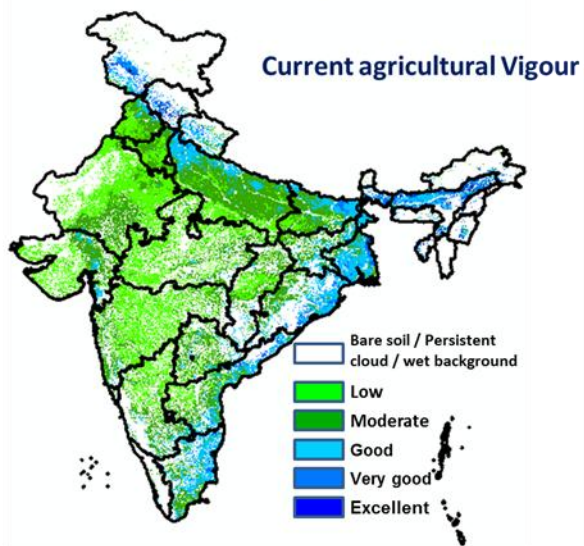


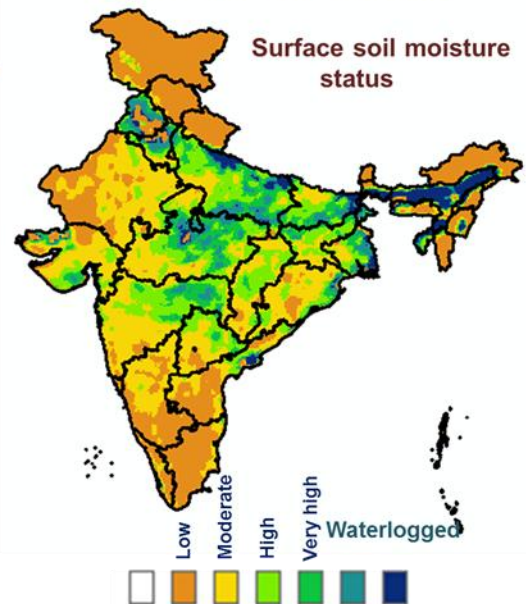
Weekly Agricultural Outlook of India from Space

Period : 2 July – 8 July 2016

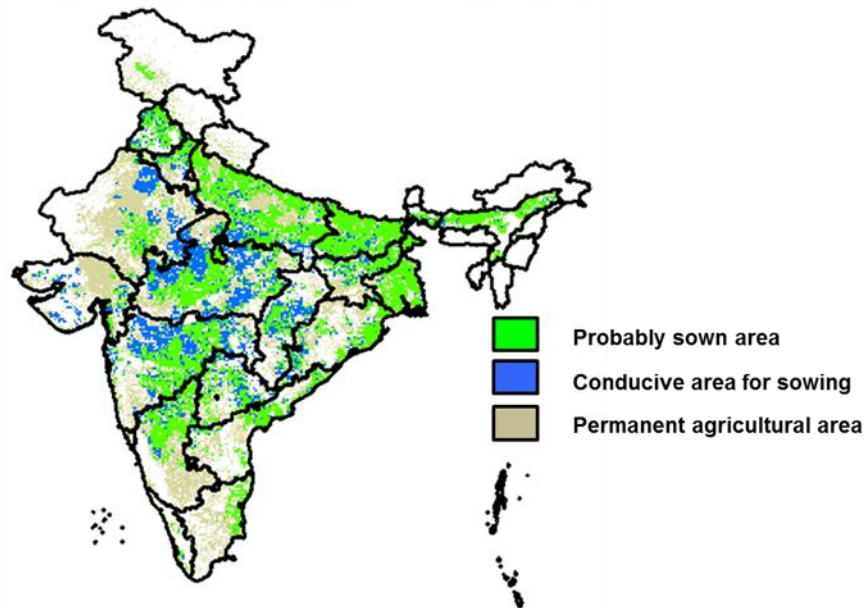
Status of Agricultural Vigour from INSAT 3A



Status of Surface Soil Moisture from Passive Microwave Radiometer, AMSR-2



Sowing suitability from INSAT 3A and AMSR-2



Methodology

The operational products of daily INSAT 3A CCD NDVI (Normalized Difference Vegetation Index) at 0700 GMT at 1km spatial resolution and daily surface (0-5cm) soil moisture from AMSR-2 passive microwave radiometer at 10 km spatial resolution were used along with tracks of south-west monsoon advancement. Weekly NDVI maximum value composites were prepared from daily NDVI. INSAT 3A CCD NDVI data between 23 June to 1 July 2016 and AMSR-2 soil moisture data between 22 June to 30 June 2016 were used. Surface soil moisture was categorized into <0.1 (low), 0.1-0.2 (moderate), 0.2-0.3 (high), 0.3 – 0.4 (very high) and > 0.4 (water logged) as volumetric unit of m^3m^{-3} . Sowing suitability classes are generated combining surface soil moisture, NDVI data and potential agricultural mask. The conducive area for sowing was delineated where bi-weekly (previous and current) mean soil moisture exceeds $0.10 m^3m^{-3}$ and remains up to $0.3 m^3m^{-3}$ for crops where transplanting is not practiced. Soil moisture in the 'Very high' category is suitable for transplanting especially for rice. The probably sown area was delineated only for those patches where weekly NDVI exceeds 0.3 and bi-weekly soil moisture exceeds $0.10 m^3m^{-3}$.

Conclusions

- Very high soil moisture is noticed over eastern West Bengal, southern Bihar, eastern, central and western Uttar Pradesh, eastern and central Madhya Pradesh and eastern-northern Maharashtra. Whereas, high soil moisture is observed in central Chhatisgarh, and pockets of southern Saurashtra.
- Water logged condition is noticed over parts of Assam.
- Moderate build-up in soil moisture is noticed over southern Maharashtra, northern Karnataka, central Odisha, western and central Rajasthan. The change in soil moisture from long term have shown a positive deviation over whole Indian land mass except central Gujarat.
- Very good to good agricultural vigour is noticed in whole West Bengal, pockets of central and western Uttar Pradesh, eastern parts of Bihar and coastal Odisha as well as coastal Telegana.
- Sowing / transplanting have been done in central and northern Punjab, pockets of northern Haryana, eastern, western and central Uttar Pradesh, eastern and maximum parts of Bihar, West Bengal, eastern and central Madhya Pradesh, eastern and southern parts of Maharashtra, central Seemandra, coastal Telegana as well as Odisha and northern Karnataka.
- The pockets of northern Maharashtra, pockets of northern and central Madhya Pradesh, few pockets of Saurashtra and northern Rajasthan, is found conducive for sowing/transplanting as soil moisture remain moderate to high.