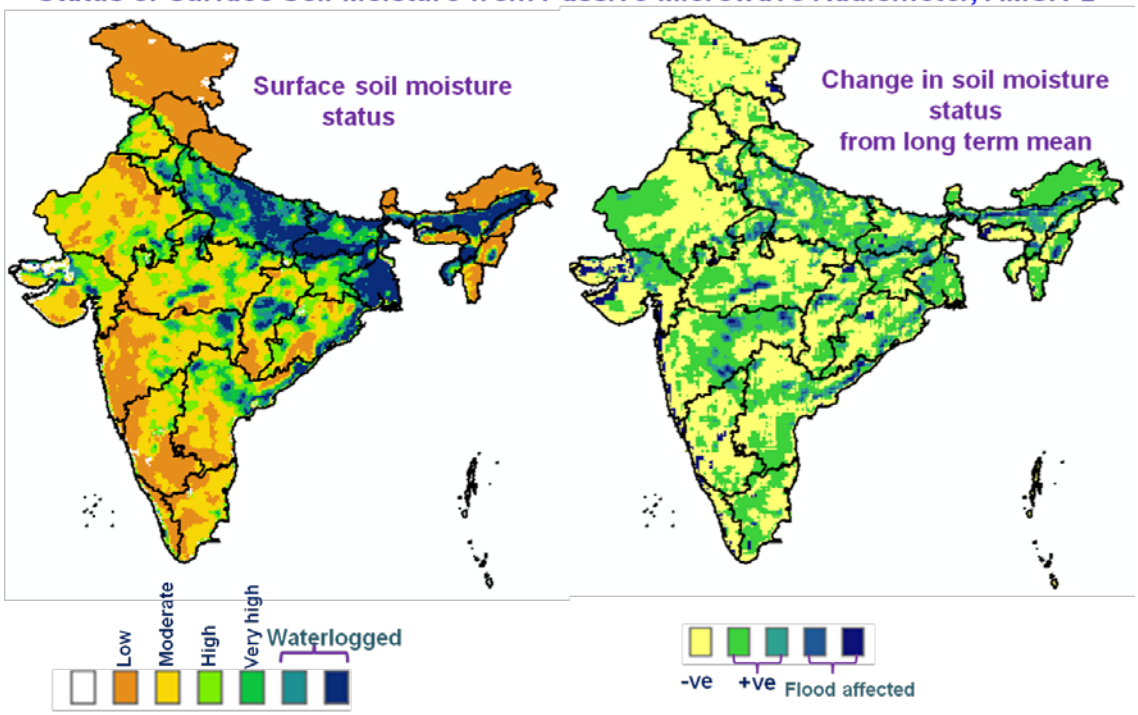
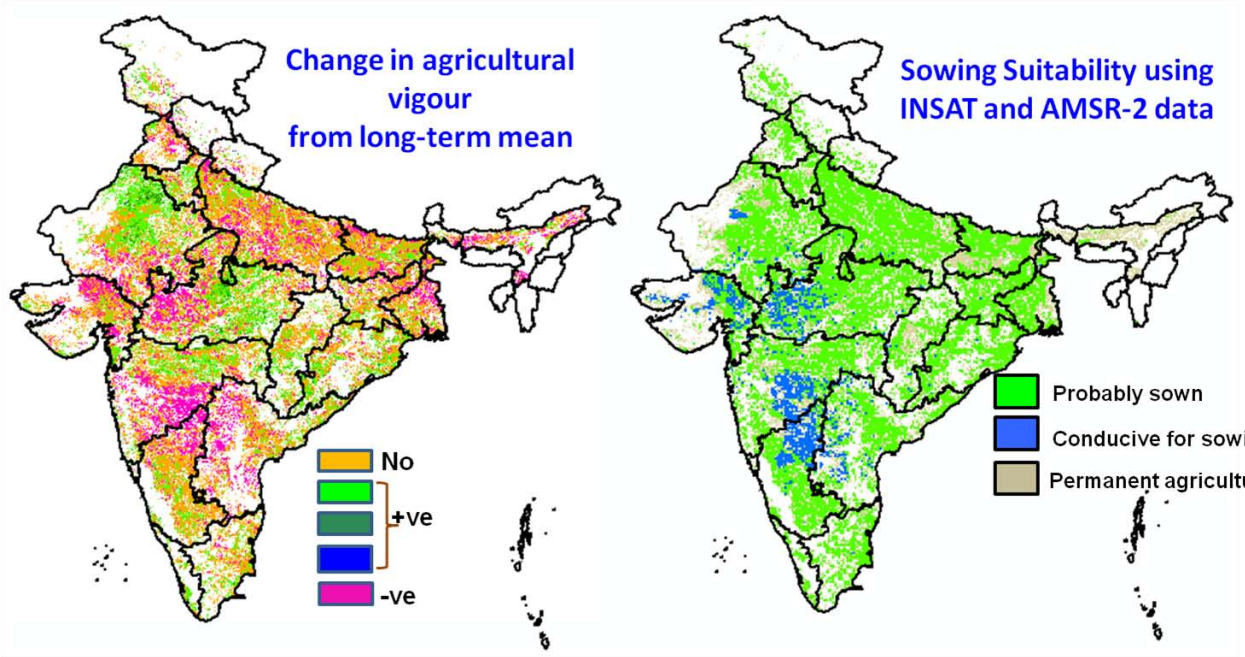
Weekly Agricultural Outlook of India from Space

Period : 14 August – 20 August 2015

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



Status of Agricultural Vigour and 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. Long-term mean of INSAT 3A CCD NDVI and AMSR-2 soil moisture from previous five years were computed to know the weekly change or anomaly in the current week 14 August to 20 August 2015. INSAT 3A CCD NDVI data up to 20 August and AMSR-2 soil moisture data between 14 August to 19 August 2015 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}.

