



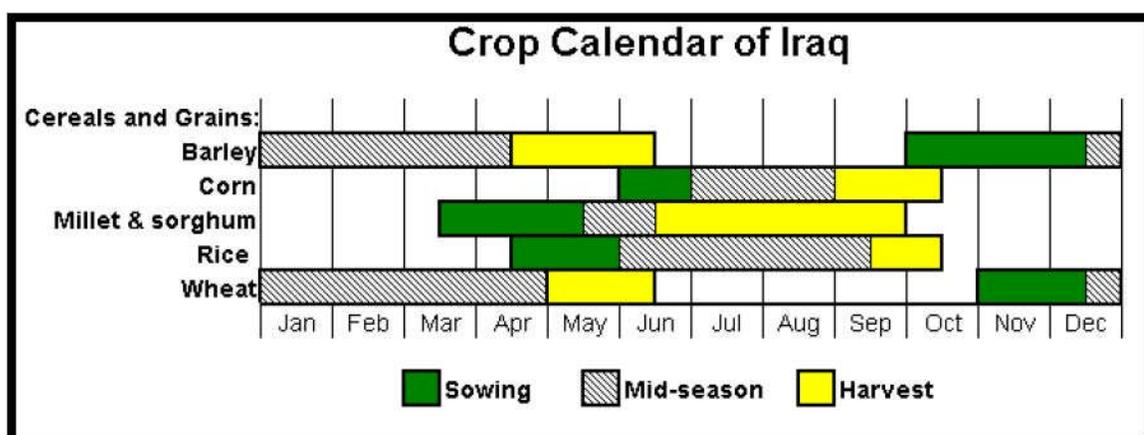
January Report – Week 3

January 25th, 2008

1. Winter grains (wheat & barley) production outlook in the northern rainfed governorates is better than the previous year, with the exception of Ninawa and At Ta'min. Precipitation for the past month has been limited with season-to-date cumulative precipitation at < 70% of normal at best (Figure 1). Cumulative precipitation for the month of January is < 25% of normal at best (Figure 2). Normal temperatures will keep evapotranspiration at a minimum, but significant precipitation is required to increase soil moisture levels and maintain an improved crop prospect status. However, the 7-day outlook calls for the continuation of dry conditions.

2. The Normalized Difference Vegetation Index (NDVI) is a remotely sensed metric that is positively correlated with crop abundance, vigor, and yield. NDVI time series derived from the MODIS satellite provides a seasonal comparison of crop abundance at a regional level, whereas the moderate resolution AWiFS sensor identifies provincial level change from the previous season. MODIS NDVI for Arbil and Dahuk is higher than the previous year, but still remains below the 5-year average (Figures 3 & 4), while NDVI for Salah ad Din and As Sulaymaniyah is well above normal and currently implies good crop prospects for MY 2009/10 (Figures 5 & 6). In contrast, NDVI for Ninawa and At Ta'min remains similar to the previous year and well below normal (Figures 7 & 8). Currently acquired high resolution imagery over Ninawa shows slightly denser field crops in close proximity to towns, but the major production fields show little change from the previous year (Figure 9).

3. MODIS NDVI change detection map shows significantly higher NDVI than the previous season in Salah ad Din and As Sulaymaniyah. Most provinces remain the same with slight decreases in the central portion of At Ta'min (Figure 10). Moderate resolution AWiFS yielded similar results (Figure 11). The irrigated provinces south of Baghdad are also showing a decline that may be contributed to lower than normal water levels.



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Cropland Season-to-Date Precipitation: October 1st to January 20th (MY 2009/10)

