

## Annex 1

# Land cover for T&T decision-making: standard description

The table below was created with the software Land Cover Classification System 2 (version 2.4.5 - 12/11/2004) developed by FAO - Environment and natural resources service. The authors of this paper defined the land cover classes for T&T and the software automatically assigned the standardised codes. The two ‘user defined’ fields (‘User Defined Description’ and ‘LCC User Defined Label’) are not filled in automatically by the software but they can be customized by the user. The ‘LCC User Defined Label’ was defined by the authors using the abbreviations list developed for the Africover project - East Africa module (see Annex 4 - LCCS user defined labels (abbreviation list), page 79).

MapCode	LCC Code	LCC Label	LCC Level	LCC User Defined Label
User Defined Description			Standard Description	
<b>Cultivated and Managed Terrestrial Area(s) (A11)</b>				
1	10001	Tree Crop(s)	A1	T
Forest plantations and tree plantations			Tree crops cover a defined area. The leaf type and leaf phenology can be further specified optionally.	
2	10013	Shrub Crop(s)	A2	S
Shrub crop			Shrub crops cover a defined area. The leaf type and leaf phenology can be further specified optionally.	
3	10025	Herbaceous Crop(s)	A3	H
Herbaceous crops			A defined area is covered by herbaceous crops.	
4	11176	Vegetated Urban Area(s)	A6	5UV
Vegetated urban areas			A defined area is covered by urban vegetation. This vegetation is dominated by clumps of trees and/or shrubs.	
<b>Natural and Semi-Natural Primarily Terrestrial Vegetation (A12)</b>				
5	20005	Closed Trees	A3A10	2TC
Forest			The main layer consists of closed trees. The crown cover is more than (70-60)%.	
6	20013	Open Trees (Woodland)	A3A11	2TP
Woodland			The main layer consists of open trees. The crown cover is between (70-60) and (20-10)%. The openness of the vegetation may be further specified.	

(cont.)

MapCode	LCC Code	LCC Label	LCC Level	LCC User Defined Label
User Defined Description			Standard Description	
7	20001	Closed Woody Vegetation	A1A10	2WC
Closed Woody vegetation			The main layer consists of closed woody vegetation. The crown cover is more than (70-60)%.	
8	20009	Open Woody Vegetation	A1A11	2WP
Open Woody vegetation			The main layer consists of open woody vegetation. The crown cover is between (70-60) and (20-10)%. The openness of the vegetation may be further specified.	
9	20017	Closed Shrubland (Thicket)	A4A10	2SC
Thicket			The main layer consists of closed shrubland. The crown cover is more than (70-60)%.	
10	20021	Open Shrubs (Shrubland)	A4A11	2SP
Shrubland			The main layer consists of open shrubland. The crown cover is between (70-60) and (20-10)%. The openness of the vegetation may be further specified.	
11	21453	Herbaceous Closed to Open Vegetation	A2A20	2H(CP)
Grassland			The main layer consists of closed to open herbaceous vegetation. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%).	
12	21643	Closed to Open Herbaceous Vegetation with Shrubs	A2A20B4XXXXXXF2F6F10G3	2H8
Shrub savannah			The main layer consists of closed to open herbaceous vegetation. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%). The height is in the range of 3 - 0.03m but may be further defined into a smaller range. The second layer consists of sparse shrubs.	
13	21640	Closed to Open Herbaceous Vegetation with Trees	A2A20B4XXXXXXF2F5F10G2	2H7
Tree savannah			The main layer consists of closed to open herbaceous vegetation. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%). The height is in the range of 3 - 0.03m but may be further defined into a smaller range. The second layer consists of sparse trees.	
14	20052	Sparse Trees	A3A14	2TR
Sparse trees			The main layer consists of sparse trees. The crown cover is between (20-10) and 1%. The sparseness of the vegetation may be further specified.	
15	20055	Sparse Shrubs	A4A14	2SR
Sparse shrubs			The main layer consists of sparse shrubs. The crown cover is between (20-10) and 1%. The sparseness of the vegetation may be further specified.	

(cont.)

MapCode	LCC Code	LCC Label	LCC Level	LCC User Defined Label
User Defined Description			Standard Description	
16	20058	Herbaceous Sparse Vegetation	A2A14	2HR
Sparse herbaceous vegetation			The main layer consists of sparse herbaceous vegetation. The crown cover is between (20-10) and 1%. The sparseness of the vegetation may be further specified.	
<b>Cultivated Aquatic or Regularly Flooded Area(s) (A23)</b>				
17	3025-S0308	Continuous Field(s) Of Graminoid Crops On Permanently Flooded Land. Dominant Crop: Cereals - Rice (Oryza spp.)	A1XXB5C1-S0308	GZ-r
Fields Rice			Continuous field(s) are covered with graminoid crops. The crops are growing on permanently flooded land.	
<b>Natural and Semi-Natural Aquatic or Regularly Flooded Vegetation (A24)</b>				
18	40003	Trees.	A3A12	4TC
Closed swamp			The main layer consists of closed trees. The crown cover is more than (70-60)%.	
19	40007	Woodland.	A3A13	4TP
Open swamp			The main layer consists of woodland. The crown cover is between (70-60) and (20-10)%. The openness of the vegetation may be further specified.	
20	41519	Closed to Open Woody Vegetation	A1A20	4W
Woody vegetation on flooded land			The main layer consists of closed to open woody vegetation. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%). The openness of the vegetation may be further specified.	
21	41895	Closed to Open Shrubs.	A4A20	4S
Shrubs on flooded land			The main layer consists of closed to open shrubs. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%). The openness of the vegetation may be further specified.	
22	42155//40031	Closed to Open Herbaceous Vegetation. // Sparse Herbaceous Vegetation.	A2A20 // A2A16	4H
Herbaceous vegetation on flooded land			The main layer consists of closed to open herbaceous vegetation. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%). The openness of the vegetation may be further specified. // The main layer consists of sparse herbaceous vegetation. The crown cover is between (20-10) and 1%. The sparseness of the vegetation may be further specified.	

(cont.)