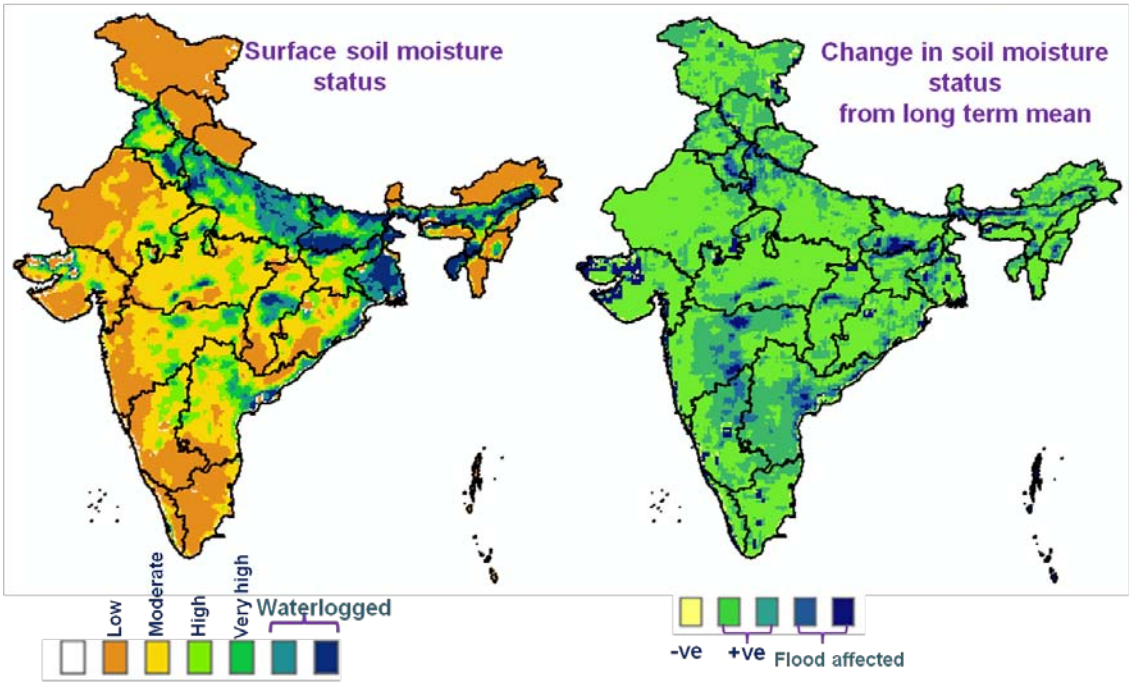
Conclusions

- Very high soil moisture is noticed over central Haryana, parts of northern and central Uttar Pradesh, northern Bihar, parts of eastern and northern Madhya Pradesh, central Chhattisgarh, eastern Jharkhand and parts of northern Telagana.
- Water logged condition is noticed over parts of southern Bihar, eastern and central West Bengal.
- Moderate build-up in soil moisture is noticed over parts of western and southern Rajasthan, Major parts of Madhya Pradesh, eastern Maharashtra, northern Karnataka, northern Telagana and Seemandra. The change in soil moisture from long term have shown a positive deviation over whole Indian land mass.
- Higher agricultural vigour from long term mean is noticed in central Haryana, northern Uttar Pradesh, central Bihar, central and northern Rajasthan, eastern and central Madhya Pradesh, central Chhattisgarh, coastal Odisha.
- The negative deviation in agriculture vigour from long term mean is observed due to saturation of soil and temporary water logging of cropped area or persistent cloud cover.
- Sowing / transplanting has been done in major part of India. Patches in central and northern Gujarat, northern Karnataka and adjacent parts of Maharashtra are conducive for sowing if light or moderate rainfall continues.
- The patches suffering from soil moisture stress as noticed over western Rajasthan, central Uttar Pradesh, southern Bihar, Odisha and central Maharashtra in previous week are now slowly getting recovered.

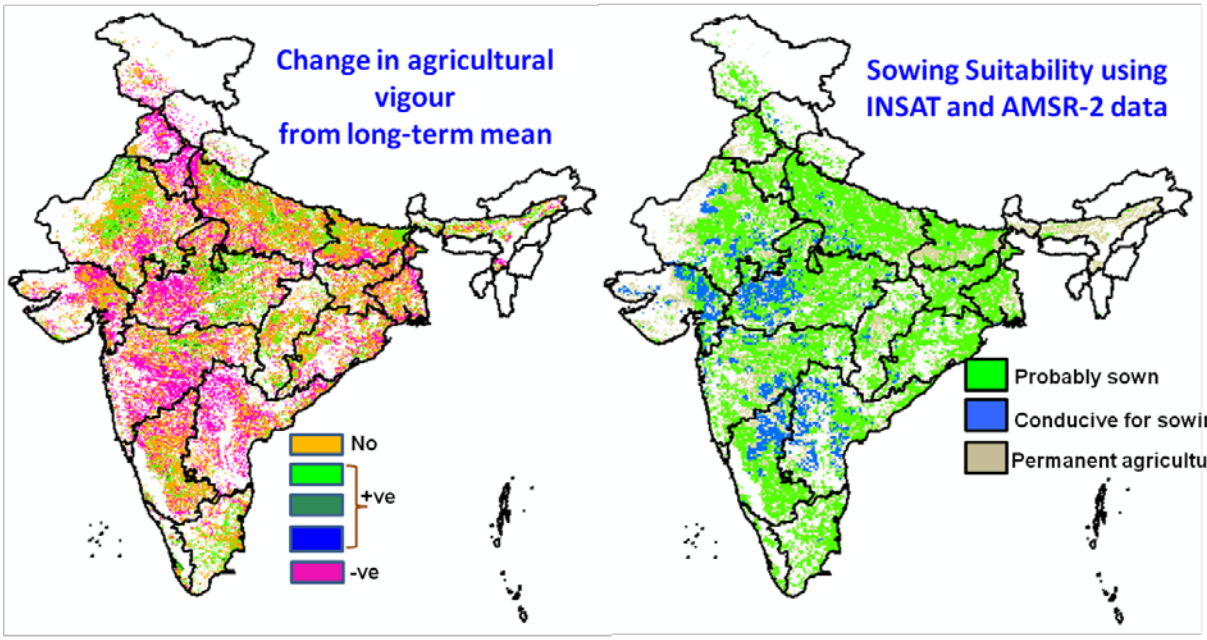
Weekly Agricultural Outlook of India from Space

Period : 07 August – 13 August 2015

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



Status of Agricultural Vigour and 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. Long-term mean of INSAT 3A CCD NDVI and AMSR-2 soil moisture from previous five years were computed to know the weekly change or anomaly in the current week 07 August to 13 August 2015. INSAT 3A CCD NDVI data up to 12 August and AMSR-2 soil moisture data between 07 August to 13 August 2015 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}.

