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COMMISSION ON GENETIC RESOURCES FOR FOOD AND AGRICULTURE

Americas regional perspective and status of conservation and sustainable use of biodiversity for food and agriculture

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Commission on Genetic Resources for Food and Agriculture

CABI American and Caribbean Regional Consultation
Ottawa, 11-14 September 2018

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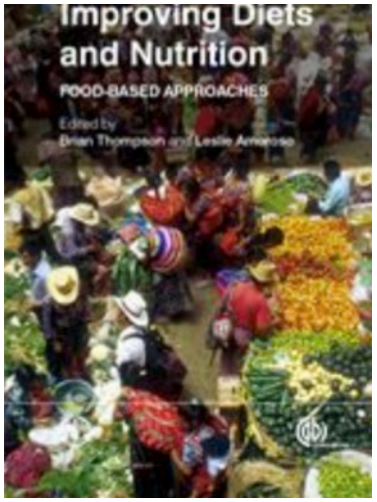
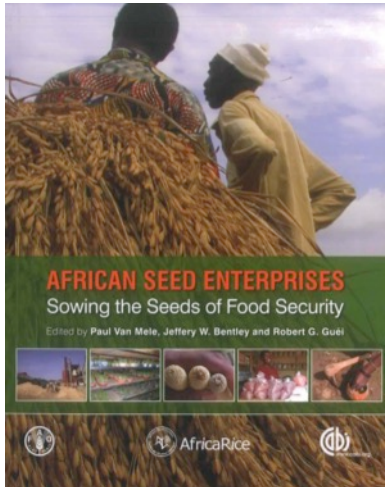
FAO CABI collaboration

regional Asia IPM Pesticide Risk Reduction programme

Fall Army Worm

GACSA





tap TROPICAL AGRICULTURE PLATFORM

CAPACITY FOR CHANGE

Common Framework on Capacity Development for Agricultural Innovation Systems

SYNTHESIS DOCUMENT

FAO in Ghana

Our office | Programmes and projects | News | Resources | Partners

FAO, CABI, IPPC and partners meet on solutions for crop pest problems in agriculture

05/08/2014 Accra.- A broad coalition of agriculture experts in West and southern Africa met in Accra, Ghana to build linkages that will enhance safe and sustainable food security at a national, regional and global level.

The workshop, convened by the International Plant Protection Convention (IPPC www.ippc.int) Secretariat, the Food and Agriculture Organization (FAO www.fao.org) and the CABI-led Plantwise programme was one in a series of recent efforts to better integrate plant health activities and resources in the region.

The Deputy Regional Representative of FAO Regional Office for Africa, Dr Lamourdia Thiombiano urged Crop protection officials to share the status of pests present in their countries. "It's unfortunate to report that most countries - including developed countries - don't fulfil all their reporting obligations. This doesn't reflect well on the countries concerned, but it also means that we are less able to achieve the goals of the convention – preventing the introduction and spread of pests", he said, adding that he would urge the countries present to take their membership of the IPPC and indeed other international conventions seriously, and show that in Africa we can be fully responsible members of the international community".

On his part, Dave Nowell, Information Exchange Officer of the IPPC Secretariat in FAO remarked: "Addressing national plant health issues and meeting national reporting obligations is not only about IPPC contracting parties working together or FAO members working together, but everybody has a role to play. It's a whole new way of working for many but it's necessary for the future sustainability of the system now that there are less resources to work with."

By sharing information through IPPC national reporting frameworks, countries can build transparency on national regulations, facilitate trade with regional and global partners and respond early to potential pest threats.

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CBD Strategic Plan - Thematic programmes of work, cross-cutting issues

CBD	FAO
agricultural biodiversity	Pollinator initiative, soil biodiversity initiative, biodversity and nutrition, global assessment reports (SOW), GPAs Adaptive Management, Capacity Building, Mainstreaming:
forest biodiversity	Collaborative Partnership on Forests, SFM, FRA
biodiversity of dry and sub-humid lands	Pastoralist Knowledge Hub
mountain biodiversity	Mountain Partnership
Sustainable Use	Collaborative Partnership on Wildlife
Access to genetic resources and benefit sharing	ITPGRFA, CGRFA
Ecosystem restoration	Forest and landscape restoration
Invasive alien species	IPPC

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The Commission on Genetic Resources for Food and Agriculture