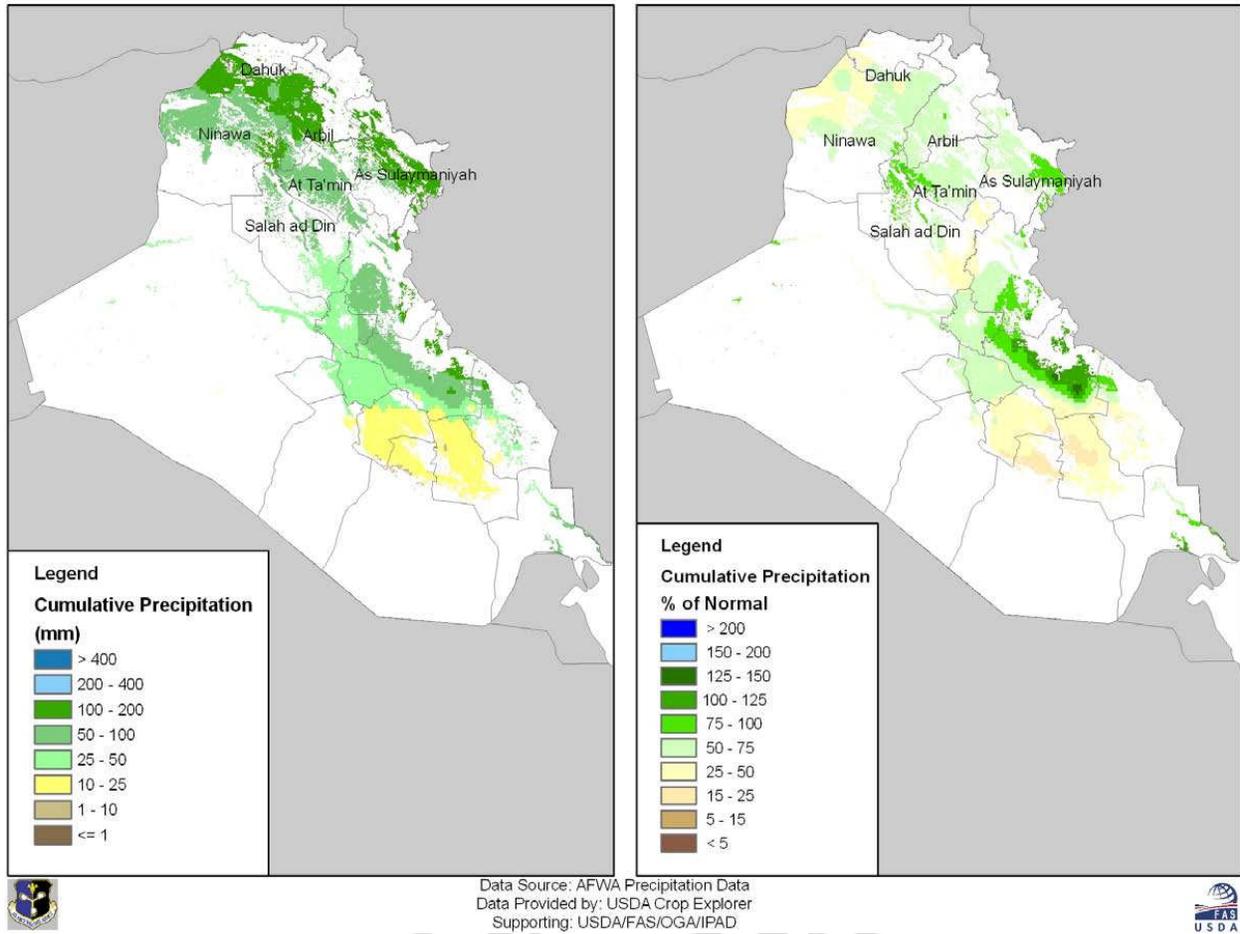


Figure 1: Season-to-date cumulative precipitation and % of normal cumulative precipitation: MY 2009/10.

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Cropland Dekadal Precipitation: January 1st to January 20th
 (MY 2009/10)

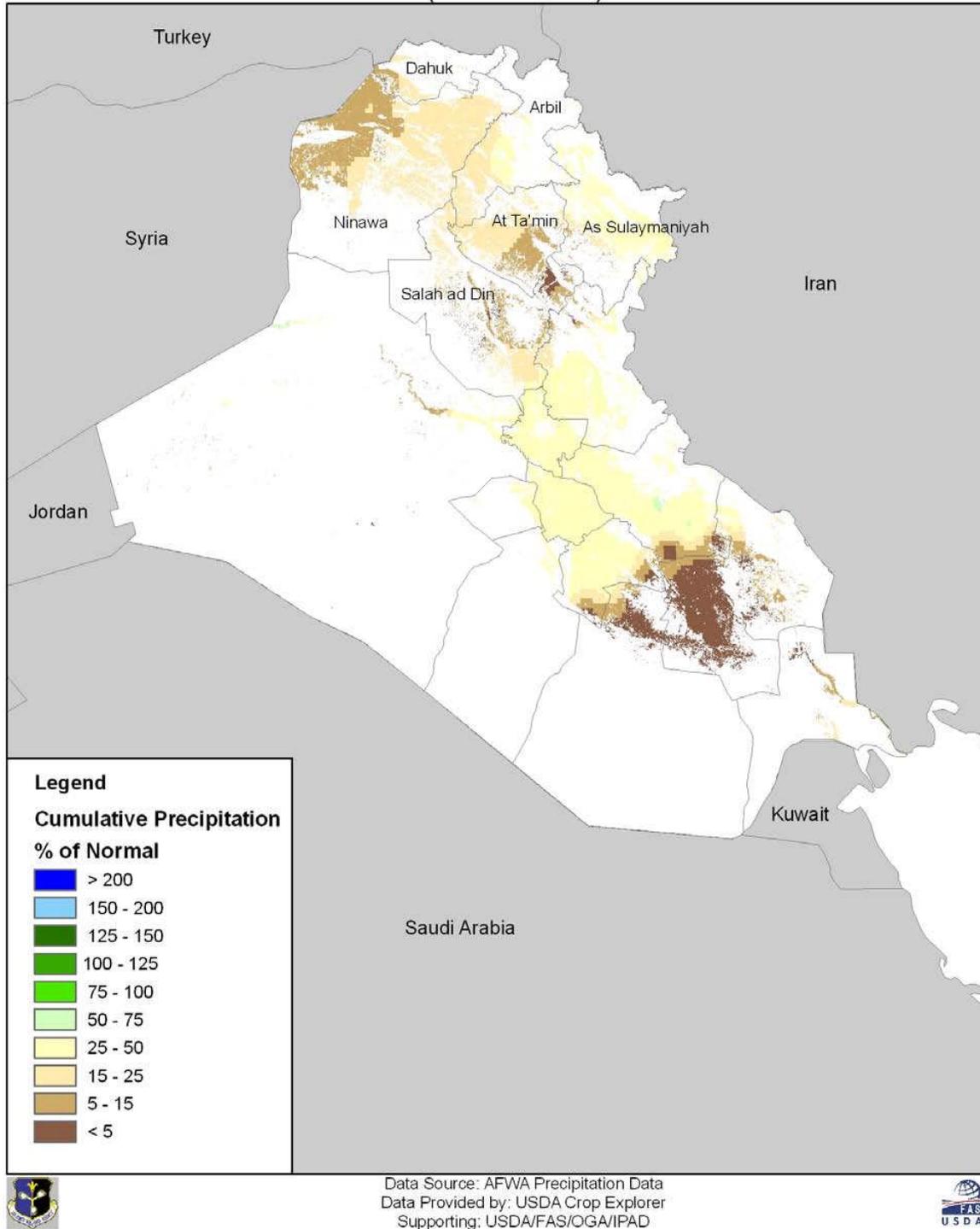


Figure 2: Current decadal cumulative precipitation and % of normal precipitation: MY 2009/10.

