CONTRIBUTION OF REMOTE SENSING FOR NATURAL HAZARDS ASSESSMENT IN IRAN

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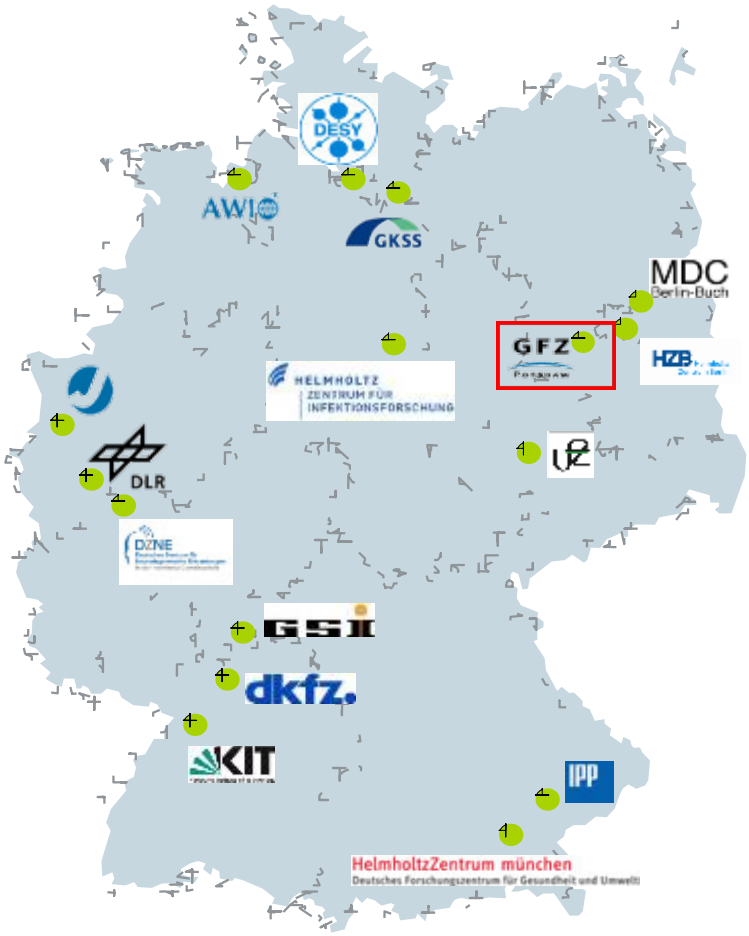

Objectives:

- Society and Policy Advice
- Industrial Application
- Science and Capacity Building

- >16 National Research Centres
- >30.000 Employees
- 70% Government funding
- 30% Third party funding

Albert Einstein Science Park at Telegrafenberg

Einstein Tower –
Historical observatory

Hosts **German Research Centre for Geosciences (GFZ)**, Astrophysical Institute Potsdam (API)
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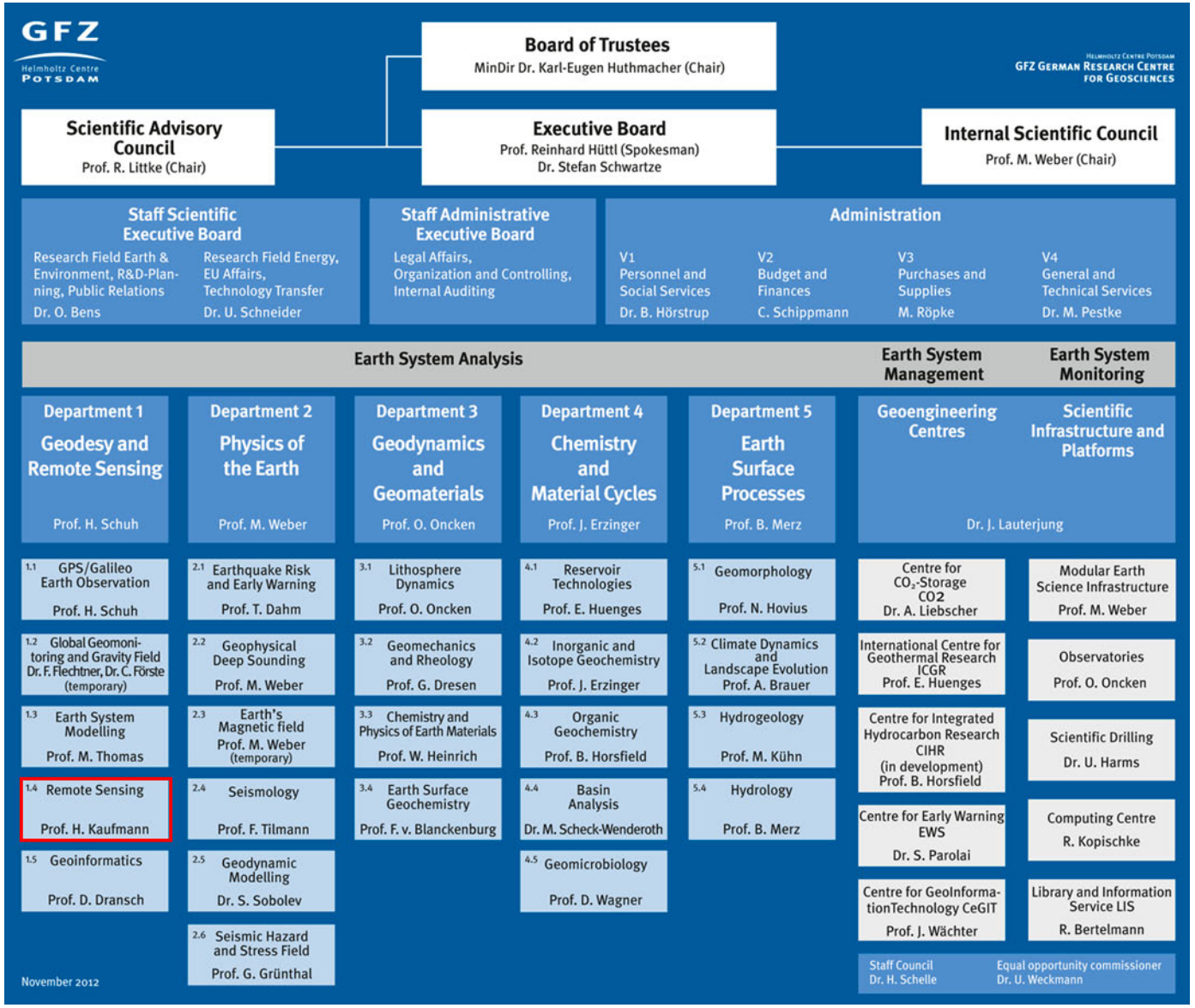
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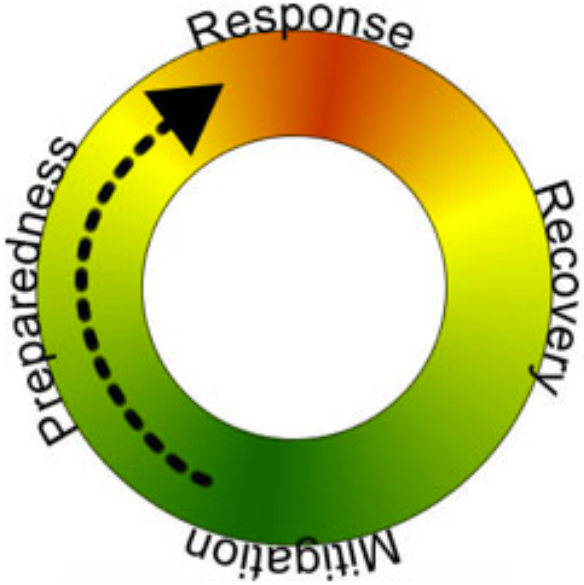
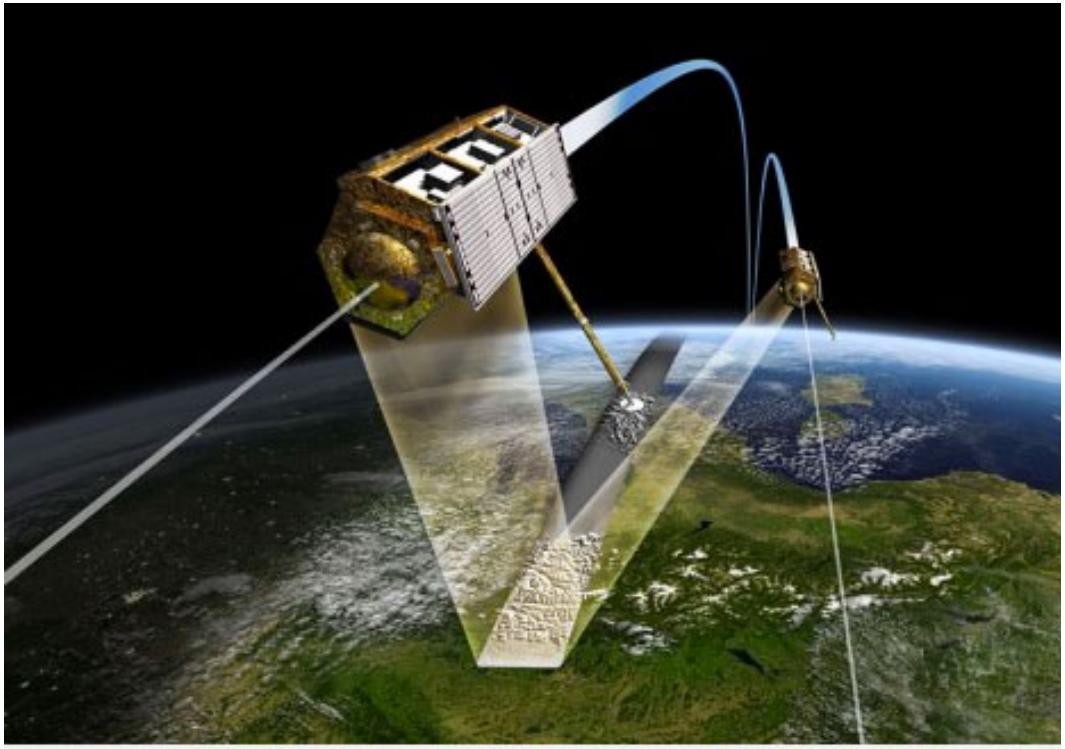
November 2012