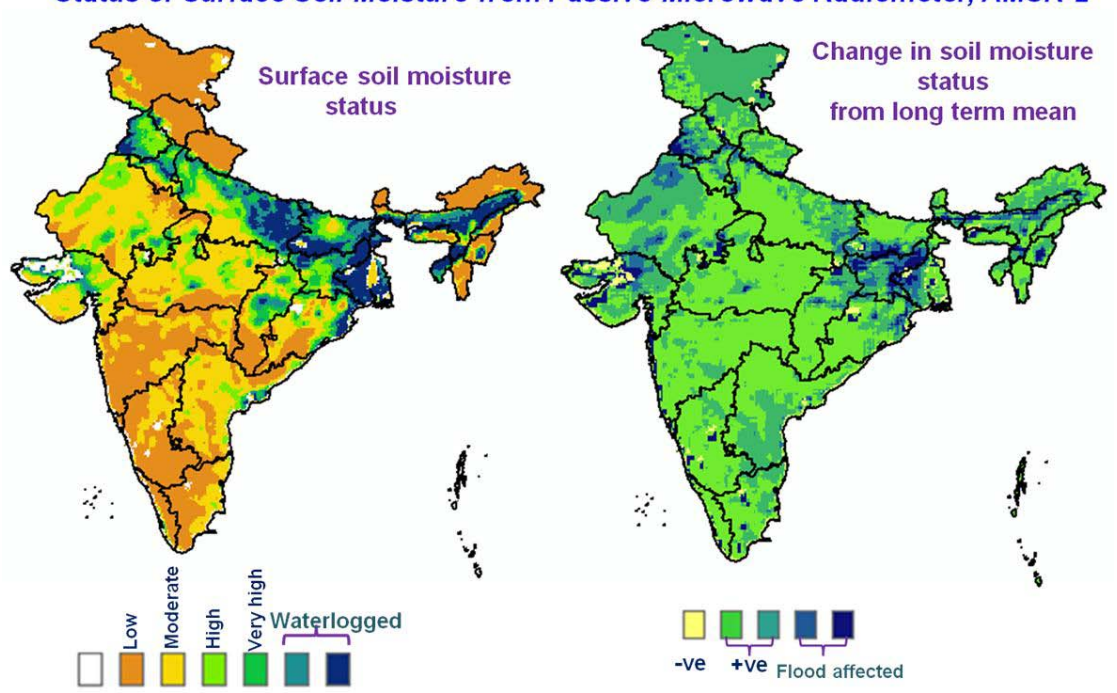
Conclusions

- Very high soil moisture is noticed over northern Punjab and Haryana, entire Uttar Pradesh except in Bundelkhand region, northern Bihar, eastern Jharkhand, central and eastern Madhya Pradesh, part of eastern Maharashtra, parts of northern Telagana and Karnataka.
- Water logged condition is noticed over parts of southern Bihar, eastern and central West Bengal and Tripura.
- Moderate build-up in soil moisture is noticed over eastern Rajasthan, Madhya Pradesh, northern Chhattisgarh, central and southern Gujarat, parts of Saurashtra, eastern Maharashtra, northern Karnataka, Telagana and Seemandra. The change in soil moisture from long term have shown a positive deviation over whole Indian land mass.
- Higher agricultural vigour from long term mean is noticed in central and northern Rajasthan, central Madhya Pradesh, parts of northern Uttar Pradesh and central Madhya Pradesh and eastern Bihar. The negative deviation in agriculture vigour from long term mean is observed due to saturation of soil and temporary water logging of cropped area or persistent cloud cover.
- Sowing / transplanting has been done in major part of India. Patches in central and northern Gujarat, western Madhya Pradesh and adjacent parts of Rajasthan, northern Karnataka and adjacent parts of eastern Maharashtra are conducive for sowing if light or moderate rainfall continues.
- The patches suffering from soil moisture stress as noticed over Uttar Pradesh, Madhya Pradesh, Jharkhand, Odisha, Chhattisgarh, Maharashtra, Karnataka, Seemandra and Telagana in previous week are now slowly getting recovered.

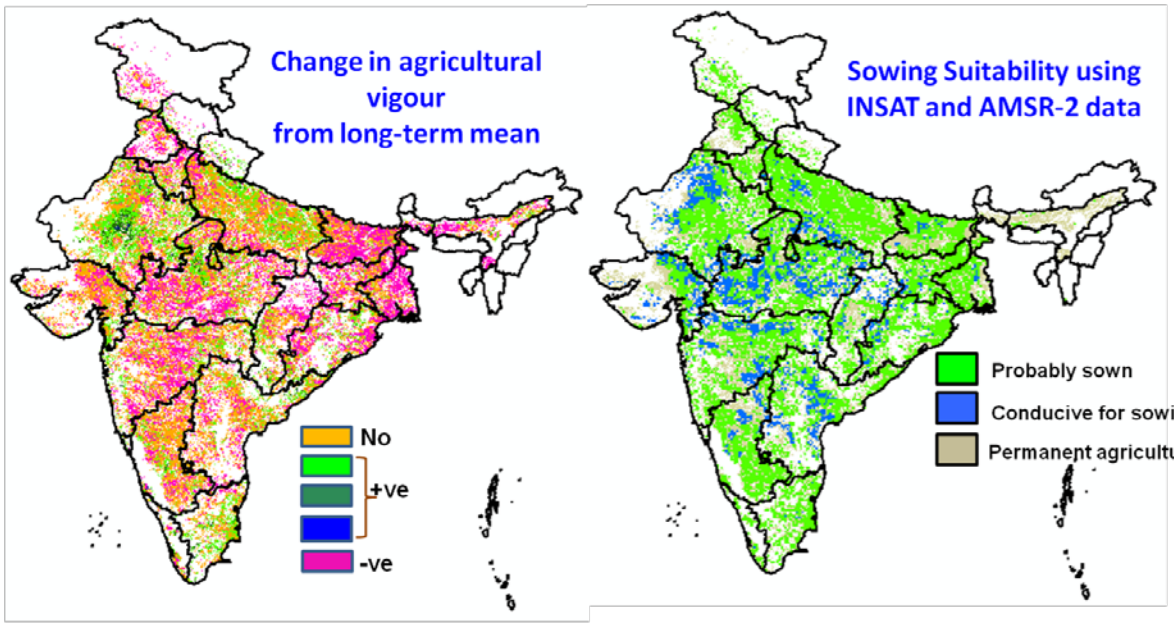
Weekly Agricultural Outlook of India from Space

Period : 31 July – 06 August 2015

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



Status of Agricultural Vigour and sowing suitability from INSAT 3A and AMSR-2



Methodology

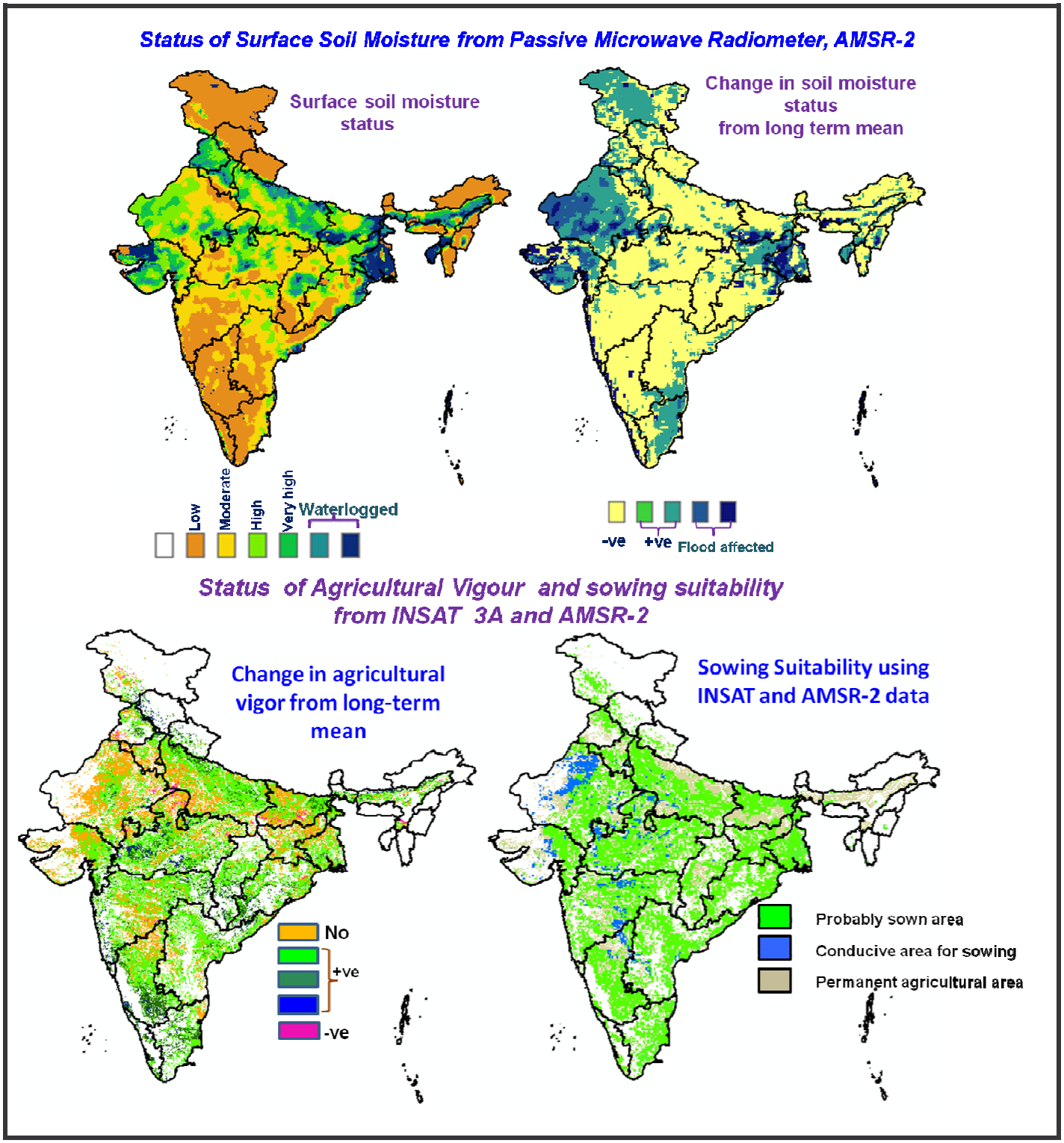
The operational products of daily INSAT 3A CCD NDVI (Normalized Difference Vegetation Index) at 0700 GMT at 1km spatial resolution and daily surface (0-5cm) soil moisture from AMSR-2 passive microwave radiometer at 10 km spatial resolution were used along with tracks of south-west monsoon advancement. Weekly NDVI maximum value composites were prepared from daily NDVI. Long-term mean of INSAT 3A CCD NDVI and AMSR-2 soil moisture from previous five years were computed to know the weekly change or anomaly in the current week 31 July to 06 August 2015. INSAT 3A CCD NDVI data up to 06 August and AMSR-2 soil moisture data between 31 July to 5 August 2015 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 Punjab, Haryana, eastern Uttar Pradesh, central Bihar & Jharkhand, western Uttar Pradesh, central & southern Gujarat, central Madhya Pradesh.
- Water logged condition is noticed over parts of eastern Uttar Pradesh, southern Bihar, West Bengal, Assam and Tripura.
- Moderate build-up in soil moisture is noticed over Rajasthan, Saurashtra & southern Gujarat, central and eastern Madhya Pradesh, Major parts of Telagana and Seemandra. The change in soil moisture from long term have shown a positive deviation over whole Indian land mass.
- Higher agricultural vigour from long term mean is noticed in central Rajasthan, parts of eastern and northern Uttar Pradesh and northern Madhya Pradesh. The negative deviation in agriculture vigour from long term mean is observed due to saturation of soil and temporary water logging of cropped area.
- Sowing / transplanting has been done in major part of India. Patches in western Rajasthan, parts of western Uttar Pradesh, parts of central and western Madhya Pradesh, northern Gujarat, eastern Maharashtra and central Karnataka are conducive for sowing if light or moderate rainfall continues.
- The patches suffering from soil moisture stress as noticed over Punjab, Haryana, Uttar Pradesh, Madhya Pradesh, Jharkhand, Odisha, Chhattisgarh, Maharashtra, Karnataka, Seemandra and Telagana in previous week are now slowly getting recovered.

