Africa to Asia: Testing Adaptation in Flood Based Resource Management Project

Remote Sensing for Flood-Based Livelihood Systems (FBLS)

Remote Sensing (satellite data) provides complementary information to Flood Based Livelihood System analyses.

Opportunities:

- Data provision for areas with limited data availability/accessibility
- Historical and near-real time data to observe trends over time
- Open-access data so low costs for users
- A wide variety of parameters can be analyzed (e.g. evapotranspiration, soil moisture, biomass, groundwater)

Contributes to:

- Improving equal water distribution
- Early-warning of drought years
- Improving water productivity
- Increasing biomass production
- Monitoring success of interventions

Examples of tools: WaPOR · Google Earth Engine · QGIS

Examples of analyses of Wadi Mawr, Yemen:

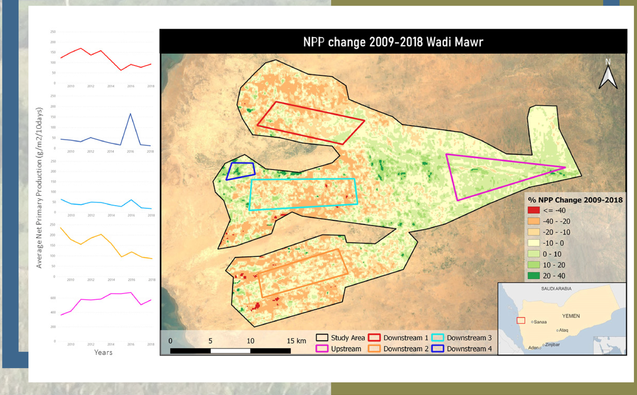

Figure 1 This map and the corresponding graphs of the different areas, show the change in Net Primary Production (NPP) in Wadi Mawr in Yemen between 2009 -2018. Upstream the NPP increases and downstream it mainly decreases. Additionally, some dark green patches show an NPP increase of >20%, which generally represent an increase in natural vegetation rather than in agricultural production.

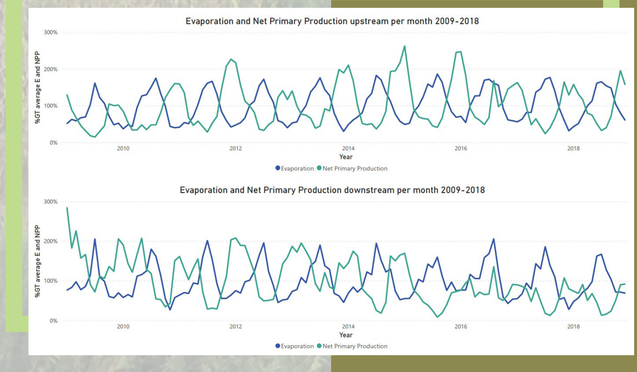

Figure 2 These graphs show the evaporation and net primary production (NPP) from 2009-2018 for an upstream and downstream area in Wadi Mawr, Yemen. There is a clear annual pattern of an evaporation peak followed by an NPP peak, which is typical for spate irrigation systems. In the NPP timeseries for the downstream area a general decreasing trend can be observed.

Join our efforts!

META · Flood-Based Livelihoods Network Foundation · IWMI International Water Management Institute · World Agroforestry Centre · IFAD · European Commission

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