

# **International Comparison Program**

[07.03]

# **ICP Region Software**

**System Requirement Specifications** 

Version 1.0

**Global Office** 

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# 1. Introduction

# 1.1 Purpose

This System Requirement Specifications document provides a description of the requirements given by the client and/or sponsors of this project. This document will also show which software modules and features of the ICP Region Software will support these requirements. This document is dynamic in the sense that as new software modules and their requirements are specified by the client, these will be added to this document.

# 1.2 Scope

The scope of this document at present covers only the modules and features of ICP Region software.

# 1.3 Requirement Numbering and Traceability

Following is the numbering format used in this document. The requirement specifications is organised in the following way

Modules (RGN\_M<nnn>)

• Features (RGN\_F<nnn>

Requirements (CTY\_R<nnn>)

<nnn> - Three digit continuous numbering

Example: RGN\_M001 Data Setup
RGN\_F001 Setup

RGN\_R001 on Screen

# 1.4 Definitions and Acronyms

Following are the definitions and abbreviations used in this document:

Term	Description
ICP	International Comparison of Prices
Price quotation	This is the price quoted by a vendor for a product item as specified in the ICP product list. The price quotation is basically the complete database record that includes information on the product, the outlet (shop, where this product is priced, the type of that outlet code) the monthly price, the variety description, the geographic area code, the month the price was collected, and all other attributes such as rural/urban, domestic/imported, sale price/regular price, seasonal/non-seasonal, etc.

<b></b>	T		
Weights	This refers to the purchasing power information that is captured at the elementary product level.		
UI	User Interface		
UoM / UOM	Unit of Measure		
PC	Price Collector		
ННС	Household Consumption Items		
Basic Heading	In principle, basic heading consists of a group of similar well-defined products, from which sample of products can be selected that are both representative of their types and purchases in participating countries. In practice, a basic heading is defined as the lowest level of final expenditure in the GDP, for which explicit expenditures can be estimated.		
IHSN Toolkit	International Household Survey Network's (IHSN) software tools which provide features for storing survey questionnaires, documentation on the surveys as well as survey responses (data). The IHSN Toolkit uses international standards called Data Documentation Initiative (DDI) for documenting the data.		
Outlet Types	Set of five or six choices that characterize an outlet where price observations are collected. These can be: Department Store, Market, Street Vendor etc. These types could vary from region to region.		
PPP	A method of measuring the relative purchasing power of different countries' currencies over the same types of goods and services.		
ВН	Basic heading		
Nominal Expenditure / Weight			
XR			
PPP			
PLI			
Variation Coefficient			
STD			
NC-Price			
XR-pr			
XR-Ratio			
CUP-price			
CUP-ratio			
Pref. UOM			
	1		

ER (LCU/US\$)	
Rebased_XR	
LCU	

# 1.5 References

Following are the references (other Word or Excel documents, minutes of meetings (MoMs) etc.) made while preparing this document:

Sr. No.	Reference	Version	Date	Description
1.			<dd mon="" yyyy="" –=""></dd>	
2.				

# 2. Overview

# 2.1 Objective

Design, develop and test ICP Region software that meets the needs specified in this document. The system (s) to be designed will be software modules that address a set of closely aligned functions. For example, a Setup and Diagnostics module will do just that – allow users to setup the master data and validate the average prices received from the countries. The Data Processing and Reporting module will be used to process the data and generate various reports. The design should ensure that each module works independently. That is, it can be installed and used separately.

### 2.2 Current Practice

In the last round of the ICP in 2005, countries were free to choose the software that would let them record and validate the prices. Some countries used their CPI software, others used their own-developed software, and some others used the Price Collection Module of the ICP Tool Pack developed by the WB.

# 2.3 Proposed Solution

The ICP Region model will have Data Setup & Diagnostics and the Data Processing and Reporting modules. The Master data will be setup by importing it via formatted Excel sheets. Once the master data is setup the Average prices will be imported via formatted Excel sheets that are received from the countries.

The Data Processing and Reporting module will be used for aggregation, calculation of PPP values, Real Expenditures and for producing reports for various temporal and spatial breakdowns.