Weekly Agricultural Outlook of India from Space

Period : 24 July – 30 July 2015



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. Long-term mean of INSAT 3A CCD NDVI and AMSR-2 soil moisture from previous five years were computed to know the weekly change or anomaly in the current week 24 July to 30 July 2015. INSAT 3A CCD NDVI data upto 30 July and AMSR-2 soil moisture data between 24 July to 29 July 2015 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 upto 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}.

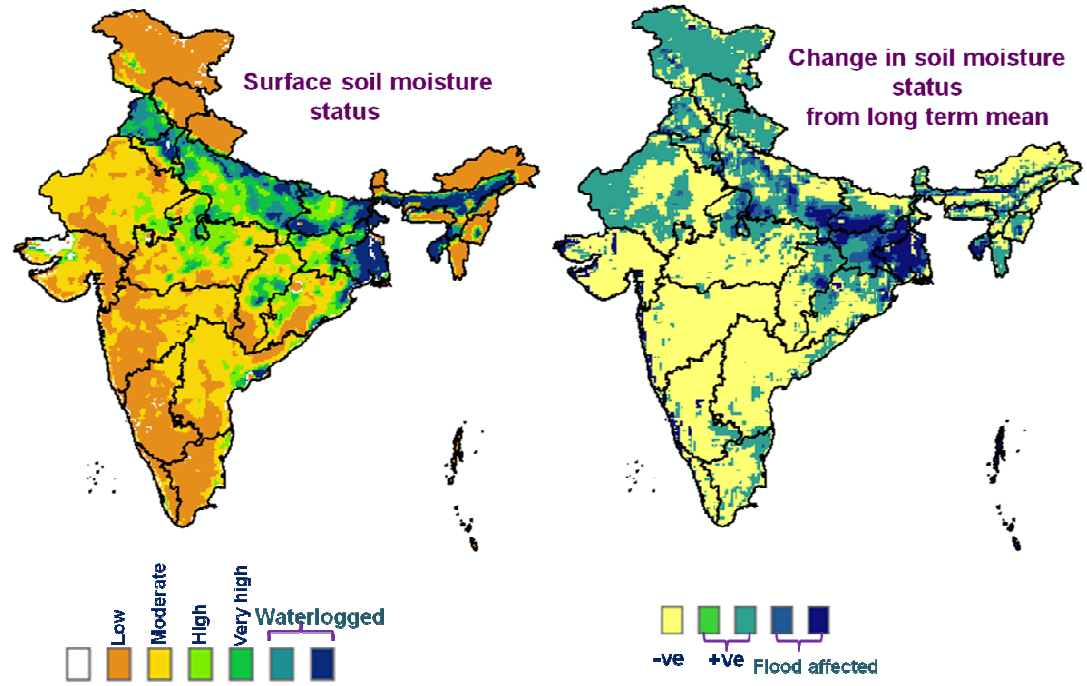
Conclusions

- Very high soil moisture is noticed over Rajasthan, Punjab, northern & central Haryana, Saurasthra, central & southern Gujarat, northern Madhya Pradesh and parts of Southern Bihar.
- Water logged condition is noticed over parts of Kutch, part of Saurasthra, West Bengal and adjacent Odisha, part of southern Bihar and Tripura.
- Moderate build-up in soil moisture is noticed over Rajasthan, central & southern Gujarat, central Madhya Pradesh and Chhattisgarh, Punjab, central Haryana, Jharkhand, southern Seemandra and coastal Tamil Nadu.
- Higher agricultural vigour from long term mean is noticed in southern Karnataka, eastern & central Maharashtra, central Punjab and Rajasthan, western and central Madhya Pradesh, north Uttar Pradesh, parts of eastern Bihar and parts of Odisha.
- Sowing / transplanting has been done in major part of India. Patches in northern & central Rajasthan, parts of central Gujarat, western & northern pockets of Madhya Pradesh, southern parts of Maharashtra and adjoining Karnataka are conducive for sowing if light or moderate rainfall continues.
- The patches suffering from soil moisture stress as noticed over Madhya Pradesh, Rajasthan, Gujarat, Chhattisgarh and northern southern Seemandra in previous week are now slowly getting recovered.

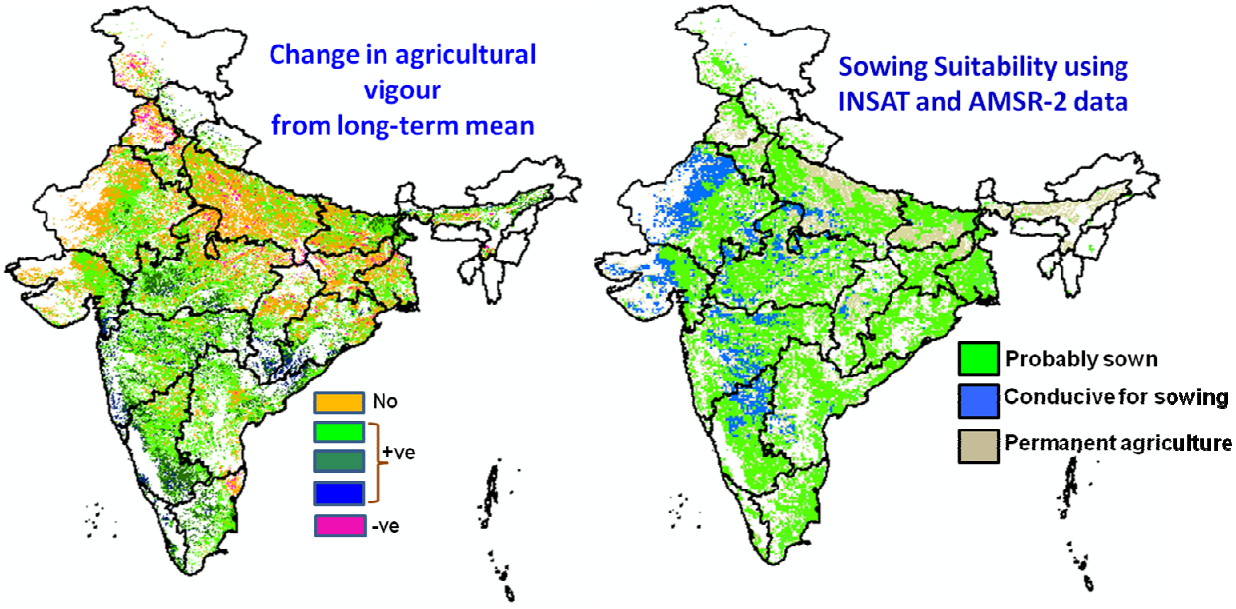
Weekly Agricultural Outlook of India from Space

