Increasing land and water productivity at community-level using remote sensing

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Increase crop water productivity

Landsat Temperature

| 540000 | 550000 | 560000 |
|--|--------------|--------|
| Land Surface Temperature (January 8, 2011 292.1 - 293 285 - 286 293.1 - 294 286.1 - 287 294.1 - 295 287.1 - 288 295.1 - 296 288.1 - 289 296.1 - 297 289.1 - 290 297.1 - 298 290.1 - 291 298.1 - 299 291.1 - 292 299.1 - 300 | | |
| | Sidi Bennour | |
| | N O | |

Annual Net Groundwater Use Azraq





Annual biomass production Azraq (kg/ha)





Biomass water productivity Mafraq (kg/ha)





Develop smart APPs to guide farmers



Look at your crop before you act

www.fieldlook.com.et

www.fieldlook.ru

Conclusions

- SEBAL model computes 30 m x 30 m water productivity from remote sensing data
- Crop production information can be send to farmers on mobile phones; the production increases (Ethiopia)
- Irrigation information can also be send to farmers to reduce water applications
- Public Private Partnerships (PPP) should be established