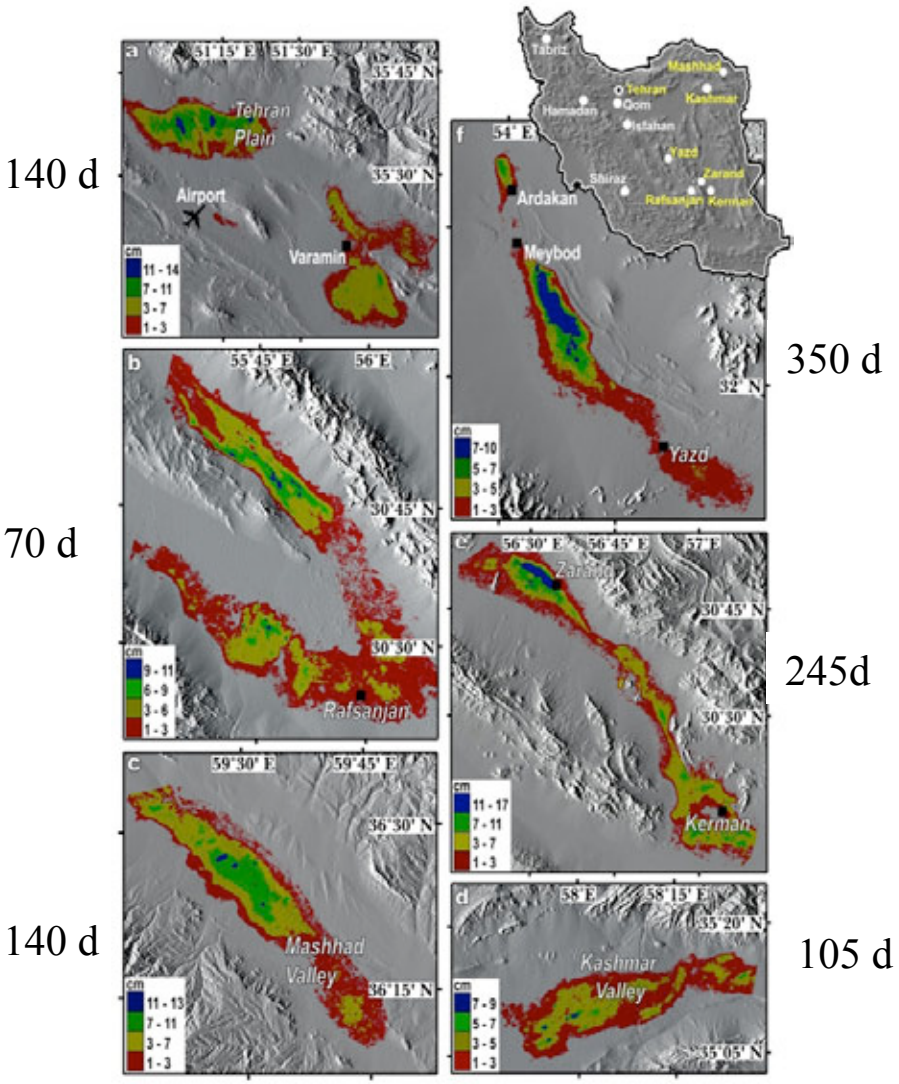
REMOTE SENSING AND NATURAL DISASTERS

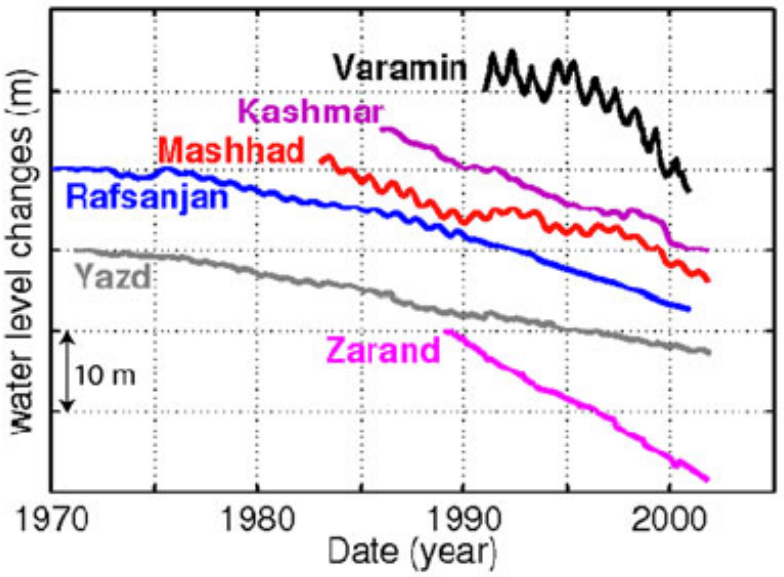
Disaster cycle