Period : 17 July – 23 July 2015

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



Status of Agricultural Vigour and sowing suitability from INSAT 3A and AMSR-2



Methodology

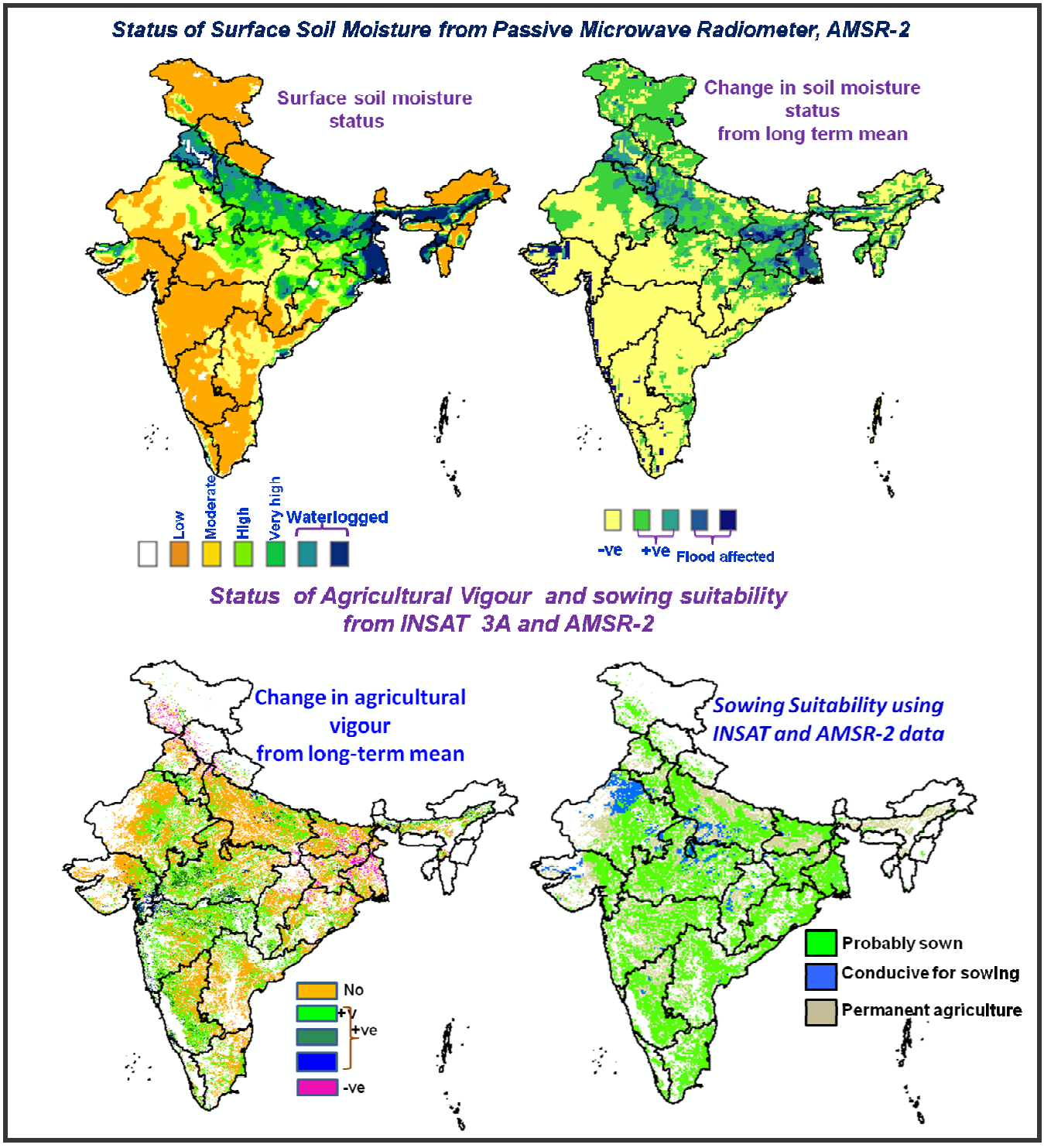
The operational products of daily INSAT 3A CCD NDVI (Normalized Difference Vegetation Index) at 0700 GMT at 1km spatial resolution and daily surface (0-5cm) soil moisture from AMSR-2 passive microwave radiometer at 10 km spatial resolution were used along with tracks of south-west monsoon advancement. Weekly NDVI maximum value composites were prepared from daily NDVI. Long-term mean of INSAT 3A CCD NDVI and AMSR-2 soil moisture from previous five years were computed to know the weekly change or anomaly in the current week 17 July to 23 July 2015. INSAT 3A CCD NDVI data upto 23 July and AMSR-2 soil moisture data between 17 July to 22 July 2015 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 upto 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 Punjab, Haryana, major part of Uttar Pradesh & Bihar and adjoining Jharkhand, north & central Madhya Pradesh, central Chhattisgarh.
- Water logged condition is noticed over parts of Haryana, Upper part of northern Uttar Pradesh, Southern and eastern parts of Bihar and major part of West Bengal, Assam and Tripura.
- Moderate build-up in soil moisture is noticed over Rajasthan, part of Madhya Pradesh, eastern Maharashtra and northern Telengana and Saurasthra. Low soil moisture observed over Tamil Nadu, northern Telengana, northern Karnataka, and western Maharasthra.
- High agricultural vigour from long term mean is noticed in western & central Madhya Pradesh, eastern Maharashtra, southern Karnataka, southern Odisha and adjoining Chhattisgarh and eastern Bihar.
- Sowing / transplanting has been done in major part of India. Patches in northern & central Rajasthan and north Madhya Pradesh and adjoining Uttar Pradesh and part of central Maharashtra are conducive for sowing if light or moderate rainfall continues.
- The patches suffering from soil moisture stress as noticed over Madhya Pradesh, Rajasthan, central Gujarat, southern Seemandra and Karnataka in previous week are now slowly getting recovered.