#### 2.3.1 Functional Overview

The International Comparison Program is a series of statistical surveys held worldwide to collect price data for a sample of commonly bought goods and services. It is a uniquely complex statistical exercise involving national, regional and international agencies and is overseen by a Global Office located in the World Bank. Surveys are held every three to five years, depending on the region, and the data collected are combined with other economic variables from countries' national accounts to calculate Purchasing Power Parities. PPPs help data users and donor organizations target programs more effectively, and assist international markets by identifying the relative productivity and investment potential of different countries.

#### 2.3.2 Functional Architecture

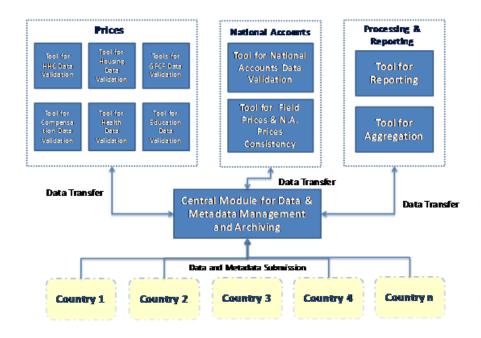


Figure 1: Region Model

#### 2.3.3 Technical Overview

System will be developed with the following environment,

- Visual Basic .Net 2005
- MS SQL express 2005
- Excel 2003/2007 components
- DevExpress windows components

User interface will be developed using VB.Net 2005 & DevExpress windows components. Database storage handled in MS SQL express 2005 database. Export feature will use the excel components.

Refer to the technical architecture below.

#### 2.3.4 Technical Architecture

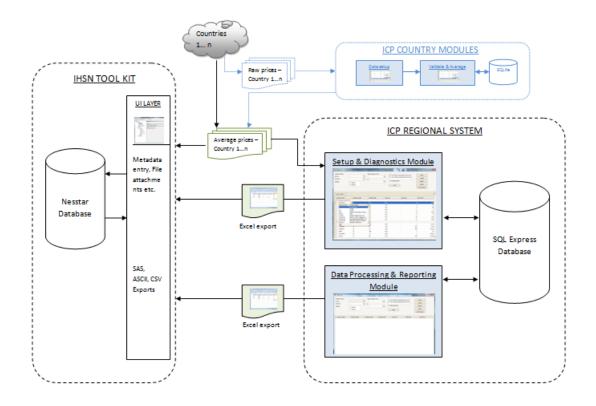


Figure 2: Technical architecture

This architecture represents a standalone application for each module and all the modules will be using the same MS SQL Express database.

- Data Setup & Diagnostics Module
  - Master data such as Product List, Outlet Types, and UOM etc will be added to the system via importing the formatted Excel files.
  - Manage Nominal Expenditures, Population and Exchange Rates
  - Export Region Master list countries
  - Countries will send Average prices in formatted Excel file which will be imported as it is in the system.
  - Two type of Average price Diagnostics will be provide in this module:
    - Quaranta diagnostics (a report which computes standard statistical functions – standard deviation, variation coefficients etc. and shows the outlier prices among countries)
    - Dikhanov tables (similar types of computations to the above, but differently formatted)
- Data Processing & Reporting Module

- This module will use the same database which was set up by the "Data Setup & Diagnostics"
- Features of mappings between Basic headings and aggregations, Reference PPP Mapping and Gap Filling mapping
- Average prices stored in the database will be retrieved based on criteria selected on the screen.
- Index processing contains the following steps to calculate indices,
  - Validate Product Average Price
  - o Calculate & Validate Basic Heading Parities
  - Gap Filling of missing parities
  - Calculation of Reference PPP
  - Validate Nominal Expenditure
  - o Perform Aggregations
- Once the data processing steps are completed, the same module will be used for reports generation.
- These modules UI will be developed using VB.Net 2005 and data will be stored into MS SQL Express 2005 database. Excel 2003/2007 required to view/modify/upload the excel sheets(master list or observations)
- MS SQL Express Database
  - MS SQL Express database will be used to store the data from the Data Setup & Diagnostics and Data Processing & Reporting modules.

