

Library and document collections GFIS data exchange specification

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1. Background

There are many metadata standards already in use for publications, ranging from the simple to very complex global library standards such as MARC. The Dublin Core group has created a publication application profile of the Dublin Core metadata element set called DC Library AP.

In the field of agriculture and natural resource management, internationally used *application profile* include the AGRIS Application Profile. Application profiles are a way to declare which elements from which namespaces are used in a particular application or project. They are defined as schemas which consist of data elements drawn from one or more namespaces, combined together by implementers, and optimised for a particular local application.

1.1 GFIS and the AGRIS application profile

GFIS currently uses only AGRIS application profile with forestry domain specific schemes such as Codes and Thesaurus recommended by GFIS. However, GFIS will require fewer mandatory elements. The application profile specifies mandatory and non-mandatory fields. Metadata feeds must contain at least the mandatory fields; if these are missing, the feed will be rejected automatically. The fields are defined briefly below. More detailed **AGRIS documentation** is available:

- A [users guide](#) of the AGRIS application profile
- [Generating AGRIS AP XML](#) from local databases
- The [DTD](#) to validate the XML

1.2 Publications – Version

Draft 1
July 2006

1.3 GFIS Definition of Resource

Publications, as a specific resource type in GFIS, means **books** (textual material that is monographic in nature) and **continuing resources** (textual items with a recurring pattern of publication often referred to as 'serials', e.g., periodicals, newspapers, yearbooks, etc.). These can be print publications or electronic publications.

1.4 Data elements

Data exchange specifications are built on Dublin Core Metadata [Element Set](#), Version 1.1: Reference Description. Where applicable, refinements and qualifiers based on the Agricultural Metadata Element Set ([AgMES](#)) have been applied.

2. List of elements and element refinements

ELEMENT	ELEMENT REFINEMENT
Mandatory elements	
(DC) title	(DCTERMS) alternative (AGS) titleSupplement
(DC) date	(DCTERMS) dateIssued
(DC) subject	(AGS) subjectClassification (AGS) subjectThesaurus
(DC) language	-
(AGLS) availability	(AGS) availabilityLocation (AGS) availabilityNumber
Non-mandatory elements	
(DC) creator	(AGS) creatorPersonal (AGS) creatorCorporate (AGS) creatorConference
(DC) publisher	(AGS) publisherName (AGS) publisherPlace
(DC) description	(AGS) descriptionNotes (AGS) descriptionEdition (DCTERMS) abstract
(DC) identifier	
(DC) type	-
(DC) format	(DCTERMS) extent (DCTERMS) medium
(DC) relation	(DCTERMS) is Version Of (DCTERMS) has Version (DCTERMS) is Replaced By (DCTERMS) replaces (DCTERMS) is Required By (DCTERMS) requires (DCTERMS) is Part Of (DCTERMS) has Part (DCTERMS) is Referenced By (DCTERMS) references (DCTERMS) is Format Of (DCTERMS) has Format (AGS) is Translation Of (AGS) has Translation
(DC) source	-
(DC) rights	(AGS) rightsStatement (AGS) TermsOfUse
(DC) coverage	(DCTERMS) spatial (DCTERMS) temporal

(AGS) citation	(AGS) citationTitle
	(AGS) citationIdentifier
	(AGS) citationNumber
	(AGS) citationChronology

2.1 Title

[Dublin Core guidelines for Title](#)

GFIS usage

This field is used to indicate the name by which the resource is formally known, e.g. the title of a monograph, a chapter of a book or a journal article.

Notes

1. Indicate the language of the title using the *xml:lang* attribute. The language should be selected from [ISO639-2](#).
2. Serial Titles should be placed in the citation field. [see [Citation](#)]

Example

```
<dc:title xml:lang="eng">Burma - Integration of forests and industries - Report to the government. </dc:title>
```

2.2 Date

[Dublin Core guidelines for Date](#)

GFIS usage

This field is used to indicate when the publication was made available (i.e. published).

Notes

1. This field must be used with an element refinement (see [AGRIS-AP](#) for full details)
2. Many date formats types are possible, including loosely formatted strings, e.g. "Spring 2006". GFIS recommends a W3C format expressed as YEAR-MONTH-DAY (YYYY-MM-DD).

Example

```
<dc:date>
  <dcterms:dateIssued>2004-11-10</dcterms:dateIssued>
</dc:date>
```

2.3 Subject

[Dublin Core guidelines for Subject](#)

GFIS usage

This field is used to describe the content of the resource using keywords and/or classification codes. GFIS recommends use of a controlled vocabulary or Thesaurus.

Example

```
<dc:subject>
  <ags:subjectThesaurus xml:lang="eng" scheme="ags:CABT">FOREST POLICY
</ags:subjectThesaurus>
  <ags:subjectThesaurus xml:lang="eng" scheme="ags:AGROVOC">FORESTRY
  DEVELOPMENT
</ags:subjectThesaurus>
</dc:subject>
```

2.4 Language

[Dublin Core guidelines for Language](#)

GFIS usage

This field is used to describe the language(s) of the intellectual content of the publication.

