Animal Identification and registration

Recommendations

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Recommendation origins

- Pilot project
- International best practices
- Mongolian system

Recommendations
Approach

From the need analysis, recommendations for:

1. **Strategy to meet the needs**
2. **To implement the strategy**
Need analysis in Mongolia

- Animal breeding
- Pasture management
- Herd management
- Animal health
- Animal health certification
- Product labelling
- Fight against animal theft
Recommendations about strategy to meet the needs

For axis:
1. Goal
2. Sustainability
3. Outputs
4. Components
Recommendations for the axis ‘goal’

Animal identification and registration is achieved by each activity

- Animal breeding
  - Animal identification and registration tasks
- Pasture management
  - Animal identification and registration tasks
- Herd management
  - Specific tasks
- Animal health and certification
  - Specific tasks
- Product labelling
  - Specific tasks
- Fight against animal theft
  - Specific tasks

To be avoided
Recommendations for the axis ‘goal’: a single shared multipurpose AIRS serving different activities

- Animal breeding
- Herd management
- Pasture management
- Fight against theft
- Product labelling
- Animal health and certification
Recommendations for the axis ‘sustainability’

- Cost and workload for all the stakeholders at the lowest possible level:
  - Coordination of different field technicians
  - Herder implication
  - Appropriate methods: preprinted animal list, smartphones, readers...
  - Data collection limited to useful data

- Direct benefits for the herders.

- Large scale data sharing with other activities: animal health, certification...

- Co funding herders + government based on the proportion of direct benefits for herder, no more than 10 % at the beginning.
Recommendations for axis ‘Outputs’

For the six identified beneficiary activities, nine outputs distributed in three categories:
1. Stakeholder register.
2. Tagging.
3. Animal register.
Recommendations for the axis “components”

- **Component # 1: one national stakeholder register**

- **Component # 2: animal registers per herd**

- **Component # 3: tags and tagging**
  - Camelids and bovine: large tags with a 12 digits animal ID
  - Horses: microchips with a 15 digits animal ID
  - Small ruminants moved from a herder: tag with a 6 digits herder ID
  - Small ruminants for breeding purpose: small tags with a 12 digits animal ID.

- **Component # 4: simple versatile data collection methods close to the animals**

- **Component # 5: data sharing through a single data base**
Strategy implementation

The strategy would be implemented through:

1. Organization
2. Workflows
3. Information system
4. Deployment plan
Recommendation for the organization

A skeleton (blue) based on **government AIRS officers** at **three levels national, aimag and soum**.

**AIRS advisory committees** (red) with representatives from stakeholders at **national and aimag level**.

A **private public partnership** (green):
- National level:
  - IT service provider
  - Tag provider
  - Support team.
- Soum level:
  - service providers
  - herders
Recommendations for the workflows

Below workflows should be implemented:

1. Business processes (Blue):
   • Stakeholder management.
   • Animal review.
   • Data service.

2. Support processes (Red):
   • Tag management.
   • Slaughter registration.
   • IT infrastructure
   • Support.
Recommendation for the role of the information system

The information system

1. Should be a website providing **a wide range of user applications** through API with:
   - **Data** from the AIRS data base
   - **Data processing**: animal registration...

2. Should **support mass data exchanges** between servers, AIRS and the ones of the beneficiary activities: MAHIS, Breeding...

**End user applications** should:
- **Retrieve AIRS data** either from its server or though AIRS API.
- **Register AIRS data** through AIRS API.
Recommendation for functional architecture of the website

A root (blue):
www.AIRS.mn

Three parts:
1. Public (green)
   - Home page: //www.AIRS.mn/Home/Presentation
   - //www.AIRS.mn/Home/Legislation
   - //www.AIRS.mn/Home/Achievements
   - //www.AIRS.mn/Home/Analytical data

2. Restricted to users having an AIRS account (red).
   - Home page: //www.AIRS.mn/Home/Restricted
   - //www.AIRS.mn/Home/Restricted/Application
   - //www.AIRS.mn/Home/Restricted/Procedures
   - //www.AIRS.mn/Home/Restricted/Training
   - //www.AIRS.mn/Home/Restricted/Web_app

3. API restricted to authentified applications (brown)
   - API: //www.MAIRS.mn/API

Public access

Restricted access

API
Recommendation for the technical architecture

The website should be used by beneficiary activity applications through different devices: servers, smartphone or PC.

The website provides:
• API
• Html pages.

The html pages provide user browser with:
• Analytical data (Statistics, data to be analyzed...)
• Applications (mobile...)
• Document: procedures, communication, training

API provide user applications with business or technical components in relation with the data base.
Recommendation for a deployment plan

Three phases:

1. Coordination with the AIRS beneficiary activities on the key steps.

1. One year focused on:
   - Software development.
   - New standard operating procedures.
   - National deployment preparation.

2. A national deployment, in 3 years, in 3 steps by group of aimags including for each steps:
   - Awareness campaign for the stakeholders.
   - Training sessions for the actors.
Thank you for your attention