Arbil Cropland NDVI

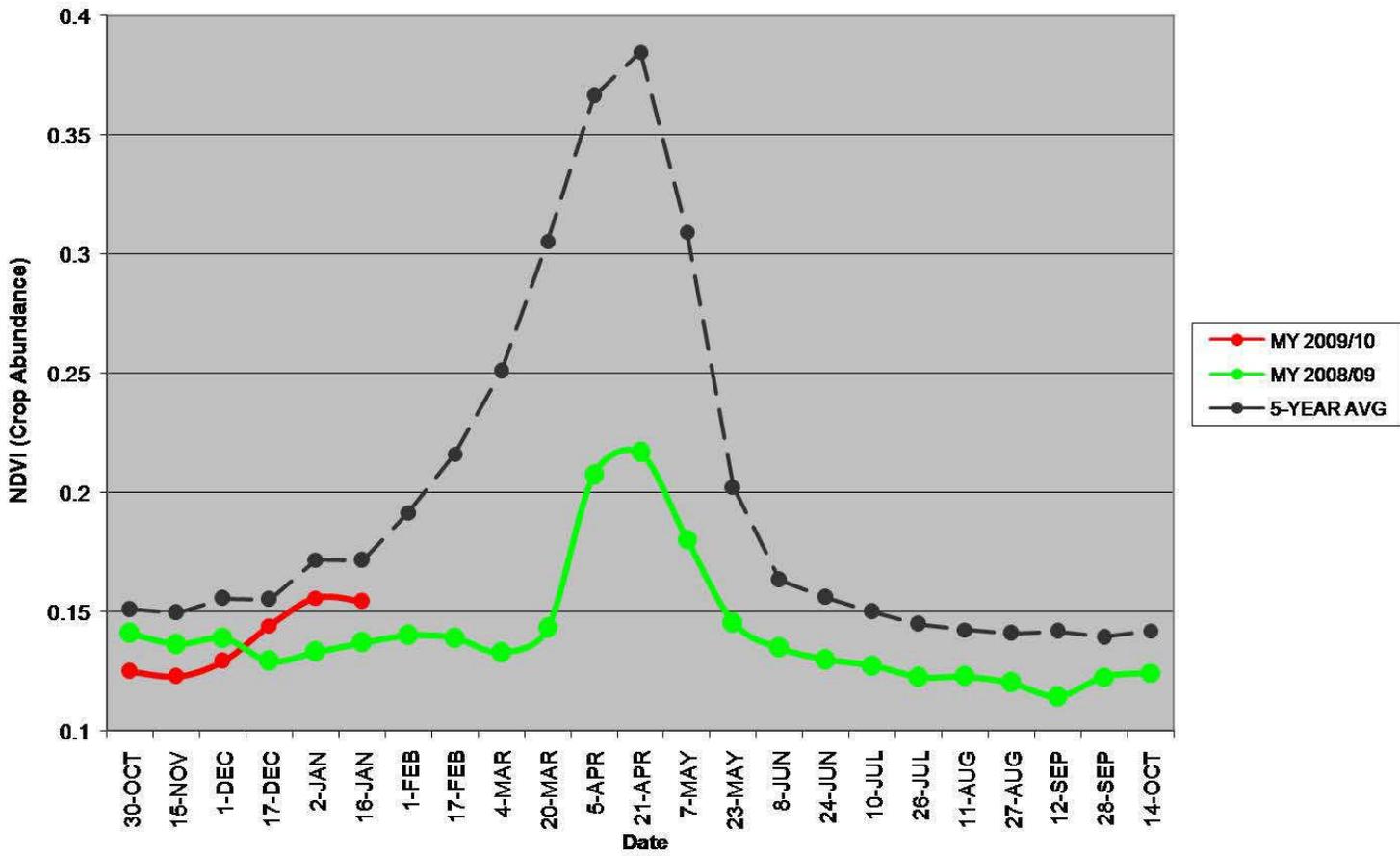


Figure 3: MODIS NDVI time series chart for Arbil cropland areas (January 16th).

