

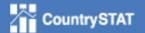
Tables Structure

EAC/FAO Advanced Training Workshop of CountrySTAT

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Lusaka, 12 – 16 November 2012







Dissemination on web site

Internet Use Characteristics

- Data dissemination on the WEB speaks a new language that indicates the right gateways for an extended communication.
- The site is open to all and information access is simple and immediate to facilitate decision-making.

Basic rules for publication

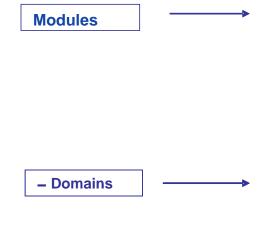
- We must follow simple rules but very important to have a content
 - meaningful
 - synthetic
 - simple
 - consistent
- Tables are organized as separate files and presented to the users as the 'real' database (hierarchical structure).

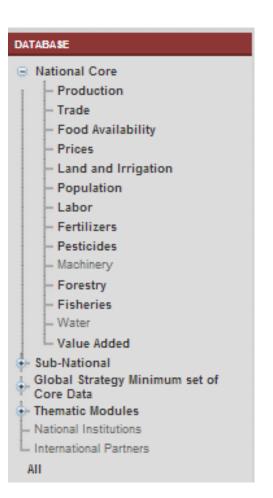


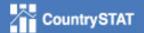


The objective to organize data as a statistical database (hierarchical structure) to optimize the value of information

The statistics are organized as follows:



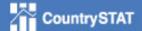






Tables and Indicators

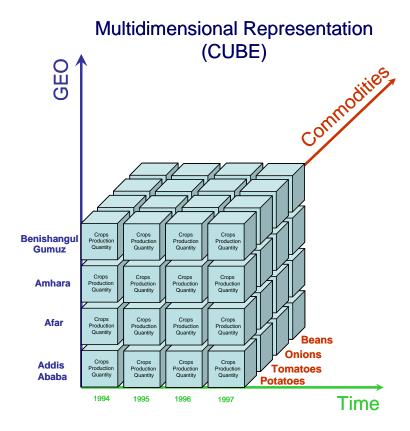
- The basic unit is the table that can contain one or more indicators.
- The statistical indicator may include the following components:
 - Basic indicator
 - Disaggregated variables
 - Time variable(s)

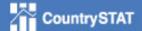




The multidimensional matrix

- A statistical table with more than two variables is a multidimensional matrix called "Cube"
- Each data (Values of Production quantity of primary crops) is the combination of various variables: geographical, products and time.



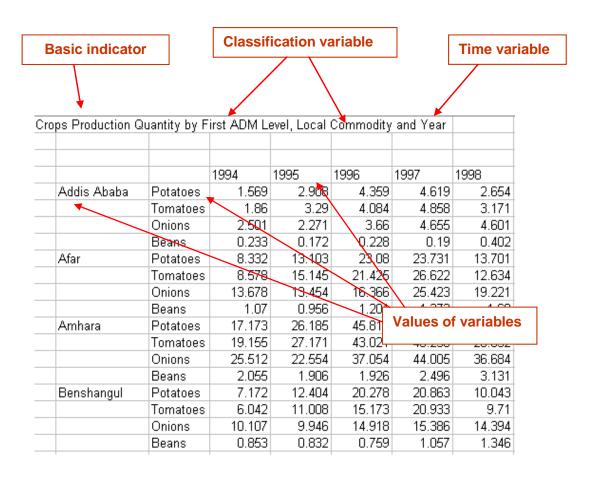




Multidimensional data on flat file

•The indicator is expressed with the title that is the basic indicator, followed later by the classification variable and the time variable:

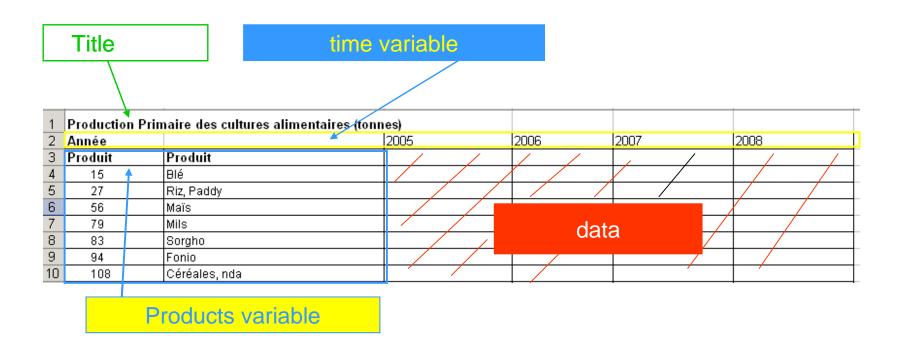
Multidimensional Data on flat file

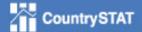






Example of a table with two dimensions/variables







Example of a standard table with 3 dimensions/variables

General table structure with 3 variables

Title of indicator by	Title of indicator by var1, var2 and var3 (units)										
var1				VALUE1	VALUE2	VALUE3	VALUE4	VALUE5			
var2	var2	var3	var3								
2222	Administrative lev1	XX	wheat								
2222	Administrative lev1	XX	cattle meat								

