Ecosystem Services in smallholder production systems in Western Zambia

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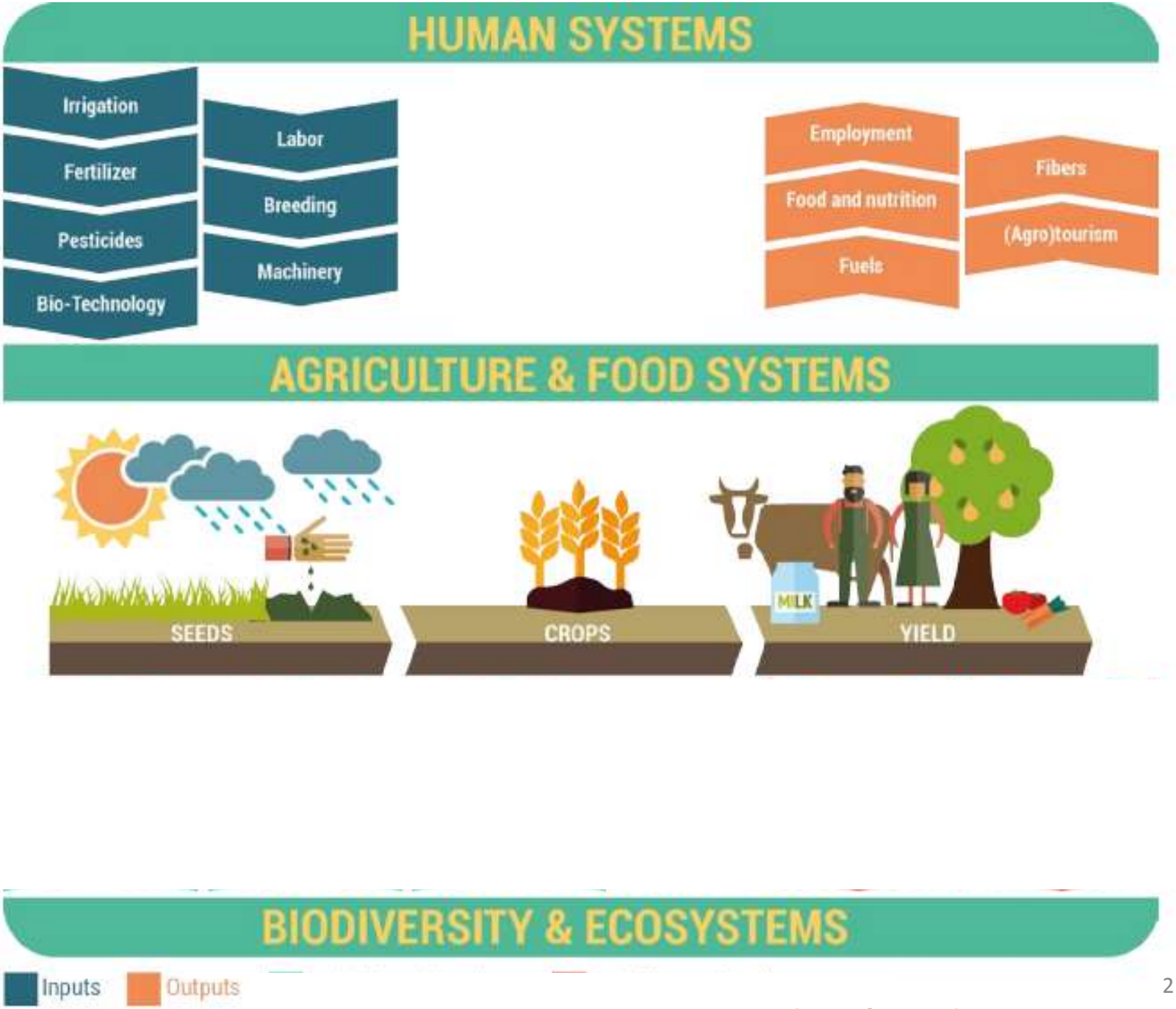
Date: May 31st, 2016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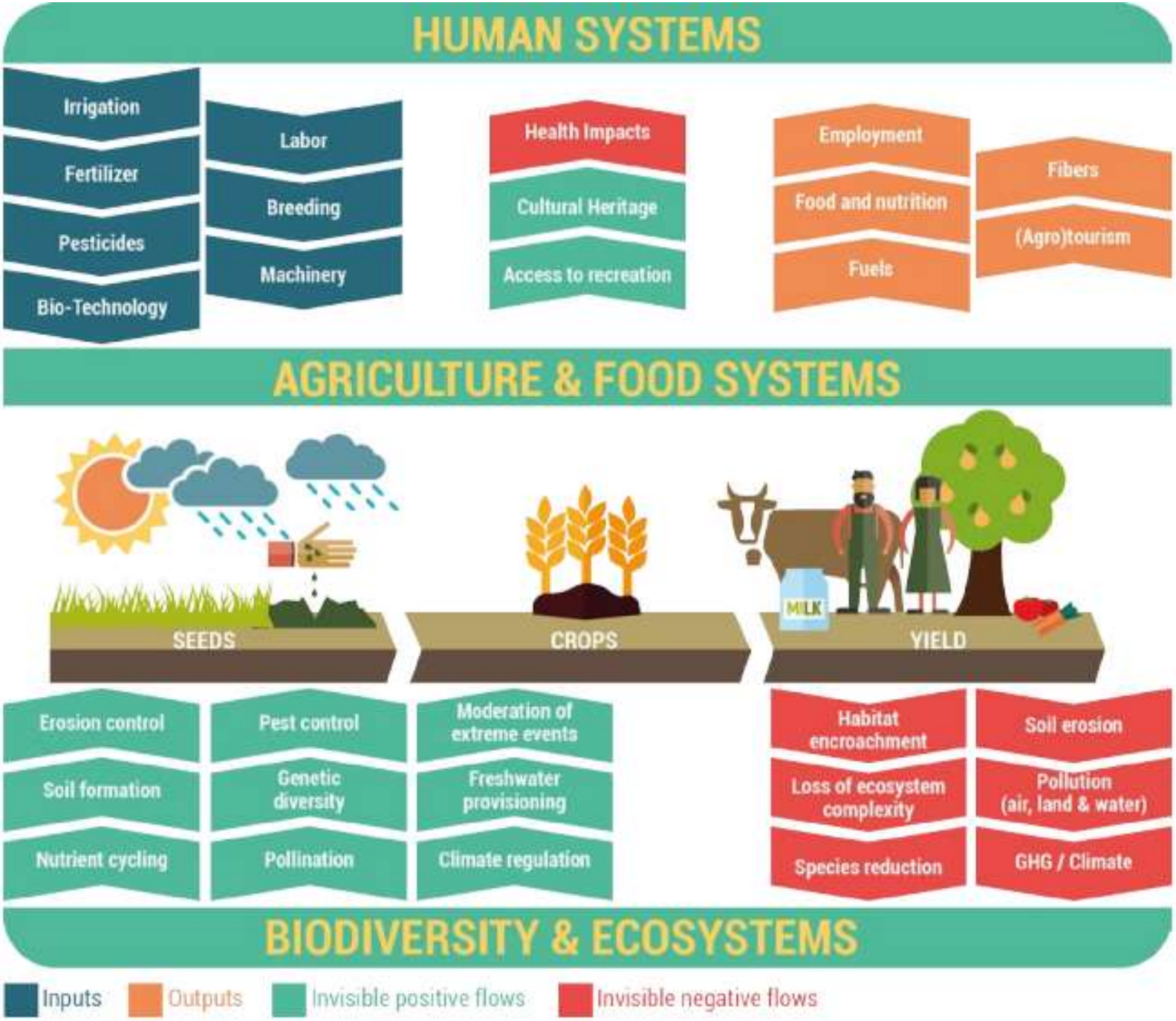
