



transforming the way the world works



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How Trimble is ready for new age farming-
India.



A view of farms in US

Most suited for large mechanised operations.



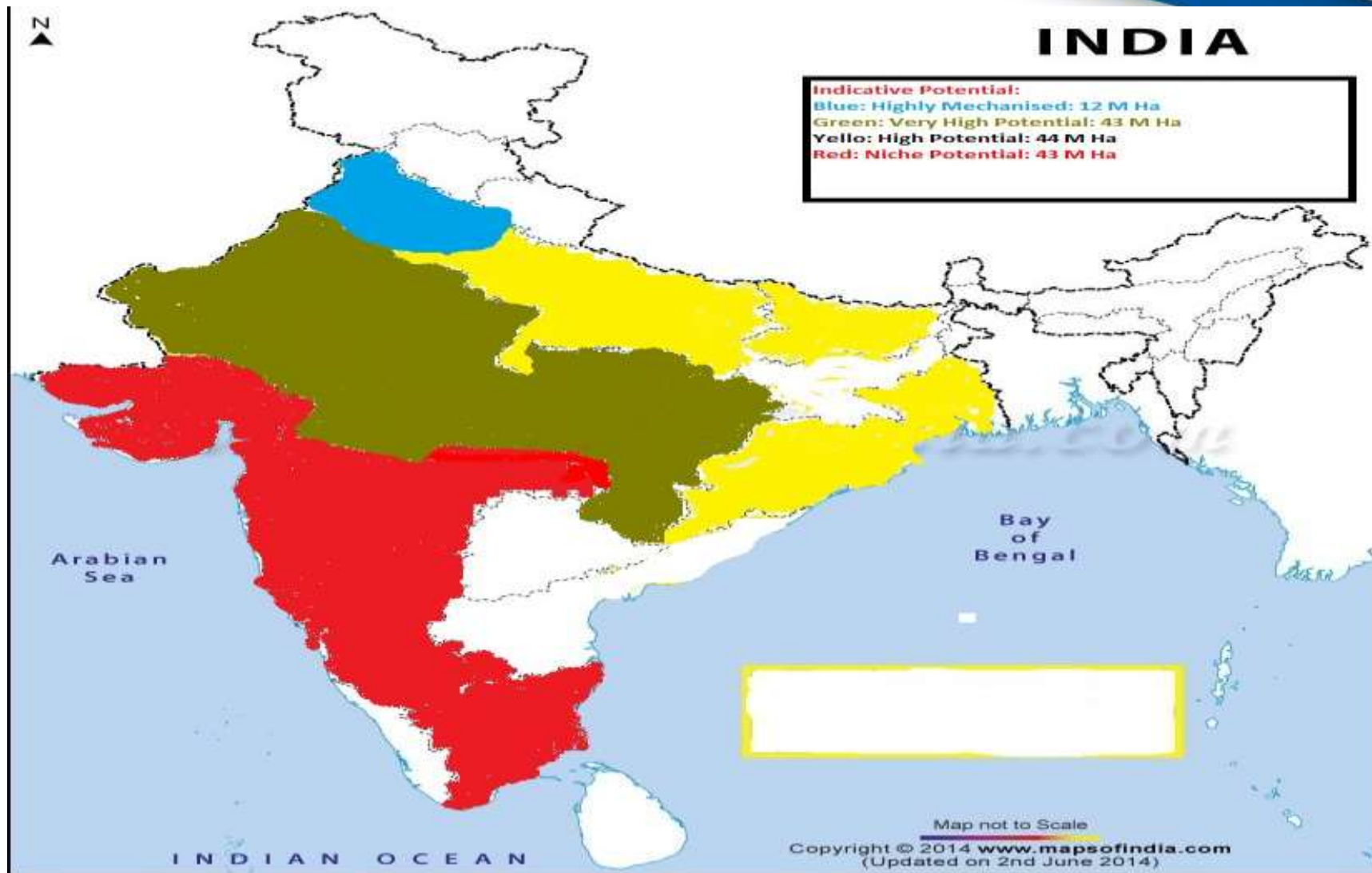
A view of farms in Europe

Still big enough to ensure pay back on large investments on mechanisation.



A typical farm in India.

Fragmented and lot of natural hindrances for a sustainable model of mechanisation.



Indicative Potential through out India for mechanization.

Select your solution



Guidance



Implement
Guidance



Planting
Seeding



Spreading



Spreading



Trimble Ag
Solutions

Data Management



Drainage



Leveling



Harvesting

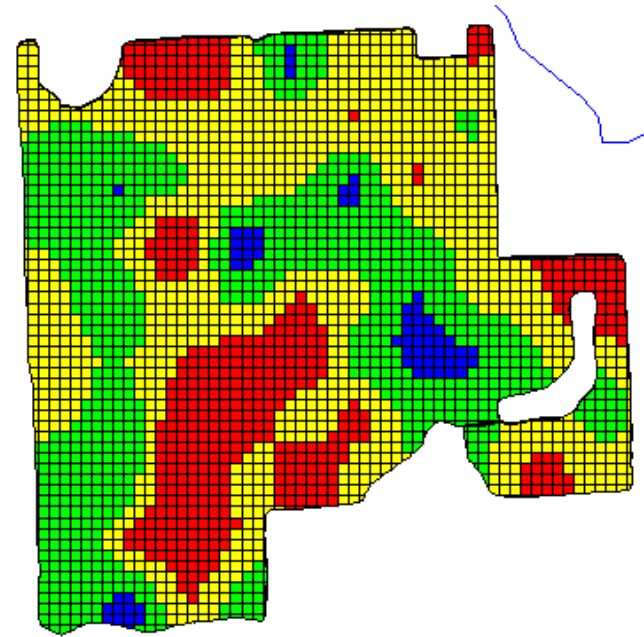


Vigor Mapping
& VRA

Trimble Agriculture develops innovative technology that transforms the crop production cycle, driving efficiency, sustainability and profitability while protecting the environment