Same table with descriptions of title, variables, values and data

Production Quantity of primary crops by Administrative level1, local product and year (tonnes)									
Year				2001	2002	2003	2004	2005	
Administrativel lev1	Administrativel lev1	local produ	local product						
2222	Administrative lev1	15	Wheat	458 659	546 859	618 684	530 601	720 273	
2222	Administrative lev1	867	Meat of cattle	144 162	161 068	83 089	112 115	137 864	





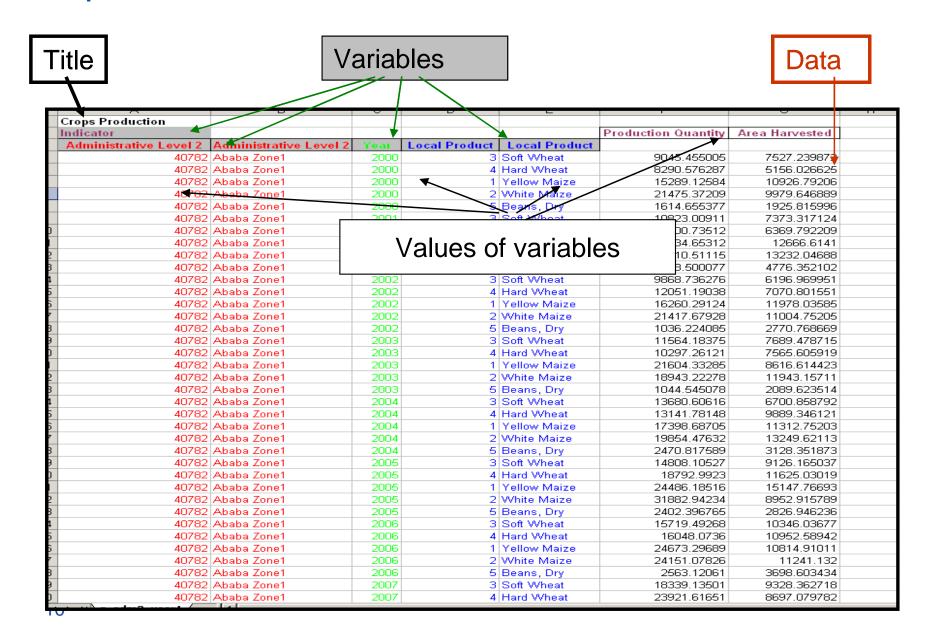
Example of a standard table with 3 dimensions/variables

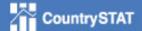
Population Projections by Administrative	level 1, Indicator a	and Year				
Indicator		Total	Male	Female	Rural Total	Urban Total
Administrative level 1 Administrative level 1	Year					
3428 Eastern	2000	1 306 173	648 677	657 496	1 190 716	115 457
	2001	1 348 196	669 863	678 333	1 229 314	118 882
	2002	1 391 792	691 839	699 953	1 269 320	122 472
	2003	1 437 055	714 650	722 405	1 310 817	126 238
	2004	1 484 066	738 349	745 717	1 353 890	130 176
	2005	1 532 825	762 930	769 895	1 398 615	134 210
	2006	1 583 453	788 459	794 994	1 445 046	138 407
	2007	1 636 078	815 002	821 076	1 493 287	142 791
	2008	1 690 647	842 522	848 125	1 543 391	147 256
	2009	1 747 337	871 105	876 232	1 595 427	151 910
3429 Luapula	2010	1 806 236	900 795	905 441	1 649 472	156 764
	2000	766 746	383 520	383 226		118 791
	2001	793 926	396 860	397 066		122 914
	2002	822 062	410 674	411 388	694 957	127 105
	2003	851 222	425 002	426 220		131 372
	2004	881 525	439 900	441 625	745 726	135 799
	2005	912 912	455 342	457 570	772 622	140 290
	2006	945 440	471 351	474 089	800 561	144 879
	2007	979 160	487 960	491 200	829 599	149 561
	2008	1 014 093	505 172	508 921	859 768	154 325
	2009	1 050 397	523 071	527 326	891 126	159 271
	2010	1 087 998	541 617	546 381	923 727	164 271