1983 Established to deal with plant genetic resources

1995 Mandate broadened to cover all components of biodiversity for food and agriculture

2000 Close collaboration with CBD, as reflected by CBD PoW on Agricultural Biodiversity

2007 MYPOW, incl. vision and mission

2018 178 member countries + EU

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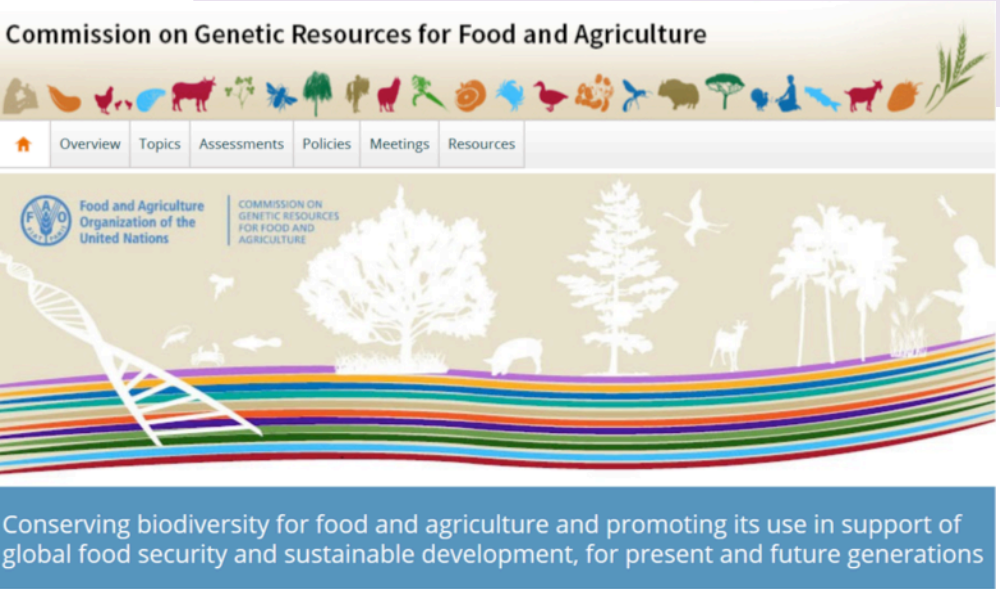
Commission's Strategic Plan and MYPOW

Sectoral matters	Cross-sectoral matters
Animal genetic resources Aquatic genetic resources Forest genetic resources Micro-organisms and invertebrates Plant genetic resources	The State of the World's Biodiversity for Food and Agriculture Access and benefit-sharing (ABS) Biotechnologies "Digital sequence information" on GRFA Climate change Food security; Nutrition and health Management, targets and indicators



http://www.fao.org/cgrfa/en/

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Cycle of work of the Commission

GPA implementation reports

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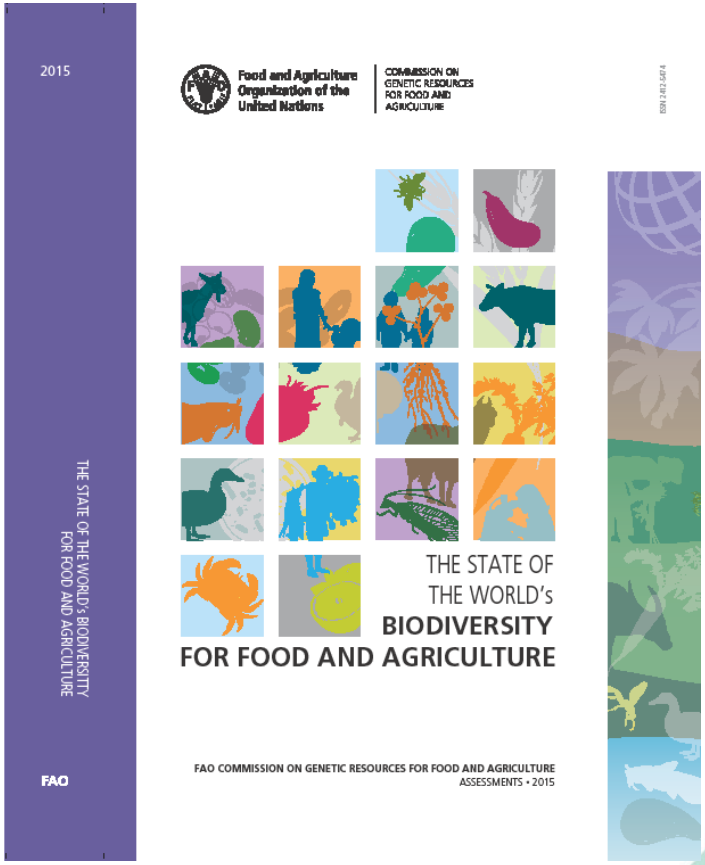
Biodiversity for food and agriculture

