

Description of production environments

**a new module in the
Domestic Animal Diversity Information System**

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in collaboration with:

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Content

- Description of production environments & GPA
- Why describe production environments?
- For whom?
- Framework for describing production environments
- Implementation in FABISnet/DAD-IS
- Functionality
- Way-forward

Description of production environments & GPA

Strategic Priority Area 1

Characterization, Inventory and Monitoring of Trends and Associated Risks

Strategic Priority 1

Inventory and characterize animal genetic resources, monitor trends and risks associated with them, and establish country-based early-warning and response systems

Strategic Priority 2

Develop international technical standards and protocols for characterization, inventory, and monitoring of trends and associated risks

Why describe production environments ?

- facilitate meaningful comparisons and evaluation of breed performance
- obtain data that can serve as proxies for adaptedness
- contribute to evidence-based approach to decision-making
- complement other sources of breed-related information
- allow comparison of internationally standardized data
- allow analysis of AnGR in relation to other domains such as disease outbreaks, poverty levels ...
- prerequisite for modeling the impact of climate change on AnGR

For whom?

- National Coordinators for the Management of Animal Genetic Resources (NCs)
 - plan & implement AnGR-related measures at national level
 - require well-structured & relevant information
 - require clear definitions and standards
 - require user-friendly tools for reporting & analysis
- Scientists
 - understand relationships between geographic location & characteristics of the production environment
 - analyse evolution of agricultural production systems
 - analyse breed distribution & utilization over time
 - develop prioritization frameworks for conservation & breed development

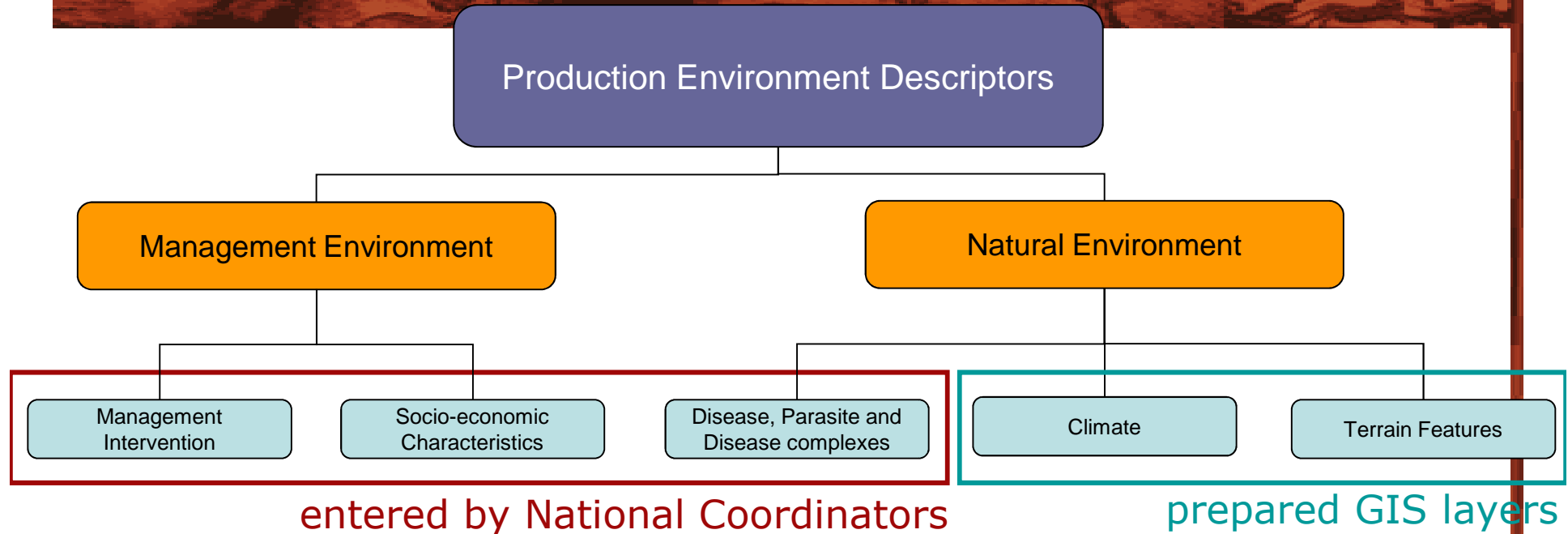
For whom?

- Development practitioners
(NGOs, technical cooperation agencies & extension services)
 - disseminate or promote particular breeds/species in a given PE
 - identify new marketing opportunities
 - require info on socio-economic factors & specific products
- Livestock keepers
 - decide on breed substitution or changes to management environment
 - evaluate capacities of non-local breeds to withstand locally specific sets of stressors
 - face problem to access information!

For whom?

- Policy-makers
 - improve national & household food security
 - promote rural development & poverty alleviation
 - maintain biodiversity & other natural resources
 - determine how available AnGR & existing PEs can be matched & developed to meet demands for livestock products & services
 - prioritize for conservation
 - plan genetic improvement programmes at national level
 - avoid interventions that cause economic harm or impact livelihoods
 - evaluate suitability of breeds for introduction into a new PE
 - facilitate exchange & access required to cope with change

Framework for describing production environments



1998: development of framework by Expert Group (WCGALP Australia)

1998: National Coordinators of Asia and Europe tested questionnaire:

- too complex & difficult to complete all information
- when to describe more than one production environment?
- proposed that FAO uses other global datasets where they exist

1999: DAD-IS review WS discussed approach administrative level vs breed distribution

2008: Expert Group developed approach further for implementation - EFABISnet WP

Production Environment Descriptors

Management Environment

Management intervention

Livestock production system type

Level of confinement

Climate modifiers

Disease & parasite control

Feed & water availability

Reproduction strategies

Socio-economic characteristics

Market orientation

Market targeted

Main uses and roles

Gender aspects

Natural Environment

Disease, Parasite & Disease complexes

Diseases

Ecto-parasites

Endo-parasites

Other known threats including: feed + water toxins, predators and other harmful animals

