



SMART FARMING

Tema 4: TRANSFORMASI KE ARAH TEKNOLOGI DAN TEKNIK MODEN
PERTANIAN

Presented by Dr. Vanessa Teo
Agrome IQ International Sdn Bhd.

Agriculture : is the art and science of cultivating the soil, growing crops and raising livestock.

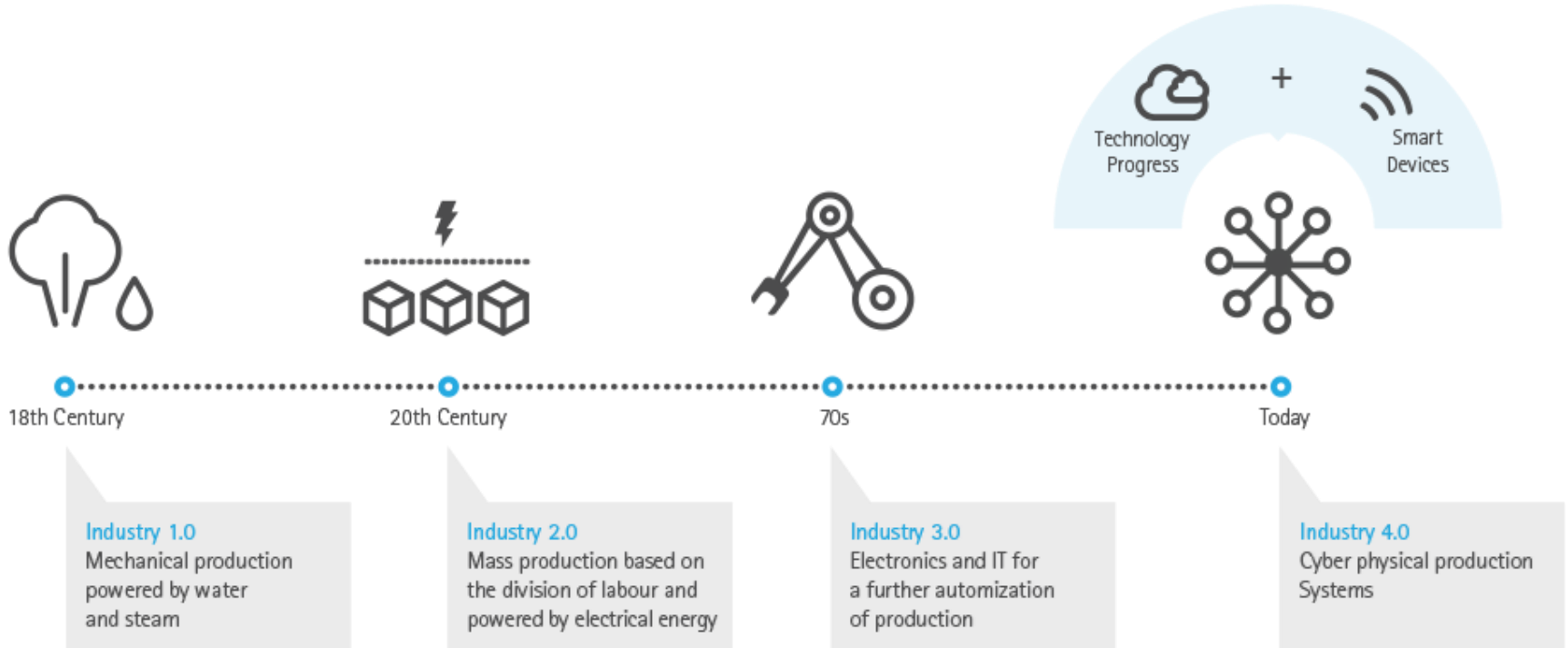


GREEN REVOLUTION

The great increase in production of food production due to the introduction of high-yielding varieties, to the use of pesticides, and to better management techniques.