Weekly Agricultural Outlook of India from Space

Period : 10 July – 16 July 2015



Methodology

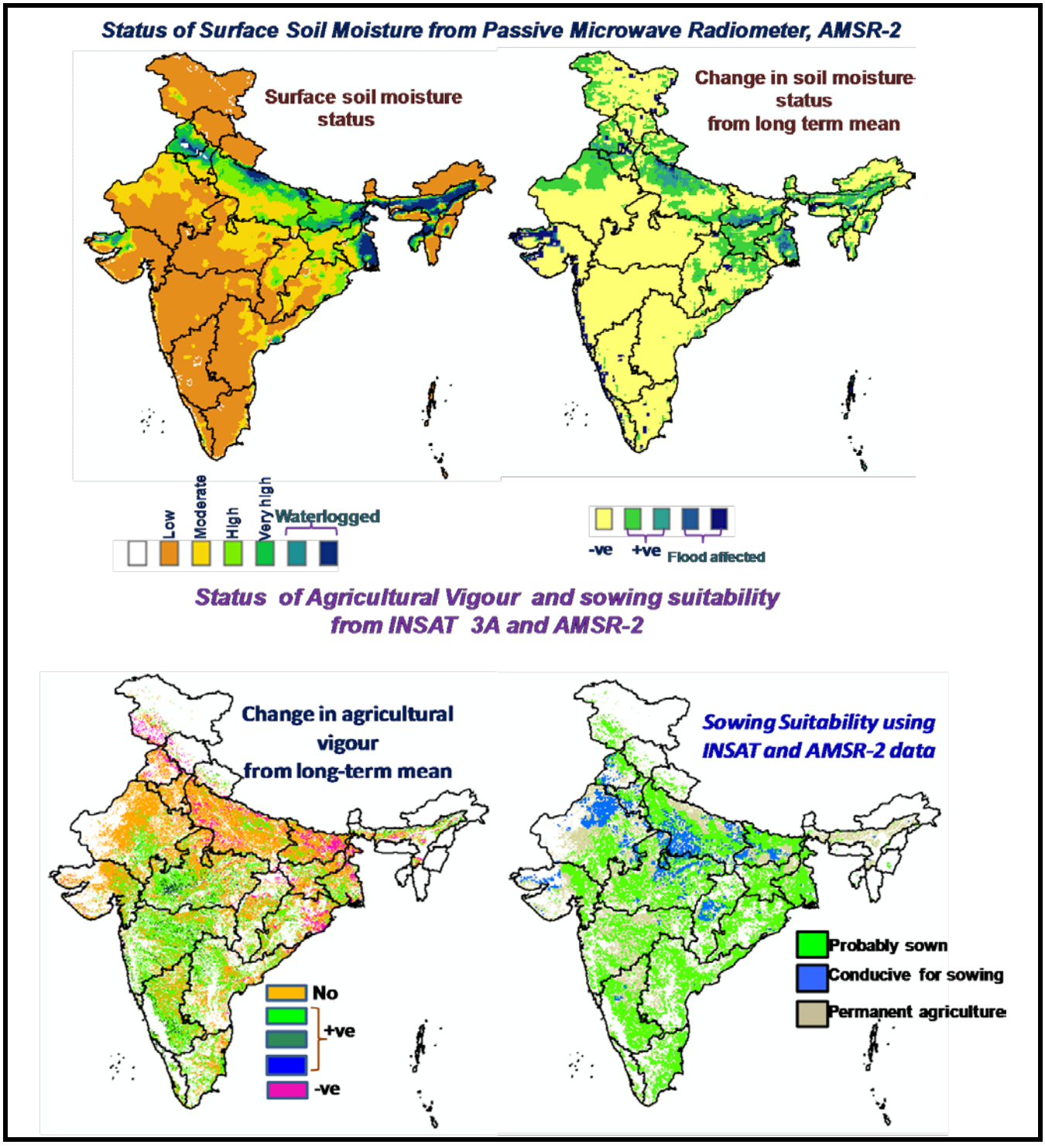
The operational products of daily INSAT 3A CCD NDVI (Normalized Difference Vegetation Index) at 0700 GMT at 1km spatial resolution and daily surface (0-5cm) soil moisture from AMSR-2 passive microwave radiometer at 10 km spatial resolution were used along with tracks of south-west monsoon advancement. Weekly NDVI maximum value composites were prepared from daily NDVI. Long-term mean of INSAT 3A CCD NDVI and AMSR-2 soil moisture from previous five years were computed to know the weekly change or anomaly in the current week 10 July to 16 July 2015. INSAT 3A CCD NDVI data upto 16 July and AMSR-2 soil moisture data between 10 July to 15 July 2015 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 upto 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 has been noticed over Punjab, Haryana, Uttar Pradesh, north & central Bihar, north & central Madhya Pradesh, central Chhattisgarh, coastal & north Odhisha.
- Water logged condition was noticed in parts of Kutch region alongwith negative deviation in agricultural vigour in eastern parts of West Bengal and western Bihar.
- Similar to previous week, the major part of western, central and southern parts of India showed low soil moisture as well as negative deviation from long term mean.
- High agricultural vigour from long term mean is noticed in southern part of Gujarat, western & central Madhya Pradesh, parts of north eastern Maharashtra.
- Sowing / transplanting has been done in major part of India. Patches in north Rajasthan and north Madhya Pradesh and adjoining Uttar Pradesh are conducive for sowing if light or moderate rainfall continues.
- The sown area of Saurashtra, north Gujarat, parts of central Rajasthan, part of Seemandhra and northern Karnataka may suffer water stress because of low moisture regime or if deficit of soil moisture still continue.

Weekly Agricultural Outlook of India from Space

Period : 2 July – 9 July 2015



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. Long-term mean of INSAT 3A CCD NDVI and AMSR-2 soil moisture from previous five years were computed to know the weekly change or anomaly in the current week 2 July to 91 July 2015. INSAT 3A CCD NDVI data upto 9 July and AMSR-2 soil moisture data between 2 July to 8 July 2015 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 upto 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}.

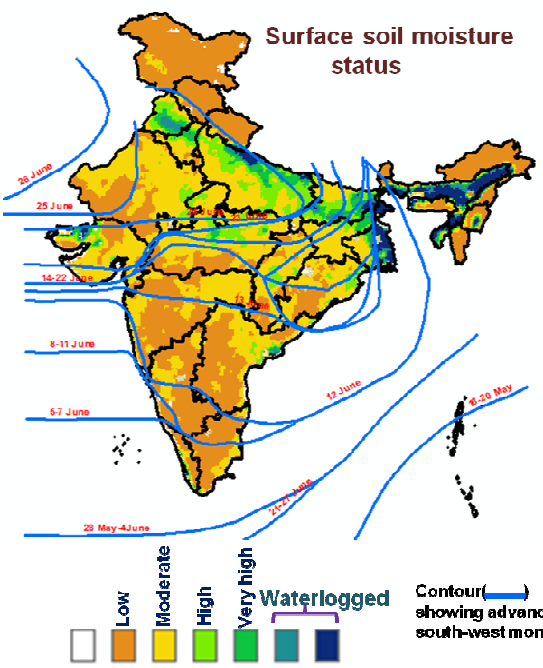
Conclusions

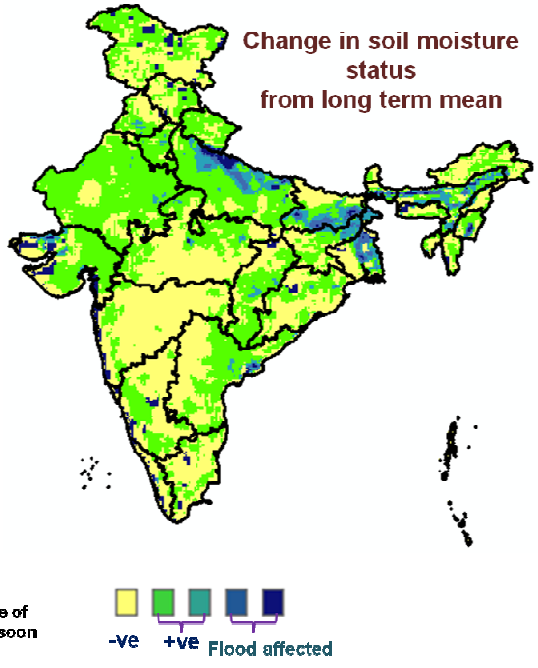
- Very high soil moisture is noticed over Punjab, central and north Haryana, northern belt of Uttar Pradesh, Bihar and parts of West Bengal and Kutch region.
- Water logged condition prevails over parts of Uttar Pradesh adjacent to Uttarakhand, eastern parts of Bihar and West Bengal, Assam and Tripura.
- The major part of central, northern and southern India showed low soil moisture as well as negative deviation from long term mean.
- High agriculture vigour from long term mean is noticed in central and western part of Madhya Pradesh, Maharashtra, southern Karnataka, north Seemandhra.
- Sowing / transplanting have been done in major part of India. Patches in west Bihar, central Chhattisgarh, north-east Madhya Pradesh and adjacent Uttar Pradesh are conducive for sowing if light or moderate rainfall will continue in the next fortnight
- The sown area of Saurashtra, part of Seemandhra and northern Karnataka liklely to suffer from water stress because of low moisture regime and if deficit of soil moisture continues.