Climate

Temperature

Relative Humidity

Precipitation

Wind conditions

Day Length

Radiation

Terrain Features

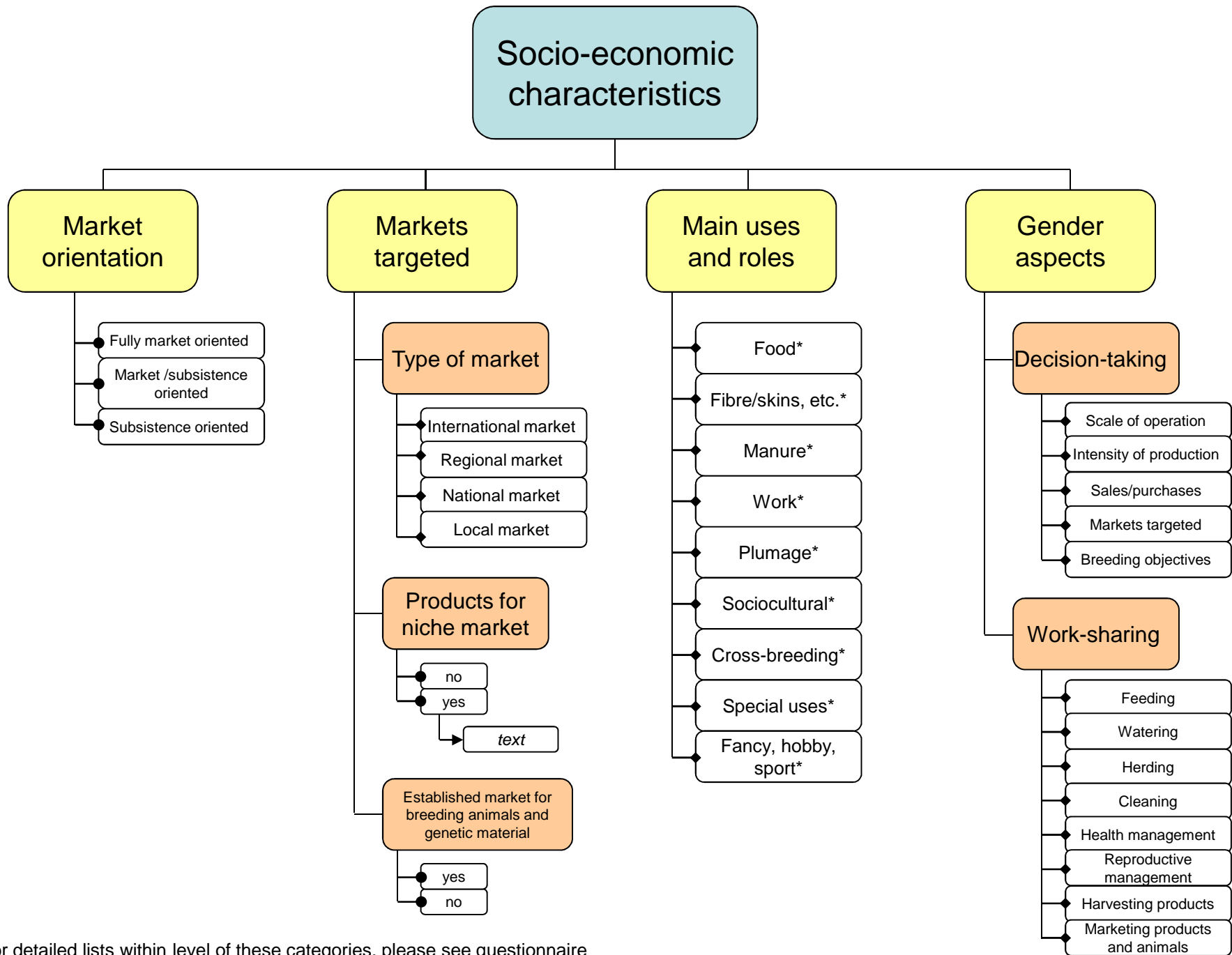
Elevation

Slope

Soil pH

Surface conditions

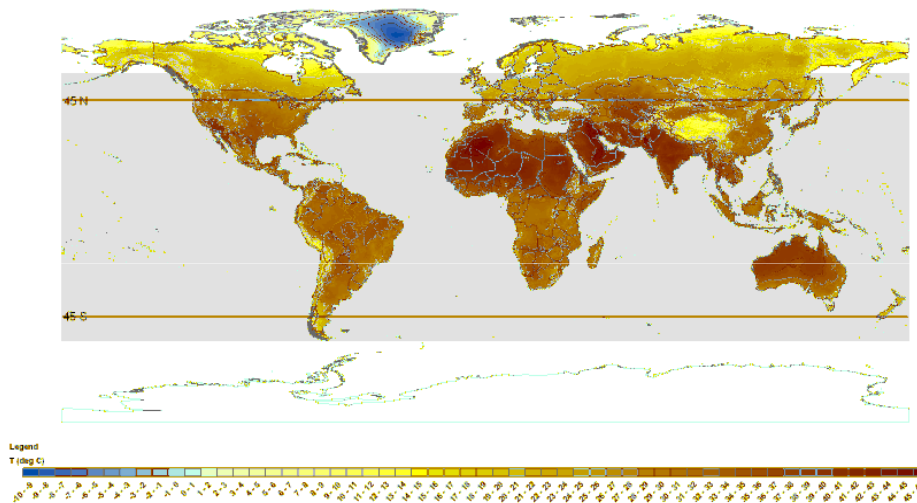
Tree cover



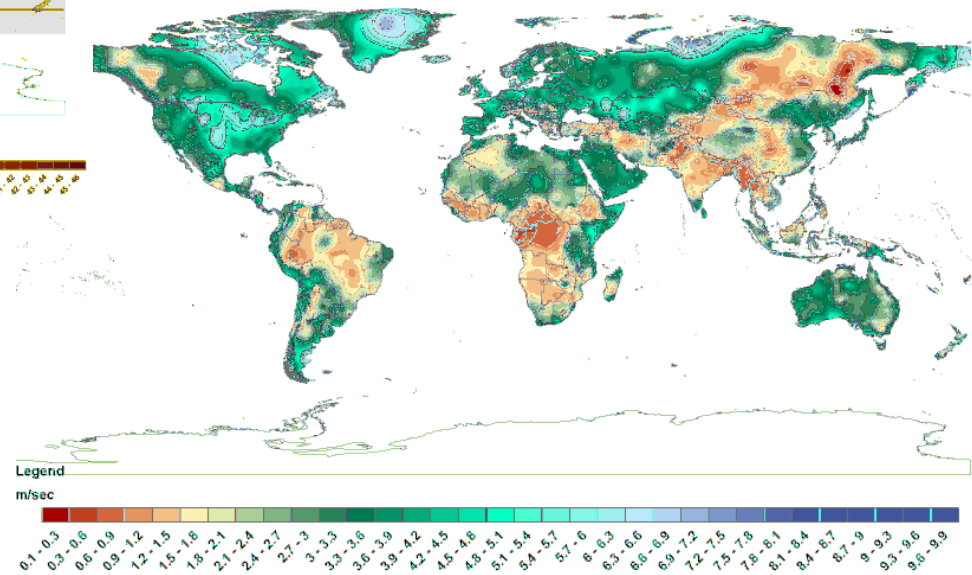
* for detailed lists within level of these categories, please see questionnaire

Implementation in FABISnet/DAD-IS: GIS layers

Mean Daily Maximum Temperatures of the Hottest Month (deg C)
(Temperature increment: 1 deg)



Wind Speed :
Average Wind Speed of the Coldest Month (m/sec)



Functionality

Anonymous user

- browse single breed distribution
- browse/list suitable breeds
- browse breeds with given criteria on the map

National coordinator

- enter distribution of breed
 - link management PEDs to distribution
 - link diseases
 - enter performance data, etc. for combination of above
- define country specific management PEDs
- select country relevant diseases

Functionality

Anonymous user

- browse single breed distribution
- *browse/list suitable breeds**
- *browse breeds with given criteria on the map**

Functionality: browse single breed distribution

national breed distribution – example Chios sheep in Greece



Functionality: browse single breed distribution

national breed distribution



transboundary breed distribution



Transboundary breed: **Chios**

Number of countries reporting the breed: **6**

Number of countries reporting the population data: **3**

Estimated population size: **232669**

Most common name	Country	National risk status	Risk index [?]	Total population size - lower limit
Chios	Albania	unknown		
Chios	Cyprus	not at risk		180739
Chios	Greece	not at risk		51860
Chios	Iraq	unknown		
Chios	Jordan	critical		70
Chios	Oman	unknown		

Functionality

National coordinator