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Dahuk Cropland NDVI

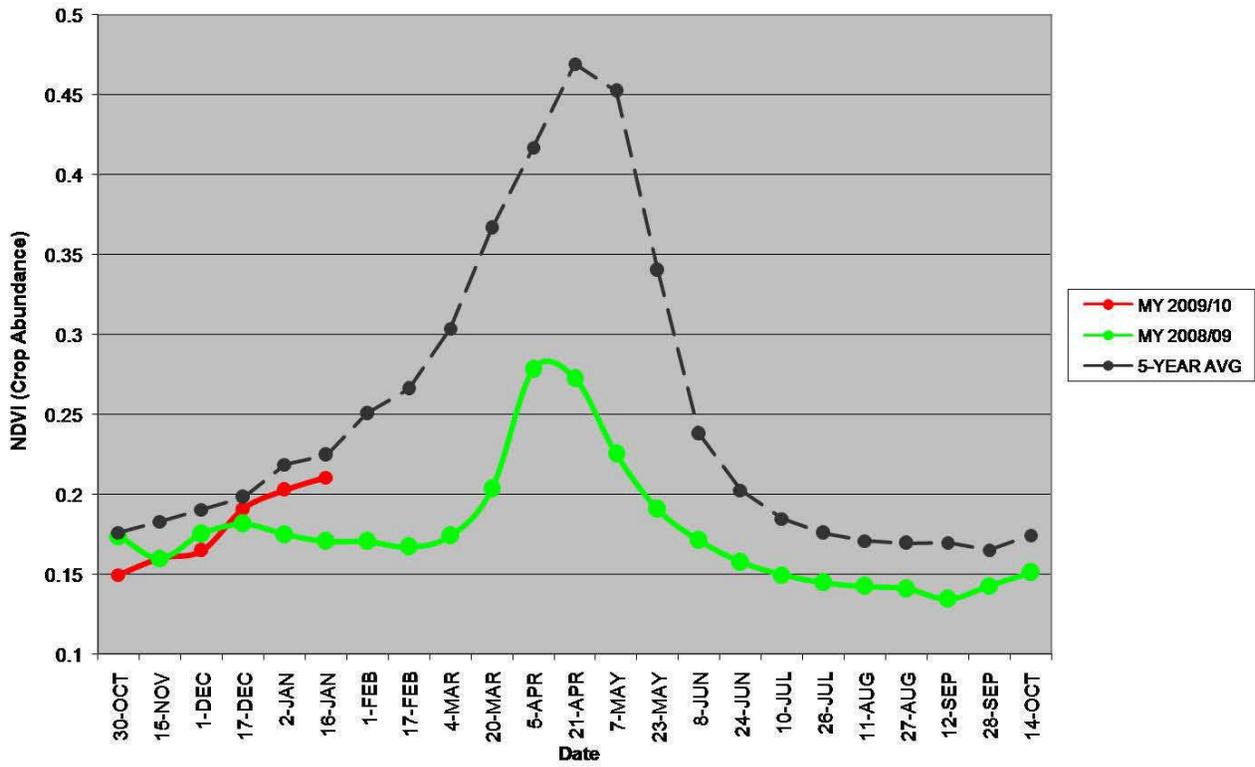


Figure 4: MODIS NDVI time series chart for Dahuk cropland areas (January 16th).

Salah ad Din Cropland NDVI

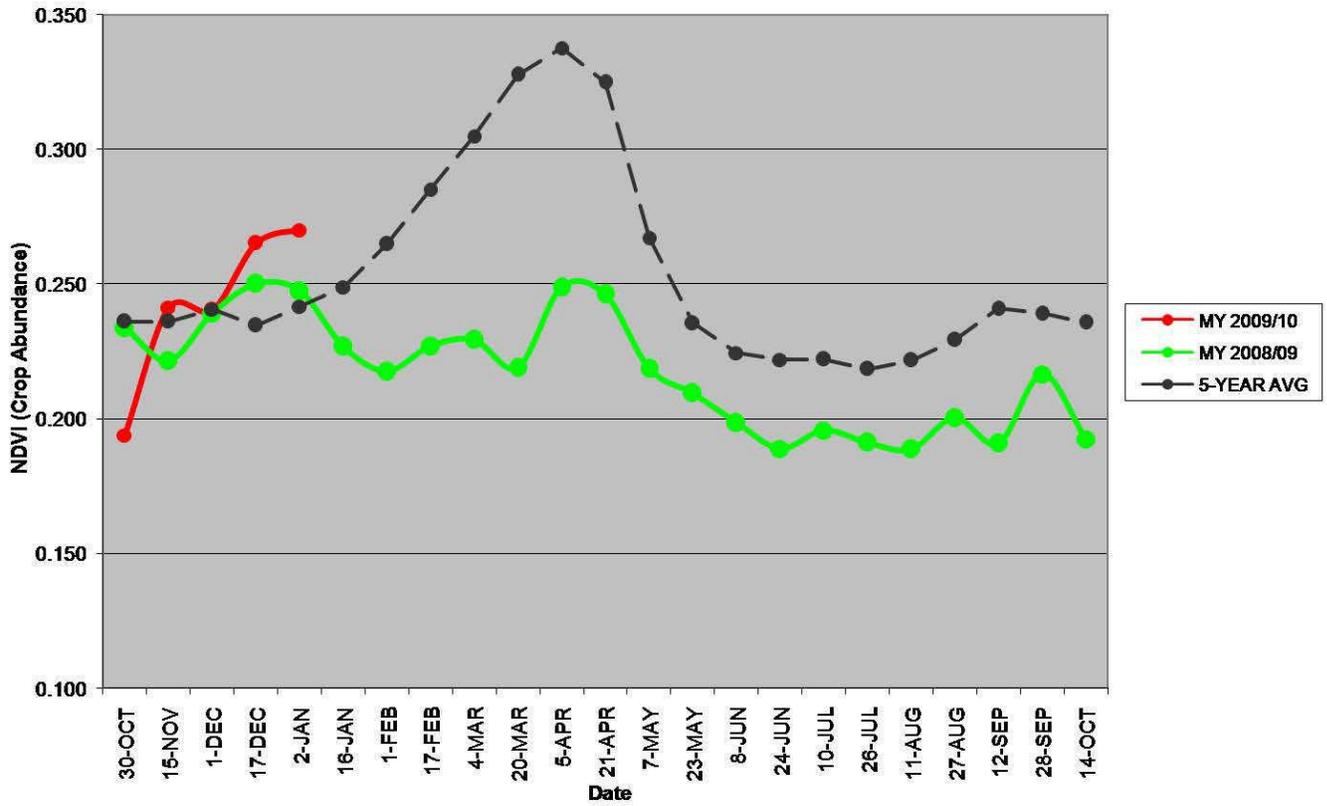


Figure 5: MODIS NDVI time series chart for Salah ad Din cropland areas (January 16th).