- Variety and variability of micro-organisms, plants and animals at the genetic, species and ecosystem levels that sustain the functions, structure and processes of the plant, animal, aquatic and forest production systems
- Genetic resources, associated biodiversity and wild foods
- Regulating and supporting ecosystem services



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Country contributions to State of the World reports

		ANGR	AQGR	BFA	FGR	PGR
N-AMERICA	**2**	USA	CDN, USA	USA	CDN, USA	(USA)
CARIBBEAN	**13**	BRB, CUB, DOM, JAM, TTO, VCT	CUB, DOM	ATG, BHS, GRD, JAM, LCA,		CUB, DMA, DOM, GRD, JAM, VCT, TTO
CENTRAL AMERICA	**8**	CRI, GTM, MEX	BZL, CRI, SLV, GTM, HND, MEX, NIC, PAN	CRI, SLV, MEX, NIC, PAN,	CRI, GTM, MEX, PAN	CRI, SLV, GTM, NIC, MEX
SOUTH AMERICA	**12**	ARG, BOL, BRA, CHL, ECU, PRY, PER, SUR, URY	ARG, BRA, CHL, COL, ECU, PRY, PER, VEN	ARG, BOL, CHL, ECU, GUY, PRY, PER	ARG, BRA, CHL, ECU, PER	ARG, BOL, BRA, CHL, ECU, PRY, PER, SUR, URY, VEN

In bracket: CR submitted after deadline

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Status of GRFA

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Different systems and functions

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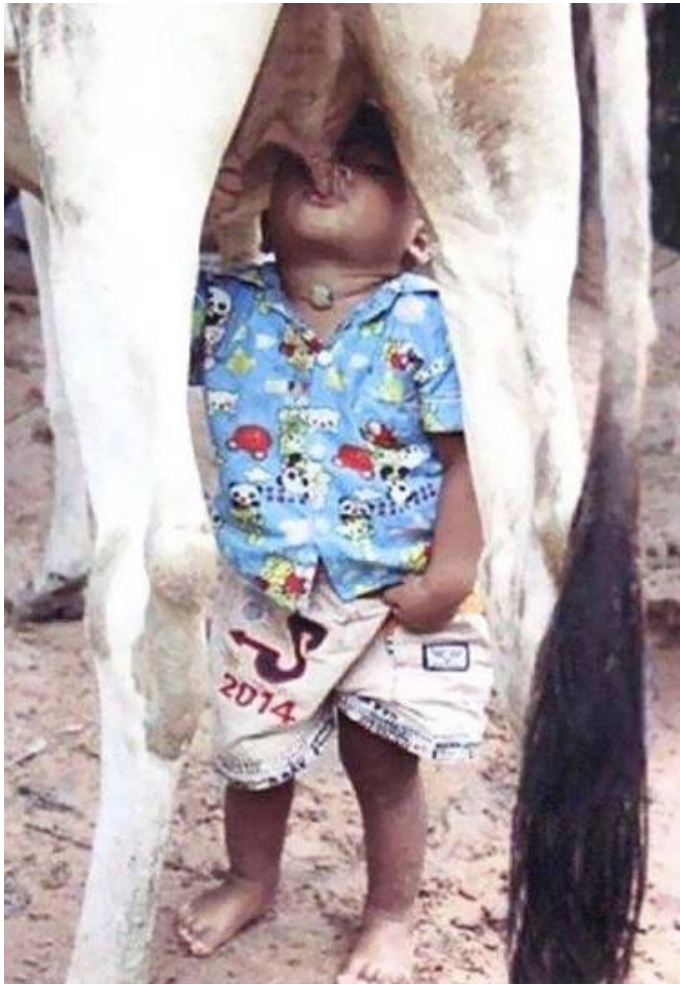