Notes

1. Language is used in several elements in the AGRIS application profile. The application profile is designed to make it possible to list a resource in many languages, as well as listing a resource in any language. This is a different approach from that used in GFIS for information types *News* and *Events*, where a file is expected to be in one language only.
2. GFIS recommends that [ISO639-2](#) is used.

Example

```
<dc:language scheme="dcterms:ISO639-2">eng</dc:language>
```

2.5 Availability

[AgMES guidelines for Creator](#)

GFIS usage

This field is used to describe the location of the publication in the organization supplying the Metadata. It does not imply that this is the only location of the publication (if it is a printed document, it may be available in several Institutions, all of which could submit Metadata for this publication to GFIS). However, given that this field contains non-standard or local identifiers (call numbers), it helps to best physically locate the resource.

Example

```
<agls:availability>
  <ags:availabilityLocation>Library Wageningen University and Research Centre,
  Postbus 9100, 6703 BK Wageningen ub.library@wur.nl
  http://library.wur.nl/desktop/
</ags:availabilityLocation>
  <ags:availabilityNumber>1700134</ags:availabilityNumber>
</agls:availability>
```

2.6 Creator

[Dublin Core guidelines for Creator](#)

GFIS usage

This field is used to describe the person or organisation responsible for creating the intellectual content of the publication.

Notes

1. This field must be used with one of three qualifiers (see [AGRIS-AP](#) for full details)

Example

This example is for an individual author (i.e. using creatorPersonal):

```
<dc:creator>
  <ags:creatorPersonal>VON MONROY JA</ags:creatorPersonal>
</dc:creator>
```

2.7 Publisher

[Dublin Core guidelines for Publisher](#)

GFIS usage

This field is used to describe the individual group or organization named in the document as being responsible for that document's publication or release.

Example

```
<dc:publisher>
  <ags:publisherName>CABI</ags:publisherName>
  <ags:publisherPlace>Wallingford, UK</ags:publisherPlace>
</dc:publisher>
```

2.8 Description

[Dublin Core guidelines for Description](#)

GFIS usage

This field is used to provide additional information about the publication.

Example

```
<dc:description>
  <ags:descriptionEdition>2nd Edition</ags:descriptionEdition>
  <dcterms:abstract xml:lang="eng">This revision of the 1979 edition updates
    information on the fundamental properties and processes of forest soils, with
    particular reference to the application of basic soil science to silviculture. The
    first 12 chapters deal with some basic principles of soils, soil properties and
    soil-tree relationships. The second 10 chapters apply these principles to
    forestry conditions and the management of forest ecosystems. While all
    chapters have been revised and updated, the primary changes in this edition
```

are the addition of a chapter on tropical forest soils and of sections on acid precipitation and on soil mineralogy.

</dcterms:abstract>

</dc:description>

2.9 Identifier

[Dublin core guidelines for Identifier](#)

GFIS usage

This field is used for unambiguous standard numbers which describe the document. Standard numbers include ISBN, ISSN, DOI or URI.

Example

<dc:identifier scheme="ags:DOI"> 10.1098/rstb.2004.1590 </dc:identifier>

2.10 Type

[Dublin Core guidelines for Type](#)

GFIS usage

This field is used to describe the nature or genre of the content of the publication.

Example

<dc:type>text</dc:type>

2.11 Format

[Dublin Core guidelines for Format](#)

GFIS usage

This field is used to describe the physical or digital extent and manifestation of the publication.

Example

<dc:format>
 <dcterms:extent>128 pp.</dcterms:extent>
 <dcterms:medium>microfilm</dcterms:medium>
</dc:format>

2.12 Relation

[Dublin Core guidelines for Relation](#)

GFIS usage

This field is used to provide information about relationships between resources and enables and linkages to be made between them.

Notes

1. There are several qualifiers for this element. (see [AGRIS-AP](#) for full details)

Example

```
<dc:relation>
  <ags:relationIsTranslationOf scheme="dcterms:URI">related URI
</ags:relationIsTranslationOf>
</dc:relation>
```

2.13 Source

[Dublin Core guidelines for Source](#)

GFIS usage

This field is used to provide a reference to the resource of which this publication is a part. For example, taxonomic monographs are often published as part of a series with separate books for each Family or Genus.

Example

```
<dc:source>Flora of Australia</dc:source>
```

2.14 Rights

[Dublin Core guidelines for Rights](#)

GFIS usage

This field is used to provide information about the owner of the copyright or other rights of use of the publication. It may be used for either a textual statement or a URL pointing to a rights statement, or a combination.

