



## Our Genetic resources, our Heritage one-third of the world's livestock population

- **Cattle** – 692 breeds
- **Sheep** – 363 breeds
- **Goats** – 289 breeds
- **Pigs** – 146 breeds
- **Poultry** – 329 breeds
- **non-conventional** – 431 breeds from various species

- 1.9 billion **chickens**
- 26 million **guinea fowl**
- 27 million **turkeys**
- 22 million **ducks**
- 11.5 million **pigeons**
- 438 million **goats**
- 384 million **sheep**
- 356 million **cattle**
- 40.5 million **pigs**
- 31 million **camels**
- 30 million **donkeys**
- 6.5 million **horses**
- 885,000 **mules**
- **unknown** number of non-conventional livestock

Source: FAOSTAT 2019, AU-IBAR, 2019

30-80% of Nationals' agricultural GDP, and the main sources of animal protein

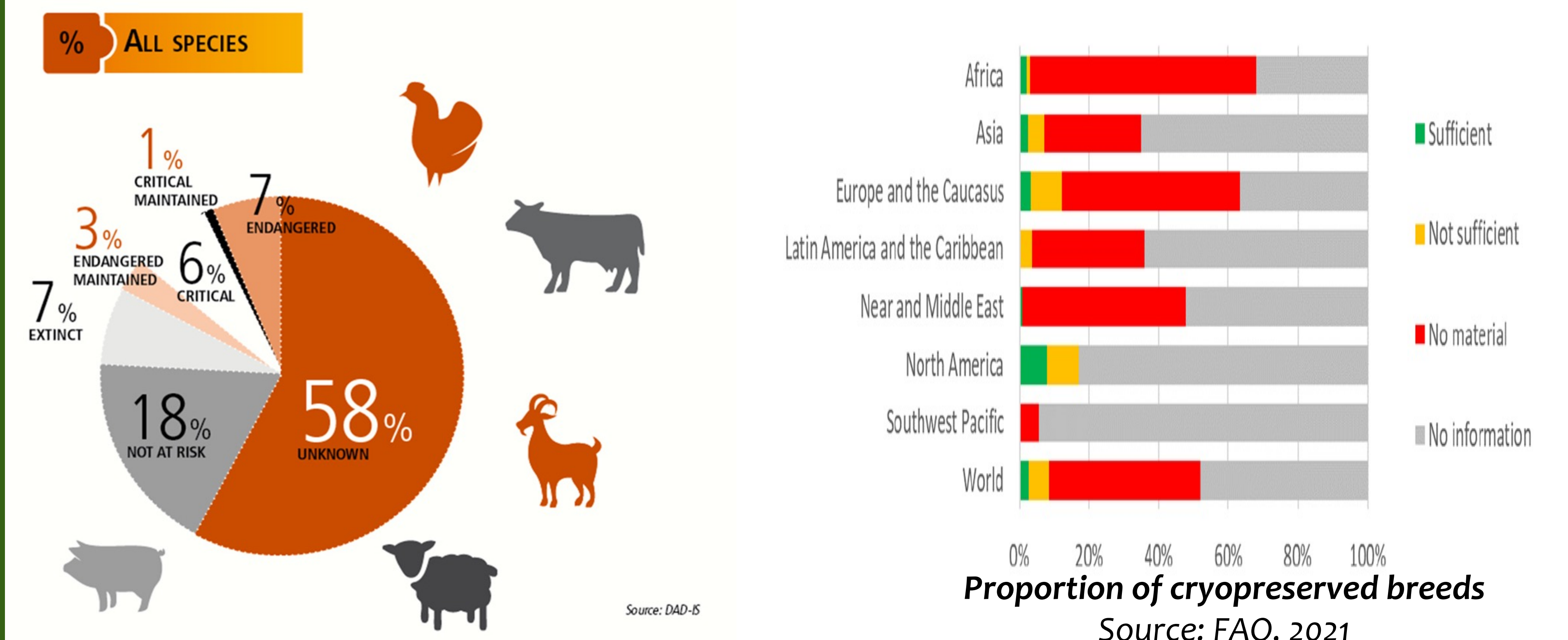
Important reservoirs of untapped genes for the future needs of the global livestock industry.

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# Conservation and development of tropical indigenous and local livestock genetic resources

## The challenge



Urgent need to protect our livestock biodiversity and design research to suit our context so that we can get the real picture of what we have for present and future generations.

## Our innovative approach

Biobanking of Tropical chicken breeds using the Primordial Germ Cells (PGCs) and restoration using the surrogate host technology