#### IHSN Toolkit

o IHSN Toolkit in the above architecture is as a repository for the metadata and for the hundreds of files (Excel) that will be sent during the ICP processing cycle by the countries to a Region. The IHSN toolkit will be used to record details of all data sent from and to the Regions. All the received files (raw price observations, average prices) and exported reports will be manually imported into IHSN toolkit for version control. IHSN toolkit internally stores the uploaded metadata and micro data into its proprietary NESSTAR database.

#### 2.3.5 User Characteristics

- End users would be required to have basic knowledge of the following, to use this application,
- Windows Operating System
- Microsoft Excel

# 2.3.6 Language Requirements

- Application to be developed using English
- The System should supports only English Language

# 2.3.7 Assumptions and Dependencies

Following are the assumptions and dependencies made for this solution:

- All files that are sent to and received from countries will have to be manually exported and imported into IHSN toolkit. System will not support any development or maintenance activities in IHSN toolkit. There will be no automatic data transfer from ICP Region software to IHSN toolkit.
- The Average prices that are sent by the countries will be imported using predefined excel sheet template. Countries using their own data entry system will have to convert their data into pre-defined excel sheet template before sending to the Regional office.

# 3. Non-Functional Requirements

#### 3.1 Software Environment

#### 3.1.1 Software

Sr. No.	Software Name	Version Details	Purpose
1.	Microsoft Windows	XP with SP3, Vista Professional edition	Operating System(It contains .Net Framework 2.0 and above versions)
2.	Microsoft Excel	2003, 2007	Excel Export and Import
3.	Adobe acrobat	9.0 and above	PDF export

### 3.2 Interfaces

# 3.2.1 Data Setup & Diagnostics Module - User Interfaces

# 3.2.2 Data Processing and Reporting Module - User Interfaces

#### 3.2.3 Software Interface

The following application interfaces would be developed in the ICP country software, to enable export/ import of data.

Sr. No.	Interface Name	Version Details	Purpose
1.	Microsoft Excel	2003, 2007	Excel Export and Import
2.	Adobe acrobat	9.0 and above	PDF export

# 3.3 Installation and Packaging

This section would describe the requirements for packaging and installation of the system

# 4. Functional Requirements

# **RGN\_M001** Data Setup and Diagnostics Tools

This module facilitates to export & import the master lists. This tool imports & analyzes average prices that will be received from the countries.

#### **RGN F001** Setup

This will provide features to setup master lists, export region master list to country and import average prices received from the countries

#### RGN\_R001 Ability to import/upload Region Master list from excel sheet

- Ability to import the following region master list,
  - o Region Details
  - Currency Master (Add/Modify allowed)
  - Country List (Add/Modify allowed)
  - o Products List (Add/Modify allowed)
  - Location Types (Add/Modify allowed)
  - Outlet Types (Add/Modify allowed)
  - Price Types (Add/Modify allowed)
  - UoM List (Add/Modify allowed)
  - UoM Conversion Factors (Add/Modify allowed)
  - Delete data from Master list?
- Refer to <u>annexure 5.1.1</u> for sample region master list
- Validate master list in excel sheet for the following,
  - Uploaded file is a valid region master list excel file downloaded from the system
  - Basic validation for correct data format
  - Duplicate Records
  - Validation for missing data in required field
- Ability to import/upload region master list from the exported excel sheet.
   Excel sheets used for import will be password protected (read-only) sheets and it will be identified by the system using a unique identifier.

#### **RGN\_R002** Manage Nominal Expenditures

- Ability to filter and export the nominal expenditures using the criteria(s) mentioned below,
  - Time Period ( Multiple select)
  - Year

- Country (Multiple select)
- Products (Tree view Multiple select)
- Selected Products and Countries will be pre-populated into the exported excel sheet to fill data
- Refer to <u>annexure 5.1.2</u> for sample list
- If more than one time periods selected then each time period will have its own excel sheet
- Delete
  - o Ability to delete all the records for the above filter combination
- Ability to download the blank template for the above filter combination
- Ability to import the Nominal Expenditures master list
- Validate master list in excel sheet for the following when importing,
  - Uploaded file is a valid master list excel file downloaded from the system
  - Basic validation for correct data format
  - Validation for missing data in required field