Weekly Agricultural Outlook of India from Space

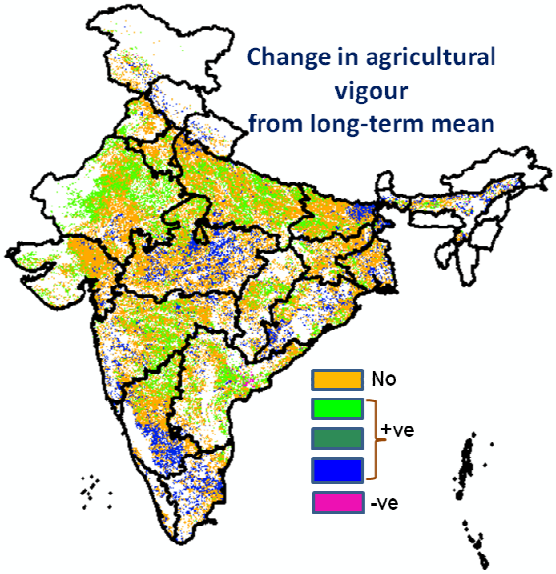
Period : 25 June – 1 July 2015

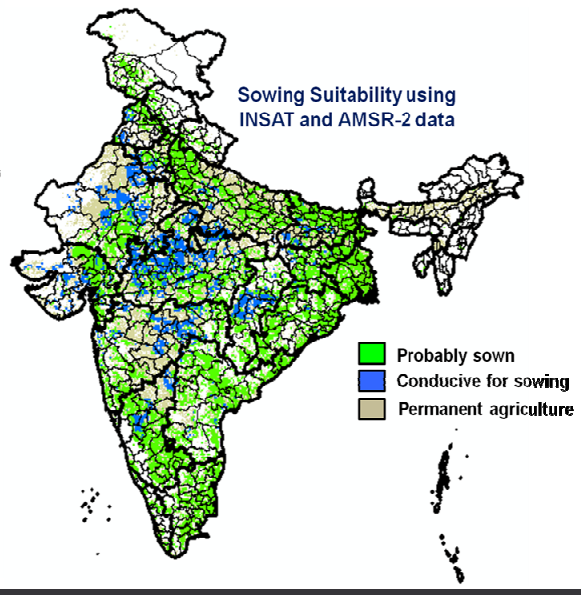
Status of Surface Soil Moisture from Passive Microwave Radiometer, AMSR-2





Status of Agricultural Vigour and sowing suitability from INSAT 3A CCD and AMSR-2





Methodology

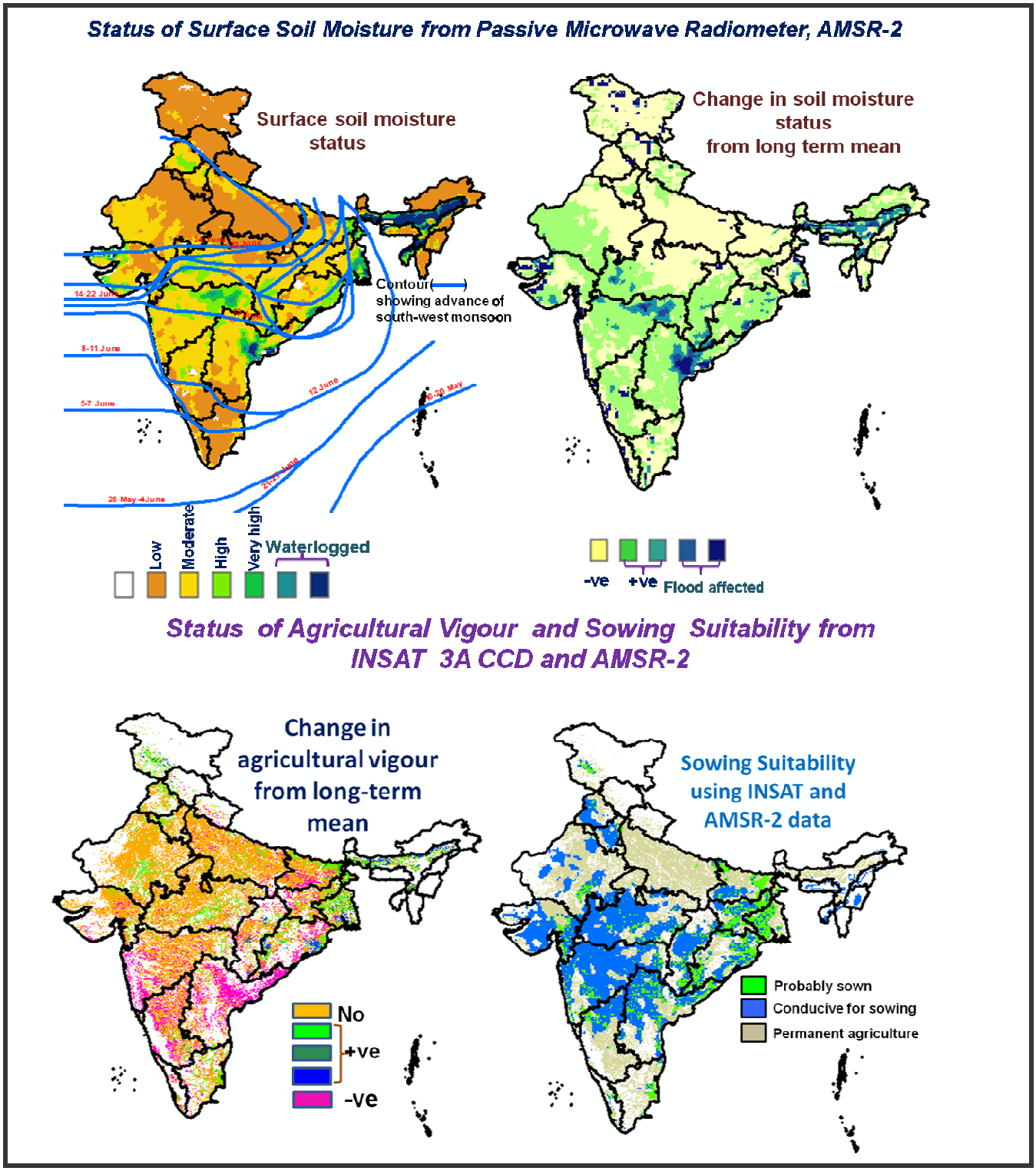
The operational products of daily INSAT 3A CCD NDVI (Normalized Difference Vegetation Index) at 0700 GMT at 1km spatial resolution and daily surface (0-5cm) soil moisture from AMSR-2 passive microwave radiometer at 10 km spatial resolution were used along with tracks of south-west monsoon advancement. Weekly NDVI maximum value composites were prepared from daily NDVI. Long-term mean of INSAT 3A CCD NDVI and AMSR-2 soil moisture from previous five years were computed to know the weekly change or anomaly in the current week 25 June to 1 July 2015. INSAT 3A CCD NDVI data upto 2 July and AMSR-2 soil moisture data between 25June-1 July 2015 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 upto 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

- Majority of north-western, central and eastern parts of India showed moderate soil moisture status. High soil moisture built-up is noticed in Punjab, northern part of Uttar Pradesh, majority of Bihar and eastern part of West Bengal. Water logged conditions prevailed in Assam and regions of UP adjacent to Uttarakhand. Positive change in soil moisture from long-term mean prevailed over Rajasthan, Gujarat, majority of U.P., northern part of M.P., Chattishgarh, northern part of Odisha, Telangana, western part of Karnataka and Maharashtra.
- Positive change in agricultural vigour as compared to long-term mean is observed in major agricultural patches of India
- The sown area are noticed in Punjab, Haryana, western U.P., central Rajasthan, Bihar, Jharkhand, West Bengal, Odisha, central Telangana, Seemandhra, central Gujarat, western Maharashtra, central M.P., Southern Karnataka, Tamil Nadu. The area which are conducive for sowing are central U.P. and Rajasthan, northern part of M.P., Chattishgarh.
- Though Saurashtra region and eastern part of Maharashtra showed soil moisture built-up but the multi-model ensemble forecast upto 11 July 2015 showed deficit in rainfall in these regions including Telangana. The forecast showed good rainfall upto 25mm over north, central, eastern and north-eastern parts of India.

