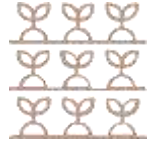




8<sup>th</sup> World Congress on  
Conservation  
Agriculture

*The future of farming*



# Successful experiences and learnings from Conservation Agriculture worldwide

Amir Kassam

On behalf of the Global CA Community of Practice  
(CA-CoP)

**Bern, Switzerland**

*June 30th-July 2nd, 2020*

The Road to the 8WCCA Webinar series

Congress Sub-theme 1

22 October 2020, ECAF & FAO



A large orange circle is positioned on the left side of the slide, partially cut off by the edge.

# *The talk*

## **1. Successful experiences with CA**

- Global spread
- Country cases

## **2. Learnings from CA spread**

- Conditions for adoption and mainstreaming
- Global crises as drivers of CA adoption & spread

## **3. Greater Learnings:** From the global burden of chronic challenges

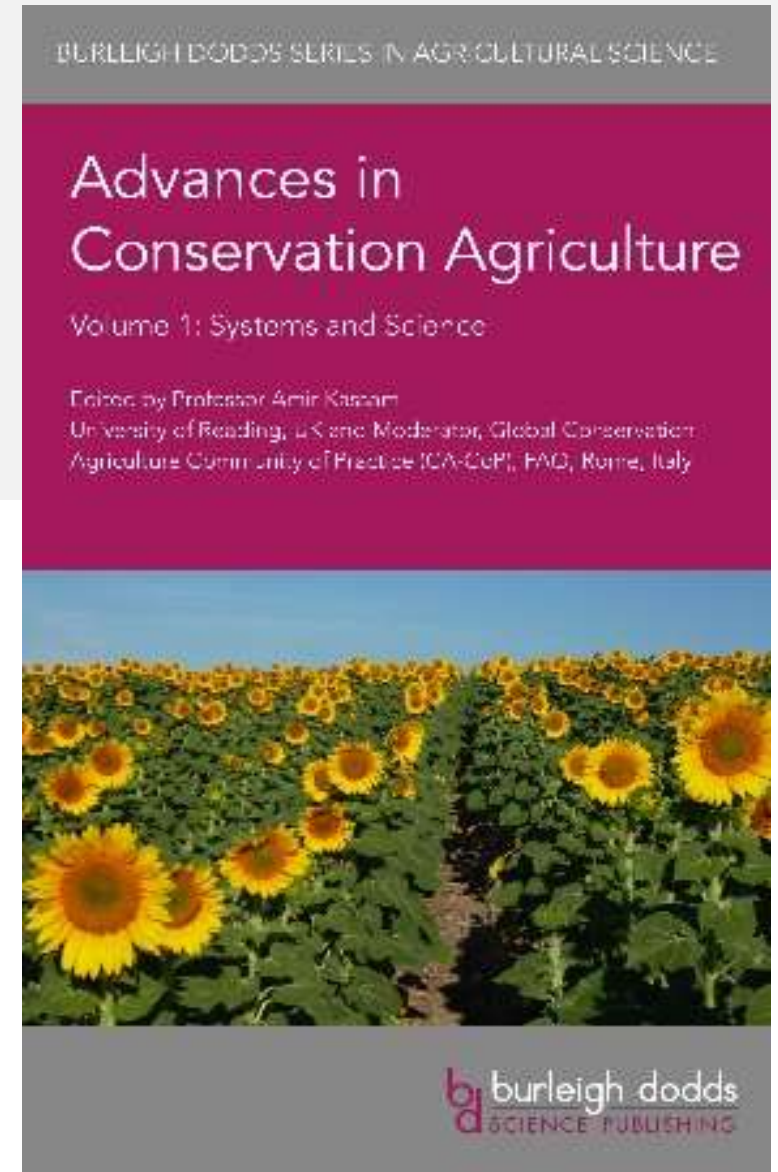
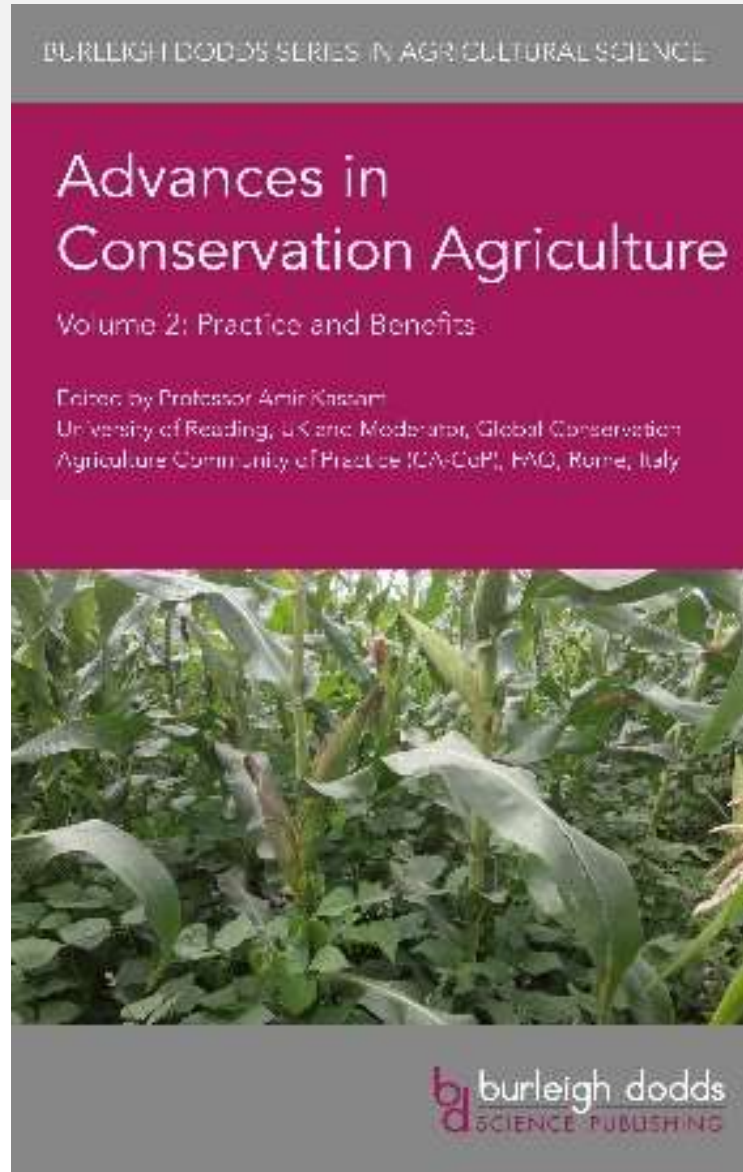