MapCode	LCC Code	LCC Label	LCC Level	LCC User Defined Label
User Defined Description			Standard Description	
<b>Artificial Surfaces and Associated Area(s) (B15)</b>				
23	0010	Artificial Surfaces and Associated Area(s)	B15	5
Artificial surfaces			This class describes areas that have an artificial cover as a result of human activities such as construction (cities, towns, transportation), extraction (open mines and quarries) or waste disposal.	
<b>Bare Area(s) (B16)</b>				
24	0011	Bare Area(s)	B16	6
Bare soil			This class describes areas that do not have an artificial cover as a result of human activities. These areas include areas with less than 4% vegetative cover. Included are bare rock areas, sands and deserts.	
<b>Aquatic or Regularly Flooded Primarily Non-Vegetated Areas (B2)</b>				
25	0012	Primarily Non-Vegetated Aquatic or Regularly Flooded Area(s)	B2	W
Water bodies			The environment is significantly influenced by the presence of water over an extensive period of time each year.	
<b>Natural Waterbodies, Snow and Ice (B28)</b>				
26	8006	Perennial Snow	A2B1	8SP
Snow			The environment is significantly influenced by the presence of water over an extensive period of time each year.	

## Annex 2

# Land Cover for T&T decision-making: classifiers used

The LCCS applies a classifier, or parametric, approach in which land cover classes are defined by a combination of a set of independent diagnostic criteria. The classifiers are hierarchically arranged to assure a high degree of geographical accuracy.

The table below was created with the software Land Cover Classification System 2 (version 2.4.5 - 12/11/2004) developed by FAO - Environment and natural resources service. The authors of this paper defined the classifiers of land cover classes for T&T and the software automatically assigned the standardised codes and labels.

List of Land Cover Classifiers Used		
Classifier		Classifier Label
<b>Dichotomous Phase</b>		
1	B15	Artificial Surfaces and Associated Area(s)
2	B16	Bare Area(s)
3	B2	Primarily Non-Vegetated Aquatic or Regularly Flooded Area(s)
<b>Cultivated and Managed Terrestrial Area(s)</b>		
4	A1	Tree Crops
5	A2	Shrub Crops
6	A3	Herbaceous Crops
7	A6	Urban Vegetated Area(s)
<b>Natural and Semi-Natural Primarily Terrestrial Vegetation</b>		
8	A1	Woody Vegetation (Main Layer)
9	A10	Closed > (70-60)% (Main Layer)
10	A11	Open General (70-60) - (20-10)% (Main Layer)
11	A14	Sparse (20-10) - 5% (Main Layer)
12	A2	Herbaceous Vegetation (Main Layer)
13	A20	Closed to Open (100-15)%
14	A3	Trees (Main Layer)
15	A4	Shrubs (Main Layer)
16	B4	3 - 0.03m (Herbaceous Height Main Layer)
17	F10	Sparse (20-10) - 5%

(cont.)

List of Land Cover Classifiers Used		
Classifier		Classifier Label
18	F2	Second and/or Third Layer Present
19	F5	Trees (Second or Third Layer)
20	F6	Shrubs (Second or Third Layer)
21	G2	> 30 - 3m (Trees Height Second or Third Layer)
22	G3	5 - 0.3m (Shrubs Height Second or Third Layer)
<b>Cultivated Aquatic or Regularly Flooded Area(s)</b>		
23	A1	Graminoid Crops
24	B5	Continuous (Field Distribution)
25	C1	On Permanently Flooded Land
26	S0308	Rice ( <i>Oryza</i> spp.)
<b>Natural and Semi-Natural Aquatic or Regularly Flooded Vegetation</b>		
27	A1	Woody Vegetation (Main Layer)
28	A12	Closed > (70-60)% (Main Layer)
29	A13	Open General (70-60) - (20-10)% (Main Layer)
30	A16	Sparse (20-10) - 1% (Main Layer)
31	A2	Herbaceous Vegetation (Main Layer)
32	A20	Closed to Open (100-15)%
33	A3	Trees (Main Layer)
34	A4	Shrubs (Main Layer)
<b>Natural Waterbodies, Snow and Ice</b>		
35	A2	Snow
36	B1	Perennial

## Annex 3

# Land Cover of East Africa for T&T: table of class aggregation

This table allows to aggregate the land cover classes of the Africover databases (Original Database Classes) into the 26 classes (LCC User Defined Label) defined for tsetse and trypanosomiasis intervention.

The meaning of the abbreviations in columns ‘Original Database Classes’ and ‘LCC User Defined Label’ can be found in Annex 4 - LCCS user defined labels (abbreviation list) (p. 79).

LCC user defined label	Original database classes	LCC user defined label	Original database classes
<b>LCCS Category: Cultivated and Managed Terrestrial Area(s) (A11)</b>		T	TR13H47
<b>Forest plantations and tree plantations (T)</b>		T	TNEL47PL-pi,cu
T	TR57V	T	TNE47PL-pi,cu
T	TR57	T	TNE47PL-pi
T	TR47V-pc,oe	T	TNE47PL
T	TR47V-oe,fc	T	TM57WV-ap,fc
T	TR47V	T	TM57V
T	TR47	T	TM57
T	TR3S47V	T	TM47V
T	TR3S47	T	TM47PL-op
T	TR3H57V	T	TM47-op
T	TR3H57	T	TM47
T	TR3H47V	T	TM3H47V-cw
T	TR3H47	T	TM3H47V
T	TR347-pc,oe	T	TM3H47-cw
T	TR347-oe,fc	T	TM3H47
T	TR247V	T	TM357W-ap,fc
T	TR247	T	TM357
T	TR23H47V	T	TM147V
T	TR23H47	T	TM147
T	TR147V	T	TM13H47V
T	TR147	T	TM13H47
T	TR13S47V	T	TM1357V
T	TR13S47	T	TM1357
T	TR13H57V	T	TL47W
T	TR13H57	T	TL47PL
T	TR13H47V	T	TL3S47V

LCC user defined label	Original database classes	LCC user defined label	Original database classes
T	TL3S47	T	TBE47PL
T	TD3V-d	T	TBE147PL-e
T	TD3-d	T	TBDYPL-an
T	TBR247PL	T	TBDL47W
T	TBR147PL	T	TBD47PL-tg
T	TBL47PL	T	TBD47PL-as
T	TBER57WV-oe	T	TBD47PL-an
T	TBER57W-oe	T	T47PL
T	TBER57V-oe	T	T247PL
T	TBER57V-d	T	T147PL
T	TBER57V-cc		
T	TBER57-oe	<b>Shrub crop (S)</b>	
T	TBER57-d	S	SR47V-t
T	TBER57-cc	S	SR47V-c
T	TBER47V-d	S	SR47V-b
T	TBER47-d	S	SR47V
T	TBER147V	S	SR47-t
T	TBER247V-d	S	SR47-c
T	TBER247-d	S	SR47-b
T	TBER157V-d	S	SR47
T	TBER157-d	S	SR3S47V-c,b
T	TBEM47V	S	SR3S47-c,b+2TO28
T	TBEL57V-cc,m	S	SR3S47-c,b+2TO268
T	TBEL57V-cc	S	SR3H47V
T	TBEL57-cc,m	S	SR3H47
T	TBEL57-cc	S	SR247V-t
T	TBEL47W	S	SR247V-b
T	TBED57WV-oe	S	SR247V
T	TBED57WV-cc	S	SR247-t
T	TBED57W-oe	S	SR247-b
T	TBED57W-cc	S	SR247
T	TBED57V-pw	S	SR23H47V
T	TBED57V-m	S	SR23H47
T	TBED57V-d	S	SR147V-t
T	TBED57V-cc	S	SR147V-c
T	TBED57-pw	S	SR147V
T	TBED57-m	S	SR147-t
T	TBED57-d	S	SR147-c
T	TBED57-cc	S	SR147
T	TBED47V	S	SR13H47V
T	TBED47PL-e	S	SR13H47
T	TBE57PL-e	S	SM47V-t
T	TBE47PL-e	S	SM47V
T	TBE47PL-a	S	SM47-t
T		S	SM47