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As Sulaymaniyah Cropland NDVI

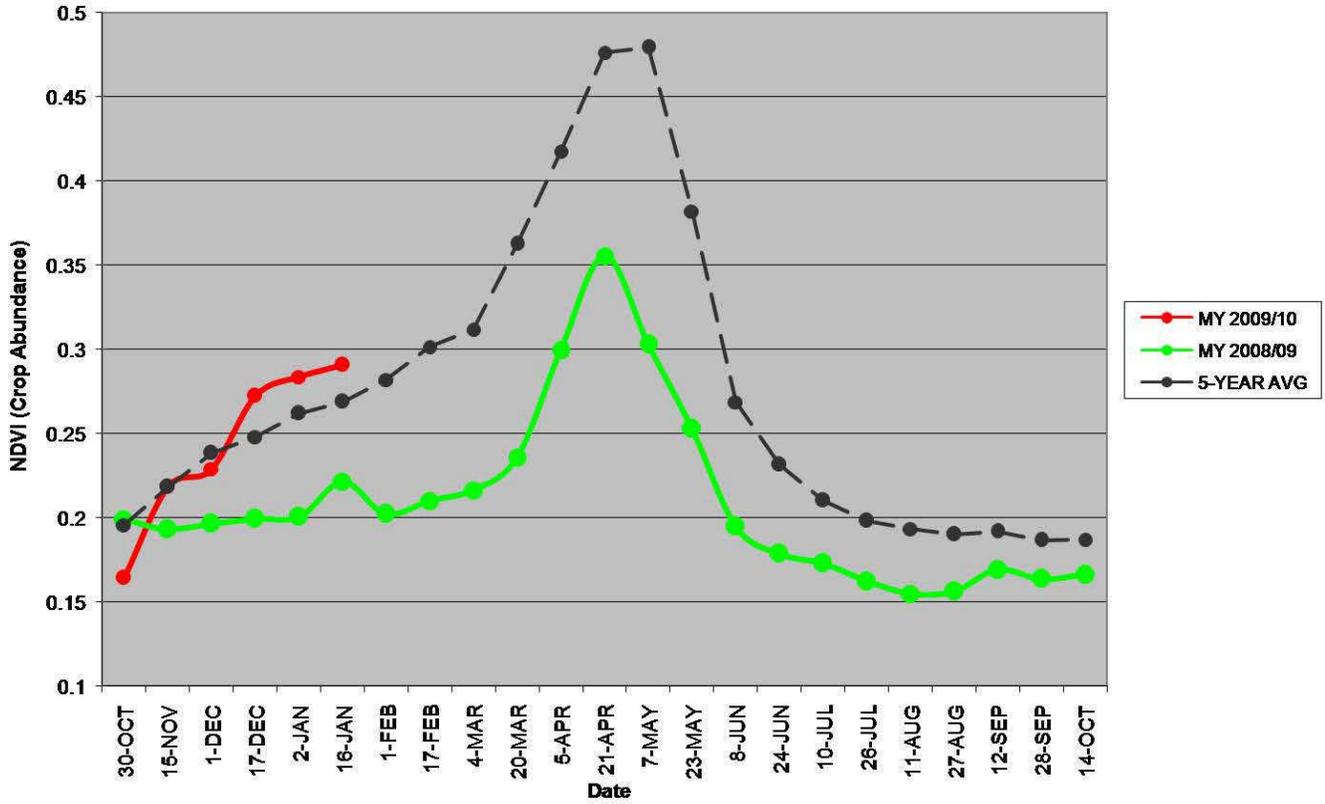


Figure 6: MODIS NDVI time series chart for As Sulaymaniyah cropland areas (January 16th).