INDUSTRIAL REVOLUTION 1.0 to 4.0

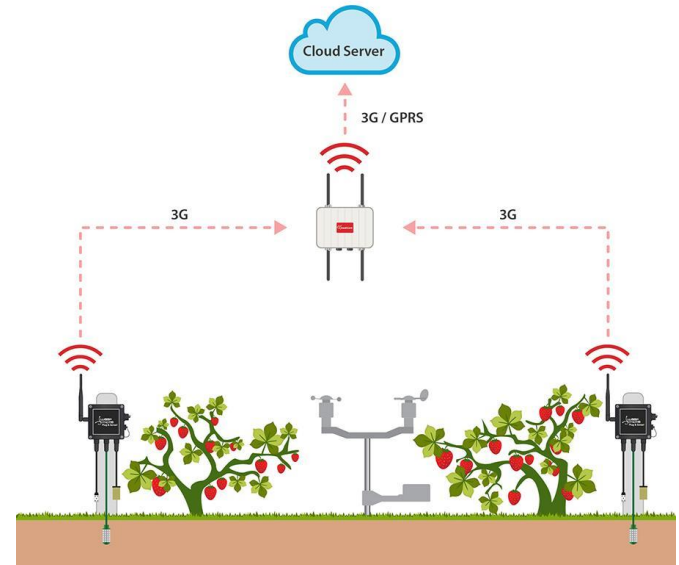


WHAT IS SMART FARMING?

SMART FARMING is the adoption of a highly specific set of practices that uses technology to cater to the needs of individual plots and crops.

Types of Technology

- Sensors & Data analytics software
- Automated Greenhouses



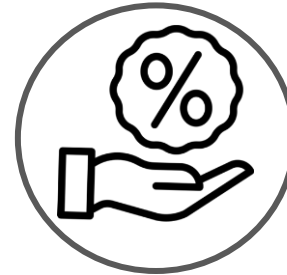
FARMERS DILEMMA



Farm Productivity



Knowledge



Profitability



Market Access



Farm Management

Climate Change threatens our ability to ensure global food security, eradicate poverty and achieve sustainable development.



Climate change already affects agriculture and food security and, without urgent action, will put millions of people at risk of hunger and poverty.

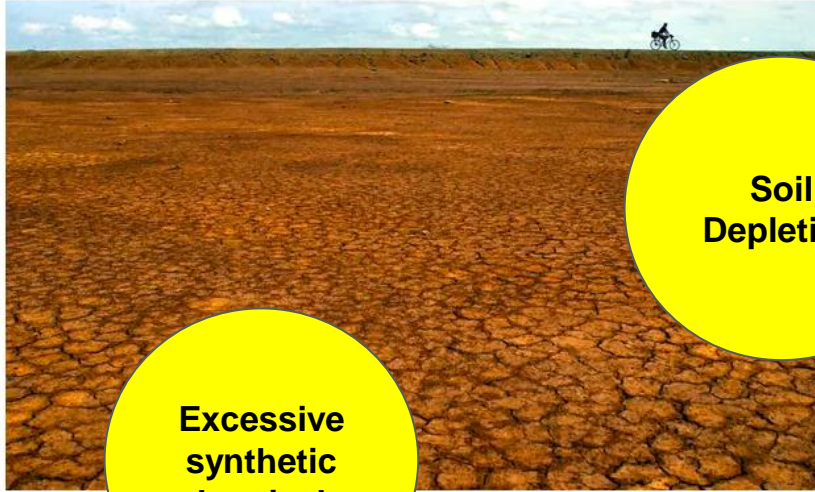


Food and Agriculture Organization
of the United Nations

#SOFA16 #ClimateChange
fao.org/publications/sofa

The world needs topsoil to grow 95% of its food - but it's rapidly disappearing

Without efforts to rebuild soil health, we could lose our ability to grow enough nutritious food to feed the planet's population



▲ The Sariguan area in Sarawak, Malaysia, after overgrazing by livestock and the loss of topsoil through erosion.