LCC user defined label	Original database classes	LCC user defined label	Original database classes
S	SL47V-t	H	HR3HQ47-x
S	SL47V-p	H	HR3H47
S	SL47V-c	H	HR33H4
S	SL47V	H	HR2Y
S	SL47-t	H	HR24-mz
S	SL47-p	H	HR24-C
S	SL47-c	H	HR247
S	SL47	H	HR24
S	SD47V-t	H	HR23S47
S	SD47V-c	H	HR23Q5
S	SD47V	H	HR23HQ57
S	SD47-t	H	HR23HQ47-x
S	SD47-c	H	HR233H4
S	SD47	H	HR1Y
S	SBED47W	H	HR157-C
S	SBE57V-b	H	HR14-mz
S	SBE57-b	H	HR14-C
S	SBE157V-b	H	HR147
S	SBE157-b	H	HR14
S	SBDR57V-g	H	HR13T4-as
S	SBDR57-g	H	HR13S47
<b>Herbaceous crops (H)</b>		H	HR13HQ57
H	NR57-pv	H	HR13HQ47-x
H	NR157-pv	H	HR133H4
H	ND57-pv	H	HMY
H	HR57	H	HM57-s
H	HR57-s	H	HM57
H	HR57-C	H	HM4-w
H	HR57	H	HM4-mz
H	HR4-mz	H	HM4
H	HR4-C	H	HM3HQ57
H	HR47	H	HM3HQ4
H	HR4///GRZ-r	H	HM3H47
H	HR4	H	HM33H4
H	HR3T4-as	H	HM24-mz
H	HR3S47	H	HM24
H	HR3HQY	H	HM1Y
H	HR3HQ57-mz,cl	H	HM14-mz
H	HR3HQ57-ct,w	H	HM14
H	HR3HQ57	H	HL57-s
H	HR3HQ47-x/SR3H47	H	HL57-ct
H	HR3HQ47-x/SR3H47V	H	HL57
H	HR3HQ47-x/SR23H47	H	HL4-z
H	HR3HQ47-x/SR23H47V	H	HL4-w

LCC user defined label	Original database classes	LCC user defined label	Original database classes
H	HL4-s	2TC	2TC-B
H	HL4	2TC	2TC8
H	HL3HQ57	2TC	2TC3-j
H	HL3HQ4	2TC	2TC328
H	HL3H47	2TC	2TC3
H	HL14	2TC	2TC28
H	HD-s	2TC	2TC128
H	HD57-s	<b>Woodland (2TP)</b>	
H	HD57-C	2TP	2TVM26
H	HD57	2TP	2TVM28
H	HD4-z	2TP	2TVL268
H	HD4-w	2TP	2TVL1-pc
H	HD4-s	2TP	2TVI
H	HD4-mz	2TP	2TV-B
H	HD4-C	2TP	2TV8
H	HD4	2TP	2TV28
H	HD3HQ57W-pv	2TP	2TV268
H	HD3HQ57-mz,cl	2TP	2TPM86
H	HD3HQ57K	2TP	2TPM8
H	HD3HQ57-ct,w	2TP	2TPM28
H	HD3HQ57	2TP	2TPM218
H	HD157-C	2TP	2TPM18
H	HD14-w	2TP	2TPM128
H	HD14-C	2TP	2TP8
H	HD14	2TP	2TP68
H	HD13HQ57	2TP	2TP3-j
<b>Vegetated urban areas (5UV)</b>		2TP	2TP28
5UV	5UV	2TP	2TP268
<b>LCCS Category: Natural and Semi-Natural Primarily Terrestrial Vegetation (A12)</b>		2TP	2TOM28
Forest (2TC)		2TP	2TOM26
2TC	2TCM-B	2TP	2TOL268
2TC	2TCM8-B	2TP	2TOI178
2TC	2TCM28	2TP	2TO8
2TC	2TCL8	2TP	2TO28
2TC	2TCL1-pc	2TP	2TO268
2TC	2TCL	<b>Closed Woody vegetation (2WC)</b>	
2TC	2TCI8	2WC	2WCZ
2TC	2TCI28	2WC	2WC7
2TC	2TCI218	2WC	2WC27Y
2TC	2TCI217	2WC	2WC27
2TC	2TCI187	2WC	2WC
2TC	2TCI177	<b>Open Woody vegetation (2WP)</b>	
2TC	2TCI128	2WP	2WP6Z