Variable Rate Application Control

- Simultaneously control application rate
 - FmX - 6 different materials
 - CFX-750 - 2 different materials
 - TMX/FMX Plus – 6 different materials
 - TMX/Precision IQ – 1 liquid material
- Load a prescription map to perform variable rate application with *.shp file
- As-applied mapping records are saved on the go



On-The-Go Sensors

- **GreenSeeker Crop Sensor Application System**
 - Each sensor emits and measures reflectance of red and near infra red light.
 - The ratio of light reflectance is reported as Normalized Difference Vegetative Index (NDVI).
 - The higher the index, the higher the level of biomass and vigor ranging from 0.001 to 0.999
 - Map values only or variably apply Nitrogen on the go based on sensor readings
- **WeedSeeker Automatic Spot Spray System**
 - Advanced optics sense when a weed is present
 - When weed enters sensor field of view, it signals spray nozzle to apply precise amount of herbicide
 - Stand alone system – no display required



Trimble Ag Software

- Connect your software and hardware across the entire farm to improve efficiency and decision making.
- Data Transfer - wirelessly send data from the office to the field and back
- Vehicle Sync - share coverage between machines operating in the same field
- Fleet - monitor machine location and performance online
- DCM-300 modem - provides wireless 3G connectivity & data transfer
- Trimble Ag Mobile App
- Irrigate-IQ App



Farmer Basic Software

- Desktop software to manage all your precision ag data
 - Trimble Ag – Mapping
 - Trimble Ag - Mobile
 - Trimble Ag – WM-SubSurface
 - Trimble Ag – Accounting
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- Juno 3 and TC41
 - Yuma 2 – Windows7 tablet PC
 - Kenai – Windows 10



mapping



mobile

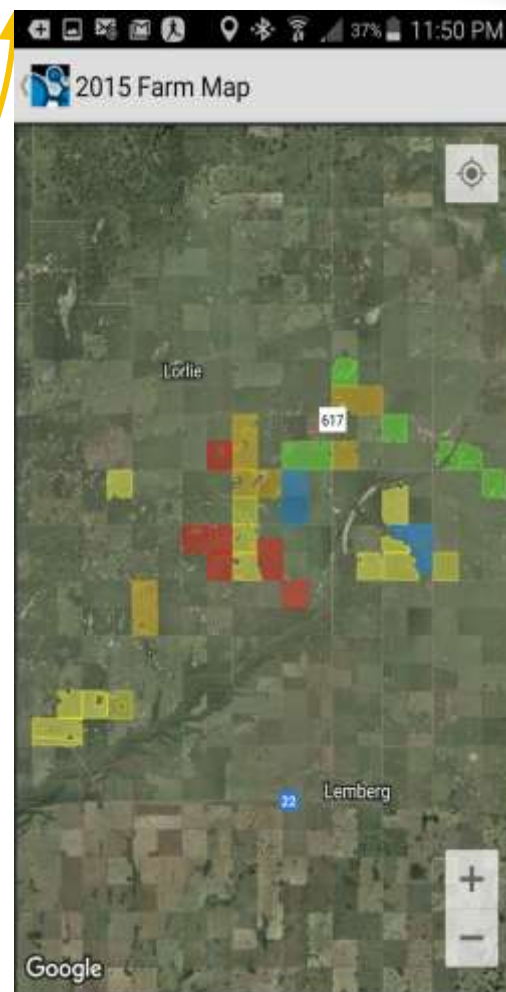


surface



accounting





Trimble presence in India

- **Water Management: Proud to introduce to Laser Land Leveling in India in 2003. Possible to save about 25% of water. About 10000 units in India, making us the largest player.**
- **Green Seeker: NDVI sensors for plant health monitoring. NDT with a potential to save 20% of Nitrogen applied . Large user base among scientists across India.**
- **Auto Pilot: Our automated vehicle and implement guidance system that has been able to get acceptance from leading seed companies of India.**

New developments for change

- **Tech startups: Embracing technology, brave young minds are coming out with ideas in aggregating services and consumptions on hyper-local platforms, hitherto unthinkable.**
- **Farmer Producer Organizations: Will be challenging effectively the traditional cooperative scene in India with more accountability and participation.**
- **Rental models: Technology is more mature now and where companies like DCM, Mahindra and ITC could not be successful enough, smaller and focused players with new ideas are sure to make impact.**

For new age farming: Technologies

- **Telematics: Both the tractors and planters, sprayers & harvesters.**
- **Sensors: Moisture, Chlorophyll and Plant health.**
- **Communications: Radio, Mobile for interactive possibilities.**

Startup scene in India ready to put the above to use.

For new age farming: Applications

- **Spraying: Low cost boom sprayers that can be customized.
Variable rate capability on the go.
Ultra low volume sprayers hand operated.**
- **Nutrient Management: Soil sampling grids using local vehicles.
Broadcasters having variable rate
functionality.**
- **Rice trans planter auto driving to enable operator to focus on
accuracy of operations.**

A communication platform to ensure tracking.

For new age farming: Functionalities

- **Variable Rate Application: Planting Spraying and Nutrients.**
- **Monitoring: This is going to be the most important function as consolidation starts happening. FPOs going in for large scale uniform operations need this for success.**

As discerning food chains and startups in food sector look to scale up, this will be the key to their operations.