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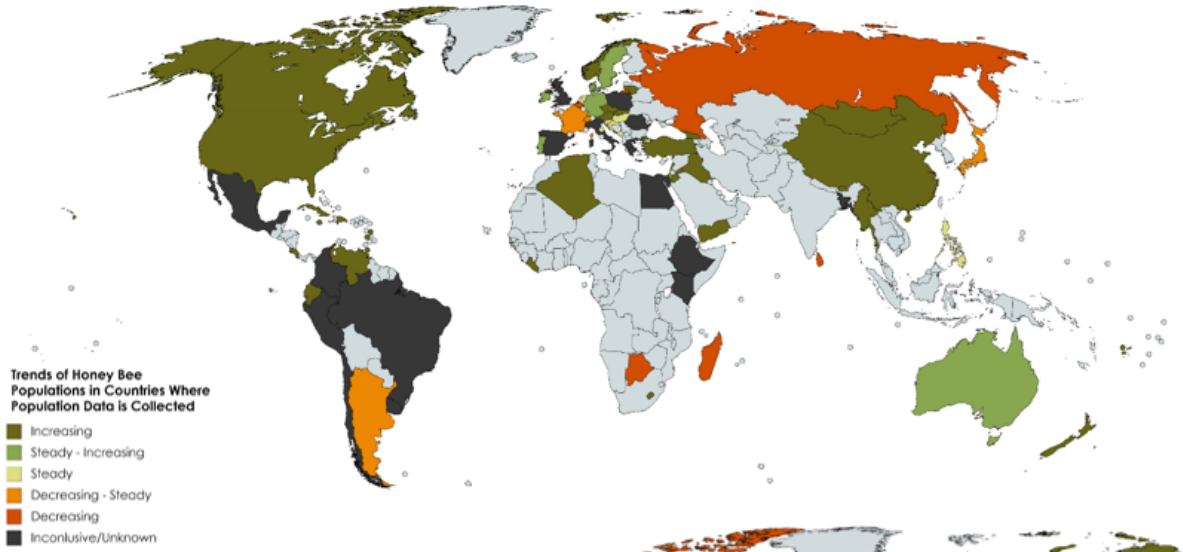
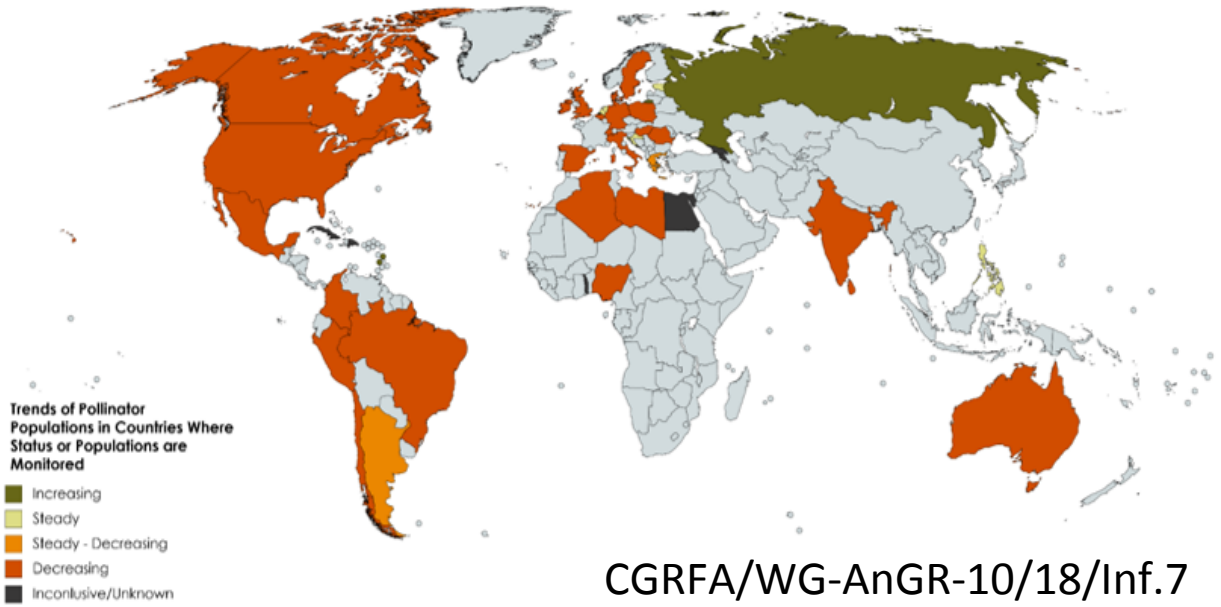
Trends of populations in countries where status of pollinator populations are monitored (light grey = no collection of population data)