LCC user defined label	Original database classes	LCC user defined label	Original database classes
2WP	2WP67	2H(CP)	2HCJ
2WP	2WP6	2H(CP)	2HC
2WP	2WP26	2H(CP)	2H(CP)
2WP	2WP236	2H(CP)	2GC
<b>Thicket (25C)</b>		2H(CP)	2G(CP)
25C	25CMZ	<b>Shrub savannah (2H8)</b>	
25C	25CM2-FE	2H8	2HVJ8//6S
25C	25CL	2H8	2HVJ8
25C	25CJZ	2H8	2HP8
25C	25CJ-cts	2H8	2HOJ8
25C	25CJ7	2H8	2HCJ8
25C	25CJ27	2H8	2HC8
25C	25CJ2	2H8	2H(CP)8//6S
25C	25CJ	2H8	2H(CP)8
<b>Shrubland (25P)</b>		2H8	2G(CP)8
25P	2SVLZ	<b>Tree savannah (2H7)</b>	
25P	2SVL6	2H7	2HPJ78
25P	2SVJ67	2H7	2HP78
25P	2SVJ6//2HC	2H7	2HOJ78
25P	2SVJ6//2GC	2H7	2HCJ78
25P	2SVJ6	2H7	2HC78
25P	2SV6/2H(CP)	2H7	2H(CP)78
25P	2SV6//2HC	2H7	2GPJ78
25P	2SV6//2H(CP)	2H7	2GC78
25P	2SV6//2GC	2H7	2G(CP)78
25P	2SV6//2G(CP)	<b>Sparse trees (2TR)</b>	
25P	2SV6	2TR	2TRL2
25P	2SPM58	2TR	2TR6
25P	2SPJ6-cts	2TR	2TR28
25P	2SPJ67	<b>Sparse shrubs (2SR)</b>	
25P	2SPJ6	2SR	2SRM6//6ST2
25P	2SPJ267	2SR	2SRM6//6ST1
25P	2SP6	2SR	2SRM6
25P	2SOL6	2SR	2SRL6
25P	2SOJ67	2SR	2SRL
25P	2SOJ6	2SR	2SRJ6
25P	2SO6	2SR	2SR6//6ST2
<b>Grassland (2H(CP))</b>		2SR	2SR6//6ST1
2H(CP)	2HVJ	2SR	2SR6
2H(CP)	2HV//2HR	<b>Sparse herbaceous vegetation (2HR)</b>	
2H(CP)	2HV	2HR	2HRJ//6ST1
2H(CP)	2HP	2HR	2HRJ//6S
2H(CP)	2HOJ	2HR	2HRJ//6L

LCC user defined label	Original database classes	LCC user defined label	Original database classes
2HR	2HRJ	4S	4SPF6
2HR	2HR/6ST1	4S	4SOF6
2HR	2HR/6S	4S	4SCJFF7
2HR	2HR/6L	4S	4SCJFF1Y
2HR	2HR	4S	4SCJFF
<b>LCCS Category: Cultivated Aquatic or Regularly Flooded Area(s) (A23)</b>		4S	4SCJF
<b>Fields Rice (GZ-r)</b>		4S	4SCF
GZ-r	GRZ-r	<b>Herbaceous vegetation on flooded land (4H)</b>	
GZ-r	GMZ-r	4H	4HVMFY
GZ-r	GLZ-r	4H	4HPJFF
GZ-r	GDZ-r	4H	4HPJF8
<b>LCCS Category: Natural and Semi-Natural Aquatic or Regularly Flooded Vegetation (A24)</b>		4H	4HPJF
<b>Closed swamp (4TC)</b>		4H	4HPIFF
4TC	4TCMFF1Y	4H	4HPF8
4TC	4TCMF218	4H	4HCMFFY
4TC	4TCIFF1Y	4H	4HCMFF
4TC	4TCIFF1-rh	4H	4HCJFF
4TC	4TCIFF18	4H	4HCJF8
4TC	4TCIFF1	4H	4HCJF7
4TC	4TCIF17	4H	4HCJF
4TC	4TCIF1	4H	4HCIFF7
4TC	4TCFF1Y	4H	4HCIFF
4TC	4TCFF	4H	4HCFF8
4TC	4TCF8	4H	4HCFF
4TC	4TCF	4H	4HCF8
<b>Open swamp (4TP)</b>		4H	4HCF
4TP	4TVF8	4H	4H(CP)FF
4TP	4TVF6	4H	4H(CP)F8
4TP	4TPMF218	4H	4GCIFFX
4TP	4TPF6	4H	4GCFF7
4TP	4TOF8	4H	4FRMFY
4TP	4TOF6	4H	4FRLW-Z-RE
4TP	4TPMFF218	4H	4FRLW-Z
4TP	4TPMFF18	4H	4FPLFF
<b>Woody vegetation on flooded land (4W)</b>		4H	4FCMFF
4W	4WPF6	4H	4FCLFF-j
4W	4WCF1X	4H	4FCLFF
<b>Shrubs on flooded land (4S)</b>		4H	4F(CP)LFF
4S	4SVJFF6	4H	4F(CP)FF
4S	4SVF6	<b>LCCS Category: Artificial Surfaces and Associated Area(s) (B15)</b>	
4S	4SPJFF6	<b>Artificial surfaces (5)</b>	
4S	4SPJF6	5	5UR
4S	4SPFF6	5	5UC

LCC user defined label	Original database classes
5	5U
5	5Q
5	5P
5	5I
5	5A1
5	5A

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**LCCS Category: Bare Area(s) (B16)**

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**Bare soil (6)**

6	6SZ
6	6ST2D
6	6ST2
6	6ST1H
6	6ST1D-RE
6	6ST1D
6	6ST1//6L
6	6ST1
6	6S
6	6RL
6	6R
6	6LT1
6	6L-m
6	6LD4-RE
6	6LD4
6	6LD3
6	6L//2HRJ
6	6L//2HR
6	6L
6	6G

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**LCCS Category: Aquatic or Regularly Flooded Primarily Non-Vegetated Areas (B2)**

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**Water bodies (W)**

W	8WT6
W	8WT1
W	8WPH6
W	8WPH6
W	8WP
W	8WN6
W	8WN2
W	8WN1V
W	8WN
W	8WFP
W	8WFN2
W	8WFN1
W	7WP-Y

LCC user defined label	Original database classes
W	7WP
W	7WNB
W	5W

---

**LCCS Category: Natural Waterbodies, Snow and Ice (B28)**

---

**Snow (8SP)**

8SP	8SP
-----	-----

---



## Annex 4

# LCCS user defined labels (abbreviation list)

The following abbreviations (grouped for the eight major land cover types) are utilized throughout this paper in the 'User Defined Label'. Please note that the abbreviations are listed in the same order in which they appear in the tables.

The tables and related abbreviations in the present annex were developed for the Africover project - East Africa module and subsequently used by the authors of this paper.