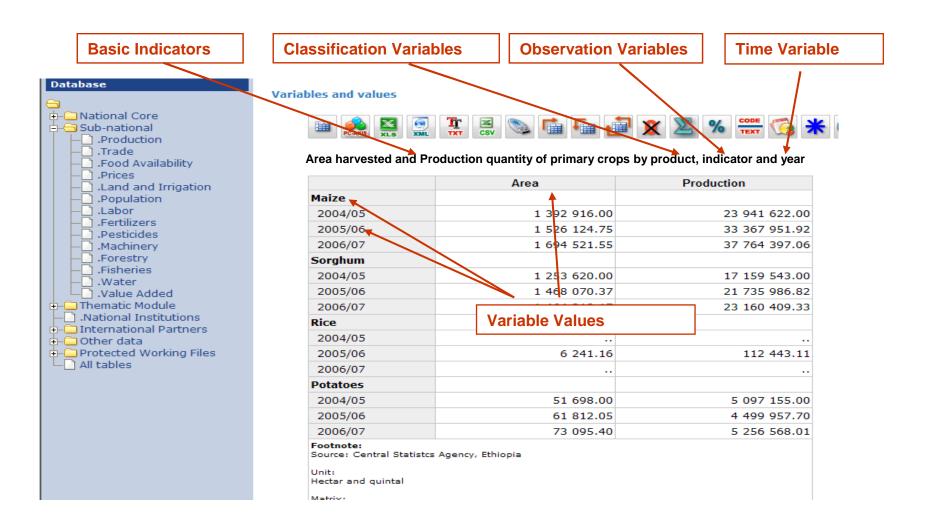
Examples of a standard structure with? dimensions/variables







Examples of a published table

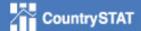






Example of a table with more one indicator

A	В с	D	E	F	G H	1	J	K	L	M	
1 TABLE A.1	Total and	Agricultur	al Populat	tion (Incl	uding For	estry and	Fisheries	s)			
2											
3		TOTAL	POPULA	TION		A	GRICULT	JRAL POR	PULATION		
4	-		(1000)			•		(1000)			
	1979-	1989-	1999-			1979-	1989-	1999-			
5 COUNTRIES	1981	1991	2001	2003	2004	1981	1991	2001	2003	2004	
6											
7 Afghanistan	15069	13913				10939	9778				
8 Albania	267	3280	3116	3166	3194	1534	1787	1502	1465	1457	
9 Algeria	18747	25014	30252	31800	32339	6684	6514	7260	7375	7406	
10 American Samoa	33	3 47	58	62	63	16	20	20	20	20	
I1 Angola	7056	9352	12399	13625	14078	5392	6969	8912	9680	9962	
12 Antigua and Barbuda	63	63	72	73	73	21	18	17	16	16	
13 Argentina	28098	32527	37073	38428	38871	3790	4075	3753	3629	3585	
14 Armenia			3115	3061	3052			400	359	348	
15 Australia	14580	16886	19151	19731	19913	949	931	877	859	853	
16 Austria	755	7733	8103	8116	8120	755	598	415	367	352	
17 Azerbaijan			8158	8370	8447			2180	2133	2118	
18 Bahamas	210	255	303	314	317	12	13	11	10	10	
19 Bahrain	347	490	677	724	739	14	10	7	7	6	
20 Bangladesh	85034	109422	137952	146736	149664	61751	71290	76810	77387	77454	
21 Barbados	249	9 257	267	270	271	25	17	11	10	10	
22 Belarus			10034	9895	9852			1327	1162	1113	
23 Belgium	9858	9968	10251	10318	10340	296	261	187	169	164	
24 Belize	144	186	240	256	261	55	63	74	76	77	
25 Benin	346	4654	6225	6736	6918	2340	2948	3360	3438	3463	
26 Bhutan	1318	1694	2064	2257	2325	1245	1594	1935	2114	2176	
27 Bolivia	5359	6670	8316	8808	8973	2757	3051	3574	3716	3762	
28 Bosnia and Herzegovina			3963	4161	4186			205	168	156	
29 Botswana	988	1354	1724	1785	1795	628	635	767	783	783	
30 Brazil	121624	148787	171795	178470	180654	44009	34496	28285	26471	25869	
31 Brunei Darussalam	193	3 257	334	358	366	10	5	3	2	2	
32 Bulgaria	8863	8718	8098	7897	7829	1922	1247	615	493	458	
33 Burkina Faso	6823	8923	11909	13002	13393	6291	8247	10987	11988	12345	
34 Burundi	4134	5604	6283	6825	7068	3838	5136	5677	6135	6341	
35 Cambodia	6656	9748	13147	14144	14482	5041	7193	9215	9747	9922	
36 Cameroon	8754	11663	15113	16018	16296	5928	7387	7958	7867	7807	
37 Canada	24513	27695	30766	31510	31744	1743	1032	786	728	710	
38 Cape Verde	289	349	436	463	473	107	107	100	97	96	
39 Central African Republic	2308	2946	3713	3865	3912	1954	2360	2698	2708	2705	
40 Chad	4507	5822	7862	8598	8854	3961	4842	5914	6222	6319	
41 Chile	11148	13101	15223	15805	15996	2349	2472	2417	2375	2359	