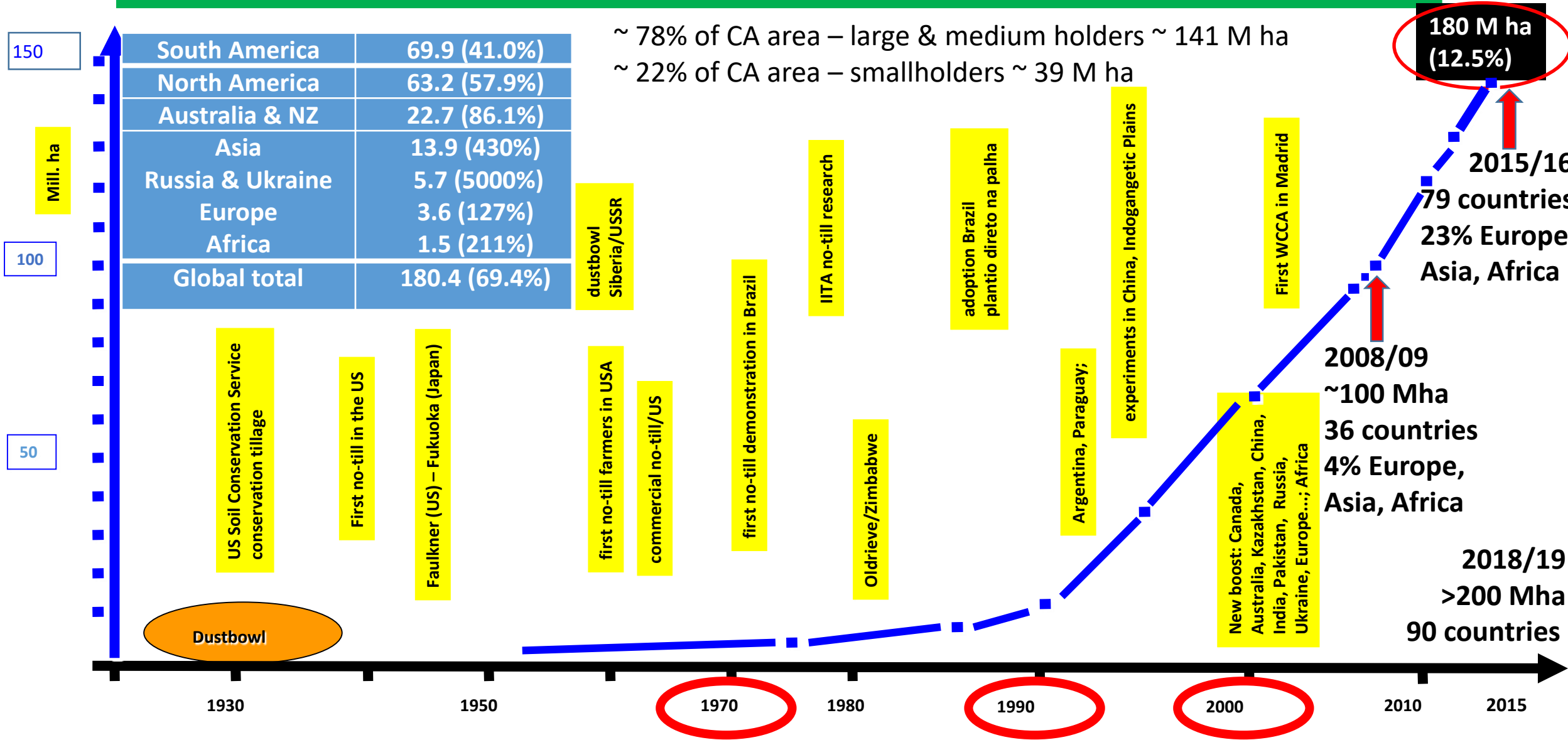


# ***Successful global spread***

***(Third Volume:  
global adoption  
& spread)***



# Worldwide History and Adoption of CA (2015/16). Since 2008/09 increasing at 10.5 M ha annually, 50% in the North, 50% in the South



***Successful  
experiences  
worldwide:  
Country cases***


***(Third Volume:  
global adoption &  
spread)***

**North America, Latin America,  
Australia, Europe & Euro-Asia**

Canada, Brazil & Paraguay, Australia, UK & Spain,  
Kazakhstan & Uzbekistan

**West Asia, South & South-East Asia,  
East Asia, Africa**

Iran & Syria, India, China, South Africa, Ghana &  
Morocco



***Successful  
experiences  
worldwide:  
Country cases***

***North America,  
Latin America,  
Australia, Europe  
& Euro-Asia***

**Canada**-~ >50%, 21.7 Mha, western landscape transformed, no dust storms since 2000; a range of co-benefits – greater productivity & profit, reduced inputs, lower GHG emissions; C seq scheme in Alberta, before Kyoto; in mainstreaming phase

**Brazil & Paraguay**-~>52%, 42.2 Mha; ~>63%, 3.0 Mha, small & larger-scale farmers institutionally integrated; 1<sup>st</sup> & 3<sup>rd</sup> global exporters of soya; output doubled, inputs down 30-50%; a unique CA-based programme to manage watersheds draining into the Itaipu lake; national CA-based C seq & mitigation programme in Brazil; both in mainstreaming Phase

***Successful  
experiences  
worldwide:  
Country cases***

***North America,  
Latin America,  
Australia, Europe  
& Euro-Asia***

**Australia**-~>50%, 22.03 Mha,~100% in western & southern Australia, dust storm stopped since 1995; large extents of marginal areas rehabilitated; multi-stakeholder C seq programmes promoted; in mainstreaming

**UK & Spain**-~15%, 562k; 8%, 1 Mha (20% Perm crops); farmer & civil society driven, CA driving change but some government support. Cordoba university campus farm fully run on CA management plus all teaching and research.

