

CCC_<User name>_GSE_SLA.doc

GSE FM – Service Level Agreement (SLA)

For the Delivery of Validated GSE FM Services to <User name>

Version:

Date:

SLA History and Change Record:

Version/ Issue No.	Date	Author Contributor	Affiliation	Status / Changes (Describe)

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GSE FM - Service Level Agreement

GSE FM Service:

Services Supporting National Reporting Obligations of UNFCCC & KP on LULUCF /
“Forest Monitoring Inputs for National Greenhouse Gas (GHG) Reporting”

This Service Level Agreement is concluded between

<User name> referred to below as the user

And,

<Service Provider name> subsequently referred to below as the service provider

For the duration from <date 1> to <date 2>

1 Introduction

This Service Level Agreement (SLA) represents a binding agreement between the user <User name> and the service provider <service provider name> and specifies in transparent and measurable terms the GSE FM service to be provided and the results to be attained in the execution of the service. The signatories to the SLA will strive to comply with all standards, quality and validation criteria that are implicit to GSE FM services. Complete documentation is available on these and related issues.

In addition to defining terms and conditions for actual service delivery, the Service Level Agreement codifies the service provider to user relationship thereby improving the overall effectiveness and quality of service delivery. Fundamental to successful service delivery is the mutual understanding and cooperation between parties (signatories) to reach the stated objectives outlined in the SLA.

2 Statement of Work and Service Specification

The Service:

Services Supporting National Reporting Obligations of UNFCCC & KP on LULUCF /
“Forest Monitoring Inputs for National Greenhouse Gas (GHG) Reporting”

Service Description:

The service produces Land Use and Forest Maps

Service Area Specification:

The area to be covered is the <area name>, defined by <coordinates/administrative region/...>
covering a total of <> km².

<map with area indicated>

Specification of products and deliverable (See also ANNEX)

The products for the designated area to be delivered include:

- <products names>

More detailed technical specifications of products and deliverables is provided in the ANNEX to the SLA.

Service Delivery Schedule:

- <products names> (X km²) will be delivered to the user by <date>
- Complete documentation including validation and quality assurance results will be delivered by <date>

Service Delivery Model:

Out-sourcing

Terms of Access:

The products will be delivered on DVD

Installation:

NA

Training:

A training session is foreseen in order to show the User the format details for the product

Other Support Services:

NA

3 Regulations and Obligations

This section itemises the regulations and obligations of the user and service provider required for the successful implementation of the designated service. They include:

3.1 Obligations of the User

- The provision of user and/or in-situ data required for service production (as specified in the Source Data List in the ANNEX).
- Full technical cooperation with the service provider during production, as required.
- Full participation in the evaluation and validation process of delivered products using pro-forma documentation and procedures (supplied and supported by the Service Provider) including:
 - User Requirement Assessment before the formulation of the SLA
 - Utility Assessment following delivery of the final products

3.2 Obligations of the Service Provider

- Ensure the highest accuracy and quality of deliverables and conformity of the services and products delivered with documented GSE FM standards
- Providing advice, support and pro-forma documentation to the user, as required.
- Executing service delivery in strict accordance with the SLA

4 Other Issues and Conditionalities

NA

Following signature, the parties referenced in the SLA agree to execute the proposed service delivery according to the terms and conditions outlined above and in compliance with criteria outlined in the available and relevant GSE FM technical and management documentation. The contents of the annex represent an implicit part of the SLA.

Service Level Agreement Signed by:

The Service Provider (<name of responsible person>), <date >, <place>

The User (<name of responsible person>), <date>, <place>

ANNEX (*this annex template contains fictive examples*)

Include in the annex additional documentation required as an implicit part of the SLA. At a minimum this must include:

1. Source Data List

Data	Description	Format	Usage
DIG25 (1:25:000)	digital height model with x,y,z - coordinates all 25 meters	Arc/InfoGRID	Orthorectification of images. Mandatory in steepest areas
DIM	[in principle same as DHM, but high resolution with 0,5 points/m2;	Arc/InfoGRID	covers the regions below 1000 m The availability of DIM is TBC
VEC25 (1:25:000)	9 thematic layers: roads, railways, other traffic, hydrography, primary surfaces (e.g. forests), hedges and trees, buildings, functional surfaces and single objects]	Shapefile or E00	Creation of physiographic ambits
Orthophotos	(scale 1:10,000; in color) which show a terrain-accuracy of 50 cm	Geo-Tiff	Images registration and Training areas refinements. They are not mandatory. If missing the Pixel maps (1:25,000) can be used for registration. In this case the RMS could be slightly higher

Data	Description	Format	Usage
			than the one achieved with the Orthophotos usage
Pixelmaps (1:25:000)	digital topographic maps of whole country	Geo-Tiff	Needed for image registration, if orthophoto not available
NFI II	Second National Forest Inventory	Tabular format (excel or dbf)	To refine the Forest Map training areas, to support the mixed forest individuation

Data will be delivered to <service provider> upon NDA signature, and the data usage will be restricted to the processing activities for whole GSE-FM Stage 2 duration..
Point of Contact is <name>, from <user>.