#### RGN\_R003 Manage Population

- Ability to filter and export the Exchange Rates using the criteria(s) mentioned below,
  - Time Period (Multiple select)
  - Year
  - o Country (Multiple select)
- Selected Countries and Time Period(s) will be pre-populated in the exported excel sheet to fill data
- Refer to <u>annexure 5.1.2</u> for sample list
- Delete
  - Ability to delete all the records for the above filter combination
- Ability to import the Population master list
- Ability to download the blank template for the above filter combination
- Validate master list in excel sheet for the following when importing,
  - Uploaded file is a valid master list excel file downloaded from the system
  - Basic validation for correct data format
  - o Validation for missing data in required field

#### RGN\_R004 Manage Exchange Rate

 Ability to filter and export the Exchange Rates using the criteria(s) mentioned below,

- Time Period ( Multiple select)
- o Year
- Base Currency
- Target Currency ( Multiple select)
- Selected Currencies and Time Period(s) will be pre-populated in the exported excel sheet to fill data
- Refer to annexure 5.1.2 for sample list
- Delete
  - o Ability to delete all the records for the above filter combination
- Ability to import the Exchange Rate list
- Ability to download the blank template for the above filter combination
- Validate master list in excel sheet for the following when importing,
  - Uploaded file is a valid master list excel file downloaded from the system
  - Basic validation for correct data format
  - Validation for missing data in required field

### RGN\_R005 Export Region Master List

- Ability to export following Region Master List:
  - The exported region master list fill will have Sheets:
    - Region Details
    - Currency Master (Add/Modify allowed)
    - Country List (Add/Modify allowed)
    - Products List (Add/Modify allowed)
    - Location Types (Add/Modify allowed)
    - Outlet Types (Add/Modify allowed)
    - Price Types (Add/Modify allowed)
    - UoM List (Add/Modify allowed)
    - UoM Conversion Factors (Add/Modify allowed)
- Refer to <u>annexure 5.1.1</u> for sample exported region master list

#### RGN\_R006 Export Region Master List to Country

- Ability to export following Region Master List to Countries:
  - Get the country details to export region master list.
  - Country Master List which will have master data only for the country selected by the user. The Country Master List will have Sheets:
    - Country Details (Read Only)

- Product Master (Read Only)
- Location Types (Add/Modify allowed)
- Outlet Types (Add/Modify allowed)
- Price Types (Read Only)
- UoM List (Add/Modify allowed)
- UoM Conversion Factors (Add/Modify allowed)
- Location Outlets (Blank sheet, Add Allowed)
- Refer to annexure 5.1.3 for sample exported list

#### RGN\_R007 Import/Upload Average Prices received from Country

- Ability to import average prices received from countries
- Perform basic validations,
  - Uploaded file is a valid average prices excel file exported & sent by the Country
- Ability to do the following with the already uploaded average prices,
  - Filter and view average prices based on,
    - Country List
    - Product List
    - Time Interval
    - Time Period
    - Year
    - Averaging Method
    - Uploaded File Name
  - Edit and save the uploaded average prices
  - Export average prices based on the selection criteria
- Refer to <u>annexure 5.1.4</u> for sample average prices received from countries

#### **RGN F002** Data Diagnostics

This provides feature to analyze imported averages prices before index processing. There are two types of analyze/diagnostics reports Quaranta diagnostics and Dikhanov tables

#### RGN\_R008 Quaranta diagnostics

 Ability to filter the average prices to analyze using the criteria(s) mentioned below,

- Country List
- Product List
- o Time Interval
- Time Period
- Year
- Base Location
- Averaging Method
- o Imputation Method
- Ability to calculate and show diagnostics report based on selected basic headings. The report contains following three sections

#### Summary Information

- o No. Of items included in the Analysis
- No. Of Countries included in the Analysis
- Base Country
- o Average Weight of Basic Heading in Total Expenditure
- Average Coefficient Variation
- Country Level Information
- Country
- $\circ$  XR
- o PPP
- o PLI (%)
- o Weight #
- o Items
- Variation Coefficient
- o STD
- Product Level Information
- Country
- o NC-Price
- Quotations
- Variation Coefficient
- o XR-pr
- o XR-Ratio
- o CUP-price
- o CUP-ratio
- o Pref. UOM
- o Mean (Geo. Mean)
- Refer to <u>annexure 5.1.5</u> for sample report.

