# Introduction

## Purposes

The software specification document helps describe the wild animal management software. This document will help the solfware development team understand the business process, the functional and none functional requirements. This document is also an integral part of the software development contract and will be used during the contract acceptance process.

## Scopes

The contents of the document include a) the introduction of the wild animal management program, b) the functional requirements and c) the non-functional requirements. Other information of the wild animal software can be found in other related documents.

## Overal description

This document composes of the introduction, business requirements part describling the problem and requirements to resolve it, the non functional requirements part focusing on user interface requirement, extenbility of the system, and the last part is requirement of timeline for project.

# Business requirements

## Backround

In Viet Nam, there are over 20,000 wildlife farms with more than 1.9 million individual wild animals farmed. Wildlife farming not only creates jobs and income for a part of the population and contributes to the socio-economic development, especially in rural and mountainous areas, but also contributes to conservation. However, these activities have been posing challenges to the management, especially origin control and population fluctuation in the farms, as well as diseases prevention for those that can transmit from animals to human.

To strengthen the management of wildlife populations in wildlife farms, in 2015, the CITES Management Authority of Viet Nam cooperated with the Food and Agriculture Organization (FAO) of the United Nations to implement the pilot survey project at wildlife farms in 12 Southern provinces in 2015 (Ba Ria – Vung Tau, Ben Tre, Binh Duong, Binh Phuoc, Binh Thuan, Dong Nai, Dong Thap, Lam Dong, Long An, Tay Ninh, Tien Giang and Ho Chi Minh City). The data collected from the past wildlife farm review in the 12 targeted provinces are stored at the facilities of the CITES Management Authority for analysis, report, inspection, examination, and proposal of the policy management mechanism for wildlife farms. However, these questionnaire forms are excessively complicated, with a lot of information that are unnecessary for the management process.

In 2017, CITES together with FAO is implementing the survey at wildlife farms in 12 provinces, (Ha Nam, Ninh Binh, Thanh Hoa, Nghe An, Vinh Long, An Giang, Can Tho, Hau Giang, Soc Trang and Bac Lieu). The new questionnaire form which inherit necessary information from the previous forms and include new information (if any) that serves the purpose of wildlife farm management, which was applied in the 2017 survey for further used as a standard template for official application countrywide. The activities also support 12 provinces which were participated in 2015 to update the captive wildlife farm information.

Both activities delivered the unified template for a large number of provinces to update CWF situation, provide training workshops for survey skill, update information on animal diseases and currents legislation related to wildlife managements. All 24 provinces had updated the captive wildlife farming information in paper report filling and excel format.

Develop a software supporting captive wildlife data management software with the first module focus on reporting the inventory of CWF then later on other components on Animal husbandary, health management to support the VNFOREST, CITES and other related agencies can easily update, manage, report and get information of the captive wildlife farming. The tools will support to reduce workload of the statistics and reporting and enable the provinces to conduct more regular data census. The CITES and provincial sDFP’s will have timely data information of CWF.