---

### **CULTIVATED TERRESTRIAL (A11)**

(begins with 1 in LCC Code)

### **CULTIVATED AQUATIC OR REGULARLY FLOODED AREAS (A 23)**

(begins with 3 in LCC Code)

---

T = Tree crop

S = Shrub crop

H = Herbaceous crop

G = Graminoid crop

N = Non-graminoid crop

D = Large to medium field

L = Large field

M = Medium field

R = Small field

1 = Clustered

2 = Isolated

3 = 1 Additional crop

33 = 2 Additional crops

Q = Sequential

O = Overlapping

4 = Rainfed

5 = Irrigated

6 = Water logged

7 = Permanent

8 = Fallow

9 = Shifting

B = Broadleaved

E = Evergreen

PL = Forest Plantation

V = Orchards and/or other type of plantation

D = Deciduous (even from large to medium)

N = Needleleaved (even non Graminoids)

Z = Aquatic or regularly flooded (Water persistent for whole day during cult. Period)

Y = Post Flooding

K = Sprinkler

W = Drip

C = Cereals

### **Sub classes**

pv= Pulses & Vegetables

r = Rice

an = Acacia nilotica

ap = Apple

as = Acacia senegal

cl = Clover

cn = Coconut

ct = Cotton

cu = Cupressus spp.

cv = Cloves

cw = cashew

e = Eucaliptus

fc = Fig

g = Grapes

gu = Guava

mh = Mohogan

oe = Olive

op = Oil Palm

pc = Peach

pi = Pinus spp.

tg = Tectonia grandis

to = Tobacco  
 pl = Palm trees (natural)  
 a = wattle (Acacia Mearnsi)  
 b = banana  
 ba = barley  
 bn = bean  
 c = coffee  
 ca = casava  
 cc = citrus  
 cp = cowpea  
 d = date palm  
 f = flowers  
 m = mango  
 mi = millet  
 mz = maize  
 np = napier grass  
 o = coconut  
 p = pineapple  
 pa = pasture  
 pf = passionfruit  
 pp = pigeon pea  
 pt = potatoes  
 pw = pawpaw  
 s = sugarcane  
 sf = sun flower  
 si = sim sim  
 so = sorghum  
 t = tea  
 z = sisal  
 w = wheat

---

**NATURAL AND SEMINATURAL TERRESTRIAL VEGETATION (A12)**  
 (begins with 2 in LCC Code)

---

W = Woody  
 T = Trees  
 S = Shrubs  
 H = Herbaceous  
 G = Graminoids  
 F = Forbs  
 C = Closed  
 O = Open 65-40%  
 P = Open General 65-15%  
 V = Very Open 40-15%  
 (CP) = Closed to very open (100 – 15%)

R = Sparse  
 1 = Broad leaved evergreen  
 2 = Broad leaved deciduous  
 3 = Needleleaf Evergreen  
 4 = Needleleaf Deciduous  
 I = High  
 M = Medium Height  
 L = Low  
 5 = Aphyllous  
 J = Sub General Height for Shrubs (5-0.5m) and Herb. (3-0.3m)  
 6 = Herbaceous 2-3 Layer  
 7 = Trees 2-3 Layer  
 8 = Shrub 2-3 Layer  
 M = Mosses  
 Z = Fragmented or Striped

**Sub classes**

FE = Fern  
 j = Juniperous  
 pc = Prosopis chilensis  
 cts = sparse cactus  
 Y = Thorny  
 B = Bamboo

---

**NATURAL/SEMINATURAL AQUATIC VEGETATION (A24)**  
 (begins with 4 in LCC Code)

---

W = Woody  
 T = Trees  
 S = Shrubs  
 H = Herbaceous  
 G = Graminoids  
 F = Forbs  
 C = Closed  
 O = Open 65-40%  
 P = Open General 65-15%  
 V = Very Open 40-15%  
 (CP) = Closed to very open (100 – 15%)  
 R = Sparse  
 1 = Broad leaved evergreen  
 2 = Broad leaved deciduous  
 3 = Needleleaf Evergreen  
 4 = Needleleaf Deciduous  
 I = High  
 M = Medium Height



L = Low  
 5 = Aphyllous  
 J = Sub General Height for Shrubs (5-0.5m) and Herb. (3-0.3m)  
 6 = Herbaceous 2 Layer  
 7 = Trees 2 Layer  
 8 = Shrub 2 Layer  
 9 = Herbaceous 2nd Layer  
 FF = Water seasonality > 3 months/year  
 F = Water Seasonality < 3 months/year  
 W = Waterlogged  
 X = Saline  
 Y = Brackish  
 SO = Solonetz  
 RE = Under Reclamation  
 Z = Salt Crust  
 j = Jacintus

---

**ARTIFICIAL SURFACES AND ASSOCIATED AREAS (B15)**  
(begins with 5 in LCC Code)

U = Urban area  
 R = Rural settlements  
 C = Refugee camp  
 I = Industrial  
 P = Port  
 A = Airport  
 Q = Quarry  
 W = Waste  
 A1 = Archaeological Site  
 D = High density  
 M = Medium density  
 L = Low density  
 V = Other : Vegetated Areas

**Sub class**

m = permanently moist

---

**BARE AREAS (B16)**  
(begins with 6 in LCC Code)

R = Bare Rock  
 S = Bare Soil  
 G = Gravel, Stones and Boulders  
 L = Loose and shifting sand  
 T1 = Stony  
 T2 = Very stony  
 D = Deep Soil  
 D1 = Barcham dunes

D2 = Parabolic dunes  
 D3 = Longitudinal dunes  
 H = Shallow soil  
 Z = Salt Crust  
 D4 = Dunes

**Sub class**

RE = Under Reclamation

---

**ARTIFICIAL WATERBODIES (B 27)**  
(begins with 7 in LCC Code)

**INLAND WATER (B28)**  
(begins with 8 in LCC Code)

---

W = Water bodies  
 R = River  
 S = Snow  
 F = flowing water  
 P = Perennial  
 N = Non perennial  
 T = Tidal area  
 1 = Sand/Bare Sand  
 2 = Bare soil  
 3 = Bare Rock  
 H = Shallow  
 Z = Sediment  
 Y = Fish Ponds  
 4 = Slightly Saline  
 5 = Moderately Saline  
 6 = Very Saline  
 B = Brine  
 Y = Fish ponds  
 V = Scattered Vegetation

---



## Annex 5

# Land Cover of Uganda for T&T: standard description

The table below was created with the software Land Cover Classification System 2 (version 2.4.5 - 12/11/2004) developed by FAO - Environment and natural resources service. The authors of this paper defined for Uganda the land cover classes for T&T and the software automatically assigned the standardised codes. The two 'user defined' fields ('User Defined Description' and 'LCC User Defined Label') are not filled in automatically by the software but they can be customized by the user. The 'LCC User Defined Label' was defined by the authors using the abbreviations list developed for the Africover project - East Africa module (see Annex 4 - LCCS user defined labels (abbreviation list), p. 79).