Ninawa Cropland NDVI

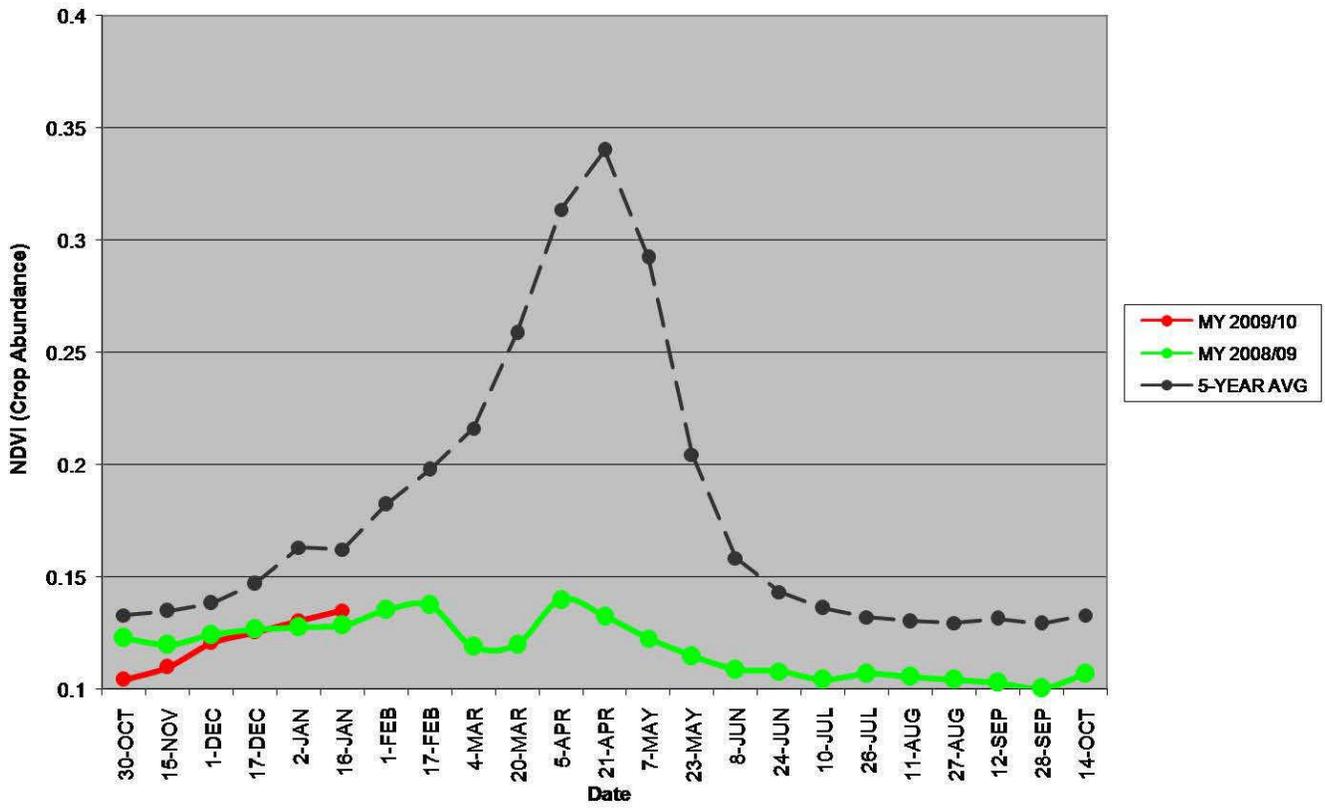


Figure 7: MODIS NDVI time series chart for Ninawa cropland areas (January 16th).

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At Ta'min Cropland NDVI

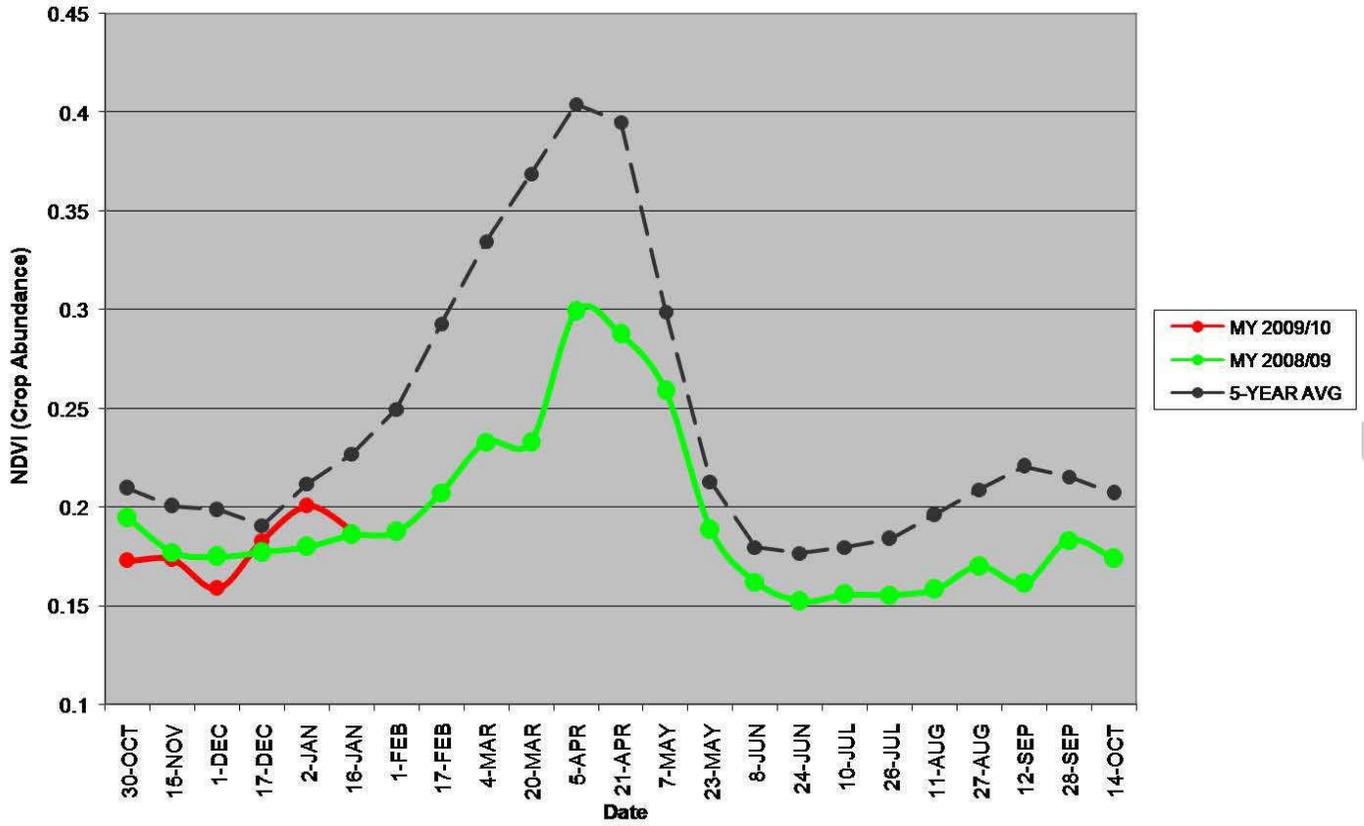


Figure 8: MODIS NDVI time series chart for At Ta'min cropland areas (January 16th).