A table with more than one indicator and not homogeneous

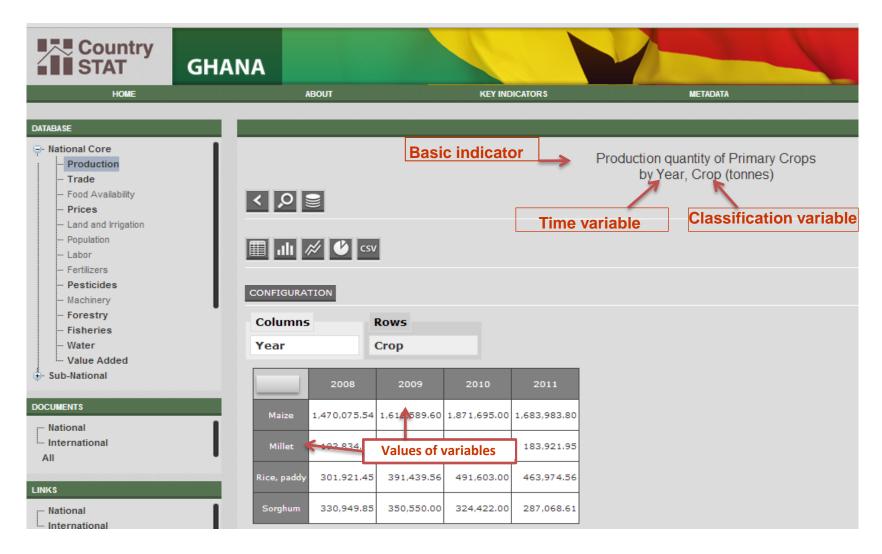
1												
2		Nbre of						Marital	status			
3	Region	HH Members	Sex	Nbre of wives	Age (in Years)	Married	Partner	Divorced	Living apart not divorced	Widow or widower	Never marrie d	Can the Household Head read and write
4	Region 1	6	79%	2	45.58	78%	1%	5%	3%	11%	2%	63%
5	Region 2	6	75%	1	49.03	75%	6%	3%	7%	5%	4%	71%
6	Region 3	5	75%	1	47.07	58%	16%	9%	6%	12%	0%	56%
7	Region 4	5	75%	1	47.15	61%	11%	1%	3%	18%	6%	67%
8	Region 5	7	85%	1	43.36	79%	0%	2%	5%	10%	4%	80%
9	Region 6	6	87%	1	40.29	82%	3%	3%	6%	4%	2%	87%
10	Region 7	5	60%	1	53.16	56%	10%	2%	4%	26%	2%	79%
11	Region 8	5	80%	1	49.02	76%	2%	7%	6%	6%	2%	70%
12	Region 9	6	85%	1	43.3	85%	1%	2%	2%	8%	2%	72%
13	Region 10	7	79%	2	44.85	81%	2%	2%	4%	10%	1%	82%
14	Region 11	5	84%	1	47.66	83%	0%	1%	1%	13%	3%	77%
15	Region 12	5	79%	1	46.71	58%	13%	4%	10%	10%	6%	82%
16	Region 13	5	84%	1	46.07	83%	2%	5%	4%	4%	2%	75%
17	Region 14	8	85%	1	46.44	69%	13%	3%	6%	8%	2%	65%
18	Region 15	7	86%	1	51.57	82%	5%	2%	5%	6%	1%	71%
19	Region 16	5	84%	1	42.77	79%	2%	3%	4%	10%	2%	75%
20	Region 17	5	79%	1	44.02	60%	21%	2%	1%	6%	10%	87%
21	Region 18	8	85%	1	45.01	80%	6%	2%	6%	6%	1%	79%
22	Region 19	6	76%	1	49.31	76%	1%	4%	8%	10%	2%	78%
23	Region 20	6	75%	1	45.85	48%	22%	12%	6%	10%	2%	67%
24	Region 21	5	75%	1	48.18	70%	7%	2%	7%	14%	1%	78%
25	Region 22	6	81%	1	48.59	79%	1%	10%	0%	8%	3%	57%
26												
27												
28	Wage labourers	6	84%	1	43.39	73%	9%	4%	5%	8%	2%	69%
29	Petty traders	6	75%	1	43.65	71%	5%	8%	6%	8%	3%	76%
30	Crop farmers	6	87%	1	46.53	79%	5%	2%	4%	8%	2%	80%
31	Traders	6	84%	1	40.53	78%	5%	4%	8%	4%	2%	85%
32	Skilled labourers	6	91%	1	42.7	87%	4%	3%	2%	3%	2%	93%
33	Naturals ressource	7	88%	1	47.39	76%	11%	2%	4%	6%	1%	68%
34	Remmittances dep	4	44%	1	61.84	44%	4%	8%	3%	37%	3%	39%
35	Poor income	5	70%	1	47.37	55%	11%	6%	6%	15%	6%	64%
36	Small farmers	5	76%	1	48.25	70%	6%	4%	6%	11%	3%	69%
37	Handicraft	5	81%	1	45.12	77%	6%	6%	1%	7%	3%	77%
38	Brewers	6	61%	1	45.9	56%	8%	2%	7%	21%	5%	71%
39	pastoralist	7	88%	1	48.82	80%	8%	1%	4%	6%	1%	73%
40	Salaried, Gov	6	89%	1	46.06	84%	6%	4%	1%	2%	2%	88%
41	Fishermen	6	97%	1	40.97	91%	6%	0%	0%	0%	3%	74%