MapCode	LCC Code	LCC Label	LCC Level	LCC User Defined Label
User Defined Description			Standard Description	
<b>Cultivated and Managed Terrestrial Area(s) (A11)</b>				
1	11492-W7	Permanently Cropped Area With Rainfed Tree Crop(s) Crop Cover: Plantation(s)	A1XXXXXXD1D9-W7	T47PL
Forest plantations and tree plantations			Field(s) are covered by irrigated tree crops. The leaf type and leaf phenology can be further specified optionally. The irrigation systems commonly used are surface, sprinkler and drip irrigation.	
2	11496-W8	Permanently Cropped Area With Rainfed Shrub Crop(s) Crop Cover: Orchard(s)	A2XXXXXXD1D9-W8	S47V
Rainfed shrub crop			Field(s) are covered by irrigated shrub crops. The leaf type and leaf phenology can be further specified optionally. The irrigation systems commonly used are surface, sprinkler and drip irrigation.	
3	10025	Herbaceous Crop(s)	A3	H
Herbaceous crop			A defined area is covered by herbaceous crops.	
4	11176	Vegetated Urban Area(s)	A6	SUV
Vegetated urban areas			A defined area is covered by urban vegetation. This vegetation is dominated by clumps of trees and/or shrubs.	

(cont.)

MapCode	LCC Code	LCC Label	LCC Level	LCC User Defined Label
User Defined Description			Standard Description	
<b>Natural and Semi-Natural Primarily Terrestrial Vegetation (A12)</b>				
5	20007	Continuous Closed Trees	A3A10B2C1	2TC
Forest			The main layer consists of closed trees. The crown cover is more than (70-60)%. The height is in the range of >30 - 3m but may be further defined into a smaller range. The vegetation is spread over the area without intervals or breaks.	
6	20015	Continuous Open Trees (Woodland)	A3A11B2C1	2TP
Woodland			The main layer consists of open trees. The crown cover is between (70-60) and (20-10)%. The openness of the vegetation may be further specified. The height is in the range of >30 - 3m but may be further defined into a smaller range. The vegetation is spread over the area without intervals or breaks.	
7	21443	Continuous Closed to Open Woody Vegetation	A1A20B1C1	2W
Woody vegetation			The main layer consists of closed to open woody vegetation. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%). The height is in the range of 7 - 2m and is not further defined. The vegetation is spread over the area without intervals or breaks.	
8	20019-12374	Continuous Closed Medium To High Shrubland (Thicket)	A4A10B3C1-B14	2SCJ
Thicket			The main layer consists of closed shrubland. The crown cover is more than (70-60)%. The height is in the range of 5 - 0.3m but may be further defined into a smaller range. The vegetation is spread over the area without intervals or breaks.	
9	20389	Shrubland with Herbaceous	A4A11B3C1XXXXF2F4F7G4	2SP6
Shrubland with herbaceous			The main layer consists of shrubland. The crown cover is between (70-60) and (20-10)%. The openness of the vegetation may be further specified. The height is in the range of 5 - 0.3m but may be further defined into a smaller range. The vegetation is spread over the area without intervals or breaks. The second layer consists of closed to open herbaceous vegetation.	
10	21463	Continuous Closed to Open Grassland	A6A20B4C1	2G(CP)
Grassland			The main layer consists of closed to open grassland. The crown cover is more than 15-100)%. The height is in the range of 3 - 0.03m but may be further defined into a smaller range. The vegetation is spread over the area without intervals or breaks.	
11	21677	Closed to Open Grassland with Trees and Shrubs	A6A20B4C1XXXXF2F5F10G2F2F6F10G3	2G(CP)78
Savannah			The main layer consists of closed to open grassland. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%). The height is in the range of 3 - 0.03m but may be further defined into a smaller range. The vegetation is spread over the area without intervals or breaks. The second layer consists of sparse trees. The third layer consists of sparse shrubs.	

(cont.)

MapCode	LCC Code	LCC Label	LCC Level	LCC User Defined Label
User Defined Description			Standard Description	
<b>Cultivated Aquatic or Regularly Flooded Area(s) (A23)</b>				
12	3025-S0308	Continuous Field(s) Of Graminoid Crops On Permanently Flooded Land. Dominant Crop: Cereals - Rice (Oryza spp.)	A1XXB5C1-S0308	GZ-r
Fields Rice			Continuous field(s) are covered with graminoid crops. The crops are growing on permanently flooded land.	
<b>Natural and Semi-Natural Aquatic or Regularly Flooded Vegetation (A24)</b>				
13	41636-R1	Closed to Open Trees. Water Quality: Fresh Water	A3A20B2-R1	4T(CP)
Freshwater swamp			The main layer consists of closed to open woodland. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%). The openness of the vegetation may be further specified. The height is in the range of >30 - 3m but may be further defined into a smaller range.	
14	41896	Closed to Open Shrubs	A4A20B3	4S(CP)
Shrubs on flooded land			The main layer consists of closed to open shrubs. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%). The openness of the vegetation may be further specified. The height is in the range of 5 - 0.3m but may be further defined into a smaller range.	
15	42156-R1	Closed to Open Herbaceous Vegetation. Water Quality: Fresh Water	A2A20B4-R1	4H(CP)
Herbaceous vegetation on flooded land - fresh water			The main layer consists of closed to open herbaceous vegetation. The crown cover is between 100 and 15% (a further sub range can be defined – Closed to Open 100–40%). The openness of the vegetation may be further specified. The height is in the range of 3 - 0.03m but may be further defined into a smaller range.	
<b>Artificial Surfaces and Associated Area(s) (B15)</b>				
16	5003	Non-Linear Built Up Area(s)	A4	5
Urban areas, airports			The land cover consists of non-linear built up areas which can be further specified into industrial area(s) or urban area(s). The density of the impermeable surface(s) can be specified into high, medium, low or scattered.	
<b>Bare Area(s) (B16)</b>				
17	6005	Bare Soil And/Or Other Unconsolidated Material(s)	A5	6S
Bare soil			The land cover consists of bare soil and/or other unconsolidated material(s). The surface can be stony (5 - 40%) or very stony (40 - 80%).	

MapCode	LCC Code	LCC Label	LCC Level	LCC User Defined Label
User Defined Description			Standard Description	
<b>Natural Waterbodies, Snow and Ice (B28)</b>				
18	8002-V1	Perennial Natural Waterbodies. Salinity: Fresh, < 1.000 ppm of TDS	A1B1-V1	8WP
Lakes and rivers			Lakes and rivers	

## Annex 6

# Land Cover of Uganda for T&T: classifiers used

The LCCS applies a classifier, or parametric, approach in which land cover classes are defined by a combination of a set of independent diagnostic criteria – the so-called classifiers – that are hierarchically arranged to assure a high degree of geographical accuracy.

The table below was created with the software Land Cover Classification System 2 (version 2.4.5 - 12/11/2004) developed by FAO - Environment and natural resources service. For Uganda, the authors of this paper defined the classifiers of land cover classes for T&T and the software automatically assigned the standardised codes and labels.