Fertilizer
Pesticides
Bio-Technology
Labor
Breeding
Machinery
Employment
Food and nutrition
Fuels
Fibers
(Agro)tourism
AGRICULTURE & FOOD SYSTEMS
SEEDS
CROPS
MILK
YIELD
BIODIVERSITY & ECOSYSTEMS
Inputs
Outputs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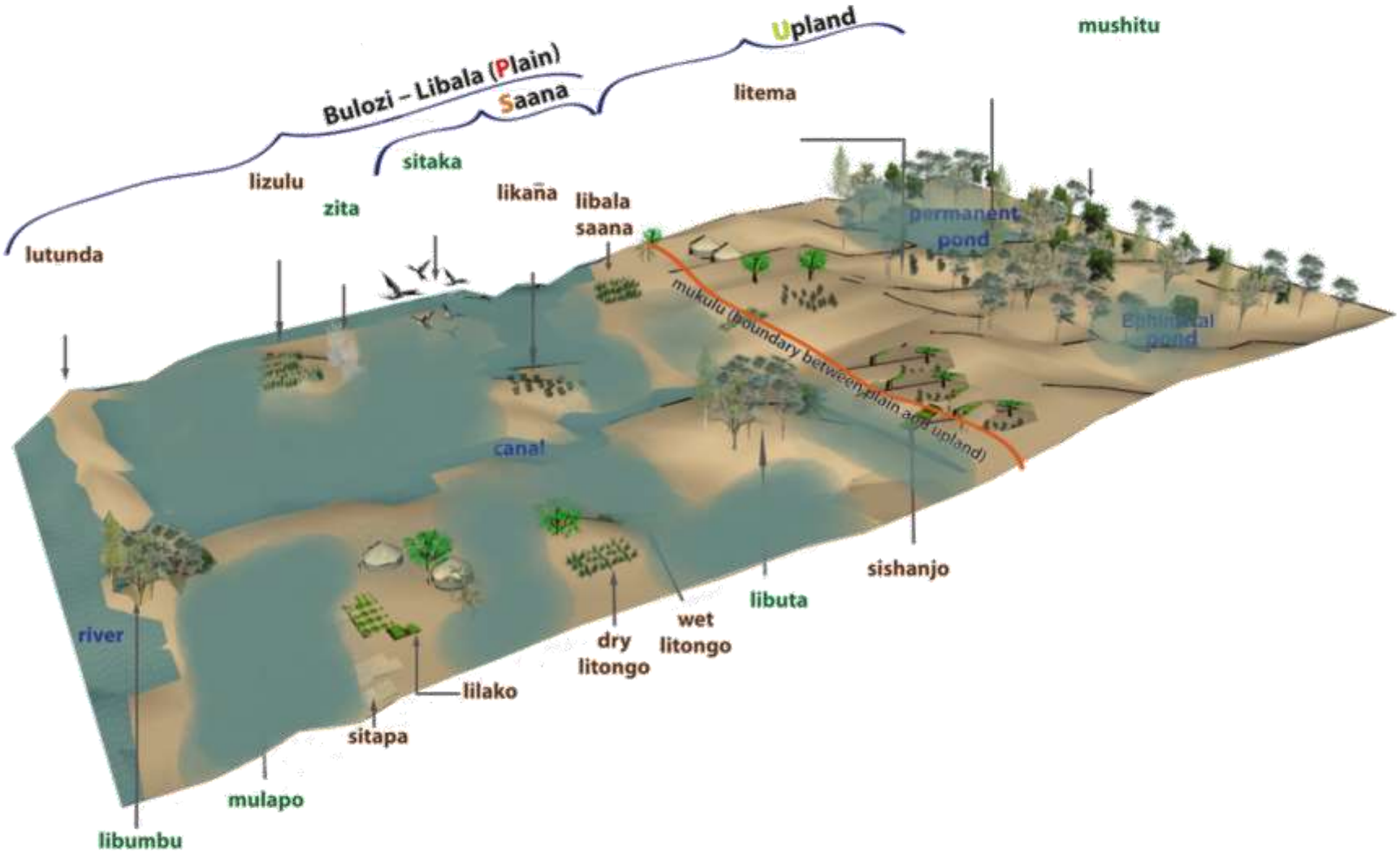
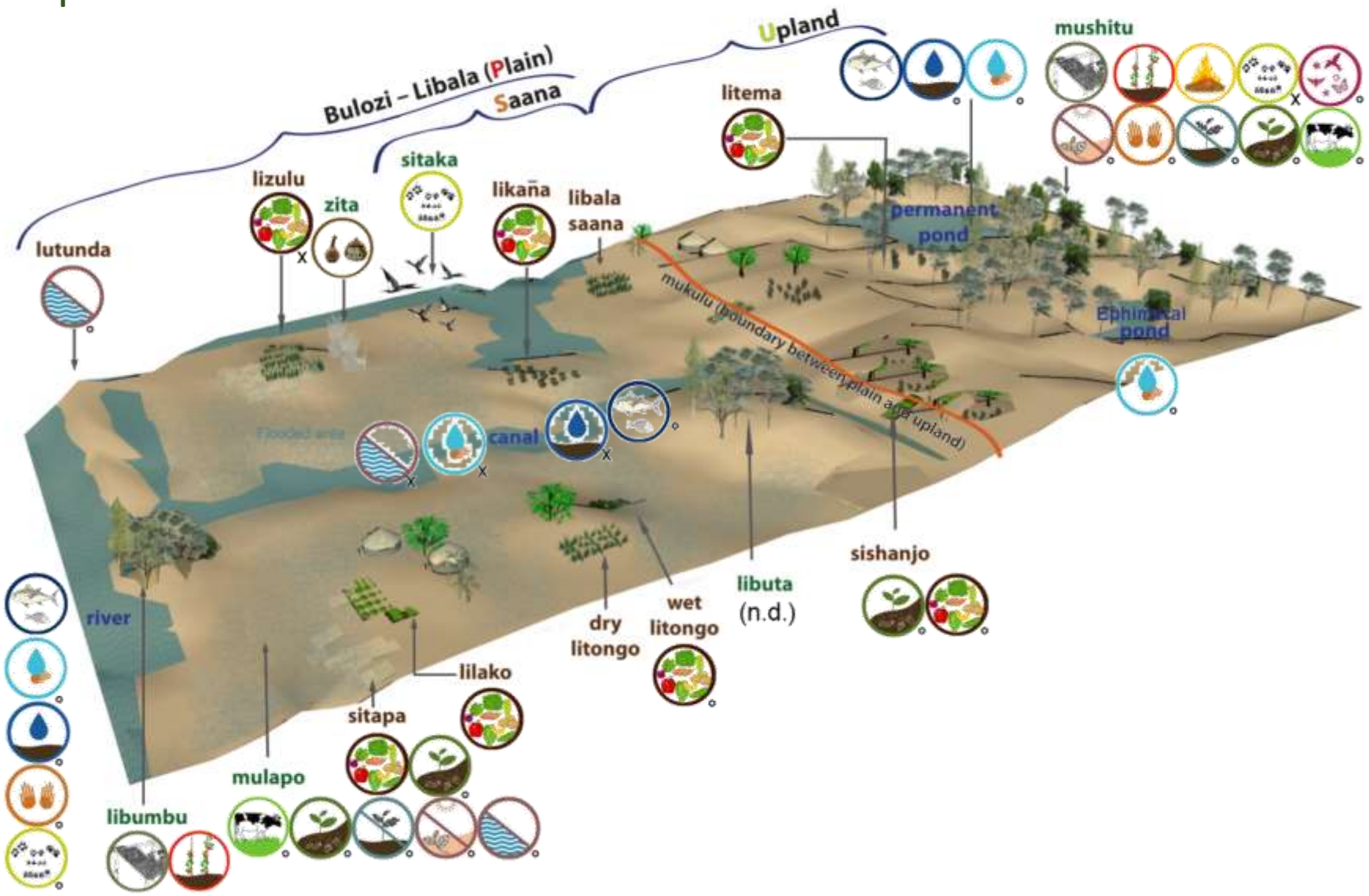
SEEDS
CROPS
YIELD
MILK
Erosion control
Soil formation
Nutrient cycling
Pest control
Genetic diversity
Pollination
Moderation of extreme events
Freshwater provisioning
Climate regulation
Habitat encroachment
Loss of ecosystem complexity
Species reduction
Soil erosion
Pollution (air, land & water)
GHG / Climate
BIODIVERSITY & ECOSYSTEMS
Inputs
Outputs
Invisible positive flows
Invisible negative flows