#### **RGN R009** Dikhanov Tables

- Ability to filter the average prices to analyze using the criteria(s) mentioned below,
  - o Country List
  - Product List
  - o Time Interval
  - o Time Period (Can select multiple time periods)
  - o Year
  - Base Location
  - Averaging Method
  - Imputation Method
  - o Level of Processing (Level1 to Level 4)
- Ability to calculate and show diagnostics report based on selected basic headings. The report contains the following sections
  - Country Level Information,
  - o PPP
  - o STD
  - o No. Of Priced Items
  - ER (LCU/US\$)
  - Rebased\_XR
  - o PLI
  - Provide summary for STD, No. Of Priced Items across countries
  - Basic Heading Level Information
  - o PPP
  - o STD
  - o PLI
  - o No. Of Priced Items
  - Provide summary for STD, No. Of Priced Items across countries for all products
  - Products Level Information
  - o PPP
  - o Average Price
  - o No. Of Observations
  - o Coefficient of Variation
  - o XR Ratio
  - Provide summary for STD, No. Of Priced Items across countries for all products
- Refer to <u>annexure 5.1.6</u> for sample report.

# **RGN\_M002** Data Processing and Reporting Module

This module contains the features for basic heading mapping, indices computation and reports generation

### **RGN\_F003** Basic Heading Mappings

This provides feature to map basic headings with standard aggregations, flexible group aggregations and reference aggregations

#### RGN\_R010 Standard Aggregation and Basic Headings Mapping

- Ability to map/un-map basic headings with standard aggregations
- Ability to view mapped basic headings only for the selected standard aggregation
- Ability to edit existing standard aggregation to map/un-map basic headings

#### RGN\_R011 Flexible Aggregation and Basic Headings Mapping

- Ability to map/un-map basic headings with flexible aggregations
- · Ability to add new flexible aggregation by providing the following,
  - Flexible Group aggregation Name
  - Level (All Groups, Group & Classification)
  - Map basic headings with the new flexible aggregation
- Ability to edit existing flexible aggregation details and map/un-map basic headings for that aggregation
- Ability to delete a flexible aggregation
- Ability to change the display order of flexible aggregation
- Ability to view mapped basic headings only for the selected flexible aggregation

#### **RGN\_R012** Reference PPP Mapping for Basic Headings

- Ability to map/un-map basic headings with reference PPP
- Ability to add new reference by selecting the existing basic heading and map basic headings with the new reference
- Ability to edit existing reference with map/un-map basic headings
- Ability to delete a reference
- Ability to change the display order of references
- Ability to view mapped basic headings only for the selected reference

#### RGN\_R013 Gap Filling Mapping for Basic Headings

Ability to map/un-map basic headings for gap filling

- Ability to view mapped basic headings only for the selected gap filling basic heading
- Ability to edit gap filling basic heading to map/un-map basic headings

### **RGN\_F004** Index Processing

Index processing contains the following steps to calculate indices,

- Validate Product Average Price
- o Calculate & Validate Basic Heading Parities
- Gap Filling of missing parities
- o Calculation of Reference PPP
- Validate Nominal Expenditure
- Perform Aggregations
- The following filter conditions used to compute indices,
  - Time Interval
  - Averaging Method
    - Arithmetic Mean
    - Geometric Mean
    - Harmonic Mean
    - Median?
  - Indices
    - EKS (Fisher)
    - EKS (Tornqvist)
    - Geary Khamis
    - Ikle Dikhanov
  - Location Hierarchy Levels
  - Imputation Method
    - CPD
    - CPRD
    - EKS Simple
    - EKS\*
  - Base Location
  - Country List
  - Product List
  - o Time Period(Year) for Processing

#### RGN\_R014 Validate Product Average Prices

- Ability to display product average prices for the selected countries
- Ability to change base location
- Validations
  - Product Average Prices cannot be zero.
- Ability to select Elementary Aggregation Method to impute average prices
- Ability to Impute Average Prices
- Ability to display Imputed prices (only for CPD elementary aggregation method)
- Ability to edit and save the product average prices
- Ability to export product average prices