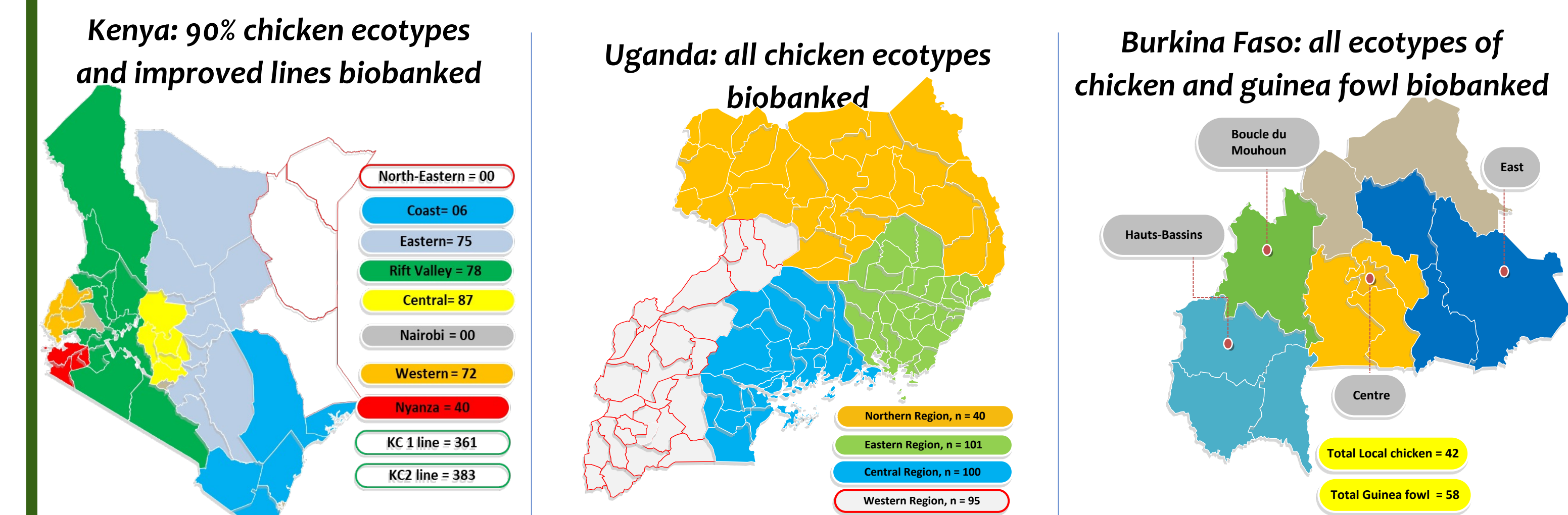
### Some advantages of PGCs and PSCs/iPSCs

- ✓ Large diversity can be preserved in a small space.
- ✓ Maintained in an environment free from pathogens.
- ✓ Protected against the nature's hazards
- ✓ Large number of breeds can be revived when needed.



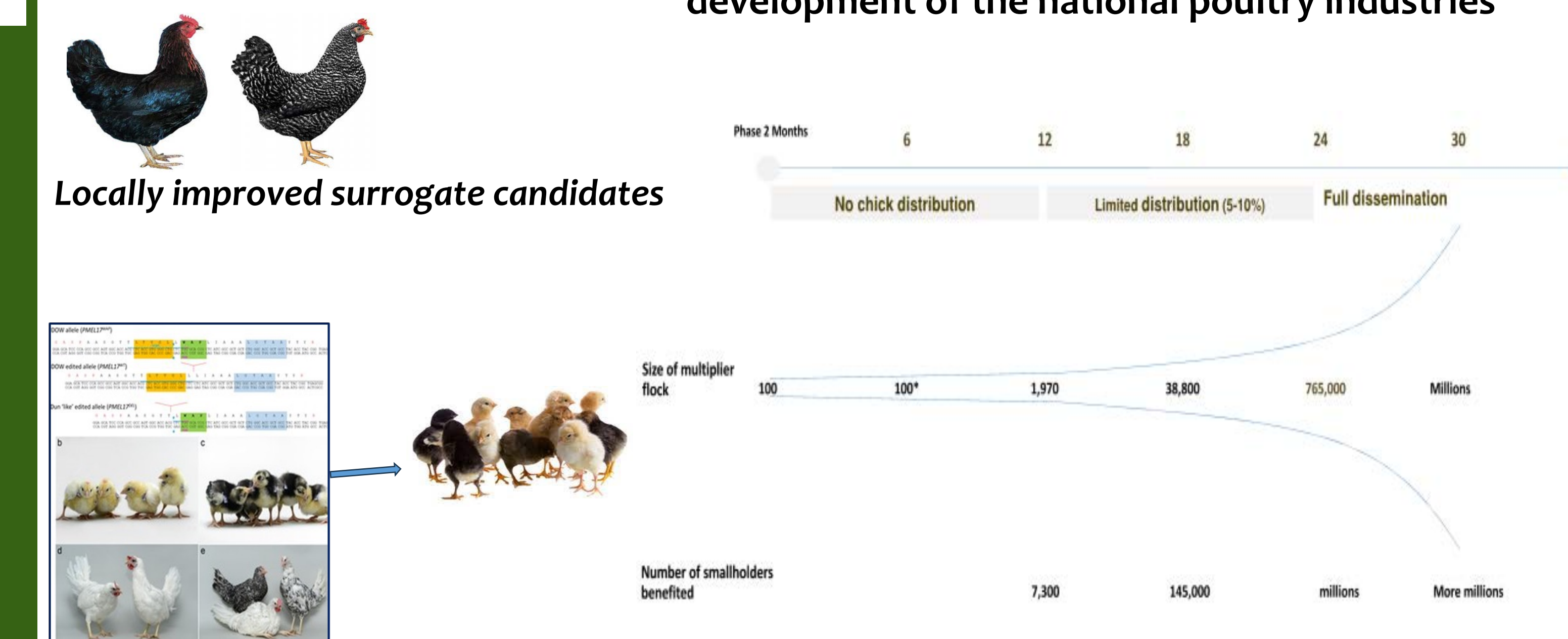
## Outcomes

National scientists trained and local chicken and guinea fowl ecotypes biobanked in Eastern and Eastern Africa



## Next steps

Development of local resilient and productive surrogate host to support restoration of indigenous breeds and development of the national poultry industries



## Partners



The International Livestock Research Institute thanks all donors & organizations which globally support its work through their contributions to the CGIAR Trust Fund. [cgiar.org/funders](http://cgiar.org/funders)

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