Example

```
<dc:rights>
  <ags:rightsStatement>© 2005 by CIFOR. All rights reserved.
</ags:rightsStatement>
</dc:rights>
```

2.15 Coverage

[Dublin Core guidelines for Coverage](#)

GFIS usage

This field is used to describe the temporal or spatial extent of the content of the publication. This might include date ranges for research results or the geographical location to which the content refers.

Example

```
<dc:coverage>
  <dcterms:spatial scheme="dcterms:ISO3166"> NZ </dcterms:spatial>
  <dcterms:temporal>1995-2000</dcterms:temporal>
</dc:coverage>
```

2.16 Citation

GFIS usage

This field is used when the publication is part of a serial. A serial is defined as a publication, usually having numerical or chronological label, and intended to be continued indefinitely. It may be made available on any medium and is issued in successive parts.

Example

```
<ags:citation>  
  <ags:citationTitle>SAGPyA Forestal</ags:citationTitle>  
  <ags:citationIdentifier scheme="ags:ISSN"> 0328-9710</ags:citationIdentifier>  
  <ags:citationNumber>37</ags:citationNumber>  
</ags:citation>
```

3. Other useful resources

3.1 Conversion guidelines for existing data

Use the AGRIS AP Guidelines on converting data into XML.

English: <http://www.fao.org/docrep/008/ae908e/ae908e00.htm>

French: <http://www.fao.org/docrep/009/ae908f/ae908f00.htm>

Spanish: <http://www.fao.org/docrep/009/ae908s/ae908s00.htm>

3.2 The document-type-definition

The document type definition (or DTD) is used to 'validate' XML records is available from:
<http://www.purl.org/agmes/agrisap/dtd/>

4. Complete XML example

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE ags:resources SYSTEM " gfis.dtd">
<ags:resources xmlns:ags="http://purl.org/agmes/1.1/" xmlns:dc="http://purl.org/dc/elements/1.1/"
xmlns:agls="http://www.naa.gov.au/recordkeeping/gov_online/agls/1.2" xmlns:dcterms="http://purl.org/dc/terms/">
<ags:resource ags:ARN="Text">
  <dc:title xml:lang="eng">Burma - Integration of forests and industries - Report to the government. </dc:title>
  <dc:creator>
    <ags:creatorPersonal>VON MONROY JA</ags:creatorPersonal>
  </dc:creator>
  <dc:publisher>
    <ags:publisherName>CABI</ags:publisherName>
    <ags:publisherPlace>Wallingford, UK</ags:publisherPlace>
  </dc:publisher>
  <dc:date>
    <dcterms:dateIssued>2004-11-10</dcterms:dateIssued>
  </dc:date>
  <dc:subject>
    <ags:subjectThesaurus xml:lang="eng" scheme="ags:CABT">FOREST POLICY</ags:subjectThesaurus>
    <ags:subjectThesaurus xml:lang="eng" scheme="ags:AGROVOC">FORESTRY
DEVELOPMENT</ags:subjectThesaurus>
  </dc:subject>
  <dc:description>
    <ags:descriptionEdition>2nd Edition</ags:descriptionEdition>
    <dcterms:abstract xml:lang="eng">This revision of the 1979 edition updates information on the fundamental
properties and processes of forest soils, with particular reference to the application of basic soil science to
silviculture.... </dcterms:abstract>
  </dc:description>
  <dc:identifier scheme="ags:DOI"> 10.1098/rstb.2004.1590 </dc:identifier>
  <dc:type>text</dc:type>
  <dc:format>
    <dcterms:extent>128 pp.</dcterms:extent>
    <dcterms:medium>microfilm</dcterms:medium>
  </dc:format>
  <dc:language scheme="dcterms:ISO639-2">eng</dc:language>
  <dc:relation>
    <ags:relationIsTranslationOf scheme="dcterms:URI">related URI </ags:relationIsTranslationOf>
  </dc:relation>
  <ags:availability>
    <ags:availabilityLocation>Library Wageningen University and Research Centre, Postbus 9100, 6703 BK
Wageningen ub.library@wur.nl http://library.wur.nl/desktop/</ags:availabilityLocation>
    <ags:availabilityNumber>1700134</ags:availabilityNumber>
  </ags:availability>
  <dc:source>Flora of Australia</dc:source>
  <dc:coverage>
    <dcterms:spatial scheme="dcterms:ISO3166"> NZ </dcterms:spatial>
    <dcterms:temporal>1995-2000</dcterms:temporal>
  </dc:coverage>
  <dc:rights>
    <ags:rightsStatement>© 2005 by CIFOR. All rights reserved.</ags:rightsStatement>
  </dc:rights>
  <ags:citation>
    <ags:citationTitle>SAGPyA Forestal</ags:citationTitle>
    <ags:citationIdentifier scheme="ags:ISSN"> 0328-9710</ags:citationIdentifier>
    <ags:citationNumber>37</ags:citationNumber>
  </ags:citation>
</ags:resource>
</ags:resources>
```