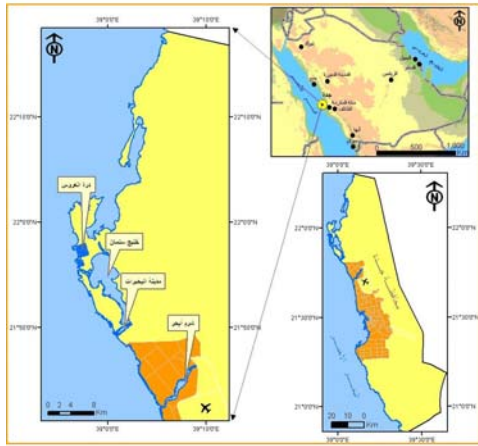
.(2)

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(Change Detection) (3)

(Areas of Interest AOI)  
Subset Image

ERDAS Imagine V. 8.5 :



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**(Raster to Vector)**

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ERDAS Imagine

V. 8.5



20° 50′

38° 55′ 42″, 39°

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57″, 22° 18′ 35″

25′ 12″

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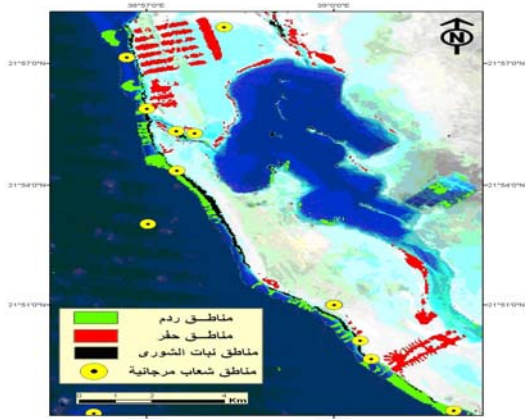
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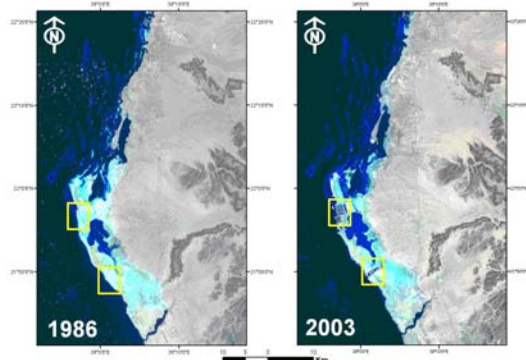
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2003 - 1986

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ERDAS Imagine

Arc GIS V.9.2

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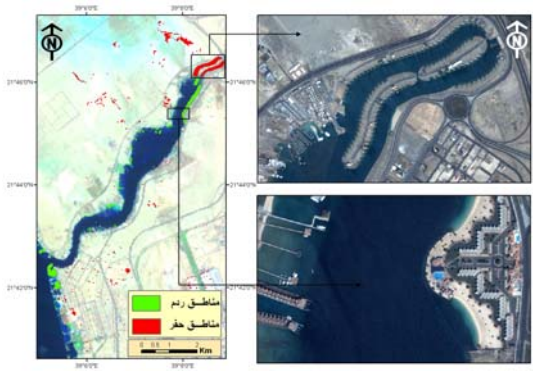
V. 8.5

2003 - 1986

.Arc GIS V.9.2

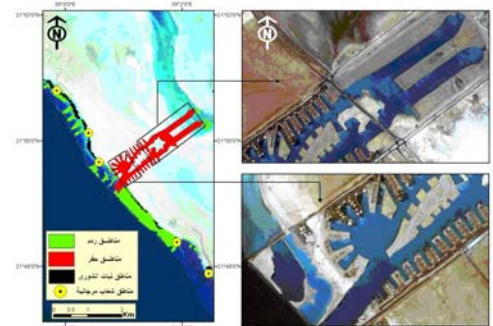
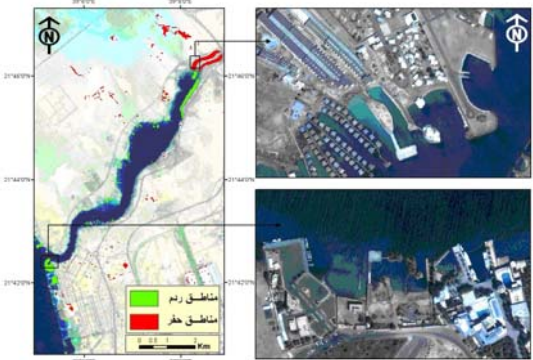
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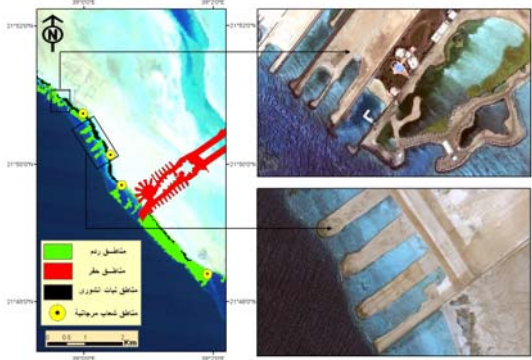