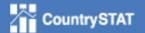


The Table Attributes



- title of the table begins with the label of basic indicator
- followed after by the labels of classification and by time variables
- units can be shown following the label of basic indicator or under the table







Examples of a table titles Alternate Solutions

ACCESS TO EQUIPMENT: Number of Agricultural Households that used Farm Implements /Assets in 2002/03 by Region, 2002/03 Agricultural Year

Number of Agricultural Households that used Farm Implements /Assets by region and by category in 2002/03

Number of households owning animals by region, ownership, and related species sex of head of household

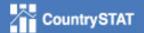
Regional distribution of livestock farm by sex of household head, species and year





Good Examples of table titles from Agricutural Census

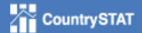
- Distribution of the agricultural population by region and sex
- Distribution of the agricultural population by age group and sex
- Distribution of the agricultural population by sex and educational level
- Distribution of the agricultural population (aged 5 and over) by sex and educational level
- Regional distribution of farms and farm population
- Distribution of number of farms by region and sex of manager
- Distribution of farms by the number of households and sex of manager





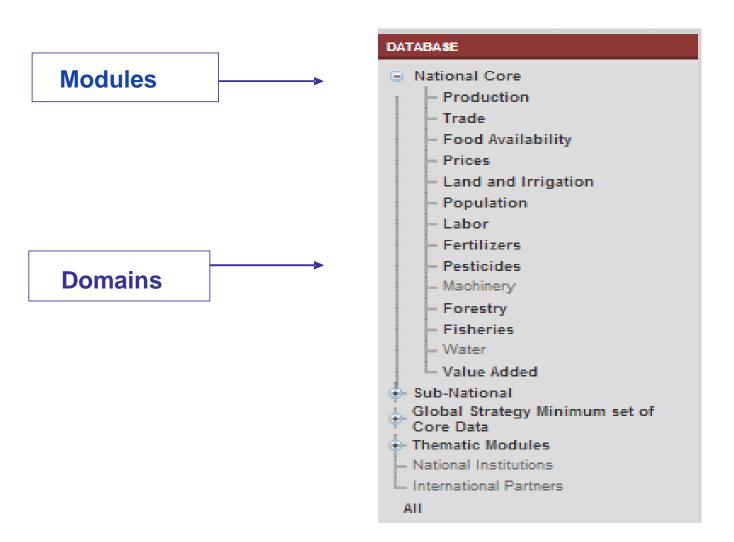
Bad examples of titles

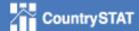
- APPENDIX I: TABLE: number of persons affected in 2008 by provinces / regions, actors and sex (XXXIPO022)
- Domestic supply (XXXIF1003)
- ANNEX III: TABLE OF RURAL TOWNS AFFECTED IN 2009 by municipalities, ACTORS and Sex (XXXIPO024)
- Situation of victims of rains and winds in 2009 by provinces and victims (XXXIPD20)





The statistics are organized as follows:



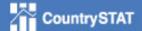




Connection between Core and Sub-National data







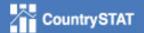


The technical rules: "Matrix codes"