## Functional requirement

### Functional Diagram



### Functional requirement

|  |  |  |  |
| --- | --- | --- | --- |
| # | Requirement | Description | Priority |
| **I** | **Farm management** | **The purpose of this group of functions is to allow the forester enters data, views the reports of a wildlife farm.** |  |
| I.1 | Farm declaration | This function allows user to register a new wildlife farm to the system or edit information of an existing farm. The information need to enter in the system include (but is not limited to) :  Address, ownership, position, registration number, number of labor, start time,… the detailed information is described in the annex 1 | H |
| I.2 | Report about the wildlife population | Statistics about the wildlife population, species, name of wildlife, classification, protected object (according to the circular 06/2019), objective of raising, herd structure, species, animals in the high risk of disappareance - rare and precious (annex 2), Information of home raised bears - (Annex 3), forest animals (Annex 2) | H |
| I.3 | Report on the home raised animal. | Statistics about the population, composition of raised animal, ornamental animals (annex 4) | H |
| **1.4** | **Report on the fluctuations of the wildlife farm** | **This the report for the farm, based on the information from the forester or the farm owners report monthly.** |  |
| 1.4.1 | Import wild animal | Allows a user to register new flock of animal. | H |
| 1.4.2 | Manage the list flock of animal | Manage lists of import wild animal. This function allows a user to filter by administrative units (province/city, district, commune) and farms. | H |
| 1.4.3 | Export animal | This function allows a user to enter export animal data to the system. | H |
| 1.4.4 | Manage the list of export animal | Manage lists of export wild animal. This function allows a user to filter by administrative unit (province/city, district, commune) and farm. | H |
| 1.4.5 | View summary information of a farm | This function allows a user to view the summary information of a wildlife farm. The summary information includes:   * Information of the farm in the register session (owner’s name, name of the farm, resigister number, position…) * Summary about the breeding of the farm such as the total of wild, the home raised animal with the wild animal, the total of bear raising, … | H |
| 1.4.6 | Manage the list of the administrative unit (province/city, district, commune) | Allows a user to manage the list of the provinces/cities, districts, and communes of Vietnam. | H |
| 1.4.7 | Manage the list of species | This function allows a user to manage the list of species. | H |
| 1.4.8 | Manage the origin of animal | This function allows a user to manage (list, add, edit, delete and search) the origin of animal | H |
| **II** | **Report and statistics** | **The report and statistics functions allow a user to view statistical reports on situation of wildlife farming in the country.** |  |
| II.1 | Report about the population of wild animal (not include bear) | This report allows a user to see the total population of the wild animal (not including bear) of each farm, in a commune, a district, a province and country wide. | H |
| II.2 | Report of the raised bear population | This report allows a user to see the total population of raised bear in each farm, in a commune, in a district, a province and country wide. | H |
| II.3 | Report on the domestic and ornamental animal at the farms | Report on the total number of domestic animal and ornamental animal in the farm at the report time. | H |
| II.4 | Monitoring book for animal breeding activities | This function allows a user to see the report like a fluctuation hand book of animal herd. Please see the report template at annex 5 (form 16A) | H |
| II.5 | The monitoring handbook on raising for endangered, precious and rare animals, endangered wild in the CITES annex and common forest animal.  **(**Apply for the rearing farm) | Please see the report template at annex 5 (form 16B) | H |
| II.6 | The monitoring handbook on raising for endangered, precious and rare animals, endangered wild in the CITES annex and common forest animal.  (Apply for the animals that give eggs) | Form 16C |  |
| II.7 | The monitoring handbook on breeding for endangered, precious and rare animals, endangered wild in the CITES annex and common forest animal. | Form 16D | H |
| II.8 | Activities of raising endangered, precious and rare animals; endangered wild animals in the Appendix CITES and common forest animals | See the annex 6 Form 18 | H |
| II.9 | Report for endangered - rare and precious forest animals | See detail at annex 7 | H |
| **III** | **System admin** | **System administration function group allows administrators to manage user (add, delete, enabled, disable, search user) and view the activity log of every user.** |  |
| 1 | Manage and grant permission to user | This function allows an admin user to add/edit, delet, list/search users and grant permissions for every user in the system. | H |
| 2 | Manage activity log of the system | This function allows an admin user to search and view all activity log of every user. | H |
| **IV** | **Utils** | **Utilities** |  |
| 3 | Link manager | Allows an admin user to add hyper links to other websites | M |
| 4 | Document management | This function needs to:   * Provide a page that shows specialized documents (books, publications). * Allow an admin user to add/edit, delete, list and search document. Each document includes the below information: * Title * Description * Attached file (can have multiple files for 1 document) | M |

## User role

There are five groups of system user as below:

* Administrator users can:
  + View the list of users
  + Add a new user
  + Delete or activate/inactivate a user.
  + Grant permissions to other users
    - Grant permissions to a user by associating that user to a (set of) role
    - Grant permissions to a user by specifying what types of resources he or she can access to
* A user at VNFOREST
  + Can view, edit and delete data of all wildlife farms across the country
  + Can create accounts for all subordinate units
* **A user at the provincial sub department of forest**
  + Can view, edit and delete data of all wildlife farms in their province
  + Can create accounts for all subordinate units
* **A user who is a forester at district level**
  + Has permission to access (view, edit, delete) data of the wildlife farm in their district
  + Has permission to access the report in their district.
* **Forester (ranger)** 
  + Has permission to access data within their scope of work

# Non functional requirement

## System architecture requirement

The wildlife management software should be built on an up-to-date architecture, like SOA (Service Oriented Architecture) which allows communication with other systems through application programming interfaces (or APIs). The architecture of the system is described as the figure below:



## Technology stacks

Technlogies used for the wildlife management software should:

* Be common to support for extensibility/scale-up when needed
* Have been used extensively in large-scale systems
* Be compatible with the multilayer architure models
* Support multiple database systems for compatibility with existing licensed database systems (which the end user can have). The system needs to support following database systems:
  + MySQL/Maria DB
  + SQL Server
  + Oracle
  + PostgreSQL

## Interface requirement

The main requirements for the ease of use of the software are listed in the table below:

|  |  |
| --- | --- |
| # | Description |
| 1. | The software interface must be designed in a simple and transparent manner, and the terms used must be easy to understand and consistent on all screens. The issues that must be used consistently include:   * Fonts, font sizes, font colors for titles and content on interface screen, * Background color on interface screen, * Spacing between lines, control components (controls) * Align content, table and other interface element, * Using the same button style on every interface screen, * The types of menu, buttons, textbox, and datepicker are used, * Position of the dialog boxes, * Other interface element using in the software. |
| 2. | Support 2 main languages (but can extend to other languges) : Vietnamese and English, Vietnamese is the default language using Unicode. Changing language need to simple using by one mouse click. Changing languge must not affect the status, data, screen displaying. |
| 3. | The software interface must be designed for not taking too many mouse clicks when switching from one function to another in the system. |
| 4. | The screens for entering data must be designed to use primarily keyboard and mouse is not necessary for increasing entering data efficiency. The combo boxes should have filter data by keyboard when user enters data for increasing the accuracy of data. |
| 5. | The interface of the software must be designed by using HTML3/ CSS3 in the direction of Responsive Design (see more at http://en.wikipedia.org/wiki/Responsive\_web\_design) for ease of use on regular computer monitors as well as touch screens sized 5 inches or more |
| 6. | The software interface must be beautifully designed, ensuring aesthetics. The functional buttons, the links (links) must be studied and put in the right position, ensuring sufficient and logic.  Need to refer to the user-friendly website to design the appropriate interface for the software's interface, for example: Microsoft Office, Microsoft Hotmail. |

## Reliability requirements

Because the software is used in daily work at the organizations, it is very important for the system to operate stably, perform well the processing functions give accurate and quick results. The reliability requirements for the software are list in the below table:

|  |  |
| --- | --- |
| # | Description |
| 1. | After the trial phase to fix errors and start working normally, the frequency of maintenance and maintenance must not be more than 1 time per month, except for cases of force majeure related to causes, objective or due to system upgrade need. |
| 2. | Frequency of software failures (if any) while software being operated causing job jams must not occur more than once / quarter. |
| 3. | During the warranty period in each fault occurrence, the time from the receipt of the error report to the end of settlement so that the system can resume normal operation shall not exceed 1 day. |