SUBSIDENCE HAZARDS IN IRAN

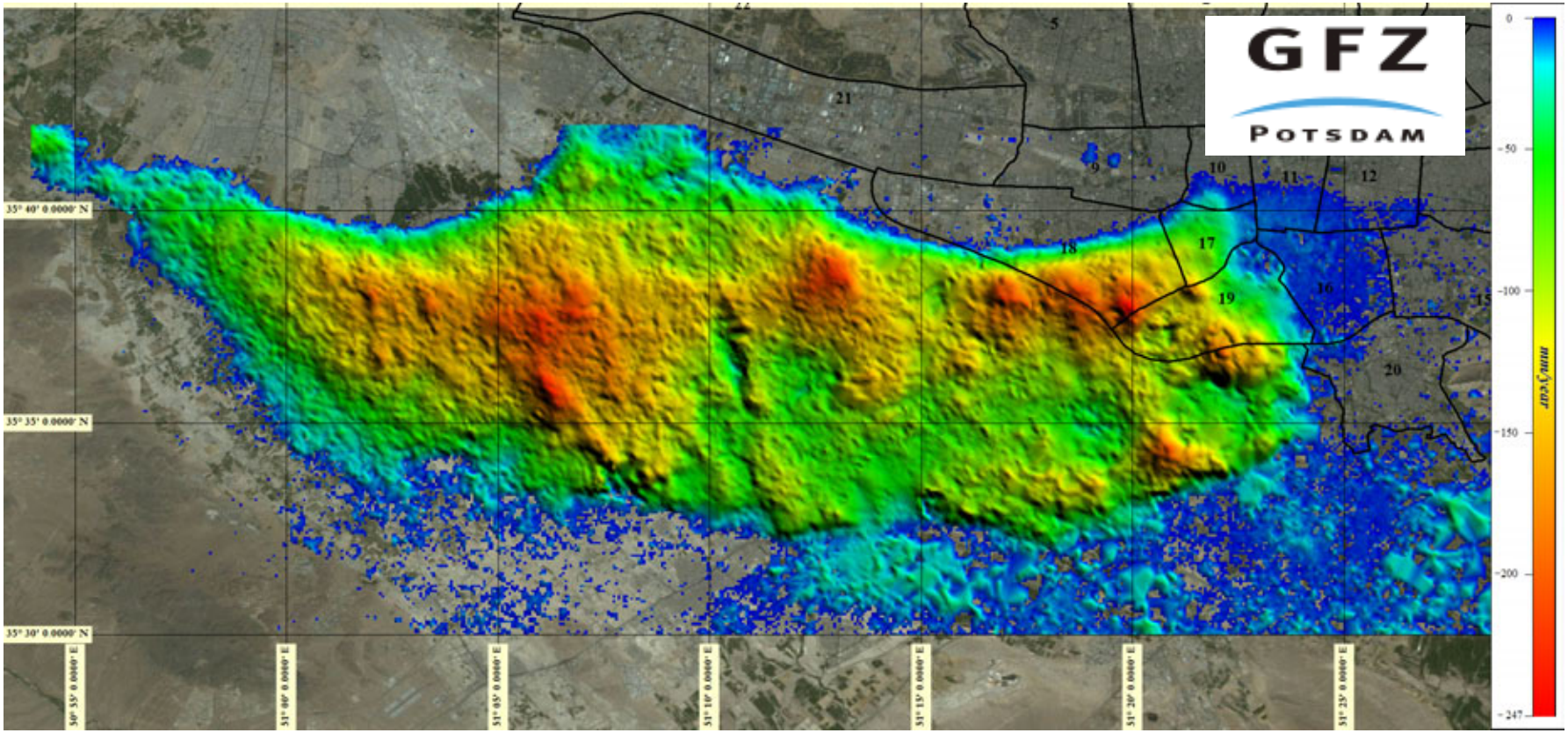




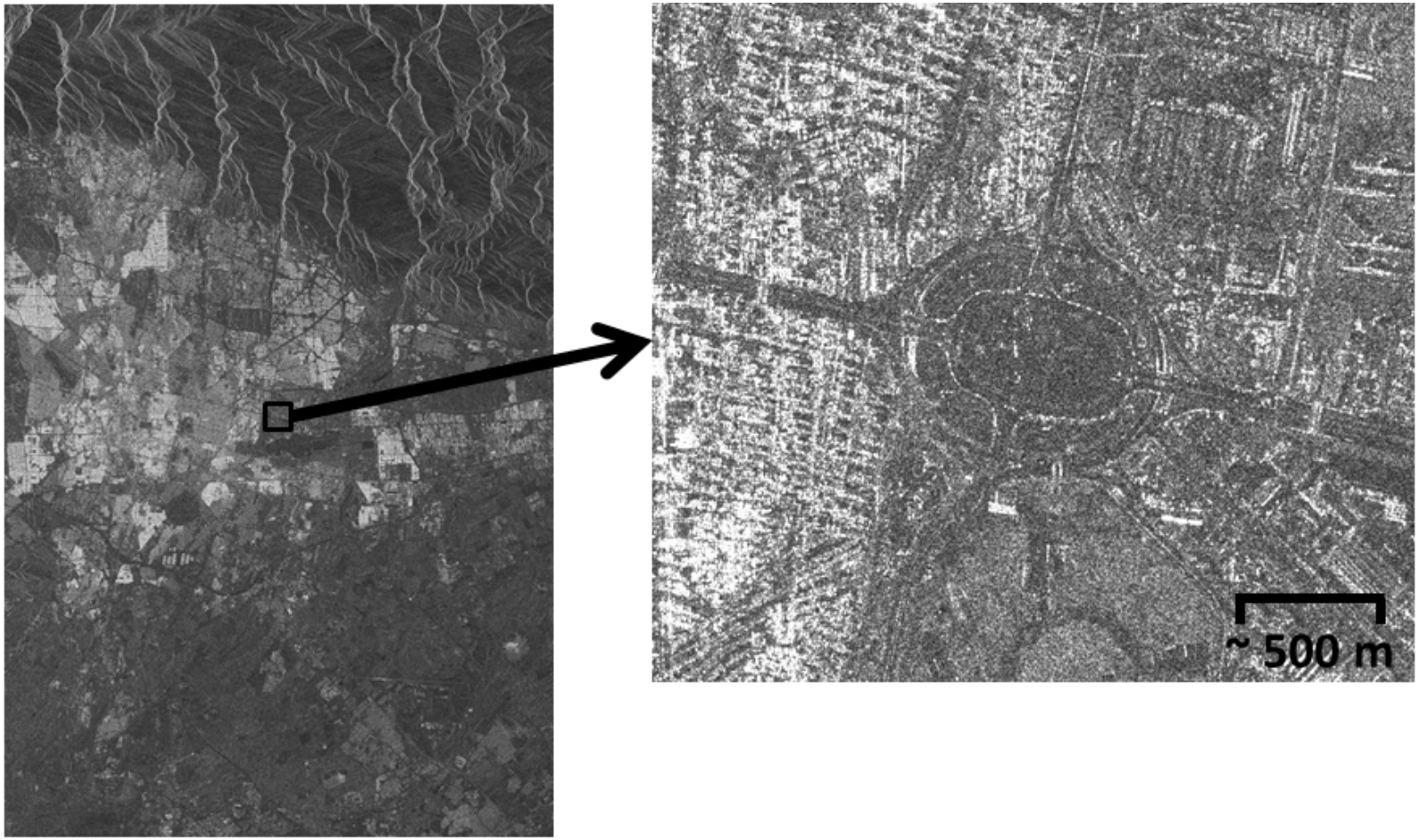
Motagh, et al., GRL, 2008

Editorial highlight