	"Standards"		Mat	rix code	
Domains	Core Indicators by product and year	FAOCode	Domain	Sub- domain	Sequential Number
Production	Production quantity of Primary Crops	XXX	С	PD	010
	Area Harvested	XXX	С	PD	015
	Area Sown	XXX	С	PD	016
	Seed	XXX	С	PD	020
	Feed	XXX	С	PD	025
	Production of Selected Processed Crops	XXX	С	PD	030
	Number of Live Animals	XXX	С	PD	035
	Number of female animals	XXX	С	PD	040
	Slaughtered Animals	XXX	С	PD	045
	Production of Meat	XXX	С	PD	050
	Milking animals	XXX	С	PD	055
	Production of milk	XXX	С	PD	060
	Laying animals	XXX	С	PD	065
	Production of Hen Eggs and Other Eggs	XXX	С	PD	070
	Other Livestock products	XXX	С	PD	075

This code consists of a maximum of 9 digits that identify the components of the file as follows::

- a) 3 digits to identify the country code (standard codes of the countries of FAO)
 A figure to identify the main areas (C = Core, S = Sub-National, M = Thematic modules, I=Institutions, P=Partners).
 - For federal republics, the field "local statistics" is divided into different geographical areas that are identified by S1, S2, S3 ... (i.e. S + component).
- b) 2 digits to identify the domain (PD = Production).
- c) 3 digits to identify a numbering sequence indicator-table (PX-file).





Connection between Core and Sub-National data

Core da	ata	1	Sub-National data			
Statistics / indicators	istics / indicators Matrix code Statistics / indicators			Matrix code		
Production Quantity of Primary Crops	XXXCPD010		Production Quantity of Primary Crops by Administrative level 1, local product and year	XXXSPD01		
			Production Quantity of Primary Crops by Administrative level 2, local product and year	XXXSPD11		
			Production Quantity of Primary Crops by Administrative level 1, local product, year and month	XXXSPD21		
			Production Quantity of Primary Crops by Administrative level 2, local product, year and month	XXXSPD31		

Each indicator (table) is associated to a matrix code and should be named according to the following sequence:

- XXX= FAO Country code
- "C" or "S" = Domain
- "PD", etc = Production, etc. sub-domain
- 010, 110, 210, 310 = code of indicator as follows:
 - 0 = combination of variables "Administrative level 1, local product and year"
 - 1 = combination of variables "Administrative level 2, local product and year",
 - 2 = combination of variables "Administrative level 1, local product, year and month"
 - 3 = combination of variables "Administrative level 2, local product, year and month"
 - 5 = combination of variables «National level, local product et year"
 - 6 = combination of variables «National level, local product, year and month"



The technical rules : "Matrix Codes"

The components are reported below:

- Country codes = FAOSTAT codes
- Domain = C (Core Module de base)
- Sub-domains = S (Sub-national –Statistique locales)

PD (Production),

TR (Trade -Commerce)

PO (Population)

FA (Food Availability-Disponibilité alimentarire)

LA (Labor - Emploi)

LI (Land Use -Utilisation de la terre)

MA (Machines - Machinery)

PE (Pesticides)

FE (Fertilizers - Engrais)

PR (Prices -Prix)

FO (Forestry -Forêt)

FI (Fisheries -Pêche)

WA (Water- Eau)

VA (Value Added -Valeur ajoutée)

Thematic modules = M (Thematic Module),

National institutions = I (Institution),

International partners = P (Partners)

Code Pays FA0	Nom Pays FAO
202	Afrique du Sud
4	Algérie
7	
	Angola
53	Bénin
20	Botswana
233	Burkina Faso
29	Burundi
32	Cameroun
35	Cap-Vert
37	Centrafricaine, Rép
45	Comores
107	Côte d'Ivoire
72	Djibouti
59	Égypte
178	Érythrée
238	Éthiopie
74	Gabon
75	Gambie
81	Ghana
90	
	Guinée
61	Guinée équatoriale
175	Guinée-Bissau
114	Kenya
122	Lesotho
123	Libéria
124	Libyen, Jam ahiriya arabe
129	Madagascar
130	Malawi
133	Mali
143	Maroc
137	Maurice
136	Mauritanie
144	Mozambique
147	Namibie
158	Niger
159	Nigéria
226	Ouganda
250	Rép dém du Congo
215	Républic unie de Tanzanie
46	République du Congo
182	Réunion
184	Rwanda
205	Sahara occidental
187	Sainte-Hélène
193	Sao Tomé-et-Principe
195	Sénégal
196	Seychelles
197	Sierra Leone
201	Somalie
206	Soudan
209	Swaziland
39	Tchad
24	Terr brit Océan indien
217	Togo
222	
	Tunisie
251	Zam bie
181	Zim babwe
	