## Performance requirements

Software when operating must not consume too many resources of the server, workstation while ensuring to serve the work of the user smoothly, quickly and effectively, which is an important criterion to achieve. of the system. Some detailed requirements on the functionality of the software are described in the bellow table:

|  |  |
| --- | --- |
| # | Description |
| 1. | For a typical task on software functions, the average processing and response time should not exceed 2 seconds with the assumption that the transmission speed does not affect the task responsiveness. |
| 2. | For a search task, the average processing and response time must not exceed 6 seconds with the assumption that the transmission speed does not affect the task responsiveness. |
| 3. | For the reports, assume that the amount of data that exists in the database is large enough, the average processing and response time must not exceed 1 minute with the assumption that the transmission speed does not affect task responsiveness. |

## Requirements for extensive

The need to upgrade and expand the functions of the software is inevitable when there are changes or adjustments in operations. In order to ensure that software upgrades and extensions can be conveniently implemented, in addition to transferring the entire source code, programming libraries and regulatory documents. The following requirements must be ensured to be properly and fully implemented.

|  |  |
| --- | --- |
| # | Description |
| 1. | Software source code must be written in accordance with a commonly used coding standard and this compliance must be done consistently across all source files. Standard coding user documentation must be included as part of the software product transfer. |
| 2. | The method of naming variables, constant names and function names must follow a common naming convention and this compliance must be done consistently across all source files. Documentation manuals must be provided as part of the software product transfer. |

# Timeline

The time for implementing this project: from May 2020 to August 2020

# Project resource qualification requirement

1. Qualifications required:

* Master degree (for team leader) and bachelor degree (for team members) in the area information technology
* Having experiences working with NGO or UN Organizations is an advantage.

1. Experience required:

* At least 10 years’ (for team leader) and 2 years (for team members) experience in the area information technology or health informatics.

1. Skills / Technical skills and knowledge:

* Demonstrated experience in working with farm database

1. Language requirements:

* Fluent Vietnamese and good command of English

1. Competencies:

* Excellent interpersonal and communication skills
* Demonstrated ability to work as part of a team
* Capacity of delivering products on time and with high quality

Annex 1: FARM GENERAL INFORMATION

1. **General information :**
   1. Farm owner or representative’s full name :
   2. Date of Birth: ../.../....
   3. Identity number:
   4. Telephone : ……………………………………………………………………..
   5. Address:
   6. GPS coordinates (of the farm).

|  |  |  |
| --- | --- | --- |
| Region  *(cirle)* | Latitude | Longitude |
| 48P  49P | **|\_\_ |\_\_ |\_\_ |\_\_ |\_\_ |\_\_ |\_\_ |** | UTM.**|\_\_ |\_\_ |\_\_ |\_\_ |\_\_ |\_\_ |\_\_|** |
| Or | **\_\_ \_\_ o\_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_** | **\_\_ \_\_ \_\_ o\_\_ \_\_ \_\_ \_\_ \_\_ \_\_ \_\_** |

1. **Farm information**
2. Farm name: ………………………………………………………...
3. Address : ..……...……………………...………………………………………
4. Farm registration:
   1. 🞎 Non-registered (reason:....)
   2. 🞎 Registered, last registered date ……………………..
   3. Founding date:
   4. Issuing code date:
   5. Old registration code:....................................
   6. New registration code:.................................
5. Raising species belong to:
   1. 🞎 Endangered, precious and rare wild animals (except bears)
   2. 🞎 Bear
   3. 🞎 Common forest animals
6. Raising pupose:

🞎 T- Trading 🞎 Z-Zoo, display 🞎 Q-Circus performance

🞎 R-Rescure, conservation 🞎 S-Scientific, research 🞎 O-Other

Note: in case there are multiple raising forms, make clear the species and the number of individuals of each species for each purpose in the following sections*.*