honeybee



general



CGRFA/WG-AnGR-10/18/Inf.7

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Three most important threats to pollinators

honeybee

Threat	Africa	Asia	Europe and the Caucasus	Latin America	Near East	North America	Southwest Pacific
1	Loss, degradation or fragmentation of habitat/forage	*Varroa destructor*	*Varroa destructor*	Pesticides	*Varroa destructor*	*Varroa destructor*	Bacterial and Fungal diseases (American foulbrood, chalkbrood, etc.)
2	Pesticides	Pesticides	Pesticides	*Varroa destructor*	**Pesticides;** Poor/weak queens	Pesticides	Pesticides
3	Climate change	Bacterial and Fungal diseases (American foulbrood, chalkbrood, etc.)	Viral diseases (DWV, BQCV, KBV, etc.)	Climate Change	Bacterial and Fungal diseases (American foulbrood, chalkbrood, etc.)	**Loss, degradation or fragmentation of habitat/forage;** Poor/weak queens	**Climate change;** Pests (small hive beetle, wax moth, etc.)

general

Threat	Africa	Asia	Europe and the Caucasus	Latin America and the Caribbean	Near East	North America	Southwest Pacific
1	Loss, degradation or fragmentation of habitat/forage	Loss, degradation or fragmentation of habitat/forage	Loss, degradation or fragmentation of habitat/forage	Loss, degradation or fragmentation of habitat/forage	Pesticides	Loss, degradation or fragmentation of habitat/forage	Loss, degradation or fragmentation of habitat/forage
2	Climate change	Pesticides	Agricultural intensification	Pesticides	Climate Change	Pesticides	**Climate change;** Lack of conservation efforts
3	Pesticides	Insufficient research	Pesticides	Climate change	Insufficient research	**Agricultural intensification;** Pests, parasites and pathogens	**Agricultural Intensification;** Non-native species; **Pesticides**

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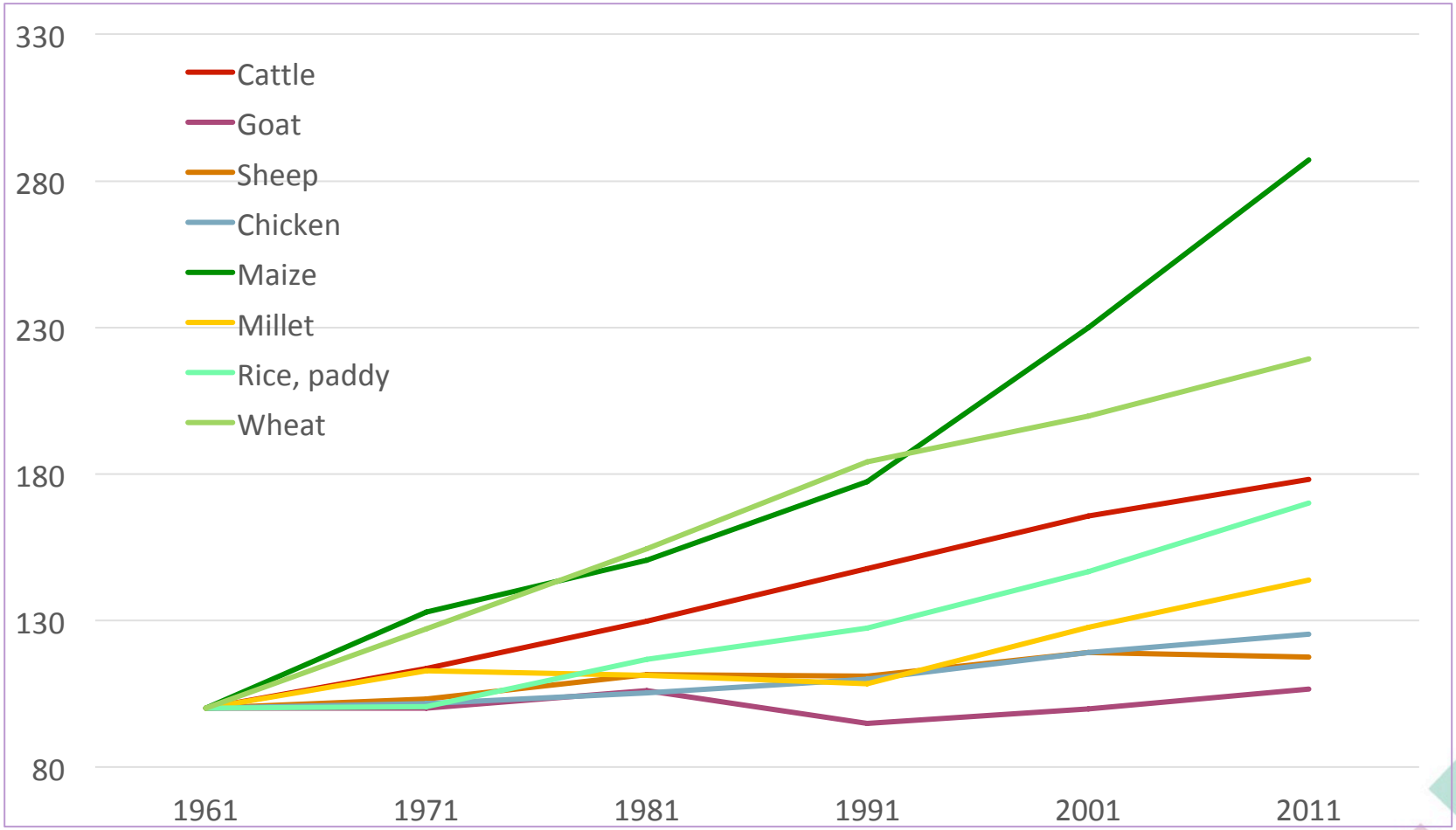
World yield increases