List of Land Cover Classifiers Used		
Classifier	Classifier Label	
<b>Cultivated and Managed Terrestrial Area(s)</b>		
2 A2	Shrub Crops	
3 A3	Herbaceous Crops	
4 A6	Urban Vegetated Area(s)	
5 D1	Rainfed Cultivation	
6 D9	Permanently Cropped Area	
7 W7	Plantation(s)	
8 W8	Orchard(s)	
<b>Natural and Semi-Natural Primarily Terrestrial Vegetation</b>		
9 A1	Woody Vegetation (Main Layer)	
10 A10	Closed > (70-60)% (Main Layer)	
11 A11	Open General (70-60) - (20-10)% (Main Layer)	
12 A20	Closed to Open (100-15)%	
13 A3	Trees (Main Layer)	
14 A4	Shrubs (Main Layer)	
15 A6	Graminoids	
16 B1	7 - 2m (Height for Woody Vegetation Main Layer)	
17 B14	Medium To High 5-0.5m (Shrub Height main Layer)	
18 B2	> 30 - 3m (Trees Height Main Layer)	
19 B3	5 - 0.3m (Shrubs Height Main Layer)	
20 B4	3 - 0.03m (Herbaceous Height Main Layer)	

(cont.)

List of Land Cover Classifiers Used		
Classifier		Classifier Label
21	C1	Continuous (Vegetation Main Pattern)
22	F10	Sparse (20-10) - 5%
23	F2	Second and/or Third Layer Present
24	F4	Herbaceous Vegetation (Second or Third Layer)
25	F5	Trees (Second or Third Layer)
26	F6	Shrubs (Second or Third Layer)
27	F7	Closed (> 70-60%) To Open (70-60) - (20-10)% (Second or Third Layer)
28	G2	> 30 - 3m (Trees Height Second or Third Layer)
29	G3	5 - 0.3m (Shrubs Height Second or Third Layer)
30	G4	3 - 0.03m (Herbaceous Height Second or Third Layer)
<b>Cultivated Aquatic or Regularly Flooded Area(s)</b>		
31	A1	Graminoid Crops
32	B5	Continuous (Field Distribution)
33	C1	On Permanently Flooded Land
34	S0308	Rice ( <i>Oryza</i> spp.)
<b>Natural and Semi-Natural Aquatic or Regularly Flooded Vegetation</b>		
35	A2	Herbaceous Vegetation (Main Layer)
36	A20	Closed to Open (100-15)%
37	A3	Trees (Main Layer)
38	A4	Shrubs (Main Layer)
39	B2	> 30 - 3m (Trees Height Main Layer)
40	B3	5 - 0.3m (Shrubs Height Main Layer)
41	B4	3 - 0.03m (Herbaceous Height Main Layer)
<b>Artificial Surfaces and Associated Area(s)</b>		
42	A4	Non-Linear (Feature)
<b>Bare Area(s)</b>		
43	A5	Bare Soil And/Or Other Unconsolidated Material(s)
<b>Natural Waterbodies, Snow and Ice</b>		
44	A1	Inland Water
45	B1	Perennial
46	V1	Fresh
<b>Environmental attributes</b>		
47	R1	Fresh Water



## Annex 7

# Land Cover of Uganda for T&T: table of class aggregation

This table can be used to aggregate the land cover classes of the Africover databases of Uganda (Original Database Classes) into the 18 classes (LCC User Defined Label) defined for tsetse and trypanosomiasis intervention in Uganda.

The meaning of the abbreviations in columns ‘Original Database Classes’ and ‘LCC User Defined Label’ can be found in Annex 4 - LCCS user defined labels (abbreviation list) (p. 79).

LCCS Category	Name of the aggregated class (User Defined Description)	LCC User Defined Label	Original Database Classes	Names
<b>A11</b>	Forest plantations and tree plantations	T47PL	TBL47PL	Large Tree Plantations Rainfed
			TNEL47PL-pi,cu	Forest Plantation - Pinus spp., Cupressus spp.
			T147PL	Forest Plantation, Clustered
			TBR147PL	Clustered Small Tree Plantations Rainfed
			TBR247PL	Isolated Small Tree Plantations Rainfed
Rainfed shrub crop	S47V	SD47V	Rainfed Shrub Crop, Large to Medium Fields	
		SD47V-c	Rainfed Shrub Crop, Large to Medium Fields - Coffee	
		SD47V-t	Rainfed Shrub Crop, Large to Medium Fields - Tea	
		SR47V	Rainfed Shrub Crop, Small Fields	
		SR47V-b	Rainfed Shrub Crop, Small Fields - Banana	
		SR13H47V	n.a.	
		SR23H47V	n.a.	
		SR147V	Rainfed Shrub Crop, Clustered Small Fields	
		SR247V	Rainfed Shrub Crop, Isolated Small Fields	
		SR247V-b	Isolated Small Shrub Fields Rainfed - Banana	
		Herbaceous crops	H	HR13HQ47-x
HR3HQ47-x	Small Herbaceous Fields With One Additional Crop and Sparse Tree Crops - Rainfed			
HD4	Large to Medium Herbaceous Fields Rainfed			
HD14	Clustered Large to Medium Herbaceous Fields Rainfed			
HD-s	Sugar cane Large to Medium Fields			
HR23HQ47-x	Isolated Small Herbaceous Fields With One Additional Crop and Sparse Tree Crops Rainfed			

(cont.)

LCCS Category	Name of the aggregated class (User Defined Description)	LCC User Defined Label	Original Database Classes	Names
			HR1Y	Small Herbaceous Fields - Post Flooding / Waterlogged
			HL57	Irrigated Herbaceous Crop, Large Fields
			HR1Y	Clustered Small Herbaceous Fields - Post Flooding / Waterlogged
			HR2Y	Isolated Small Herbaceous Fields - Post Flooding / Waterlogged
			HR13547	n.a.
			HR147	n.a.
			HR23547	n.a.
			HR24	n.a.
	Vegetated urban areas	5UV	5UV	Urban Areas Vegetated
<b>A12</b>	Forest	2TC	2TC1177	Closed multilayered trees (broadleaved evergreen)
			2TC8	Closed trees with open shrubs
			2TC-B	Closed Trees - Bamboo
	Woodland	2TP	2TV-B	Very open trees - Bamboo
			2TO1178	Open high trees with sparse trees and sparse shrubs
			2TO8	Open trees with open shrubs
			2TPM18	Open general medium trees with open shrubs
			2TPM86	n.a.
			2TV268	Very open trees (broadleaved deciduous) with herbaceous and shrubs
			2TV8	Very open trees with closed to open shrubs
	Woody Vegetation	2W	2WP236	n.a.
			2WP26	n.a.
			2WP67	Open general woody with closed to open herbaceous and sparse trees
			2WP6	Open general woody with closed to open herbaceous
			2WC7	Closed woody with sparse trees
	Thicket	2SCJ	2SCJ	Closed shrubs
			2SCJ7	Closed shrubs with sparse trees
	Shrubland with herbaceous	2SP6	2SVJ6	n.a.
			2SV6	Very open shrubs with closed to open herbaceous
			2SVJ67	Very open shrubs with closed to open herbaceous and sparse trees
			2SOJ67	Open shrubs with closed to open herbaceous and sparse trees

(cont.)