1. For trading purpose, please specify:

🞎 Breeding 🞎 Rearing 🞎 Breeding, Rearing

Annex 2: Information about the population of raising wild species (except bear)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **TT** | **Specie** | | **Total infividual number** | **Parent flocks** | | | **Above 1 year old offsprings** | | | | **Below 1 year old offsprings** | **Origin** | **Raising purpose** |
| **Vietnamese name** | **Scientific name** | **Total** | **Male** | **Female** | **Total** | **Male** | **Female** | **Unknown** |
| 1 | 2 |  | 3=4+7+11 | 4=5+6 | 5 | 6 | 7=8+9+10 | 8 | 9 | 10 | 11 | 12 | 13 |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **….** |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Note:**

**Notes:**

**(1) For rearing farms, only count the number of individuals above and below 1 year old, not count the parent flocks**

**(2) Column 12 uses these following abbr. of origin:**

C: Originating from breeding farms; R: Originating from rearing farms U: Unknown;

W: Natural origin; NK: Originating from import; I: Originally material evidences confiscated

**(3) Column 13 uses these following abbr. of raising purpose:**

T: Trading; Z: Zoo, display; Q: Circle performance;

R: Rescue, conservation; S: Scientific reseach; O: Others.

Annex 3: INFORMATION ABOUT THE STATUS OF THE RAISED BEAR POPULATION

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TT | **Specie** | | **Total** | **Chip-implanted Bear** | | | | **Non chip-implanted Bear** | | | | | **Note** |
| **Vietnamese name** | **Scientific name** | **Total** | **Male** | **Female** | **Chip code** | **Total** | **Male** | **Female** | **Reason** | |
| **Born in Farm** | **Other** |
| *1* | *2* |  | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* | *13* |
| **I** |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **….** |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Note:** in the case of non chip-implanted bears which aren’t born in the farm; please specify the reason why the chip isn’t implanted, for example material evidences confiscated, rescue, etc

Annex 4: Species information of domestic and ornamental animals in the farm

|  |  |  |
| --- | --- | --- |
| **No** | **Specie** | **Total number** |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| 4 |  |  |
| .... |  |  |

*(Buffaloes, cows, pigs, chickens, ducks, siamese duck, doves and other ornamental animals not listed above)*

Annex 5- Monthly records of herd fluctuations.

**Form 16A**

**MONITORING HANDBOOK ON RAISING FOR ENDANGERED, PRECIOUS AND RARE ANIMALS, ENDANGERED WILD IN THE CITES ANNEX AND COMMON FOREST ANIMALS**

**(Not apply to the rearing farm)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Total individuals | | | | Individual’s parents | | Offspring | | Number of individuals below 1 year old | Number of individuals above 1 year old | | | Added to the facility (buy, reproduce, etc) | | | Export of the facility (sell, gift, dead, etc.,) | | | Note | Certification by LFPD or fishery unit | |
| Total | Male | Female | Unknown | Male | Female | Male | Female | Male | Female | Unknown | Male | Female | Unknown | Male | Female | Unknown |
| 1 | 2=3+4+5 | 3=6+8+11+14-17 | 4=7+9+12+15-18 | 5=10+13+16-19 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Form 16B**

**MONITORING HANDBOOK ON RAISING FOR ENDANGERED, PRECIOUS AND RARE ANIMALS, ENDANGERED WILD IN THE CITES ANNEX AND COMMON FOREST ANIMALS**

**(Apply for the rearing farm)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Date** | **Total individuals** | | | | **Number of individuals under 1 year old** | **Number of individuals above 1 year old** | | | **Added to the facility**  **(buy, reproduce, etc)** | | | **Export of the facility**  **(sell, gift, dead, etc)** | | | **Notes (e.g. chipped no.…)** | **Certification by LFPD or fishery unit** |
| **Total** | **Male** | **Female** | **Unknown** | **Male** | **Female** | **Unknow** | **Male** | **Female** | **Unknown** | **Male** | **Female** | **Unknown** |
| 1 | 2=3+4+5 | 3=7+10-13 | 4=8+11-14 | 5=6+9+12-15 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Form 16C**