- enter distribution of breed
 - link management PEDs to distribution
 - link diseases
 - enter performance data, etc. for combination of above
- define country specific management PEDs
- select country relevant diseases

Functionality: enter distribution of breed

DOMESTIC ANIMAL DIVERSITY INFORMATION SYSTEM

DAD-IS

- News
- About
- Network
- Breeds
- Library
- Help/FAQ

display all breed distributions

Language of: Interface: English Content: English

Set languages

Log-in

User name:

Password:

Log-in

Webmaster
Citation
Disclaimer

Functionality: enter distribution of breed

DAD-IS

- News
- About
- Network
- Breeds
- Library
- Help/FAQ

Language of:

Interface: English

Content: English

[Set languages](#)

Log-in

User name:

Password:

[Log-in](#)

Webmaster
Citation
Disclaimer

[Display location](#) [Add New Location](#)

Yes

Database and parasite

	Endemicity	Rare	Frequency	Ever present	Emerging
chickens_1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
chickens_2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Add New Chickens](#) [Vary](#)

	Endemicity	Ever present	Seasonal	Occasional	Emerging
endoparasite_1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
endoparasite_2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Add New Endoparasite](#) [Vary](#)

	Endemicity	Ever present	Seasonal	Occasional	Emerging
endoparasite_1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
endoparasite_3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

[Add New Endoparasite](#) [Vary](#)

Management PSI's

[Management Interventions](#) [Socio-economic aspect](#)

[Socio economic 1](#)

Time of the year:

I-XII	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

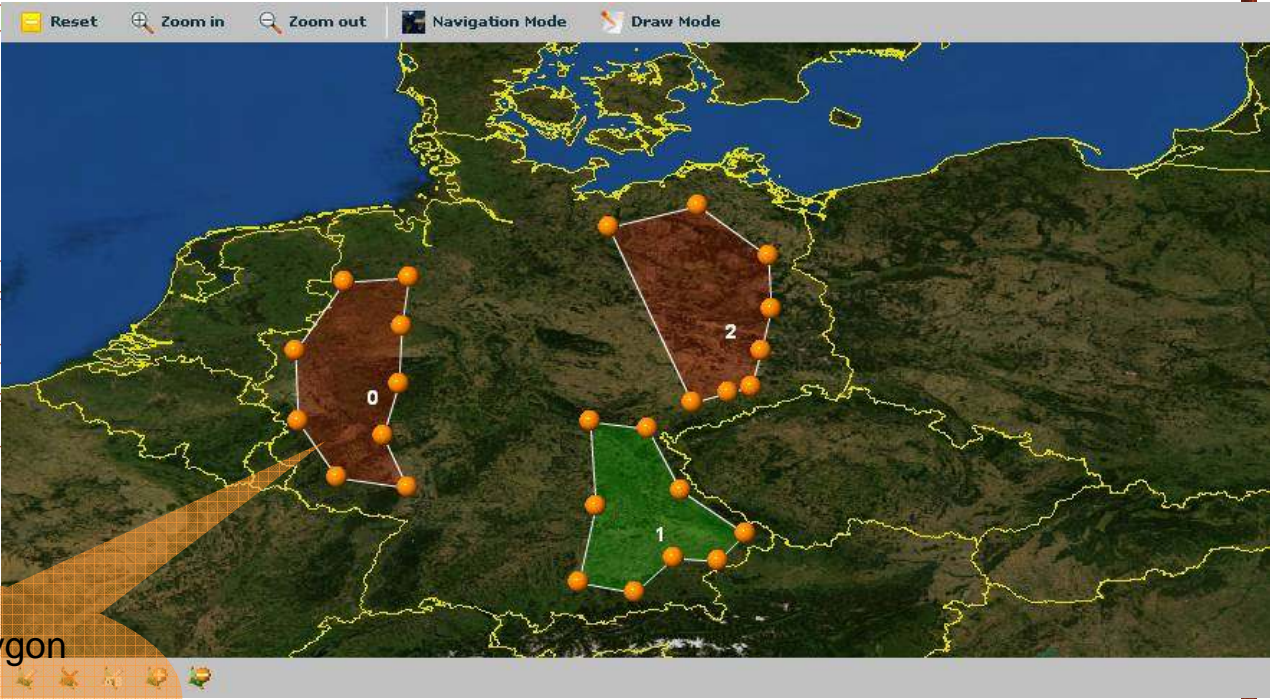
[Management Interventions](#) [Socio-economic aspect](#)