LCCS Category	Name of the aggregated class (User Defined Description)	LCC User Defined Label	Original Database Classes	Names
			2SP6	Open general shrubs with closed to open herbaceous
			2SPJ67	Open general shrubs with closed to open herbaceous and sparse trees
	Grassland	2G(CP)	2G(CP)	Closed to very open grassland
	Savannah	2G(CP)78	2G(CP)78	Closed to very open grassland with sparse trees and sparse shrubs
<b>A23</b>	Rice Fields	GZ-r	GDZ-r	Large to Medium Fields Rice
			GRZ-r	Small Fields Rice
<b>A24</b>	Herbaceous vegetation on flooded land - fresh water	4H(CP)	4H(CP)F8	Closed to very open herbaceous with sparse shrubs on temporarily flooded land - fresh water
			4GCFF7	Closed grassland with sparse trees on permanently flooded land - fresh water
			4H(CP)FF	Closed to Open Herbaceous On Permanently Flooded Land
			4F(CP)FF	Closed to Open Forbs On Permanently Flooded Land - Fresh Water
	Shrubs on flooded land	4S(CP)	4SPF6	Open general shrubs with closed to open herbaceous on temporarily flooded land
			4SVJFF6	Very open shrubs with closed to open herbaceous on permanently flooded land - fresh water
			4SCFF7	Closed shrubs with sparse trees on permanently flooded land - fresh water
	Closed to Open Trees	4T(CP)	4TPF6	Open general trees with closed herbaceous on temporarily flooded land - fresh water
			4TCF8	Closed trees with closed to open shrubs on temporarily flooded land - fresh water
			4TVF8	Very open trees with closed to open shrubs on temporarily flooded land - fresh water
			4TCFF	Closed trees on permanently flooded land - fresh water
<b>B15</b>	Urban and associated areas	5	5U	Urban areas
			5A	Airport
<b>B16</b>	Bare areas	6S	6S	Bare soil
<b>B28</b>	Natural waterbodies	8WP	8WP	Natural lakes
			8WFN1	n.a.
			8WFP	River

n.a.= not available



## Annex 8 Crop statistics in Uganda

The table below shows the harvested areas for major crops in Uganda. The data source for this table is the FAOSTAT web site (FAO, 2005). The national figures for crop harvested area provide more detailed information than Africover land cover on the species cultivated in the country. This type of information allowed a more accurate estimation of tsetse suitability for cultivated areas in Uganda.

	"Life form" for LCCS	Species	Harvested area (ha)	Proportion of country area (%)	Proportion of crop area (%)
	S	Plantains	1 670 000	6.930	24.496
	H	Beans Dry	812 000	3.370	11.911
	H	Maize	750 000	3.112	11.001
	H	Sweet Potatoes	602 000	2.498	8.830
	H	Millet	412 000	1.710	6.043
	H	Cassava	407 000	1.689	5.970
	H	Sorghum	285 000	1.183	4.180
	S	Coffee Green	264 000	1.096	3.872
	S	Seed Cotton	250 000	1.037	3.667
	H	Groundnuts in Shell	221 000	0.917	3.242
	H	Sesame Seed	211 000	0.876	3.095
	H	Soybeans	144 000	0.598	2.112
	S	Bananas	135 000	0.560	1.980
	H	Sugar Cane	125 000	0.519	1.834
	H-a	Rice Paddy	93 000	0.386	1.364
	H	Pigeon Peas	84 000	0.349	1.232
	H	Potatoes	83 000	0.344	1.217
	H	Cow Peas Dry	64 000	0.266	0.939
	H	Vegetables Fresh nes	54 000	0.224	0.792
	H	Onions Dry	37 000	0.154	0.543
	H	Peas Dry	25 000	0.104	0.367
	S	Tea	20 000	0.083	0.293
	H	Tobacco Leaves	15 000	0.062	0.220
	S	Cocoa Beans	14 200	0.059	0.208
	H	Wheat	9 000	0.037	0.132
	T	Fruit Fresh nes	7 400	0.031	0.109
	H	Chick-Peas	6 300	0.026	0.092
	H	Sunflower Seed	5 000	0.021	0.073
	H	Pimento (all spices)	4 200	0.017	0.062
	H	Castor Beans	3 000	0.012	0.044
	H	Pepper	2 900	0.012	0.043
	H	Tomatoes	2 100	0.009	0.031

### "Life form" for LCCS

H	Herbaceous crop
S	Shrub crop
T	Tree crop
H-a	Herbaceous crop – aquatic

Land cover maps are useful tools for supporting several stages of tsetse and trypanosomiasis (T&T) intervention: mapping vector habitats, planning baseline entomological surveys, monitoring the environmental impact of intervention strategies at landscape level and planning land use of reclaimed areas. In this paper the Land Cover Classification System (LCCS), developed by the Food and Agriculture Organization of the United Nations and the United Nations Environment Programme, is proposed as a tool for harmonizing land cover mapping activities carried out in the context of T&T research and control.

At a continental scale, the LCCS-compliant Global Land Cover of Africa of the year 2000 and the predicted areas of suitability for tsetse of the Programme Against African Trypanosomiasis Information System are matched in order to understand the broad patterns of the association between land cover and the three groups of tsetse flies (i.e. *fuscus*, *palpalis* and *morsitans*) in sub-Saharan Africa.

At a regional and national scale, a standardized legend of land cover for T&T decision-making is proposed. From the FAO-Africover datasets, the standardized legend allowed the derivation of high resolution harmonized land cover maps for eight T&T affected countries: Burundi, Democratic Republic of the Congo, Kenya, Rwanda, Somalia, Sudan, United Republic of Tanzania and Uganda. A review of the literature also permitted estimation of land cover suitability for the three tsetse groups.

By means of one case study, namely Uganda, the relationship between land cover, LCCS-compliant datasets and tsetse habitat is described in detail.