**MONITORING HANDBOOK ON REEDING FOR ENDANGERED, PRECIOUS AND RARE ANIMALS, ENDANGERED WILD IN THE CITES ANNEX AND COMMON FOREST ANIMALS**

**(Apply for the animals that give eggs)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Date (get eggs from nest/ incubate/ egg hatching, dead ...) | Number of parents | | Number of eggs | Number of eggs to incubate | Number of hatching eggs | No. of dead offspring | No. of survive offspring | No. of offspring accumulated over time | No. of offspring separated from captive area (or herd) | No. of remaining offspring | Notes | Certification by LFPD or fishery unit |
| Male | Female |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9=7-8 | 10 | 11 | 12=10-11 | 13 | 14 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |  |  |

**Form 16D**

**MONITORING HANDBOOK ON REEDING FOR ENDANGERED, PRECIOUS AND RARE ANIMALS, ENDANGERED WILD IN THE CITES ANNEX AND COMMON FOREST ANIMALS**

**(Apply to the animals that give birth)**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No | Date (giving birth, dead...) | Number of parents | | No. of offspring | No. of dead offspring | No. of survive offspring | No. of offspring accumulated over time | No. of offspring separated from captive area (or herd) | No. of remaining offspring | Notes | Certification by LFPD or fishery unit |
| Đực | Cái |
| 1 | 2 | 3 | 4 | 7 | 8 | 9=7-8 | 10 | 11 | 12=10-11 | 13 | 14 |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |  |  |  |  |  |

Annex 6- Report on activities of raising, planting endangered, precious and rare forest plants, animals

**Form 18 – Decree 06-2019**

**REPORT**

**Activities of rearing and planting endangered, precious and rare forest plants and animals; endangered wild animals and plants in the Appendix CITES and common forest animals**

**I. ACTIVITIES OF REARING ENDANGERED, PRECIOUS AND RARE WILD ANIMAL; ENDANGERED WILD ANIMALS IN THE CITES ANNEX AND COMMON FOREST ANIMALS**

1. Information on endangered, precious and rare forest animal rearing establishments; endangered wildlife in CITES Annexes and common forest animals

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| TT | Fullname and address of farm owner | Name of specie | | Total | Parent flock | | | Replacement flock | | | Number of Individual under 1 year of age | Number of Individual above 1 year of age | | | | Farm code | The issued code date | Farming purpose | Notes |
| Common name | Scientific Name | Total | Male | Famale | Total | Đực | Cái | Total | Male | Famale | Unknown |
| 1 | 2 | 3 | 4 | 5= 6+9+12+13 | 6=7+8 | 7 | 8 | 9= 10+11 | 10 | 11 | 12 | 13= 14+15+16 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| A | District |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| I. | Commune |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| II. | Commune |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B | District |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| I. | Commune |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Total | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

***Note:***

1. Breeding farm must fill in all information, other farms do not fill in columns 6,7,8,9,19 and 11.

2. The purpose of rearing is recorded as follows: (T) Trading; (Z) Zoo, display; (Q) Circus performance; (R) Rescue, conservation ; (S) Scientific research; (O) Other.

Annex 07- Report template for endangered - rare and precious forest animals

**Form 18 – Decree 06-2019**

1. Synthetic data on endangered, precious and rare forest animals; endangered wildlife listed in CITES Appendix and common forest animals raised

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **TT** | **Specie name** | | **Number of animal** | | | **Notes** |
| **Common name** | **Scientific Name** | **Total number of individual** | **Total number of breeding farm** | **Number of farm have registration number** |
| 1 | 2 | 3 | 4 | 5=6+7 | 6 | 7 |
| **I** | **Endangered, precious and rare forest animals and endangered wildlife in Appendix CITES** | | | | | |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| … |  |  |  |  |  |  |
| **II** | **Common forest animals** | | | | | |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| … |  |  |  |  |  |  |
| **Total** | | |  |  |  |  |