[Socio economic 1](#)

Time of the year:

I-XII	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[Add New Management System](#)



- edit/reshape polygon
- zoom in/out
- reset view
- set focus to polygon

Functionality: enter distribution of breed

DAD-IS

News

About

Network

Breeds

Library

Help/FAQ

Language of:

Interface: **English**

Content: **English**

Set languages

Log-in

User name:

Password:

Log-in

Webmaster

Citation

Disclaimer

Display location: Add New Location

Yeast

Diseases and parasites

	Endemicity	Rare	Frequency	Ever present	Emerging
diseases_1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
diseases_2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Add New Diseases | Vary

	Endemicity	Ever present	Seasonal	Occasional	Emerging
endoparasite_1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
endoparasite_2	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Add New Endoparasite | Vary

	Endemicity	Ever present	Seasonal	Occasional	Emerging
endoparasite_1	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
endoparasite_3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Add New Endoparasite | Vary

Management PE's

Management Interventions [Socio-economic aspect]

Socio-economic 1:

Time of the year:

Management Interventions [Socio-economic aspect]

Socio-economic 1:

Time of the year:

Add New Management Intervent



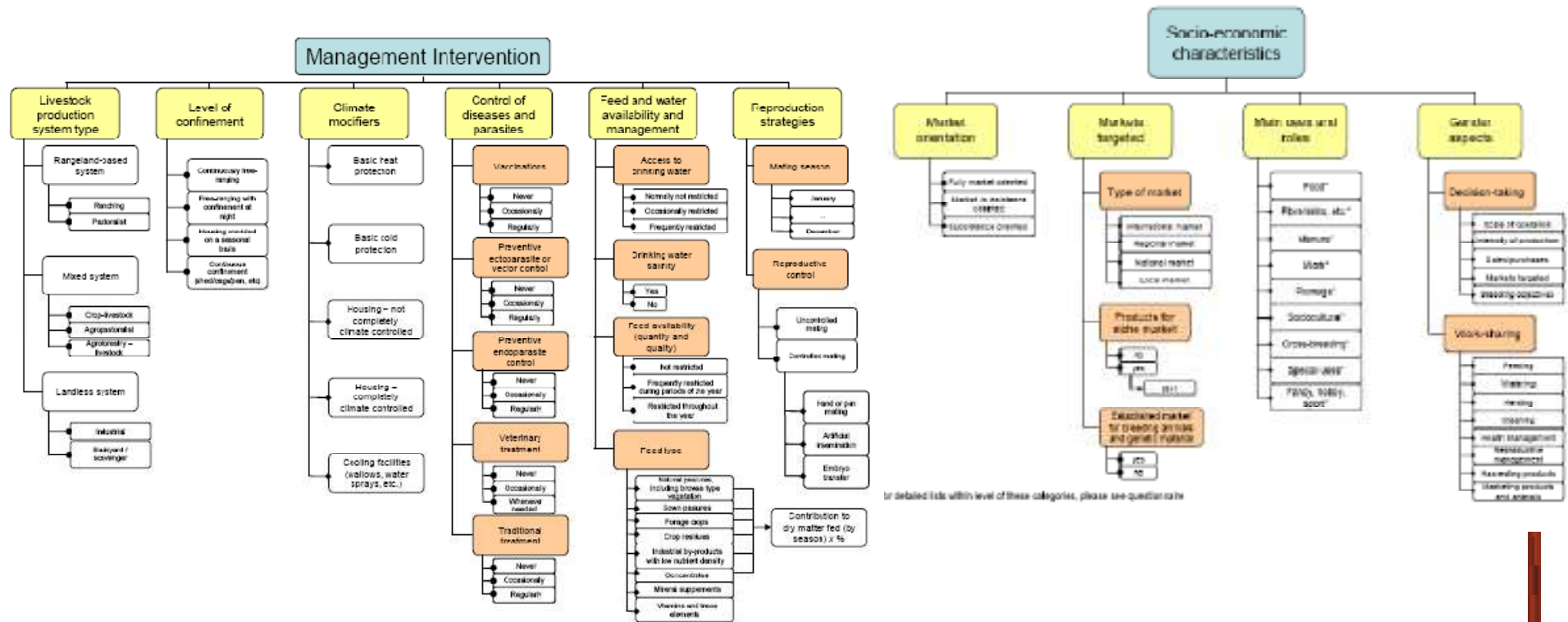
- link management PEs to distribution
- link diseases
- enter performance data, etc. for combination of above