High Resolution Quickbird Comparison: January 22nd, 2008 vs January 14th, 2009

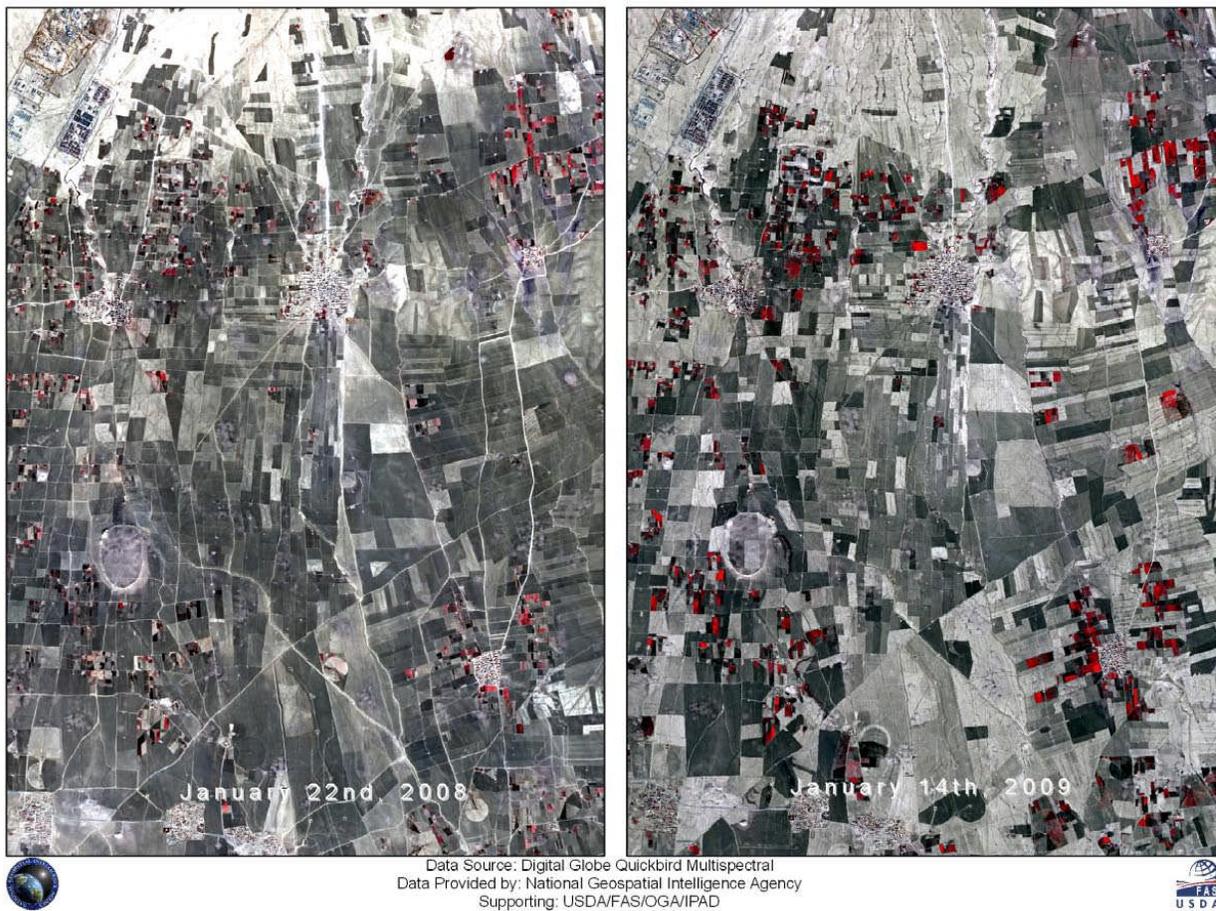
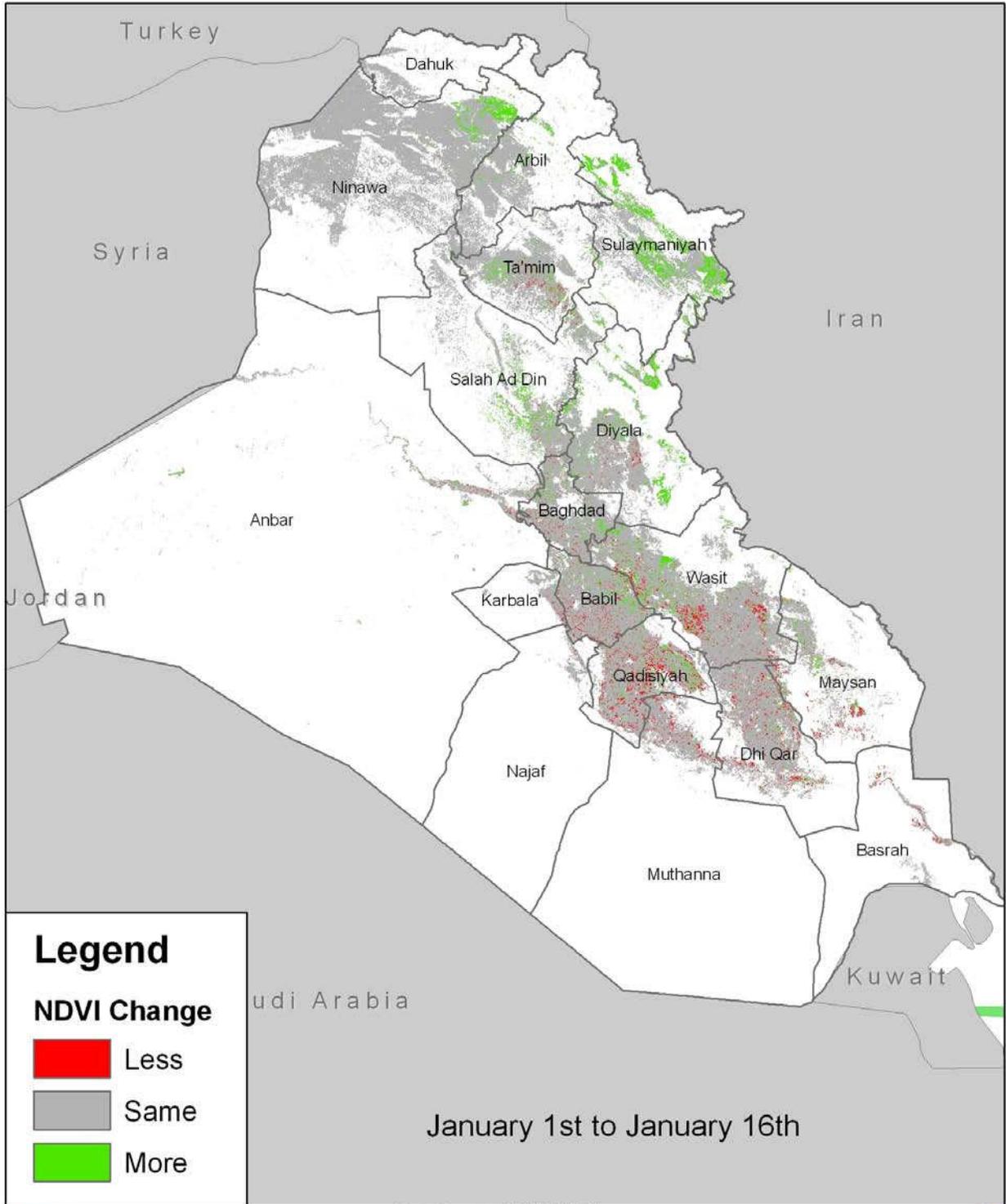


