Evaluation of the Food and Agriculture Organization of the United Nations (FAO) RDF Data Sets

Thomas Bosch¹, Benjamin Zapilko¹, Joachim Wackerow¹, and Kai Eckert²

GESIS - Leibniz Institute for the Social Sciences, Germany
{firstname.lastname}@gesis.org,
University of Mannheim, Germany
kai@informatik.uni-mannheim.de

Abstract. ...

Keywords: RDF Validation, RDF Constraints, DDI-RDF Discovery Vocabulary, Disco, RDF Data Cube Vocabulary, Linked Data, Semantic Web

1 Data Model Consistency

	Constraints										
Data Sets	DATA-MODEL-CONSISTENCY-01	DATA-MODEL-CONSISTENCY-02	DATA-MODEL-CONSISTENCY-03	DATA-MODEL-CONSISTENCY-04	DATA-MODEL-CONSISTENCY-05	DATA-MODEL-CONSISTENCY-06	DATA-MODEL-CONSISTENCY-07	DATA-MODEL-CONSISTENCY-08	DATA-MODEL-CONSISTENCY-09	DATA-MODEL-CONSISTENCY-10 (!)	DATA-MODEL-CONSISTENCY-11
http://fao.270a.info/sparql	✓	✓	✓	✓	X	<u> </u>	✓	<u> </u>	✓	✓	<u> </u>

Table 1: Evaluation of http://fao.270a.info/sparql

${\bf Constraints}$

Data Sets	DATA-MODEL-CONSISTENCY-01	DATA-MODEL-CONSISTENCY-02	DATA-MODEL-CONSISTENCY-03	DATA-MODEL-CONSISTENCY-04	DATA-MODEL-CONSISTENCY-05	DATA-MODEL-CONSISTENCY-06	DATA-MODEL-CONSISTENCY-07	DATA-MODEL-CONSISTENCY-08	DATA-MODEL-CONSISTENCY-09	DATA-MODEL-CONSISTENCY-10 (!)	DATA-MODEL-CONSISTENCY-11
$AQUACULTURE_QUANTITY$	✓	✓	✓	✓	X	✓	✓	✓	✓	-	✓
$AQUACULTURE_US_DOLLAR$	✓	\checkmark	\checkmark	✓	X	✓	✓	✓	✓	-	✓
CAPTURE	✓	✓	✓	✓	X	✓	✓	✓	✓	-	✓
$SEATL_CAPTURE$	✓	✓	✓	✓	X	✓	✓	✓	✓	-	✓
$RECOFI_CAPTURE$	✓	✓	✓	✓	X	✓	✓	✓	✓	-	✓
$CECAF_CAPTURE$	✓	✓	✓	✓	X	✓	✓	✓	✓	-	✓
$GFCM_CAPTURE$	✓	✓	✓	✓	X	✓	✓	✓	✓	-	✓
$GLOBAL_PRODUCTION$	✓	✓	✓	✓	X	✓	✓	✓	✓	-	✓
$TRADE_QUANTITY$	✓	✓	✓	✓	X	✓	✓	✓	✓	-	✓
$TRADE_US_DOLLAR$	✓	✓	✓	✓	X	✓	✓	✓	✓	-	✓

Table 2: Evaluation of http://fao.270a.info/sparql

Data Sets

2 Existential Quantifications

	Constraints						
Data Sets	EXISTENTIAL-QUANTIFICATIONS-01 EXISTENTIAL-QUANTIFICATIONS-02 EXISTENTIAL-QUANTIFICATIONS-03 EXISTENTIAL-QUANTIFICATIONS-04						

Table 3: Evaluation of http://fao.270a.info/sparql

3 Cardinality Restrictions

	CITY-RESTRICTIONS-02	$TY ext{-}RESTRICTIONS ext{-}01$	Y-RESTRICTIONS-01	ESTRICTIONS-02
Data Sets	MINIMUM-QUALIFIED-CARDINALITY-RESTRICTIONS-02	MAXIMUM-QUALIFIED-CARDINALITY-RESTRICTIONS-01	EXACT-UNQUALIFIED-CARDINALITY-RESTRICTIONS-01	EXACT-QUALIFIED-CARDINALITY-RESTRICTIONS-02
http://fao.270a.info/sparql	30	✓	/	✓

Constraints

Table 4: Evaluation of http://fao.270a.info/sparql

Constraints MAXIMUM-QUALIFIED-CARDINALITY-RESTRICTIONS-01 Data Sets $AQUACULTURE_QUANTITY$ $AQUACULTURE_US_DOLLAR$ CAPTURE $SEATL_CAPTURE$ $RECOFI_CAPTURE$ $CECAF_CAPTURE$ $GFCM_CAPTURE$ $GLOBAL_PRODUCTION$ $TRADE_QUANTITY$ $TRADE_US_DOLLAR$

Table 5: Evaluation of http://fao.270a.info/sparql

Data Sets

4 Structure

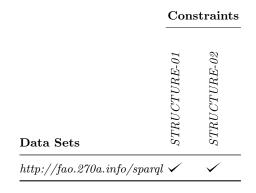


Table 6: Evaluation of http://fao.270a.info/sparql

5 Further Constraints