**Kazakhstan & Uzbekistan**-~12.2%, 3 Mha, (55% CA+MT); ~3%, 0.12 Mha (8.5%, CA+MT), irrigated; Supported by government; large-scale impact on reversing land degradation

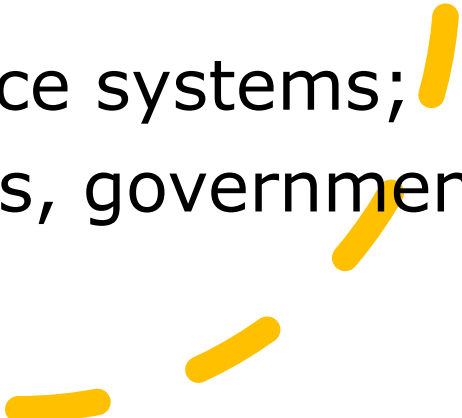
***Successful  
experiences  
worldwide:  
Country cases***

**West Asia, South &  
South-East Asia,  
East Asia, Africa**

**Iran & Syria**-~2%, 300 kha; 1%, 30 kha;  
locally manufactured seed drills, under severe  
sanctions; farmers networking; government  
supported national initiatives

**India**-~2%, 3.5 Mha; include rice systems;  
locally manufactured seed drills; government  
support growing but fragmented

**China**-~7%, 9 Mha; include rice systems;  
locally manufactured seed drills, government  
support; CA Institute





***Successful  
experiences  
worldwide:  
Country cases***

**West Asia, South &  
South-East Asia,  
East Asia, Africa**

**South Africa**-~25%, 1.2 Mha (50% NT);  
initial mainstreaming phase; farmer  
associations; government support

**Ghana**-~5%; 235 kha; smallholders; CA  
training Centre; scaling initiatives

**Morocco**-~<2%; 13 kha; small and  
large-scale; scaling to 2 Mha target;  
government support; Triple A initiative with  
CA announced at COP22

A large orange circle is positioned on the left side of the slide, partially cut off by the edge.

# ***Learnings***

**Conditions for Adoption & Mainstreaming** – necessary vs sufficient

**Global crises as drivers of CA adoption and spread**

A series of four yellow dashed line segments are arranged in a curved, upward-sloping pattern in the bottom right corner of the slide.

# ***Learnings***

## **Conditions for Adoption & Mainstreaming**

Five '**critical criteria of coordinated success**' necessary for adoption & mainstreaming national CA movements:

**Number one:** *The presence of champions and pioneer farmers, and champion institutions and champion institutional leaders.*

**Number two:** *The presence of farmers & their communities coming together to form powerful farmer organizations for proactive actions and greater self-reliance?*

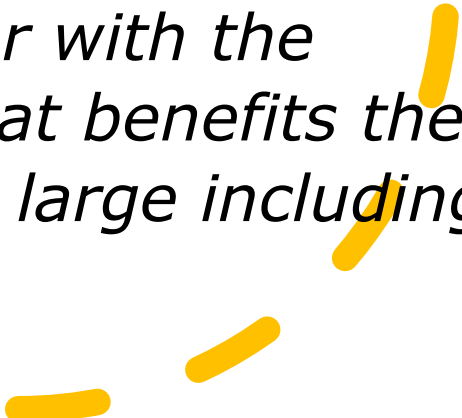
# ***Learnings***

## **Conditions for Adoption & Mainstreaming**

**Number three:** *The presence of education, research and innovation systems supported by new communication technology that have aligned themselves to promoting the new paradigm?*

**Number four:** *The presence of governance, local & national that creates policies, opportunities and institutional support for CA paradigm change?*

**Number five:** *The presence of effective capacity of farmers & community to partner with the business service sector in ways that benefits the farmer, community and society at large including nature?*





# ***Learnings***

## **Global crises as drivers of CA adoption & spread**

- **Soil erosion**
- **Droughts**
- **Cost of energy & inputs**
- **Natural resource degradation**
- **Ecosystem dysfunction**
- **Climate breakdown**
- **Food insecurity**
- **Smallholder livelihoods**
- **Science & education**
- **International development**



(Despite, CA spreading, largely farmer-led .... but there are contemporary struggles going on in all these crises areas)

# *Greater learnings*

## *So what?*

Given the growing worldwide spread of CA, **the question that arises is: So what?**