SUBSIDENCE HAZARDS IN TEHRAN



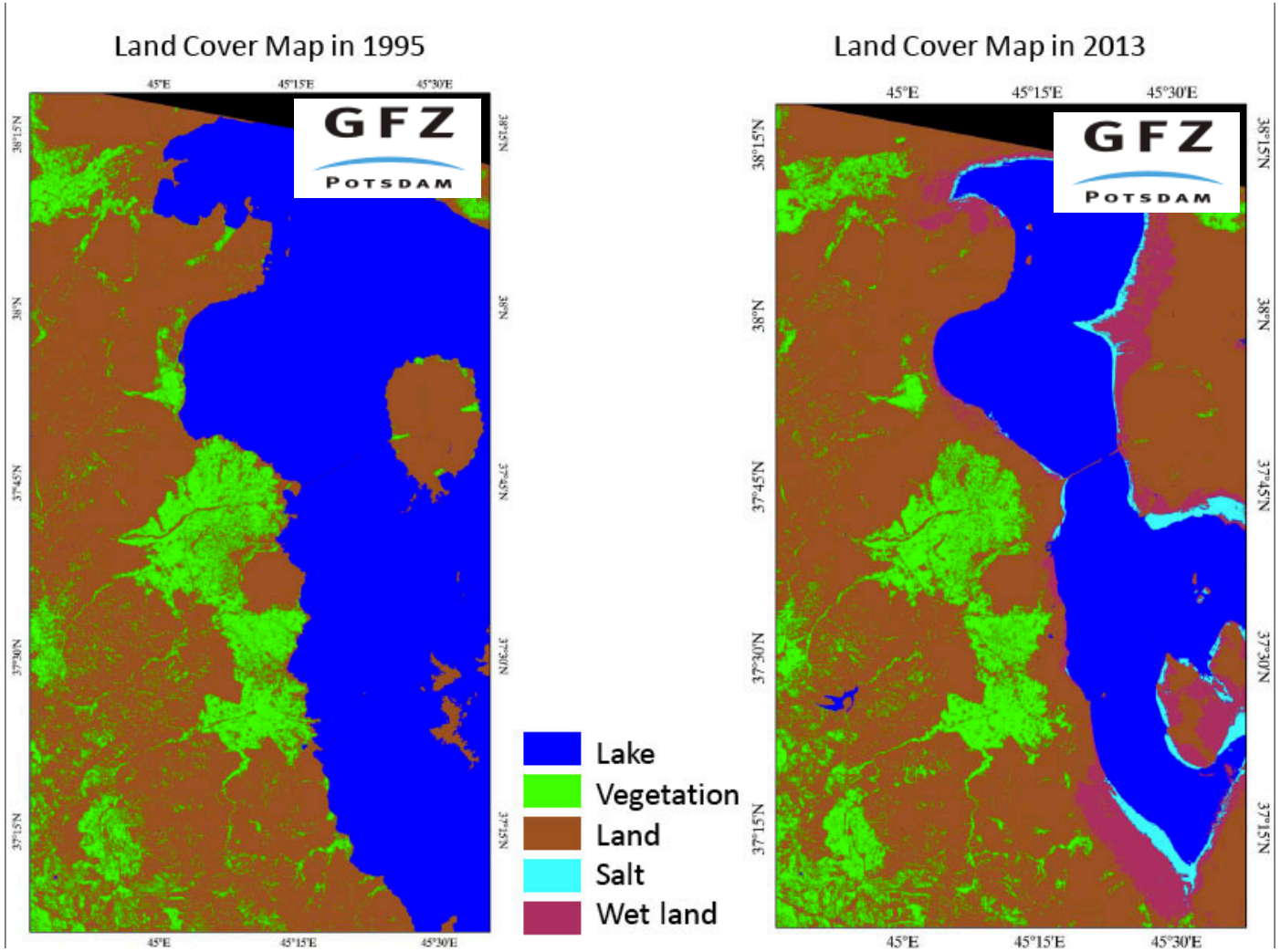
X-BAND RADAR IMAGE OVER TEHRAN

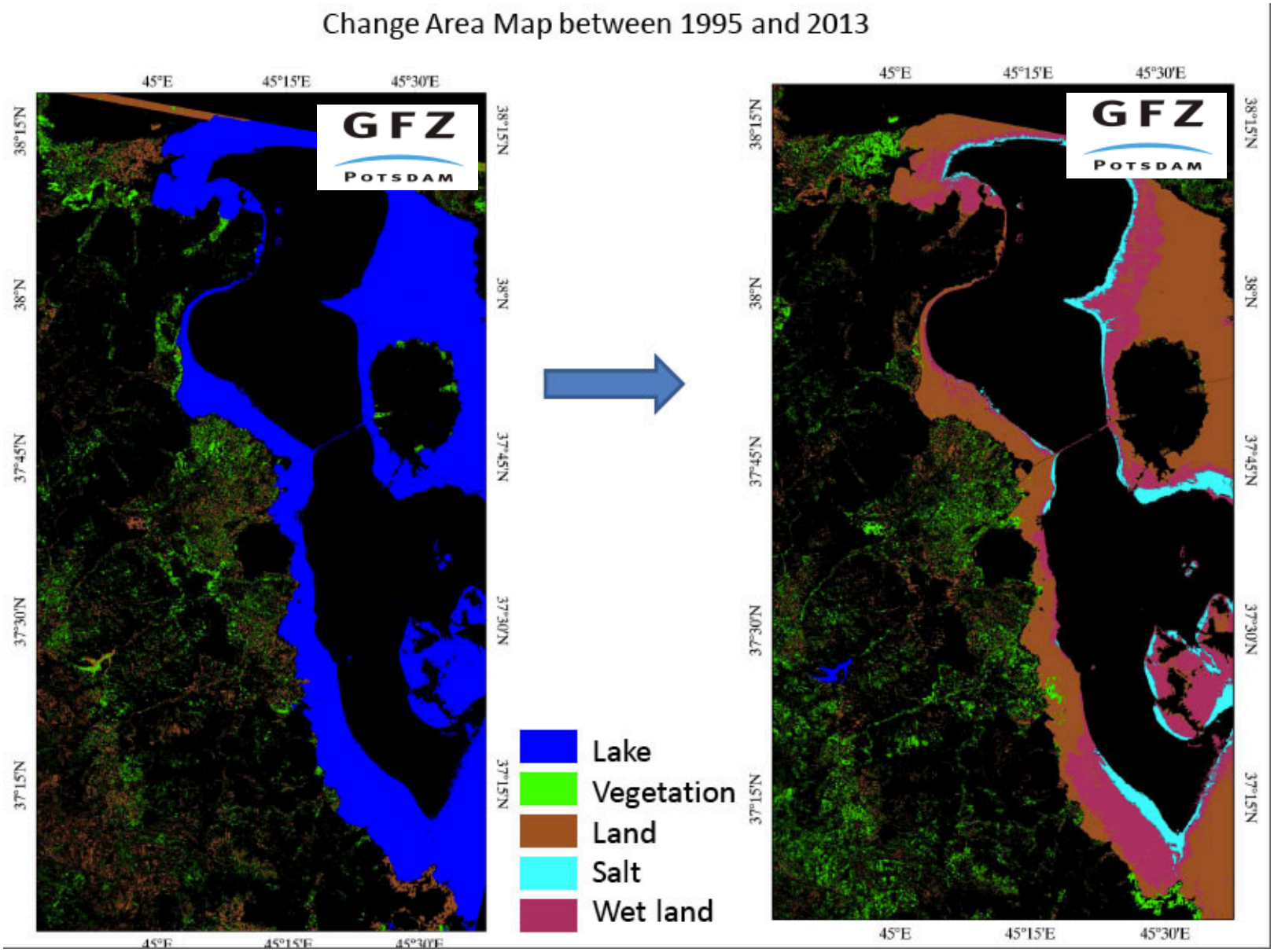