#### RGN\_R015 Calculate & Validate Basic Heading Parities

- Ability to calculate and validate the Basic Heading Parities for all the selected countries
- Ability to do GAP filling. Ability to edit the basic heading mappings for gap filling.
- · Gap filling uses the following method,
  - o CPD
- Ability to do Reference PPP Calculation. Ability to edit the basic heading mappings for reference basic headings
- Validations
  - Basic Heading parities cannot be zero.
  - o Ability to generate Parities diagnostics report
- Ability to edit and save the basic heading parities
- Ability to export the following,
  - Basic heading parities
  - Basic heading parities(Gap Filled)
  - Basic heading parities(Gap Filled & referenced)

#### **RGN\_R016** Validate Nominal Expenditures

- Ability to display the Basic Heading Nominal expenditures for all the selected countries
- Validations
  - The value of the nominal expenditure cannot be zero
  - Ability to generate Nominal Expenditures shares diagnostics report
- Ability to edit and save nominal expenditures
- Ability to export basic heading nominal expenditures

#### RGN\_R017 Perform Aggregation

- Ability to select one or more indices to perform aggregation ( Refer RGN\_F004 for supported list of indices)
- Ability to perform aggregation
- Ability to view reports once aggregation completed ( Refer RGN\_F005 for available list of reports)

#### **RGN F005** Reports

This module facilitates generation of reports

- The following options can be used during reports generation,
  - Apply Regional Currency
    - Currency List
    - Conversion Rate
  - Scaling Factor
  - o Reference Column
  - o No. Of Decimal Places
- All the reports will have following three sections:
  - Report Header: This is the top section of report. In all reports, this section will contain following common information which will be based on the options selected by the user while generating report:
    - Report Type
    - Time Period
    - Averaging Method
    - Chosen Currency
    - Base Country
    - Imputation Method
    - No of Decimal Places
  - Legends: This section is shown on the right side of the Report Header.
     This section describes all colours that are being used in the Data section of the report.
  - Data: This section shows the data in the form of a Grid in which Product Names will be populated in the first column and Country names as column header. Except "Average Price and Parities" report, Product Names will be populated in the hierarchical order. In "Average Price and Parities" report, Only Basic Headings and Products will be populated in the Product Name column.

Except for "Average Price and Parities" report user will have option to select the product level up to which he wants the data to be populated in the report. The system will allow selecting Product level up to Basic Heading.

- Dikhanov Reports
- Quaranta Reports

#### RGN\_R018 Price Index

Ability to calculate, show and export "Price Index" for all countries that are available in region.

- Refer to <u>annexure 5.1.7</u> for sample report.
- Data: The Grid will be populated with "Price Index" for all products and all countries in the region.
- Report Header: This section will display all the information that is mentioned above as common "report header" for all standard reports.

#### **RGN\_R019** Average Prices and Parities

Ability to calculate, show and export "Average Prices and Parities" for all countries that are available in region.

- Refer to annexure 5.1.8 for sample report.
- Data: The Grid will be populated with "Average Prices and Parities" for all products and all countries in the region.
- Report Header: This section will display all the information that is mentioned above as common "report header" for all reports.

#### RGN\_R020 Nominal Expenditures

Ability to calculate, show and export "Nominal Expenditures" for all countries that are available in region.

- Refer to annexure 5.1.9 for sample report.
- Data: The Grid will be populated with "Nominal Expenditures" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### RGN\_R021 Nominal Expenditures @XR

Ability to calculate, show and export "Nominal Expenditures @XR" for all countries that are available in region.

- Data: The Grid will be populated with "Nominal Expenditures @XR" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### RGN\_R022 Per Capita Nominal Expenditures

Ability to calculate, show and export "Per Capita Nominal Expenditures" for all countries that are available in region.

- Refer to annexure 5.1.10 for sample report.
- Data: The Grid will be populated with "Per Capita Nominal Expenditures" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### RGN\_R023 Per Capita Nominal Expenditures @XR

Ability to calculate, show and export "Per Capita Nominal Expenditures @XR" for all countries that are available in region.

- Data: The Grid will be populated with "Per Capita Nominal Expenditures
   @XR" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### RGN\_R024 Country Nominal Expenditures @XR

Ability to calculate, show and export "Country Nominal Expenditures @XR" for all countries that are available in region.