In other words, **do we continue with 'CA business as usual' i.e. modest growth and reacting to chronic and looming crises, or is there something more we must learn & do?**

**By taking a broader look at what is going on in the world in the global food and agriculture system, could we see what more can we learn and act upon?**

**Perhaps, we must become more proactive, converge with or complement other struggles, given the interconnectedness of these crises?**



# *The global burden of chronic challenges*



First mass extermination  
(Proc Nat Academy Sci USA, 2020)

The Anthropocene  
Capitalocene  
Necrocene



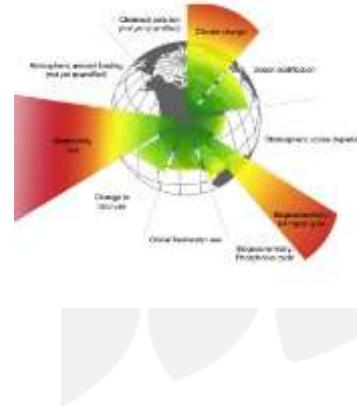
INDEPENDENT

## **Earth accelerating towards sixth mass extinction event that could see ‘disintegration of civilisation’, scientists warn**

Stop The Wildlife Trade: ‘Extinction breeds extinction’, says grim new study revealing more than 500 species are on course to go extinct in next two decades - around the same figure for the whole of the twentieth century

**“There is time, but the window of opportunity is almost closed. We must save what we can, or lose the opportunity to do so forever..... It is something that humanity cannot permit, as it may be a tipping point for the collapse of civilization. What is at stake is the fate of humanity and most living species. Future generations deserve better from us.”**

[www.pnas.org/cgi/doi/10.1073/pnas.1922686117](http://www.pnas.org/cgi/doi/10.1073/pnas.1922686117)



 **WCCA**  
8<sup>th</sup> World Congress on  
Conservation  
Agriculture



# ***Remember - WITHIN the global burden of chronic crises!***

477 gallons of water are required to produce 1lb. of eggs & almost 900 gallons of water are needed for 1lb. of cheese.

Livestock or livestock feed occupies  $\frac{1}{3}$  of the earth's total ice-free land.

Livestock is responsible for 65% of all human-related emissions of nitrous oxide (a greenhouse gas with 296 times the global warming potential of carbon dioxide, and which stays in the atmosphere for 150 years)

Animal agriculture is responsible for more greenhouse gas emissions than the combined exhaust from all transportation.

Animal agriculture is responsible for up to 91% of Amazon destruction.

**Food & agriculture system is the leading cause of global species extinction, habitat destruction, land degradation & abandonment, water pollution, ocean & underground dead zones, climate change & human ill health**

2,500 gallons of water are needed to produce 1 pound of beef.

As many as 2.7 trillion animals are pulled from the ocean each year, &  $\frac{3}{4}$  of the world's fisheries are exploited or depleted.

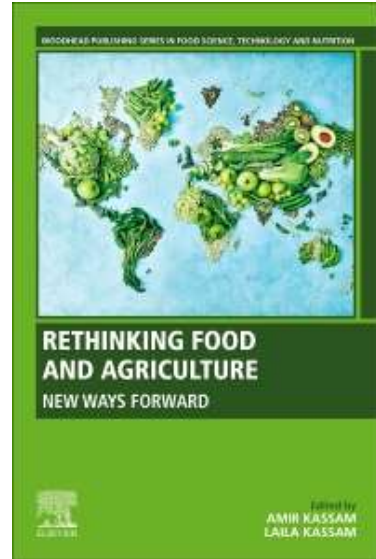


***Global  
burden of  
chronic  
challenges in  
the food and  
agriculture  
system***

- 1. 70-80% area & production for animals**
- 2. Land and biodiversity degradation**
- 3. Water and atmospheric pollution**
- 4. Climate & ecological breakdown**
- 5. Pervasive poverty**
- 6. Poor diets and ill-health**
- 7. Poor quality education & research**
- 8. Ineffective institutions**
- 9. Land use and policy miss-match**
- 10. Corporate dominance**
- 11. Neoliberal capitalism**
- 12. Loss of trust in politicians**