Soil Depletion

Excessive synthetic chemicals

Farmers hit hard by dry weather

By SUZIANAH JIFFAR - March 4, 2019 @ 8:03am



Children playing in a pool of water in a parched padi field in Kampung Sangkat, Sarawak. Photo by JULL AZRY

Nitrate Leaching

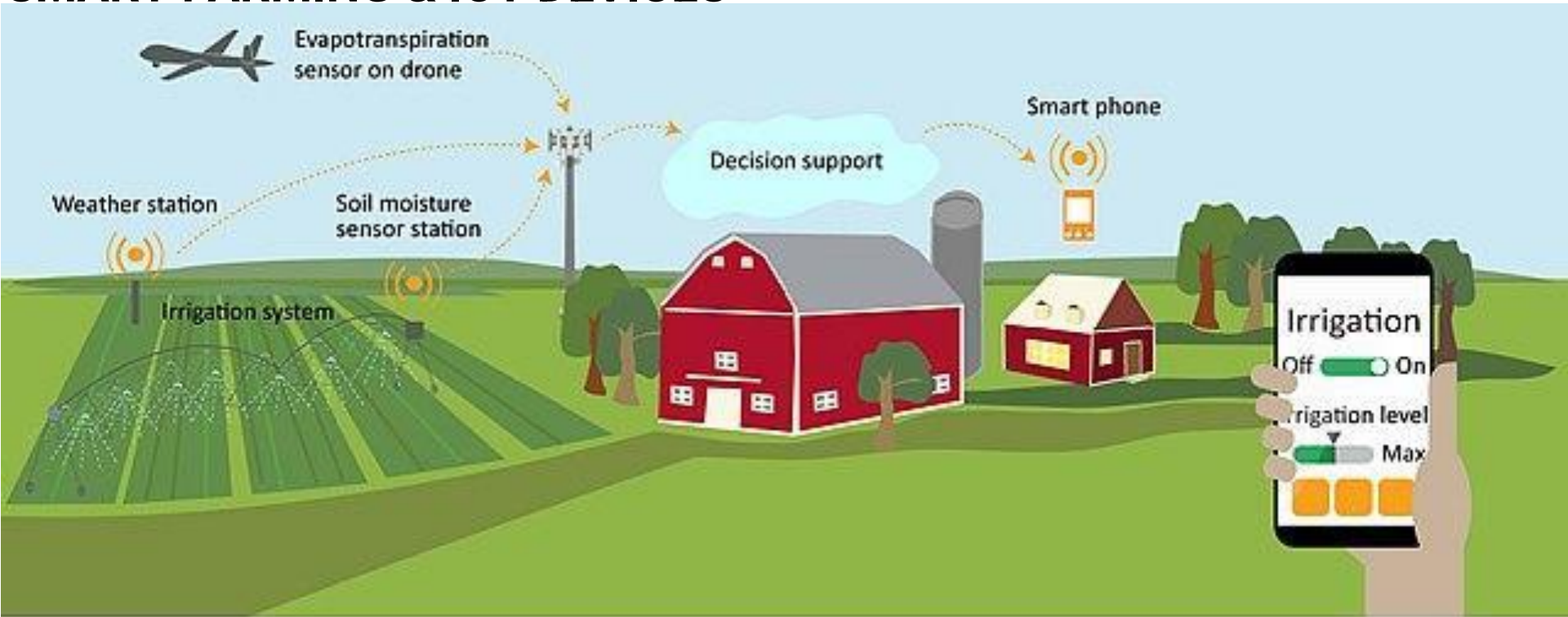
BENEFITS OF SMART FARMING

- Improve Decision making
- Limited land area
- Lack of natural resources
- Severe weather conditions
- Slow yield and growth
- Lack of Human Resources

Climate-smart decision making



SMART FARMING & IOT DEVICES



FARMS OF THE FUTURE



THANK YOU

vanessateo@agromeiq.com