Functionality

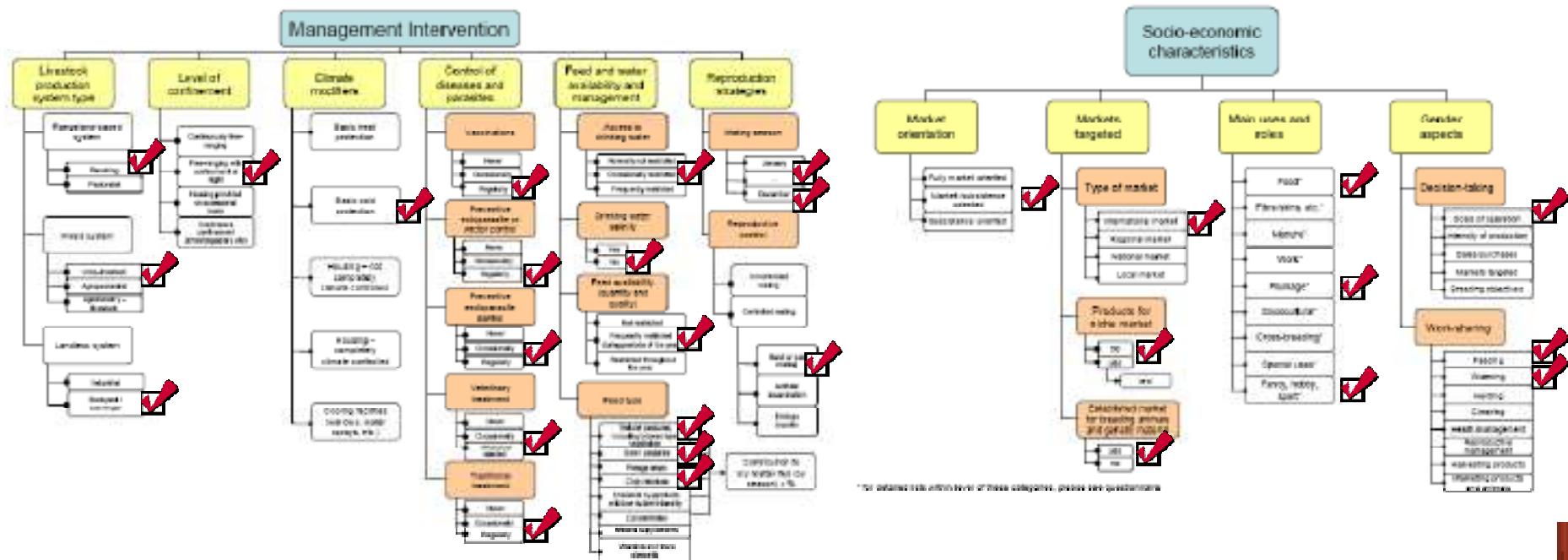
National coordinator

- define country specific management PEDs
- select country relevant diseases

Functionality: define country specific management PEDs



Functionality: define country specific management PEDs



Functionality: select country relevant diseases

Name	Species affected	Causative agent(s)	Notifiable to OIE yes/no	Name	Species affected	Causative agent(s)	Notifiable to OIE yes/no
Actinobacillosis	Shee, Goa, Cat, Pig, Hor, Ass, Buf	<i>Actinobacillus</i> spp.	No	Tetanus	Buf, Cat, Yak, Goa, Shee, Pig, Ass, Hor, Bac, Dro, Alp, Lln, Gua, Vic, Dee, Rab, Gpg, Dog, Chi, Duc, Tur, Goa, Mus, Gfl, Par, Phe, Qua, Pen, Pgn, Swa, Cas, Emu, Nan, Ost	<i>Clostridium tetani</i>	No
Actinomycosis	Dee, Shee, Goa, Cat, Buf	<i>Actinomyces</i> spp.	No	Infectious necrotic hepatitis	Shee, Cat, Pig, Hor, Goa, Rab, Dro	<i>Clostridium novyi</i> type B	No
Anthrax	Buf, Cw, Yak, Goa, Shee, Pig, Ass, Hor, Bac, Dro, Alp, Lln, Gua, Vic, Dee, Rab, Gpg	<i>Bacillus anthracis</i>	Yes	Lyme Borreliosis	Dee	<i>Borrelia burgdorferi</i>	No
Arizona infection (avian arizonosis)	Tur, Chi	<i>Salmonella arizonae</i>	No	Necrotic enteritis	Chi, Duc, Tur, Goa, Mus, Gfl, Par, Phe, Qua, Pen, Pgn, Swa, Cas, Emu, Nan, Ost	<i>Clostridium perfringens</i> , types A and C	No
Avian chlamydiosis (<i>Psittacosis, ornithosis</i>)	Chi, Duc, Tur, Goa, Mus, Gfl, Par, Phe, Qua, Pen, Pgn, Swa, Cas, Emu, Nan, Ost	<i>Chlamydia</i> and <i>Chlamydia</i> spp.	Yes	Malignant oedema	Cat, Hor, Shee, Goa, Pig	<i>Clostridium septicum</i>	No
Bolo disease	Shee	<i>Corynebacterium</i> spp.	No	Ulcerative enteritis, quail disease	Qua, Chi, Phe, Tur	<i>Clostridium colinum</i>	No
Chlamydial pneumonia	Cat, Shee, Pig, Hor, Goa, Buf	<i>Chlamydia</i> spp. (<i>Chlamydia psittaci</i>)	No	Bordetellosis, (turkey coryza, Bordetella avium/rhinotracheitis (BART), Alcaligenes rahnitracheitis (ART), Adenovirus-associated respiratory disease, Acute respiratory disease syndrome, turkey rhinotracheitis)	Tur	<i>Bordetella avium</i>	No
Chlamydial conjunctivitis	Goa, Shee, Gpg, Cat, Buf, Yak	<i>Chlamydia psittaci</i> , <i>Chlamydia pecorum</i>	No	Bovine genital campylobacteriosis	Cat, Buf, Dee	<i>Campylobacter fetus</i> <i>venerealis</i> or <i>C. fetus fetus</i>	Yes
Chlamydial stomatitis	Cat, Yak, Qua, Lln, Alp, Gua, Vic, Fox, Ass, Buf, Pig, Shee	<i>Chlamydia abortus</i>	No	Bovine brucellosis (<i>Brucella abortus</i>)	Cat, Dro, Bac, Lln, Alp, Gua, Vic, Buf, Yak, Dee, Pig	<i>Brucella abortus</i>	Yes
<i>Escherichia coli</i> infectious	Cat, Shee, Dro, Lln, Alp, Chi, Goa, Pig, Tur, Gfl, Par, Phe, Buf	<i>Escherichia coli</i>	No	Caprine and ovine brucellosis	Shee, Goa, Cat, Yak, Bac, Dro, Alp, Lln, Gua, Vic, Pig	<i>Brucella melitensis</i>	Yes
Embryonic abortion of ewes (ovine chlamydiosis)	Shee	<i>Chlamydia psittaci</i>	Yes	Porcine brucellosis (<i>Brucella suis</i>)	Pig, Hor, Cat	<i>Brucella suis</i>	Yes