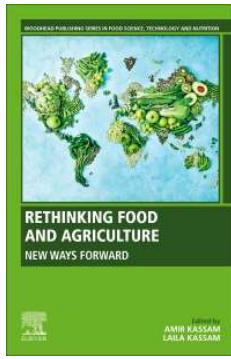
**A self-destroying political & economic ideology & a food regime with a distribution system in which farmers, consumers and the public have little effective say!**

**<https://inclusiveresponsibility.earth>**



# The future of food and agriculture system

## *Ways forward? -- Is there hope?*



**For everyone to think about:**

**We have to ask ourselves, Is there hope? By all of us looking around at how CA has been spreading worldwide and at the growing recognition of the important role that CA plays in solutions of these chronic challenges faced by the food and agriculture system, the conclusion is: *A definite Yes!***

**With coming together of global experts, we thought that within the broader context everyone needs to explore the concept of *'inclusive responsibility'*, which is a guiding framework of *ethics and values* to promote sustainable and responsible food & agriculture system based on six interconnected themes.**

- 1. holistic paradigms and mindsets that deal with complexity (systems vs components)**
- 2. narratives of abundance rather than lack (abundance vs scarcity)**
- 3. multifunctional paradigms of agriculture (CA-based)**
- 4. decentralising power in the food and economic systems (localization)**
- 5. diets which promote human & planetary health**
- 6. powerful social movements and civil society**

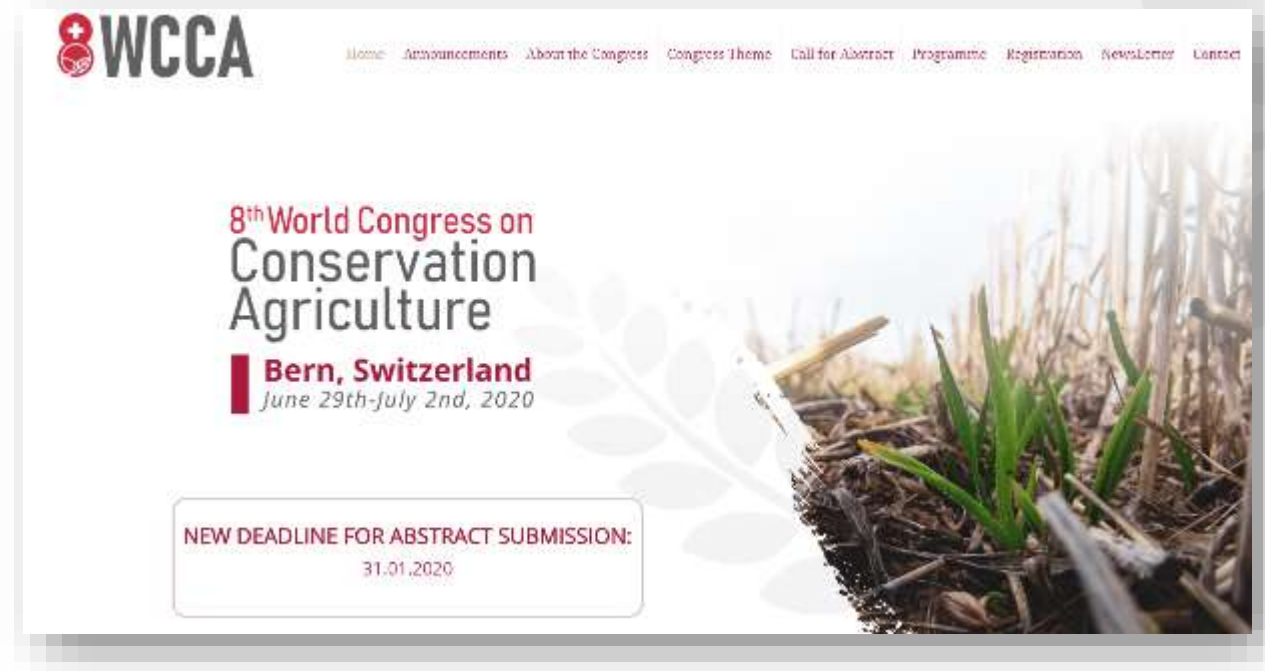


**More Info at:**

---

**Thank you**

amirkassam786@googlemail.com



For further information, contact us:

**info@8wcca.org**

