Satellite Assisted Pastoral Resource Management (SAPARM)

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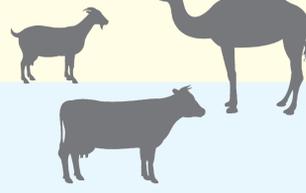
CHALLENGE

ETHIOPIA

6.6 million Pastoralists

37% herd mortality rate

$1,771 value of herd loss

38% loss of household income

TANZANIA
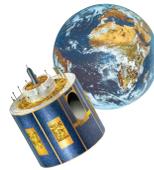
3-12 million Pastoralists

26% herd mortality rate

$2,885 value of herd loss

27% loss of household income

Baseline Report for SAPARM Project, Notre Dame Initiative for Global Development, 2016; Values in USD.

RESPONSE

PCI created SAPARM to provide semi-nomadic pastoralists with custom digitized maps of traditional grazing areas overlaid with current, satellite-derived vegetation information in order to improve migration decision-making.

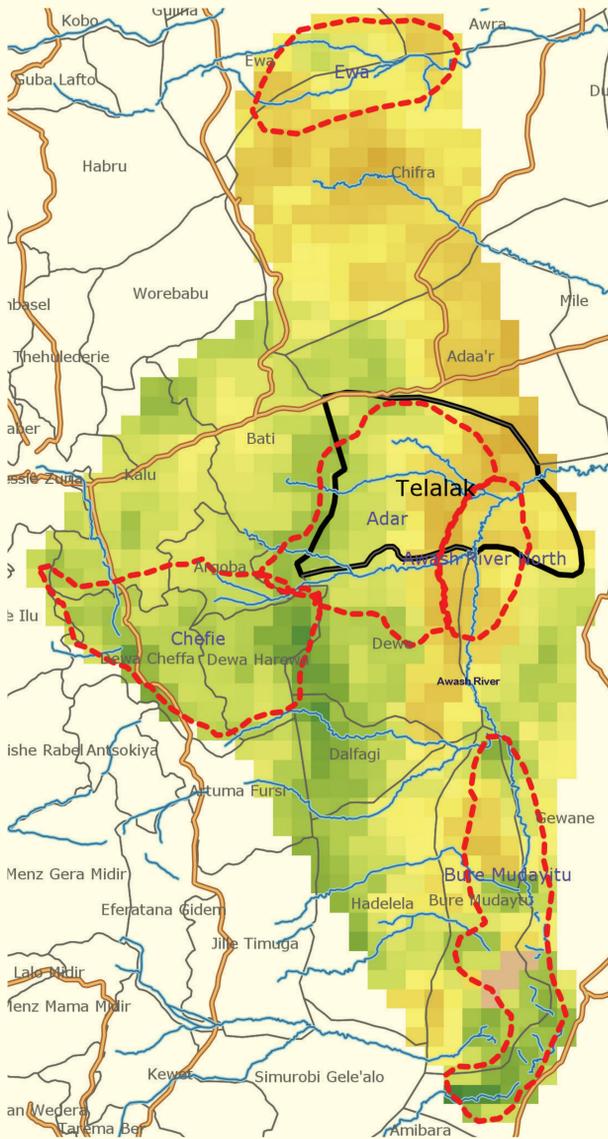NDVI (Normalized Difference Vegetation Index) from METEOSAT 10

Automatically updated and distributed in paper and digital form every 10 days
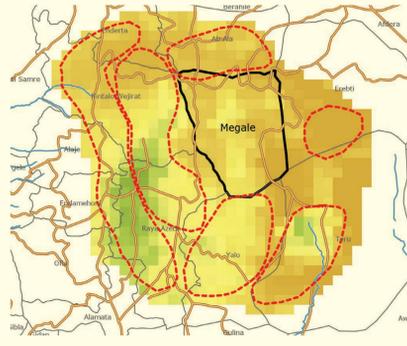
FEATURED COMMUNITY

TELALAK April 30, 2016

Location: Telalak Woreda, Afar Region, Ethiopia
Traditional Grazing Areas: Five
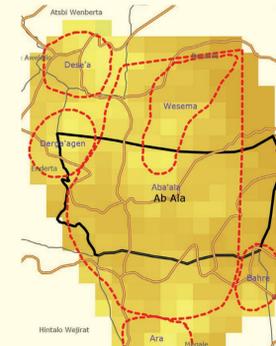Coverage of Traditional Grazing Areas: 4,747 km²

OTHER COMMUNITIES

MEGALE April 30, 2016

Traditional Grazing Areas: 6,230 km²

AB ALA April 30, 2016

Traditional Grazing Areas: 3,148 km²

Ab Ala
Megale
Telalak

ETHIOPIA

LEGEND

NDVI Data
1 pixel = 10 km²

Bad   Average   Good

Roads
Districts
Traditional Grazing Areas
Rivers

27 Communities
Currently Mapped

OTHER COMMUNITIES

LONGIDO April 30, 2016

Traditional Grazing Areas: 7,443 km²

NGORONGORO April 30, 2016

Traditional Grazing Areas: 12,813 km²

Ngorongoro
Longido

TANZANIA

RESULTS

78% used maps for migration decision-making

52% considered maps their most important source

48% decline in herd mortality

47.6:1 benefit-cost ratio

"We pastoralists in Afar are affected by consecutive drought and getting pasture and water is the biggest problem we have. Using SAPARM maps helps us to identify the places where we can get better pasture. We save time and energy finding the right places to go for better pasture. So the maps provide us very good information that we didn't have before. I thank PCI for this."

– HASEN HAMAD, PASTORALIST, TELALAK

Results based on 2013/14 proof of concept evaluation.

PCI   USAID FROM THE AMERICAN PEOPLE   HSS   WFP United Nations World Food Programme   Google.org