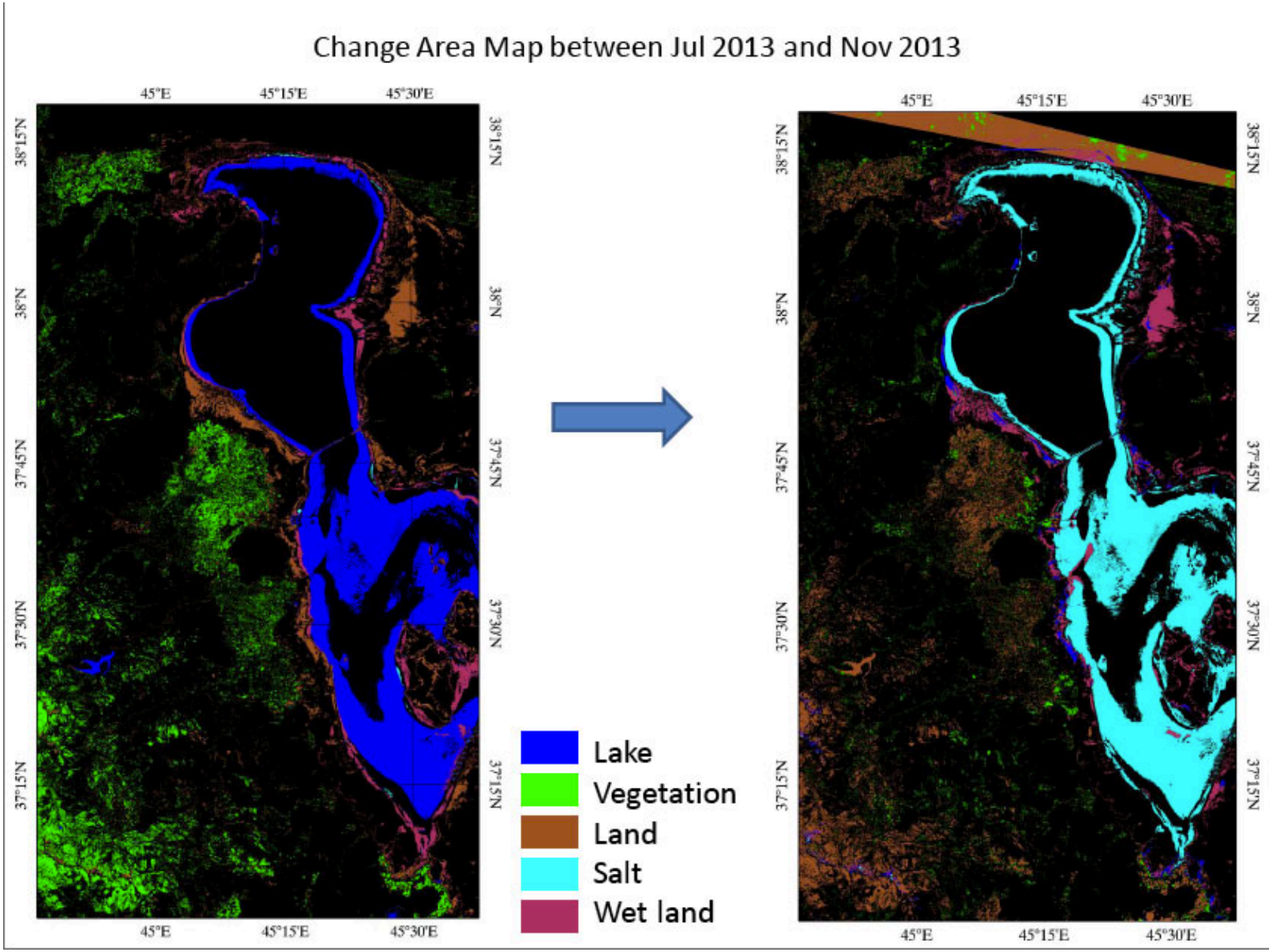
LAKE URMIA, NORTHWEST IRAN

Lake Urmia is one of the world's largest salt lakes, but it is shrinking in recent years