434 UEMOA 338 East African Community





The Indicator Codes and the matrix codes of the «CORE » module

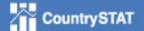
	"Standards"			rix code	,	
Domains	Core Indicators by product and year	FAOCode	Domain	Sub- domain	Sequential Number	Dimensions/Variables of table
Production	Production quantity of Primary Crops	XXX	С	PD	010	Product -Year
	Area Harvested	XXX	С	PD	015	Product -Year
	Area Sown	XXX	С	PD	016	Product -Year
	Seed	XXX	С	PD	020	Product -Year
	Feed	XXX	С	PD	025	Product -Year
	Production of Selected Processed Crops	XXX	С	PD	030	Product -Year
	Number of Live Animals	XXX	С	PD	035	Product -Year
	Number of female animals	XXX	С	PD	040	Product -Year
	Slaughtered Animals	XXX	С	PD	045	Product -Year
	Production of Meat	XXX	С	PD	050	Product -Year
	Milking animals	XXX	С	PD	055	Product -Year
	Production of milk	XXX	С	PD	060	Product -Year
	Laying animals	XXX	С	PD	065	Product -Year
	Production of Hen Eggs and Other Eggs	XXX	С	PD	070	Product -Year
	Other Livestock products	XXX	С	PD	075	Product -Year
Trade	Import Value of Crops and livestock products	XXX	С	TR	010	Product -Year
	Export Value of Crops and livestock products	XXX	С	TR	015	Product -Year
	Re-export Value of Crops and livestock products	XXX	С	TR	020	Product -Year
	Import Value of Live Animals	XXX	C	TR	025	Product -Year
	Export Value of Live Animals	XXX	C	TR	030	Product -Year
	Re-export Value of Live Animals	XXX	C	TR	035	Product -Year
	Export Quantity of Crops and livestock products	XXX	С	TR	040	Product -Year
	Import Quantity of Crops and livestock products	XXX	С	TR	045	Product -Year
	Import Quantity of Live Animals	XXX	С	TR	055	Product -Year
	Export Quantity of Live Animals	XXX	С	TR	050	Product -Year
	Re-export Quantity of Crops and livestock products	XXX	C	TR	060	Product -Year
	Re-export Quantity of Live Animals	XXX	C	TR	065	Product -Year
Population	Total population					
	Males					
	Females					
	Rural population	XXX	С	PO	010	Indicator - Year
	Urban population	7001	Ŭ	. •	0.0	
	Agricultural population					
	Non-agricultural population					
Food Supply	Food supply quantity (tonnes)	XXX	С	FA	010	Product -Year
	Food supply quantity (kg/capita/yr)	XXX	C	FA	015	Product -Year
	Food supply quantity (kg/supita/yr)	XXX	C	FA	020	Product -Year
	Food supply (kcal/capita/day)	XXX	C	FA	025	Product -Year
	Protein supply quantity (g/capita/day)	XXX	C	FA	030	Product -Year
	Fat supply quantity (g/capita/day)	XXX	C	FA	035	Product -Year





Indicator codes and matrix codes of the «Sub-National» module

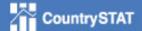
			Mat	rix code				
Sub-domain	Standard Indicators disaggregated by geographical level, product and time	CodeFAO	Domain	Sub- domain	Sequential Number	Dimensions/Variables		
Production	Production Quantity of Primary Crops by region, product and year	XXX	S	PD	010	Region, product, year		
	Production Quantity of Primary Crops by province, product and year	XXX	S	PD	110	Province, product, year		
	Production Quantity of Primary Crops by region, product, year and month	XXX	S	PD	210	Region, product, year, month		
	Production Quantity of Primary Crops by province product, year and month	XXX	S	PD	312	Province, product, year, month		
	Area Harvested by region, product and year	XXX	S	PD	015	Region, product, year		
	Area Harvested by province, product and year	XXX	S	PD	115	Province, product, year		
	Area Harvested by region, product, year and month	XXX	S	PD	215	Region, product, year, month		
	Area Harvested by province, product, year and month	XXX	S	PD	315	Province, product, year, month		
	Area Sown by region, product and year	XXX	S	PD	016	Region, product, year		
	Area Sown by province, product and year	XXX	S	PD	116	Province, product, year		
	Area Sown by region, product, year and month	XXX	S	PD	216	Region, product, year, month		
	Area Sown by province, product, year and month	XXX	S	PD	316	Province, product, year, month		
	Seed by region, product and year	XXX	S	PD	020	Region, product, year		
	Seed by province, product and year	XXX	S	PD	120	Province, product, year		
	Seed by region, product, year and month	XXX	S	PD	220	Region, product, year, month		
	Seed by province, product, year and month	XXX	S	PD	320	Province, product, year, month		
	Feed by region, product and year	XXX	S	PD	025	Region, product, year		
	Feed by province, product and year	XXX	S	PD	125	Province, product, year		
	Feed by region, product, year and month	XXX	S	PD	225	Region, product, year, month		
	Feed by province, product, year and month	XXX	S	PD	325	Province, product, year, month		
	Production of Selected Processed Crops by region, product and year	XXX	S	PD	030	Region, product, year		
	Production of Selected Processed Crops by province, product and year	XXX	S	PD	130	Province, product, year		
	Production of Selected Processed Crops by region, product, year and month	XXX	S	PD	230	Region, product, year, month		
	Production of Selected Processed Crops by province, product, year and month	XXX	S	PD	330	Province, product, year, month		
	Number of Live Animals by region, product and year	XXX	S	PD	035	Region, product, year		
	Number of Live Animals by province, product and year	XXX	S	PD	135	Province, product, year		
	Number of Live Animals by region, product, year and month	XXX	S	PD	235	Region, product, year, month		
	Number of Live Animals by province, product, year and month	XXX	S	PD	335	Province, product, year, month		