Yield per ha or per animal (all products), 1961=100



FAO Stat

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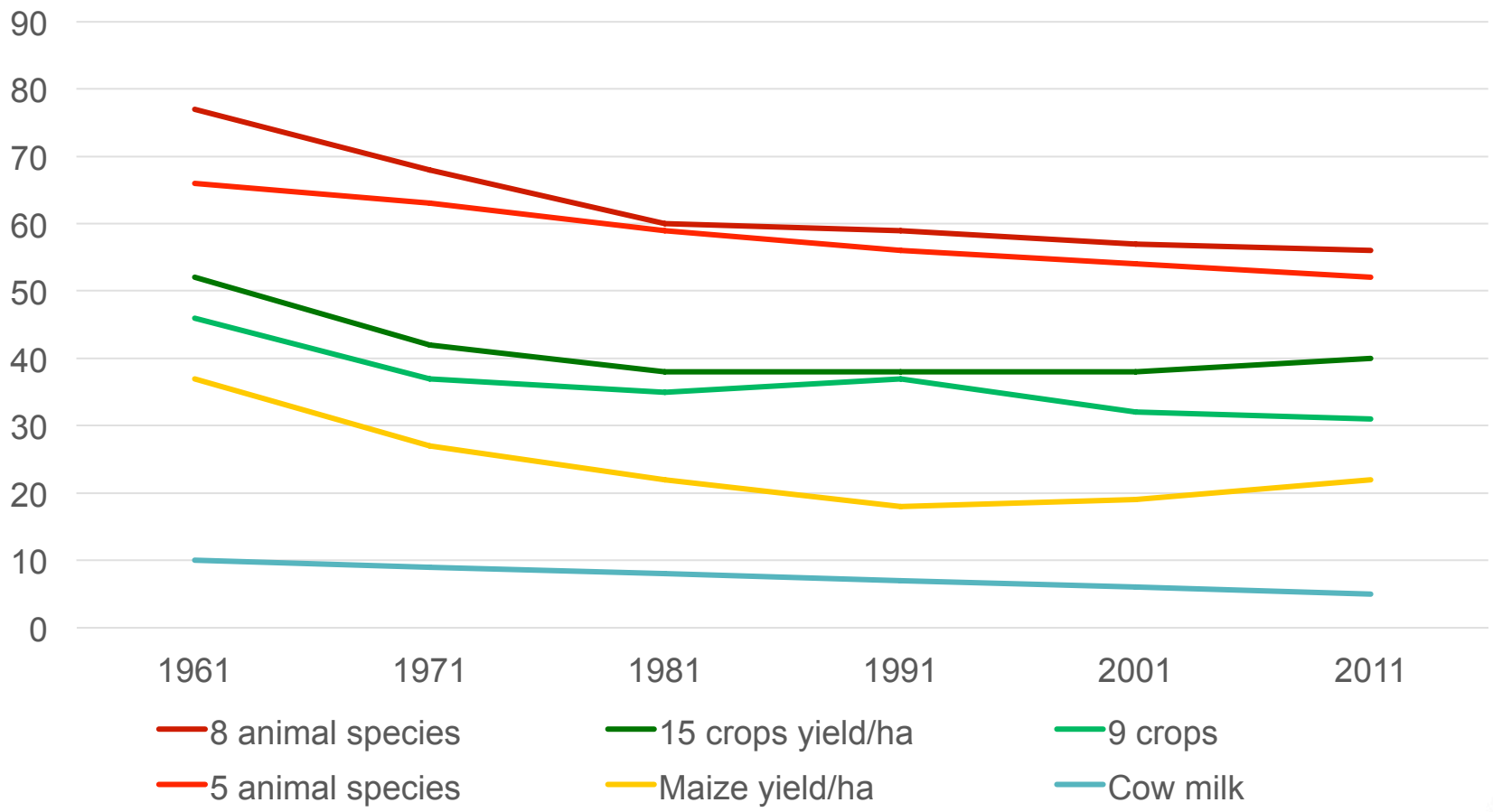
LDC yields as percent of EU yield levels