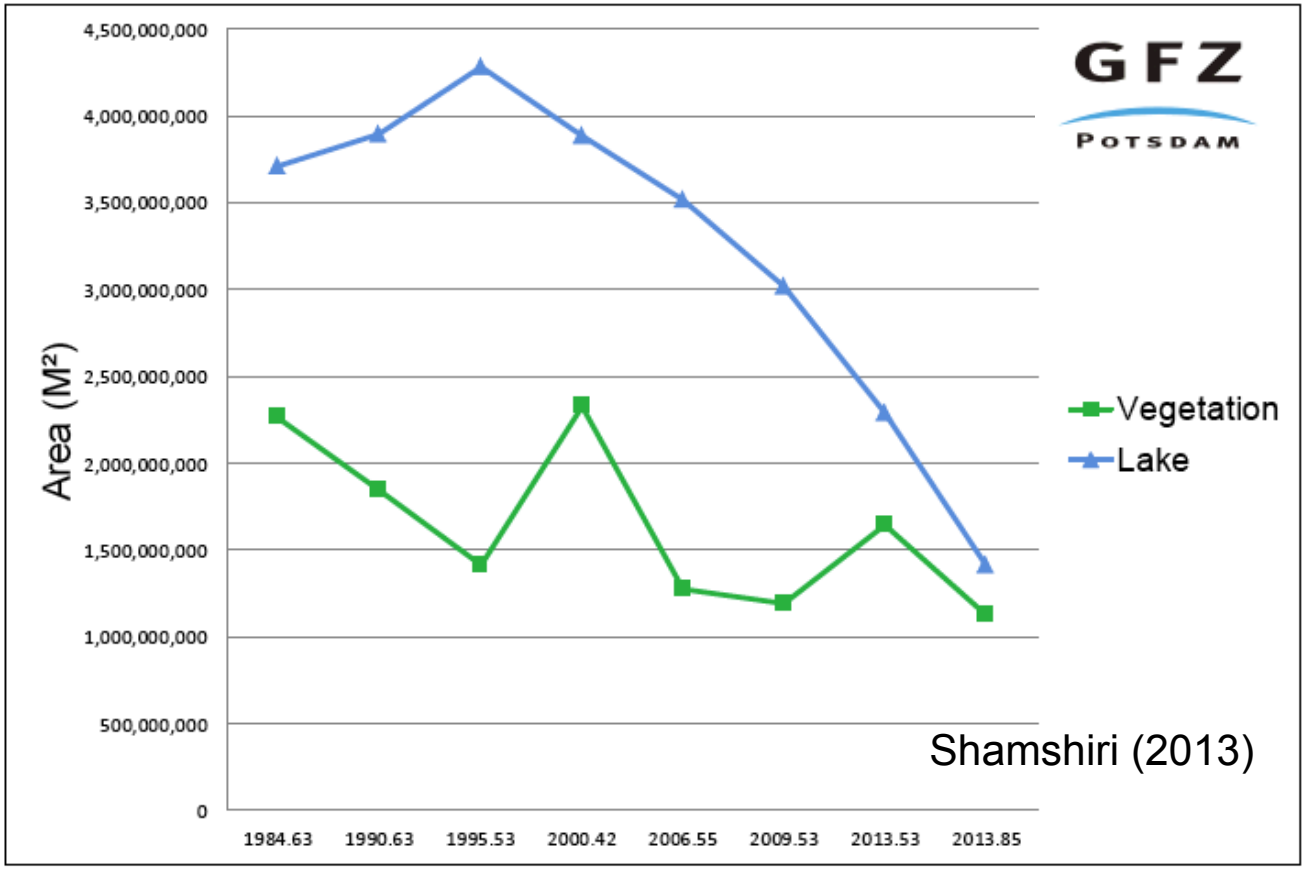
OBSERVATIONS OF LAKE URMIA DYING FROM REMOTE SENSING



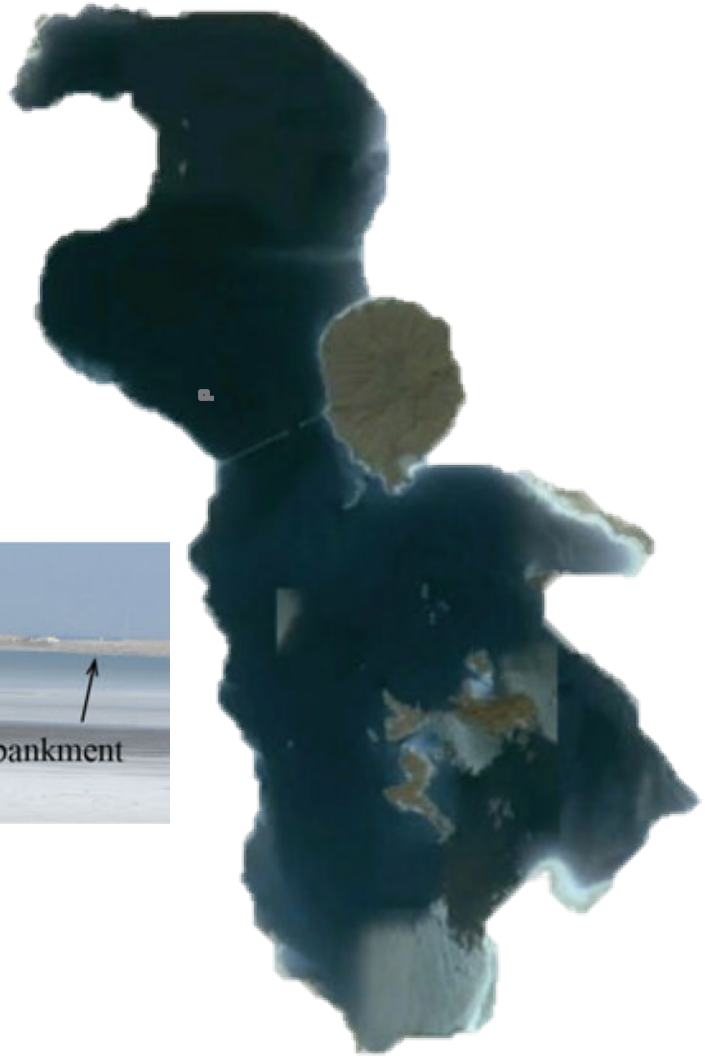

Change Area Map between 1995 and 2013
45°E
45°15'E
45°30'E
38°15'N
38°N
37°45'N
37°30'N
37°15'N
GFZ
POTSDAM
Lake
Vegetation
Land
Salt
Wet land


Change Area Map between Jul 2013 and Nov 2013
45°E
45°15'E
45°30'E
38°15'N
38°N
37°45'N
37°30'N
37°15'N
Lake
Vegetation
Land
Salt
Wet land

Lake and Vegetation Area (1984–2013)