Figure 9: High resolution imagery comparison: Acquired over Ninawa AOI#5 on January 22nd, 2008 and January 14th, 2009.

MODIS Cropland NDVI: MY 2009/10 vs MY 2008/09



Data Source: MODIS NDVI
 Data Provided by: University of Maryland/NASA
 Supporting: USDA/FAS/OGA/IPAD



Figure 10: MODIS NDVI significant change map.

AWiFS Cropland NDVI: MY 2009/10 vs MY 2008/09

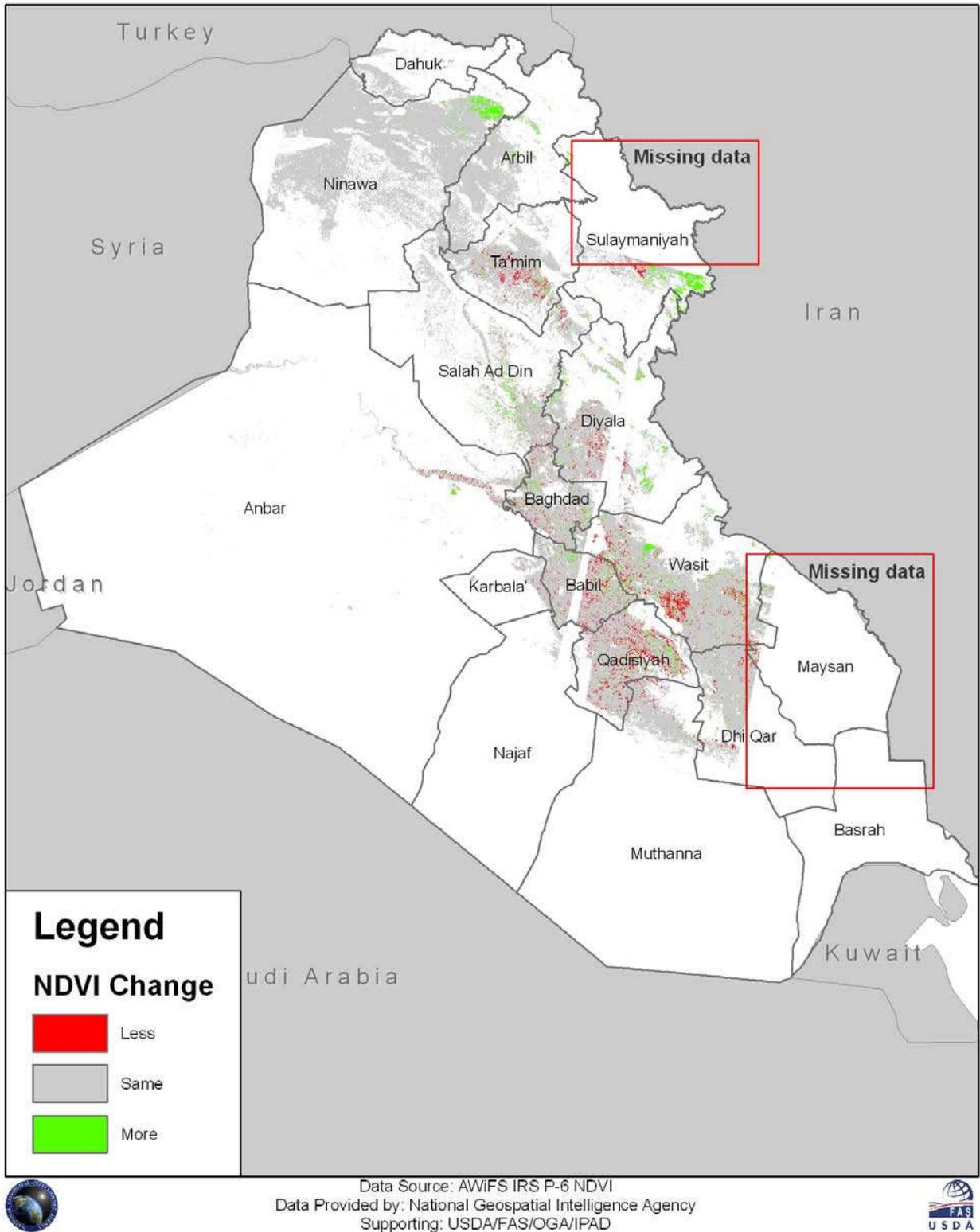


Figure 11: AWiFS IRS P-6 NDVI significant change map.

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