Study site: Barotse floodplain, Western Province - Zambia

Flood pulse system



Ecosystem services provided in the landscape from the perspective of local communities

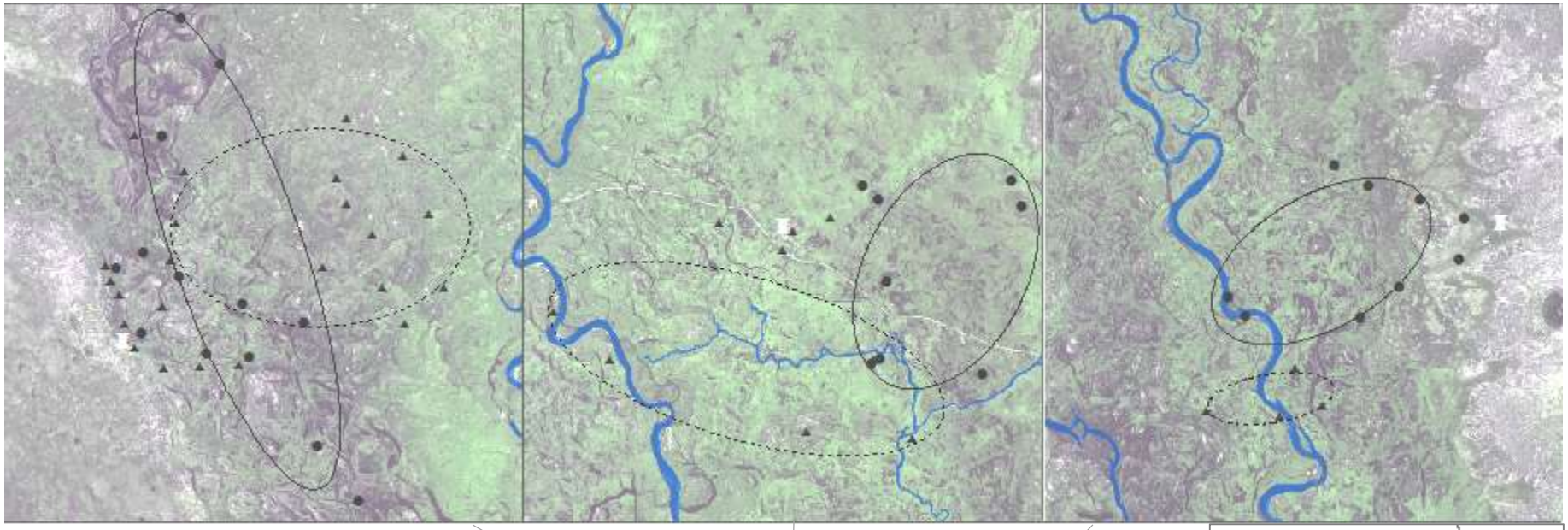


Trade-offs between ecosystem services

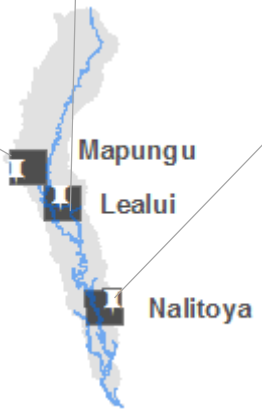
Natural vegetation

Cropped

Access to ecosystem services: accounting for spatial dynamics

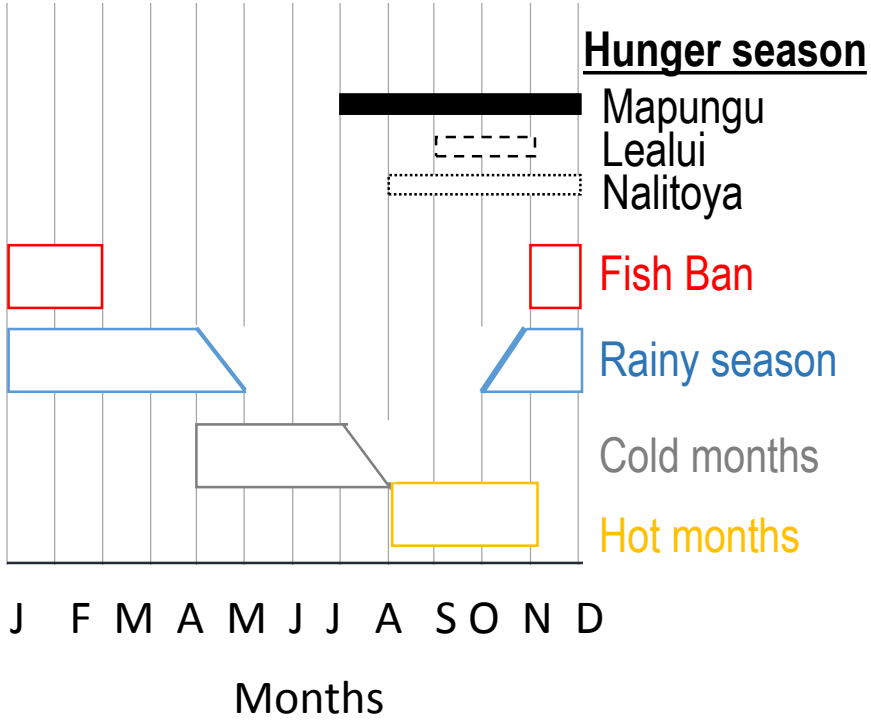


Landsat image: June 12, 2014