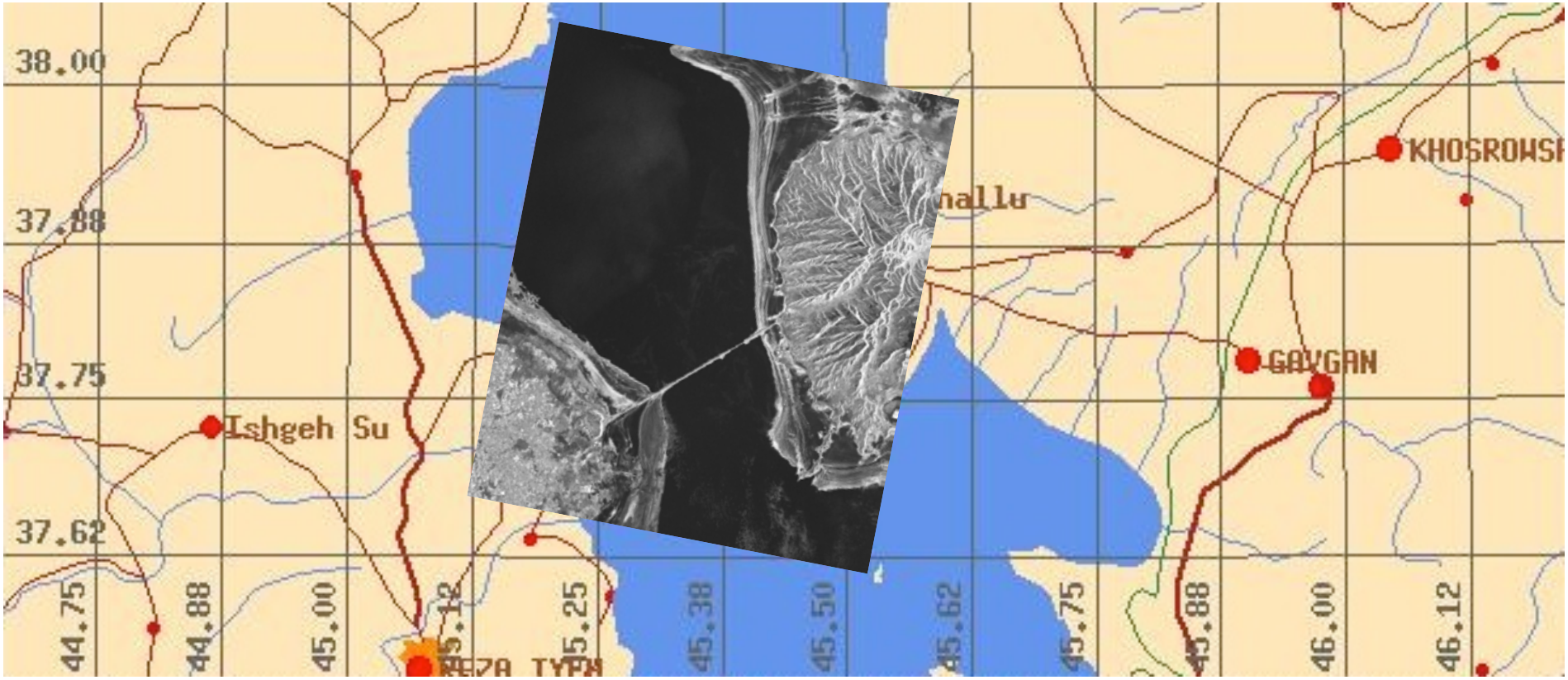


LAKE URMIA CAUSWAY

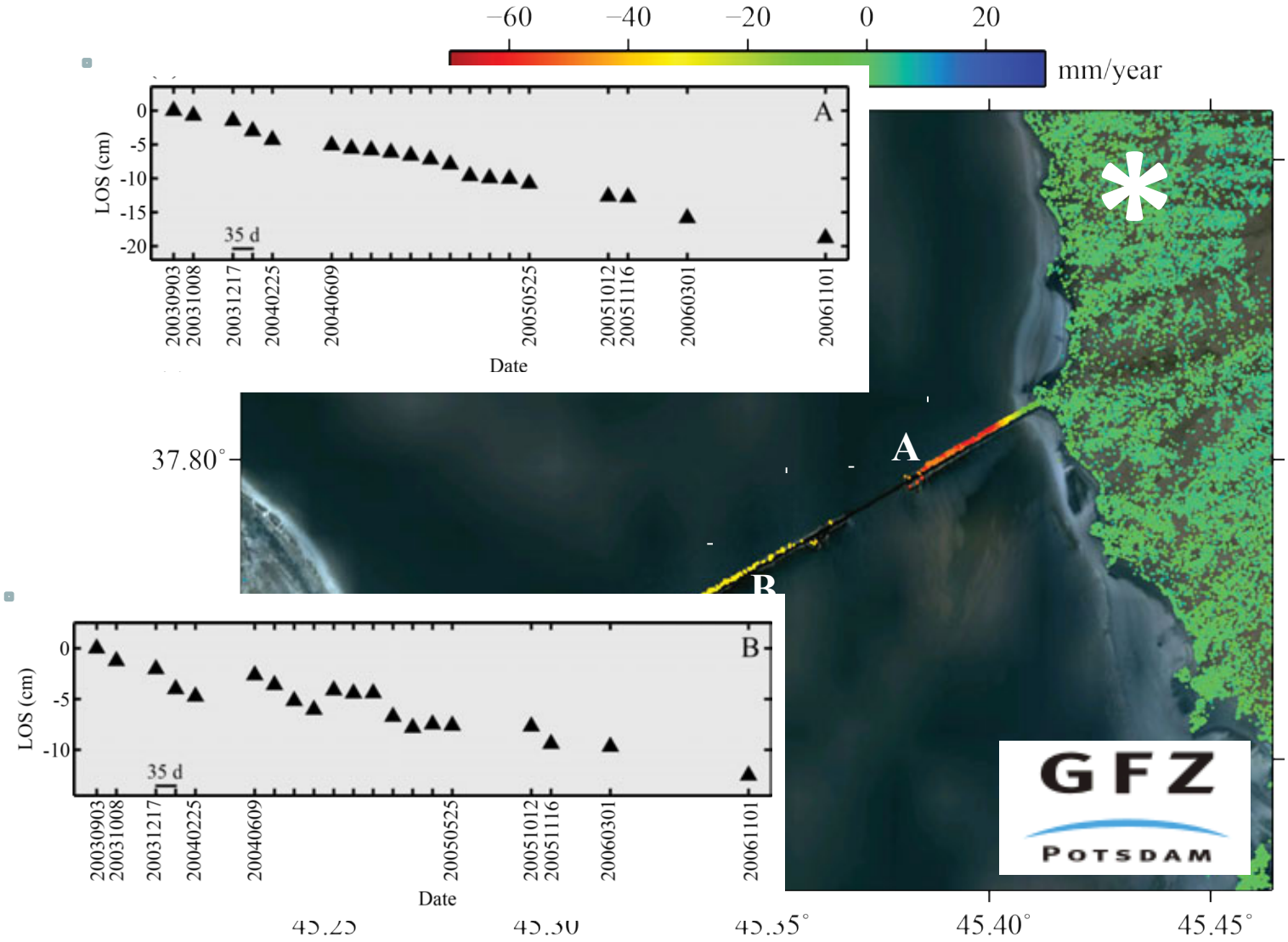


Embankments: 1979-1995
Bridge: 2002-2009

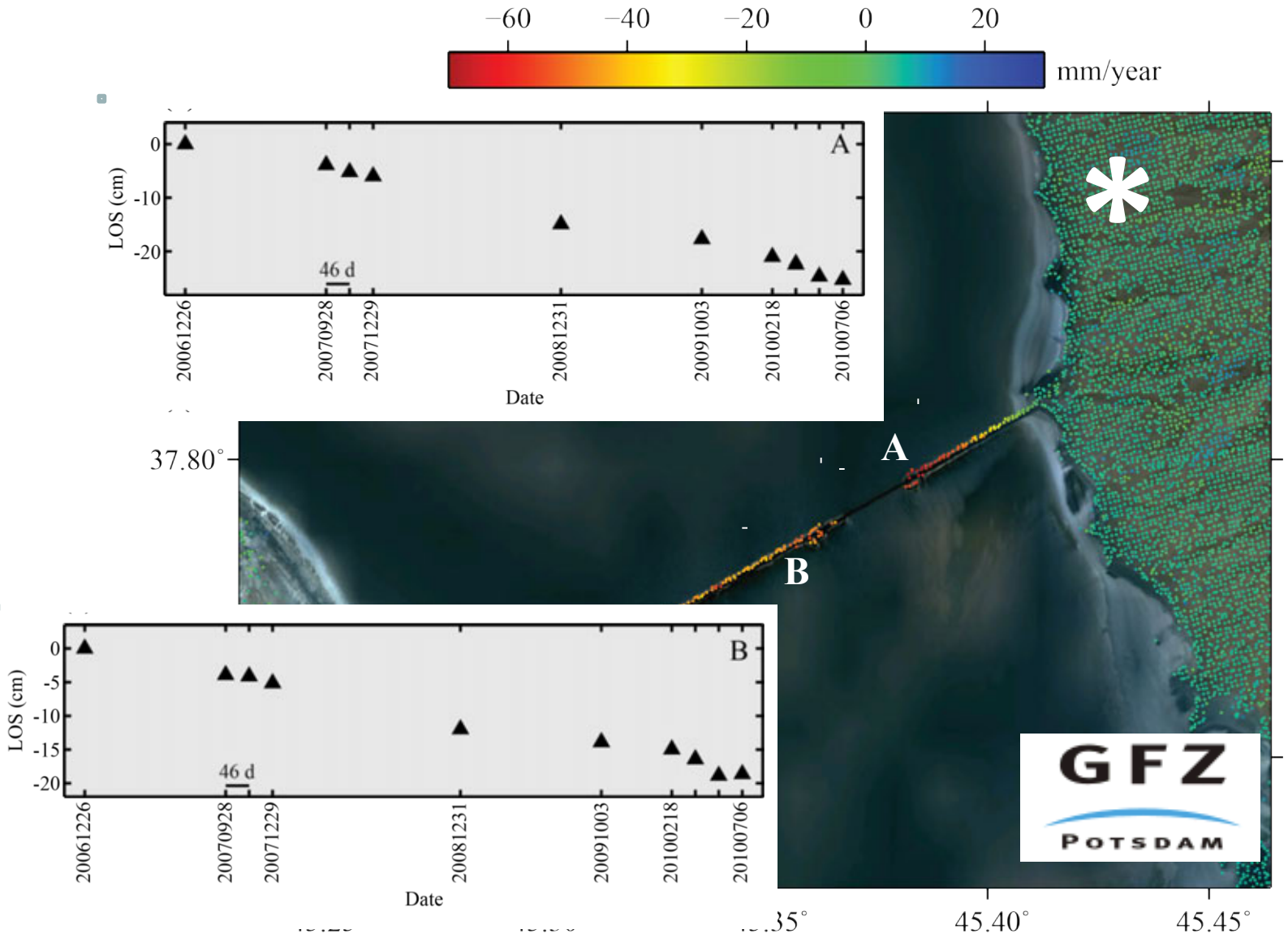
AN EXAMPLE OF A RADAR IMAGE OVER THE LUC



ENVISAT (2003-2007)



ALOS (2007-2010)



THANK YOU FOR YOUR ATTENTION!