Avian mycoplasmosis, (chronic respiratory disease of chicken, Infectious sinusitis of turkeys)	Chi, Duc, Tur, Goa, Mus, Gfl, Par, Phe, Qua, Pen, Pgn, Swa, Cas, Emu, Nan, Ost	<i>Mycoplasma gallisepticum</i>	Yes	Brucellosis (<i>Brucella suis</i> biovar 4)	Dee	<i>Brucella suis</i> biovar 4	Yes
Avian mycoplasmosis (mycoplasma synoviae infection)	Chi, Duc, Tur, Goa, Mus, Gfl, Par, Phe, Qua, Pen, Pgn, Swa, Cas, Emu, Nan, Ost	<i>Mycoplasma synoviae</i>	Yes	Crine epididymitis (<i>Brucella ovis</i>)	Shee, Dee, Goa	<i>Brucella ovis</i>	Yes
Embryonic pneumonia	Pig	<i>Mycoplasma hyopneumoniae</i>	No	Fowl typhoid	Chi, Tur, Phe	<i>Salmonella gallinarum</i>	Yes
Mycoplasma hyosynoviae arthritis of swine	Pig	<i>Mycoplasma hyopneumoniae</i>	No	Pullorum disease	Chi, Tur	<i>Salmonella pullorum</i>	Yes
Contagious agalactia	Shee, Goa	<i>Mycoplasma agalactiae</i>	Yes	Salmonellosis	Buf, Cat, Yak, Goa, Shee, Pig, Ass, Hor, Bac, Dro, Alp, Lln, Gua, Vic, Dee, Rab, Gpg, Dog, Chi, Duc, Tur, Goa, Mus, Gfl, Par, Phe, Qua, Pen, Pgn, Swa, Cas, Emu, Nan, Ost	<i>Salmonella</i> spp.	Yes (only and goat)
Contagious bovine pleuropneumonia (CBPP)	Cat, Buf, Yak	<i>Mycoplasma mycoides</i> subsp. <i>mycoides</i> SC (MimMSC; SC = small colonies)	Yes	Haemorrhagic septicemia	Cat, Buf, Yak, Pig, Shee, Goa, Hor, Ass, Dro, Dee	<i>Pasteurella multocida</i>	Yes
Contagious caprine pleuropneumonia (CCPP)	Shee, Goa	<i>Mycoplasma capricolum</i> subspecies <i>capripneumoniae</i> (Mccp)	Yes	Pasteurellosis	Rab, Cat, Shee, Goa, Pig, Dee, Lln, Alp, Yak, Buf, Dro, Ost, Gua, Vic	<i>Pasteurella</i> spp.	No
Contagious skin necrosis	Dro	<i>Staphylococcus</i> spp. <i>Streptococcus</i> spp.	No	Fowl cholera, Avian cholera, Avian pasteurellosis, avian hemorrhagic septicemia	Chi, Duc, Tur, Goa, Mus, Gfl, Par, Phe, Qua, Pen, Pgn, Swa, Cas, Emu, Nan, Ost	<i>Pasteurella multocida</i>	Yes
Big head	Shee	<i>Clostridium novyi</i> , <i>C. sordidii</i> , or rarely <i>C. chauvoei</i>	No	Contagious equine metritis	Hor, Ass	<i>Tayloria equigenitalis</i>	Yes
Black-leg	Cat, Shee, Dee, Pig, Buf, Goa, Yak, Dro, Bac, Ost	<i>Clostridium (severi) chauvoei</i>	No	Lernatophilosis	Cat, Shee, Goa, Hor, Ass, Pig, Dro, Bac, Buf	<i>Dermatophilus congolensis</i>	No
Borism	Buf, Cat, Yak, Goa, Shee, Pig, Ass, Hor, Dro, Dro, Alp, Lln, Gua, Vic, Dee, Rab, Gpg, Dog, Chi, Duc, Tur, Goa, Mus, Gfl, Par, Phe, Qua, Pen, Pgn, Swa, Cas, Emu, Nan, Ost	<i>Clostridium botulinum</i>	No	Erysipelas	Tur, Chi, Duc, Mus, Goo, Gfl, Phe, Pig, Cat, Shee, Rab, Dee	<i>Erysipelothrix rhusiopathiae</i>	No
Enterotoxaemia	Buf, Cat, Yak, Goa, Shee, Pig, Ass, Hor, Bac, Dro, Alp, Lln, Gua, Vic, Dee, Rab, Gpg, Dog, Chi, Duc, Tur, Goa, Mus, Gfl, Par, Phe, Qua, Pen, Pgn, Swa, Cas, Emu, Nan, Ost	<i>Clostridium perfringens</i> , <i>Clostridium difficile</i> (GPGs)	No	Footrot	Cat, Shee, Goa, Dee, Buf	<i>Fusobacterium necrophorum</i>	No
				Glanders	Hor, Ass	<i>Burkholderia mallei</i>	Yes