FAO Stat

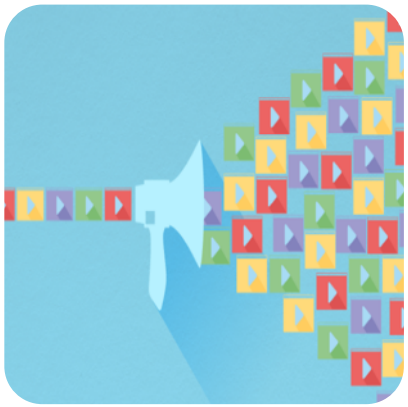
Summary of sectoral SOWs

- The range of GRFA declines with production intensification as selected GRFA provide higher shares of total production of the respective commodity
- Yield differentials between LDCs and Europe/N America increase
- Commercial breeding continues to concentrate
- Smallholders remain the custodians of GRFA diversity
- GRFA loss continues on farm
- GRFA ex situ conservation increases
- Developments in biotechnologies offer opportunities for breeding and conservation programmes for locally important GRFA – but capacity problems in LDCs

- Characterization, inventory & monitoring
- Sustainable use
- In situ & ex situ conservation
- Access & benefit sharing

NFP BFA Consultation on **needs and priorities**

CGRFA 16-17/Inf 11.4



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Conclusions

- GRFA loss on farm/ in situ continues or accelerates
- Landscape diversity declines
- Smallholders need support to continue their diverse GRFA, production systems and heterogenous landscapes – initiatives with local solutions increase
  - Local control, choice and empowerment
  - Incentives for ecosystem services, incl. conservation
  - Markets and value chains for biodiverse products
  - Rural development, land tenure, access to services and technology
- Public research, breeding, capacity development and extension for sustainable production improvement (breeding plus …..)
- Partner with breeding industry / private sector on conservation beyond their crops/breeds and sustainable value chains

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Areas for CABI future work

Start from CABI strength in BC and IAS

- Increase knowledge on local BFA, particularly associated biodiversity (M+I)
- Increase BFA (M+I) conservation in collections (infrastructure, services, regeneration)
- Support the Commission's future work programme on microbes and invertebrates
- Support the Commission's work on ABS, distinctive features and specific practices of microbes and invertebrates GRFA subsectors

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Areas for CABI future work

Broaden biodiversity scope and support knowledge generation

- Collect and compile information on smallholders: how many, production diversity and genetic resources used (species, varieties / breeds), inputs used (BC, pesticides, fertilizers etc)
- Collect and compile evidence on how practices (i.e. agroecology) enhance the SU+C of BFA and provision of ESS
- Better link work on resilience, CSA to BFA and ESS - evidence
- Define criteria, add value to products and services that sustainably use BFA and provide regulating and supporting ESS (labels, certification, traceability, denomination of origin, GI, branding, gastronomy, tourism, etc.)

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Thank you