Weekly Agricultural Outlook of India from Space

Period : 18 – 24 June 2015



Methodology

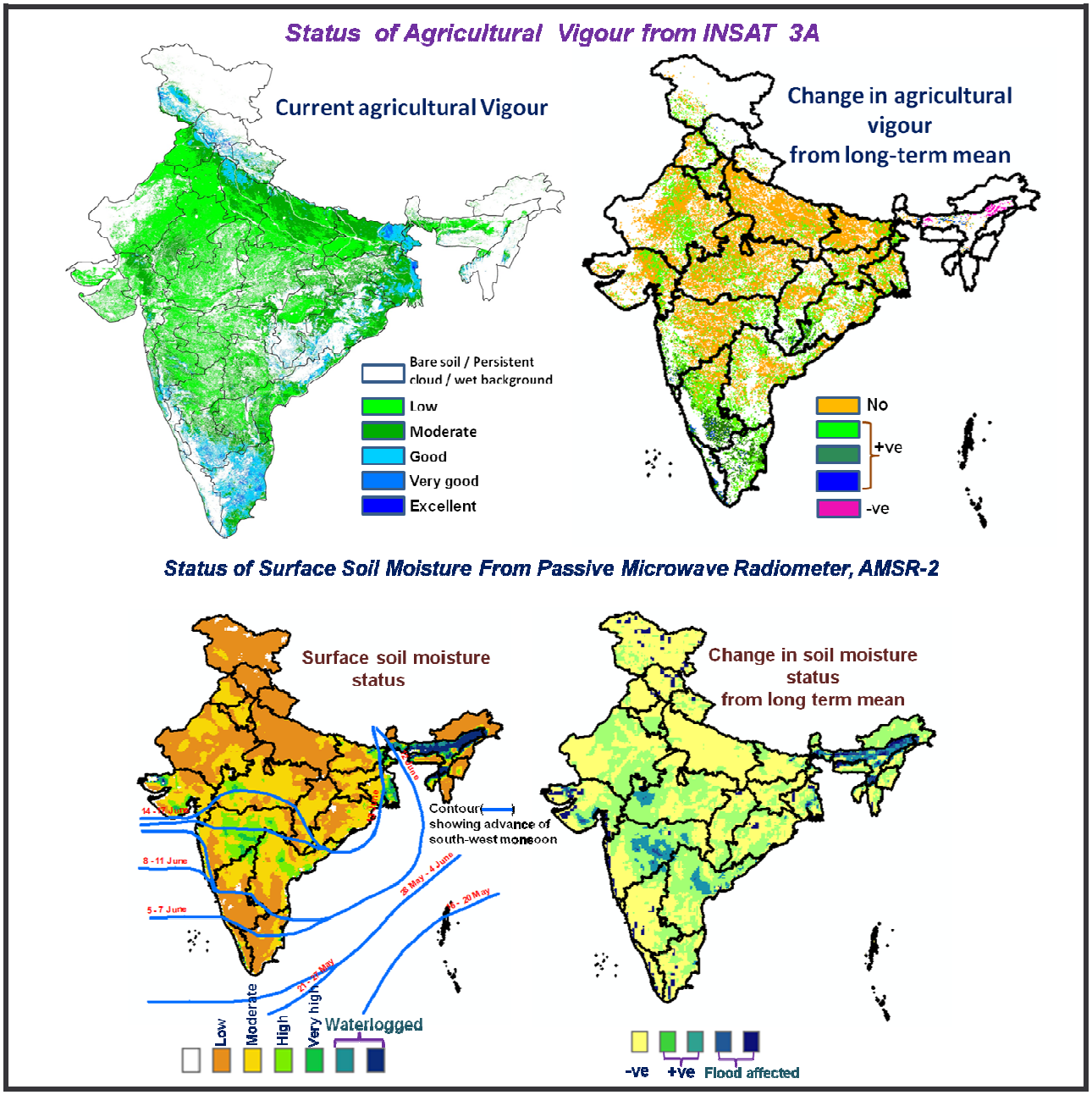
The operational products of daily INSAT 3A CCD NDVI (Normalized Difference Vegetation Index) at 0700 GMT at 1km spatial resolution and daily surface (0-5cm) soil moisture from AMSR-2 passive microwave radiometer at 10 km spatial resolution were used along with tracks of south-west monsoon advancement. Weekly NDVI maximum value composites were prepared from daily NDVI. Long-term mean of INSAT 3A CCD NDVI and AMSR-2 soil moisture from previous five years were computed to know the weekly change or anomaly in the current week 18-24 June 2015. INSAT 3A CCD NDVI data upto 24 June and AMSR-2 soil moisture data between 18-23 June 2015 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 upto 0.3 m^3m^{-3}. The probably sown or transplanted area was delineated where weekly NDVI exceeds 0.3 and bi-weekly soil moisture exceeds 0.10 m^3m^{-3}.

Conclusions

- Eastern part of Maharashtra, north Karnataka, Saurashtra region of Gujarat, major part of Telangana, central and eastern parts of West Bengal, central & western parts of Madhya Pradesh, part of central Rajasthan, south Bihar and north Jharkhand showed built-up in surface soil moisture along with advancement of south-west monsoon trough. Punjab and Haryana also showed soil moisture built-up which could be due to irrigation application. Majority of these regions are conducive for sowing and transplanting operations.
- Flooding occurs in some pockets in Assam, Telangana region, small pockets of Maharashtra and Gujarat.
- The sown or transplanted cropped area are noticed in central to western part of West Bengal, part of coastal Odisha and Telangana region, pockets of south Maharashtra region and adjacent Karnataka, eastern Bihar and Central Gujarat region.

Weekly Agricultural Outlook of India from Space

Period : 10 – 17 June 2015



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 track of south-west monsoon advancement. Weekly NDVI maximum value composites were prepared from daily NDVI. Long-term mean of INSAT 3A CCD NDVI and AMSR-2 soil moisture from previous five years were computed to know the weekly change or anomaly in the current week 10-17 June 2015. NDVI is categorized into several classes 0.2-0.3 (low), 03-0.4 (Moderate), 0.4-0.5 (good), 0.5-0.6 (very good) and > 0.6 (Excellent). 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 m3m-3.

Conclusions

- Major part of India showed low agricultural vigour and soil moisture, but part of Assam showed flooded situation with decrease in agricultural vigour compared to long-term average.
- Saurashtra region of Gujarat, major part of Maharashtra, parts of Telangana, Central West Bengal, western part of Madhya Pradesh showed built-up in surface soil moisture to optimum level. The unsown regions will be conducive for crop sowing at the last week of June 2015 if soil moisture continued to be at optimum level during next week alongwith advancement in south-west monsoon.