Functionality: select country relevant diseases

Name	Species affected	Causative agent(s)	Notifiable to OIE yes/no	Name	Species affected	Causative agent(s)	Notifiable to OIE yes/no
Actinobacillosis	She Goa Cat Pig Hor Ass Buf	<i>Actinobacillus</i> spp.	No	Tetanus	Buf Cat Yak Goa She Pig Ass Hor Bac Dro Alp Lh Gua Vic Dee Rab Gpg Dog Chi Duc Tur Goo Mus Gfl Prr Phe Qua Pen Pgn Swa Cas Emu Nan Ost	<i>Clostridium tetani</i>	No
Actinomycosis	Dee She Goa Cat Buf	<i>Actinomyces bovis</i>	No	Infectious necrotic hepatitis	She Cat Pig Hor Goa Rab Dao	<i>Clostridium novyi</i> type B	No
Anthrax	Buf Cat Yak Goa She Pig Ass Hor Bac Dro Alp Lh Gua Vic Dee Rab Gpg	<i>Bacillus anthracis</i>	Yes	Lyme Borreliosis	Dee	<i>Borrelia burgdorferi</i>	No
Arizona infection (avian arizonosis)	Tur Chi	<i>Salmonella arizonae</i>	No	Necrotic enteritis	Chi Duc Tur Goo Mus Gfl Prr Phe Qua Pen Pgn Swa Cas Emu Nan Ost	<i>Clostridium perfringens</i> , types A and C	No
Avian chlamydiosis (<i>Chlamydia psittaci</i>)	Chi Duc Tur Goa Mus Gfl Prr Phe Qua Pen Pgn Swa Cas Emu Nan Ost	<i>Chlamydia</i> and <i>Chlamydia</i> spp.	Yes	Malignant oedema	Cat Hor She Goa Pig	<i>Clostridium septicum</i>	No
Bird disease	She	<i>Corynebacterium</i> spp.	No	Ulcerative enteritis, quail disease	Qua Chi Phe Tur	<i>Clostridium colinum</i>	No
Chlamydia pneumoniae	Cat She Pig Hor Dee Goa Buf	<i>Chlamydia</i> spp.	No	Bordetellosis, (turkey coryza, Bordetella avium/rhinotracheitis (BART), Alcaligenes rahnitracheitis (ART), Adenovirus-associated respiratory disease, Acute respiratory disease syndrome, turkey rhinotracheitis)	Tur	<i>Bordetella avium</i>	No
Chlamydia conjunctivitis	Goa She Gpg Cat Buf Yak	<i>Chlamydia psittaci</i>	No	Bovine genital campylobacteriosis	Cat Buf Dee	<i>Campylobacter fetus venerealis</i> or <i>C. fetus fetus</i>	Yes
Chlamydia abortus	Buf Cat Yak Goa Lh Alp Can Vic Hor Ass Buf Prr She	<i>Chlamydia psittaci</i> , <i>Chlamydia pecorum</i>	No	Bovine brucellosis (<i>Brucella abortus</i>)	Cat Dro Bac Lh Alp Gua Vic Buf Yak Dee Pig	<i>Brucella abortus</i>	Yes
Escherichia coli infections	Cat She Dro Lh Alp Chi Goa Pig Tur Gfl Prr Phe Duf	<i>Escherichia coli</i>	No	Caprine and ovine brucellosis	She Goa Cat Yak Bac Dro Alp Lh Gua Vic Pig	<i>Brucella melitensis</i>	Yes
Enteric abortion of ewes (ovine chlamydiosis)	She	<i>Chlamydia abortus</i>	Yes	Porcine brucellosis (<i>Brucella suis</i>)	Pig Hor Cat	<i>Brucella suis</i>	Yes
Avian mycoplasmosis, (chronic respiratory disease of chicken, Infectious sinusitis of turkeys)	Chi Duc Tur Goo Mus Gfl Prr Phe Qua Pen Pgn Swa Cas Emu Nan Ost	<i>Mycoplasma gallisepticum</i>	Yes	Brucellosis (<i>Brucella suis</i> biovar 4)	Dee	<i>Brucella suis</i> biovar 4	Yes
Avian mycoplasmosis (mycoplasma synoviae infection)	Chi Duc Tur Goo Mus Gfl Prr Phe Qua Pen Pgn Swa Cas Emu Nan Ost	<i>Mycoplasma synoviae</i>	Yes	Cvine epididymitis (<i>Brucella suis</i>)	She Dee Goa	<i>Brucella ovis</i>	Yes
Enteric pneumonia	Pig	<i>Mycoplasma hyopneumoniae</i>	No	Fowl typhoid	Chi Tur Phe	<i>Salmonella gallinarum</i>	Yes
Mycoplasma hyosynoviae arthritis of swine	Pig	<i>Mycoplasma hyosynoviae</i>	No	Pullorum disease	Chi Tur	<i>Salmonella pullorum</i>	Yes
Contagious agalactia	She Goa	<i>Mycoplasma agalactiae</i>	Yes	Salmonellosis	Buf Cat Yak Goa She Pig Ass Hor Bac Dro Alp Lh Gua Vic Dee Rab Gpg Dog Chi Duc Tur Goo Mus Gfl Prr Phe Qua Pen Pgn Swa Cas Emu Nan Ost	<i>Salmonella</i> spp.	Yes (only sheep and goat)
Contagious bovine pleuropneumonia (CBPP)	Buf Buf Yak	<i>Mycoplasma mycoides</i> subsp. <i>mycoides</i> SC (MamSC; SC = small colonies)	Yes	Haemorrhagic septicaemia	Cat Buf Yak Pig She Goa Hor Ass Dro Dee	<i>Pasteurella multocida</i>	Yes
Contagious caprine pleuropneumonia (CCPP)	She Goa	<i>Mycoplasma capricolum</i> subspecies <i>capripneumoniae</i> (Mccp)	Yes	Pasteurellosis	Rab Cat She Goa Pig Dee Lh Alp Yak Buf Dro Ost Gua Vic	<i>Pasteurella</i> spp.	No
Contagious skin necrosis	Dre	<i>Staphylococcus</i> spp. <i>Streptococcus</i> spp.	No	Fowl cholera, Avian cholera, Avian pasteurellosis, avian hemorrhagic septicaemia	Chi Duc Tur Goo Mus Gfl Prr Phe Qua Pen Pgn Swa Cas Emu Nan Ost	<i>Pasteurella multocida</i>	Yes
Big head	She	<i>Clostridium novyi</i> , <i>C. sordellii</i> , or rarely <i>C. chauvoei</i>	No	Contagious equine metritis	Hor Ass	<i>Tylorella equigenitalis</i>	Yes
Black-leg	Cat She Dee Pig Buf Goa Yak Dro Bac Os	<i>Clostridium (fester) chauvoei</i>	No	Dermatophilosis	Cat She Goa Hor Ass Pig Dro Bac Buf	<i>Dermatophilus congolensis</i>	No
Boutism	Buf Cat Yak Goa She Pig Ass Hor Bac Dro Alp Lh Gua Vic Dee Rab Gpg Dog Chi Duc Tur Goo Mus Gfl Prr Phe Qua Pen Pgn Swa Cas Emu Nan Ost	<i>Clostridium botulinum</i>	No	Erysipelas	Tur Chi Duc Mus Goo Gfl Phe Pig Cat She Rab Dee	<i>Erysipelothrix rhusiopathiae</i>	No
Emerovirusemia	Buf Cat Yak Goa She Pig Ass Hor Bac Dro Alp Lh Gua Vic Dee Rab Gpg Dog Chi Duc Tur Goo Mus Gfl Prr Phe Qua Pen Pgn Swa Cas Emu Nan Ost	<i>Clostridium perfringens</i> , <i>Clostridium difficile</i> (GPGs)	No	Footrot	Cat She Goa Dee Buf	<i>Fusobacterium necrophorum</i>	No
				Glanders	Hor Ass	<i>Burkholderia mallei</i>	Yes