Path 175- Row 071

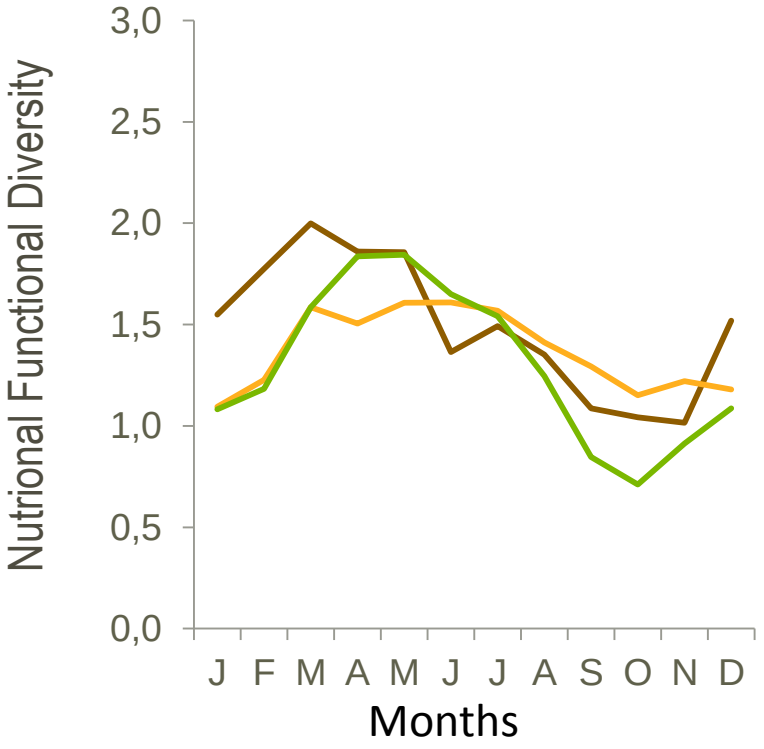


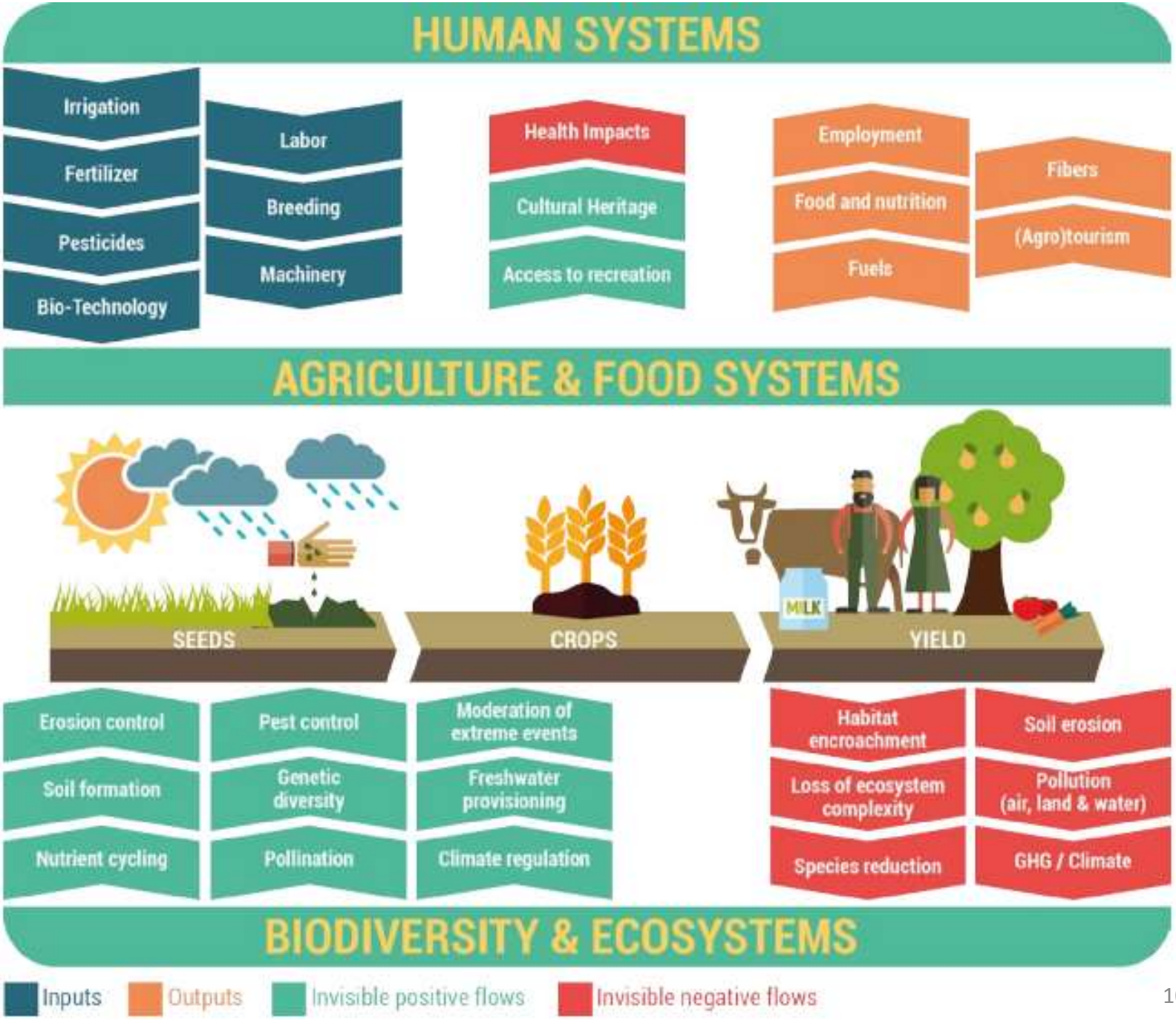
Access to ecosystem services: accounting for temporal dynamics

Seasonal Patterns: environment



Seasonal Patterns: nutrition

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Putting diversity on the plate

Bioversityvideo
3 months ago • 227 views
In this film, local people from the Barotse Floodplain, Zambia explain why a diversified diet is important and outline how ...

https://www.youtube.com/watch?v=eUbotq1d8dI

Cooking together in Zambia – local nutrition groups work together to diversify family diets

Bioversityvideo
3 months ago • 716 views
In this short film, local people and field scientists from the Barotse Floodplain, Zambia explore the potential for local nutrition ...

https://www.youtube.com/watch?v=2KlYXiofBWY

Thank you

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