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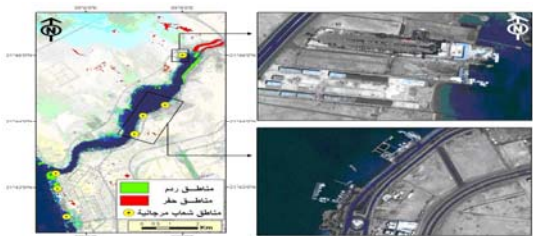
(9)



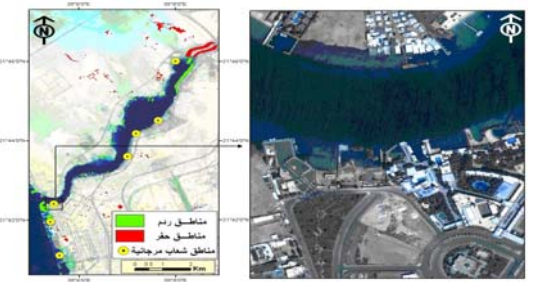
ERDAS Imagine :  
Arc GIS V.9.2 V. 8.5

(8)

ERDAS Imagine :  
Arc GIS V.9.2 V. 8.5



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(10)

ERDAS Imagine V. :  
Arc GIS V.9.2 8.5

(10) (9)

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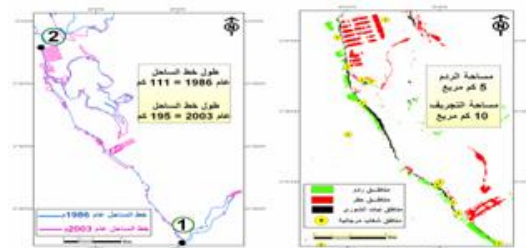
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2003 - 1986 (11)



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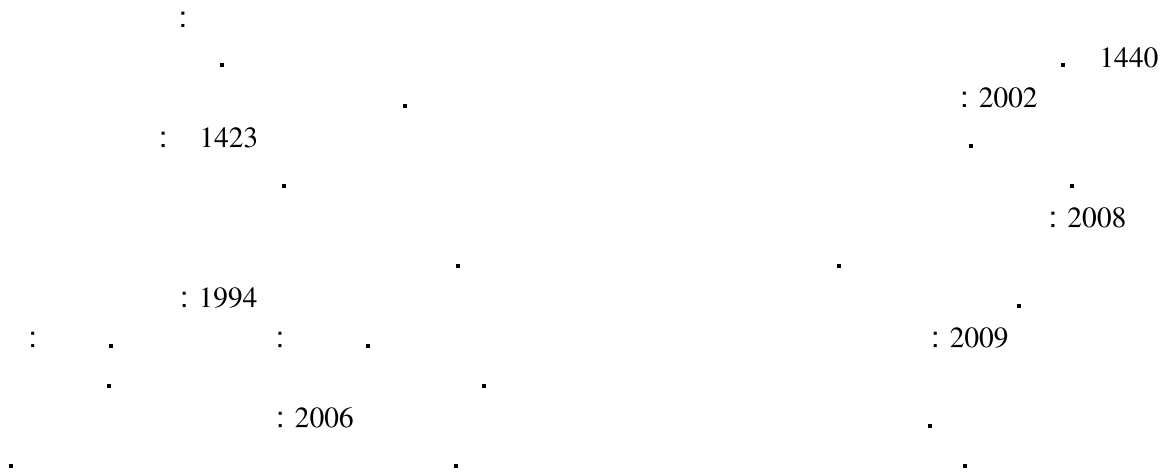
ERDAS Imagine

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- .8 :
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Timothy, D.J., (1998), Cooperative Tourism Planning in Developing Destination, *Journal of Sustainable tourism*, Vol. 6 No.1: 52-68.

ERDAS Imagine V. 8.5  
Arc GIS V.9.2

## Management of Environmental Degradation of the Coast of Jeddah Using Remote Sensing and Geographic Information Systems: A Proposed Strategy for Sustainable Tourism Development

*Amal Bint Yahia Omar Al-Sheikh\**

### ABSTRACT

This study addressed the problem of environmental degradation of the coast of Jeddah, which is of importance because it sheds light on the impact of human factors and their role in creating environmental problems of the maritime coast of Jeddah. It also highlights the problem of land use planning, the depletion of natural resources of the marine environment, and decreasing space recreation on the coast line in order to use the most appropriate sustainable tourism development, with urban development and population growth steady for the city.

Besides, the study proposed strategies to protect and develop the natural resources of the marine environment, in the light of the urban expansion and development projects in tourism of the province through using the latest modern technology of remote sensing and GIS Remote Sensing and Geographic Information Systems.

The study used satellite images of the area in the period from 1986-2003 in addition to any older photos and the most recent Landsat.

The study also addresses the raw data of the image space by a program ERDAS Imagine V.8.5, which was importing the data by function Import / Export, which also were collected spectral bands of images, using the form "Layerstack Conditional". The study area was identified on satellite images using the AOI and then explore the change in the line of the coast.

**Keywords:** Environmental Designation, Remote Sensings and Geogrphaic Information Systems.

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\* Faculty of Arts and Humanities, University of King Abed Al-Aziz, KSA.

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