2. Map and Class Definitions

<product name 1> will contain the following classes:

Forest subclasses	Subclasses definition
Coniferous	91% - 100 % of soil coverage consists of coniferous trees
Deciduous	0% - 10% of soil coverage consists of coniferous trees
Mixed forest	11% - 90% of soil coverage consists of coniferous trees Comment: Especially in wintertime the difference between plain coniferous and plain deciduous can be well distinguished

<product name 2> will contain the following classes

Land Use class	Definition
Forest	All forest and wooded land, sub-divided at national level into managed and unmanaged, as appropriate, and also by ecosystem type as specified in the IPCC Guidelines (IPCC GPG definition) with the following specification: <ul style="list-style-type: none"> • tree crown cover $\geq 20\%$ • tree height ≥ 3 m. Comment: The Forest definition should not include orchards with stand height ≥ 3 m; such classification must be strictly minimized (orchards belong to the category "Other"; see User Standard Handbook, 2.3.2)
Cropland	Includes agro-forestry systems where tree cover falls below the level used in the forest categories (IPCC GPG definition) with the following specifications: <ul style="list-style-type: none"> • land on which different crops are grown in a yearly changed rhythm • including artificial meadows (not permanent) including land temporarily set aside
Grassland	All grassland that is not considerate as cropland including systems with vegetation or tree cover below the density used in the forest category. This includes all grassland from wild lands recreational areas as well as agricultural systems. (IPCC GPG definition). The Grassland definition could partially overlap with Cropland, due to the grassland in Agricultural fields. Grassland in agricultural field would have the same spectral behaviour than the Grassland. In this case a Knowledge based approach will be used in order to disambiguate I, because a mere classification approach would not be sufficient.
Settlement	All developed land, including transportation and any size of human settlement unless already

Land Use class	Definition
	included under other categories.(IPCC GPG definition)
Wetland	Land that is covered or saturated by water for all or part of the year (e.g. peat land) and that does not fall into other categories. This includes reservoirs. (IPCC GPG definition)
Unproductive	Bare soils, sands, rocks, quarries, glaciers and all land areas without vegetation that does not fall into the previous areas

3. Technical Specifications of Products and Deliverables:

Each of the products to be delivered as part of the service have the minimum technical specifications described in a table –see below:

Table per Product Specification: Land Use / Land Cover and Forest Area Maps

Product	Product Properties	Specification	Acceptability thresholds
<product name 1>	Geometric accuracy	RMS < 2 m Using standard procedures of ortho-rectification.	RMS not > 4 m
	Reference system	Igor Reference System	n.a.
	Image quality	Cloud and haze free.	+/- 10-20% clouds
	Image acquisition	During the vegetation season May-September, Due to vegetation phenology and to minimised shadow effects caused by sun incidence angle	April to October
	Minimum mapping unit	0,1 ha	but not coarser than 0,5
	Map classes	As a minimum the following classes have to be mapped: - Coniferous - Deciduous - Mixed Based on agreed and applied class definitions presented in above	All classes have to be mapped, further discrimination is accepted if it is compatible with the classification hierarchy
	Thematic accuracy	90 % user & producer accuracy per class. To be proven by standard accuracy assessment methods	not less than 80% for subclasses
<product name 2>	Geometric accuracy	RMS < 2 m Using standard procedures of ortho-rectification.	RMS not > 4m
	Reference system	Igor Reference System	n.a.
	Image quality	Cloud and haze free.	+/- 10-20% clouds
	Image acquisition	During the vegetation season May-	April to October

Product	Product Properties	Specification	Acceptability thresholds
		September, Due to vegetation phenology and to minimised shadow effects caused by sun incidence angle	
	Minimum mapping unit	0,1 ha	but not coarser than 0,5
	Map classes	As a minimum the UNFCCC LU/LC Classes have to be mapped: <ul style="list-style-type: none"> - Settlement - Forest - Cropland - Grassland - Wetland - Other Land Based on agreed and applied class definitions presented in above	All classes have to be mapped, further discrimination is accepted if it is compatible with the classification hierarchy
	Thematic accuracy	90 % user & producer accuracy per class. To be proven by standard accuracy assessment methods	not less than 80% for subclasses