Requirements of the statistical database (1)

- The database has to be divided into subject modules (main categories)
- It should be possible to search via hierarchical structure of subject module and also to use text search
- The selected table should be presented on screen and should be downloadable for further use
- The tables have to be accompanied at least by a minimum set of metadata, including the date of update
- According to the common dissemination policy the database should be free of charge





Requirements of the statistical database (2)

- Statistics should be presented not only in national language. They should also be understandable at least in English.
- The databases are useful for the purpose of harmonization. The common databases that include information on various topics still require a lot of work to harmonize metadata
- For creation of titles of tables common rules have to be worked out
- The labels of variables and values of variables have to be harmonized over the whole database
- The label of the value of a variable must not be dependent on previous values. In the case of a selection of only one value of the variable it has to be unambiguously/uniquely understandable
- Each value of the same variable has to be unique. Values for the variable (for example total) must not be repeated.





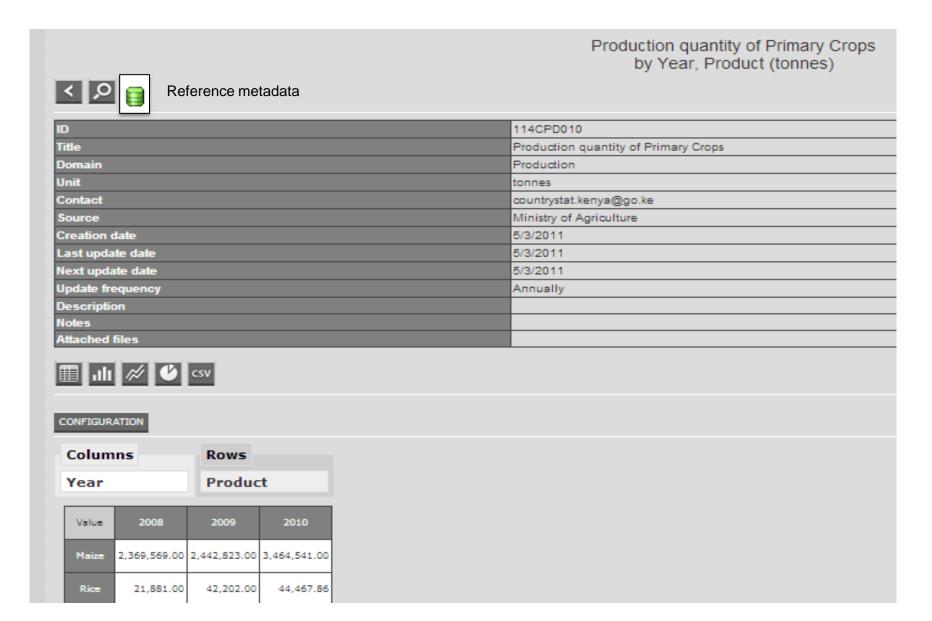
Requested Metadata links to tables

- Title of table
- Title description (Content)
- Measurement unit
- Time reference
- Notes for further information (Footnotes)
- Source of data (agency compiling the data)
- Explanation of symbols in tables
- Information of copyright
- Contact for additional information
- Date of update





Requested Metadata links to tables

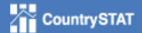






Requested reference Metadata on data

- Statistical population, geographical coverage, observation unit, classifications adopted
- Description of methods used in collection, revision, calculation and estimation of the statistics
- Description of quality of data, including information on error sources and accuracy of the statistics
- Comparability with alternative sources, etc...





Thank you!