- Data: The Grid will be populated with "Country Nominal Expenditures @XR" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### RGN\_R025 Per Capita Relative Nominal Expenditures @XR

Ability to calculate, show and export "Per Capita relative Nominal Expenditures @XR" for all countries that are available in region.

- Data: The Grid will be populated with "Per Capita Relative Nominal Expenditures @XR" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### RGN\_R026 Real Expenditures

Ability to calculate, show and export "Real Expenditures" for all countries that are available in region.

- Refer to <u>annexure 5.1.11</u> for sample report.
- Data: The Grid will be populated with "Real Expenditures" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### RGN\_R027 Real Expenditures @PPP

Ability to calculate, show and export "Real Expenditures @PPP" for all countries that are available in region.

- Data: The Grid will be populated with "Real Expenditures @PPP" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### RGN\_R028 Per Capita Real Expenditures

Ability to calculate, show and export "Per Capita Real Expenditures" for all countries that are available in region.

- Refer to <u>annexure 5.1.12</u> for sample report.
- Data: The Grid will be populated with "Per Capita Real Expenditures" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### RGN\_R029 Per Capita Relative Real Expenditures @PPP

Ability to calculate, show and export "Per Capita Relative Real Expenditures @PPP" for all countries that are available in region.

- Data: The Grid will be populated with "Per Capita Relative Real Expenditures @PPP" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### RGN\_R030 Country Real Expenditures

Ability to calculate, show and export "Country Real Expenditures" for all countries that are available in region.

- Data: The Grid will be populated with "Country Real Expenditures" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

### RGN\_R031 Price Level Index (PLI)

Ability to calculate, show and export "Price Level Index" for all countries that are available in region.

- Data: The Grid will be populated with "Price Level Index" for all products and all countries in the region.
- Report Header: In addition to the information that is mentioned above as common "report header" for standard reports, this section will also have Scaling Factor selected by the user.

#### **RGN F006** Admin

This module provides the following admin features,

o SQL database backup & Restore

#### RGN\_R032 SQL database Backup & Restore

This facilitates to do SQL database backup and restore activities

- Ability to display the currently used database by the application
- Backup
  - Ability to get backup file path
  - Ability to backup the currently used SQL database into the backup file path
- Restore
  - o Ability to get backup file path to restore
  - Ability to choose option to restore as a new database
  - Ability to choose option to use the database after restore

# 5. Annexure

# **5.1** Supporting files

### 5.1.1 Region Master List

Following is the template format used to import region master data.



ICP\_Region\_Master\_ List

## 5.1.2 Master List for Nominal Expenditures, Population and Exchange Rates

Following are the templates for Nominal Expenditures, Population and Exchange Rates



Nominal Expenditures



Population



**Exchange Rates** 

#### **5.1.3 Exported Region Master List to Country**

Following is the template format used to export master data to send to Country



Country\_Master\_List

# **5.1.4 Country Average Prices**

Following is the template format used to import average prices sent by the Country



OMN\_HHC\_Average Prices\_Yearly\_2009

# **5.1.5** Quaranta Diagnostics

Following is the Quaranta diagnostics report. Each sheet contains in this report generated for each basic heading.



Quaranta Diagnostics Report

#### **5.1.6** Dikhanov Tables

Following is the basic heading level Dikhanov diagnostics report



Dikhanov Report BasicHeading Level

### **5.1.7 Price Index Report**

Following is the format of Price Index Report



Price Index

• Legends: Following color legends will be used in this report:



# 5.1.8 Parities (PPP) Report

Following is the format of parities report



Avg Price and Parities Report

• Legends: Following color legends will be used in this report:





### **5.1.9 Nominal Expenditure Report**

Following is the format of Nominal Expenditure report



Nominal Expenditure

• Legends: Following color legends will be used in this report:



## **5.1.10** Per Capita Nominal Expenditure Report

Following is the format of Per Capita Nominal Expenditure report



Per Capita Nominal Expenditure

• Legends: Following color legends will be used in this report:



### **5.1.11 Real Expenditure Report**

Following is the format of Real Expenditure report



Real Expenditure

• Legends: Following color legends will be used in this report:



#### **5.1.12** Per Capita Real Expenditure Report

Following is the format of Per Capita Real Expenditure report



• Legends: Following color legends will be used in this report:

