

GEO Week 2017 **GEO-XIV** Plenary 23-27 October 2017, Washington D.C.



Monitoring Inland Water Quality based on Earth Observation Data towards reporting of the SDG Indicator **6.3.2 Ambient Water Quality**

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MONITORING INLAND WATER QUALITY IN THE BALKANS - A CASE STUDY

- ▶ Balkan inland water bodies -transboundary area [case study Lake Koronia]
- Move from a data centric approach to a user-driven GEOSS in Balkans
- Complement existing national and transnational strategies, leverage previous investments in EO [i-BEC's telemetry network, sampling campaigns, Greek GEOSS] and reduce fragmentation within the Balkans
- Well reported gaps and great level of fragmentation in in-situ infrastructure





Chl-α

RESULTS

Time-series of chl-α in lake Koronia [Oct 2015 – August 2016] showcasing the development of an algal bloom; result obtained from DataCube

Date	DO	рН	EC [µS/cm]	Temperature [°C]	chl-α
10/04/2015	7.54	8.3	2053.6	20.3	440,711
10/13/2015	6.44	8.3	2248	19.5	324,890
12/23/2015	6.3	8.3	3349.6	6.7	175,378
01/08/2016	7.37	8.3	3378.8	6.3	401,866
01/24/2016	8.69	8.4	3383.6	3.6	206,539
02/02/2016	7.41	8.2	3355.3	7.1	224,979
03/28/2016	8.751	8.8	3158.5	12.4	244,421
04/2Telemetry data can be used to backtrack in 496					

time and view the recorded values from the sensors for a given time period



SUSTAINABLE INTEGRATED SERVICES **IN SUPPORT OF WATER QUALITY**

MONITORING AND SDGs IN THE BALKAN PENINSULA

Importance of checking and validating satellite data

- ▶ L2 corrections didn't always provide robust results
- Local calibrations using in-situ data considered essential ►
- Where infrastructure is lacking, INNOVATE! ►

information

Better access to and processing of relevant EO data in the region

▶ GEO Data Manager Internet Map Server [on-line platform] acting as a user friendly site for EO

ماإله

Easy deployable systems for precise and timely service generation



SUSTAINABLE INTEGRATED SERVICES IN SUPPORT OF WATER QUALITY MONITORING AND SDGs IN THE BALKANS

Leverage the **on-going projects** and build further synergies with **Regional & Global Initiatives**



Best practices on SDG monitoring – be part of River Basin Management Plans

Establish a regional network towards a regional implementation of GEO vision in the area through the establishment of a **GEOBALKAN Initiative**

Explore the potential of **new GEO members** [Albania and FYROM GEO offices]





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