Way forward

- Finalize development & implementation in DAD-IS and related IS: EFABIS & 16 national nodes before end 2010
- LOA with ICARDA - collecting production environment descriptions of breeds kept in Egypt, Iran, Morocco, Turkey to:
 - provide case studies
 - demonstrate use of the system
 - recommend in detail further output of the system (identify suitable breeds)
- Develop further outputs of the system

Functionality: browse breeds with given criteria on the map

Food and Agriculture
Organization of the
United Nations
for a world without hunger

Animal Production and Health Division

GLiPHA

Global Livestock Production and Health Atlas

2009
4.3 LU/sqkm
3.1 \$/person
73%

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by Region
by Theme

map
table
chart

Region:

Theme:

Livestock ...

Livestock s...

Topic:

Year:

[Apply filter](#)

WORLD - Livestock production - Growth rate, kg / animal
(Year = 2007, Livestock products = Produced eggs, Livestock species = Chickens)

2000 miles

4000 km

POWERED BY

Layers **Legends**

- IUCN protected areas
- Inland waters
- Climatic zones
- Length of growing period (LGP)
- NASA's Bluemarble MODIS monthly composi
- Elevation
- Global Land Cover 2000
- Gridded Population of the World 2005
- Livestock production systems - FAO/ILRI
- ▼ Gridded Livestock of the World
 - Global buffalo density (2005)
 - Global cattle density (2005)
 - Global goat density (2005)
 - Global pig density (2005)
 - Global poultry density (2005)

Notes

Growth rate, kg / animal: Compounded annual growth rate of the quantity produced per number of animals during a period of 5 years expressed as a percentage

Functionality: browse breeds with given criteria on the map

DOMESTIC ANIMAL DIVERSITY INFORMATION SYSTEM

DAD-IS

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Breeds

Library

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Language

Interface: English

Content: English

Set languages

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User name:

Password:

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Webmaster

Citation

Disclaimer

by Region by Theme

Region: WORLD

Theme: Livestock production

Livestock ...: Produced eggs

Livestock s...: Chickens

Topic: Growth rate, kg / animal

Year: 2007

Apply filter

Layers Legends

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map table chart

WORLD - Livestock production - Growth rate, kg / animal
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POWERED BY

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Way forward

- Fundraising for climate change modeling continues
- ... and encourage National Coordinators to enter data and use the system !

Thank you !

Please visit <http://www.fao.org/dad-is/> or <http://efabis.tzv.fal.de> & check & maintain your national data up-dated!



DAD-IS DOMESTIC ANIMAL DIVERSITY INFORMATION SYSTEM

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Livestock Biodiversity Workshop, 5-6 May 2010, Rome, Italy

Which strategies and policies are needed to successfully maintain European animal genetic diversity? What are the latest technologies to characterize and prioritize livestock breeds? These were the topics at a two-day Livestock Biodiversity Workshop hosted by FAO on 5-6 May 2010 that has been jointly organized by the *A global view of livestock biodiversity and conservation* and *Towards self-sustainable European REgional Cattle breeds* projects. Both projects receive financial support from the European Commission, Directorate-General for Agriculture and Rural Development, under Council Regulation (EC) No 870/2004. The workshop aimed at bringing together and drawing lessons from the five animal related GENRES project that will come to closure in 2011.

98 persons from science, governments and NGOs from 24 countries attended the meeting. Within an overall framework of future challenges for the livestock sector, including climate change, lecture topics covered methodology development in genomics, databases, geo-referencing and priority setting for conservation. Recommendations were formulated for better conservation strategies and policies in Europe. In addition to GLOBALDIV and EURECA presentations, speakers from different countries also presented the

Success & other stories



Kari sheep indispensable breed contributing rural livelihoods [...] Discover the world of animal diversity

Implementing the Global Plan of Action

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- 2010-08-18 **Naked Neck**