

InfoShare Caribbean

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Port of Spain,
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15-17 February 2011

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Presentation outline

- Background information
- Structure of the application
- “Core” structure
- Built-in “modules”
- Data and work flows
- Questions / pending issues

InfoShare: The tool

- What: A flexible and easy-to-use database system for gathering and sharing information on commodity prices (including farm, export and import prices). It can also include data on intermediate costs such as transportation and storage, as well as information on national quality standards.

Infoshare customization

- A pilot version was implemented in Cameroon (2009), but with different specifications/needs
- We are developing a new version for the Pacific region
- Caribbean: It is necessary to know the specifications/needs for your region so as to tailor the software to your requirements

Cameroon

<http://infoshare.unctad.org/>

- Partly public (decided by the local partner) and partly restricted to authorized users.
- Few products: Cocoa, Arabica Coffee and Robusta Coffee
- 9 variables (CIF Price, FOP Price, ..)
- About 15'000 values/datapoints (updated weekly)
- Multilanguage (French and English)

Cameroon

Improvements

- A scheduled daily SMS system to send CIF and FOP price is already implemented (3000 active users) and it will be integrated in InfoShare soon
- B2B system to be studied/integrated

Caribbean

Analyzed MIS:

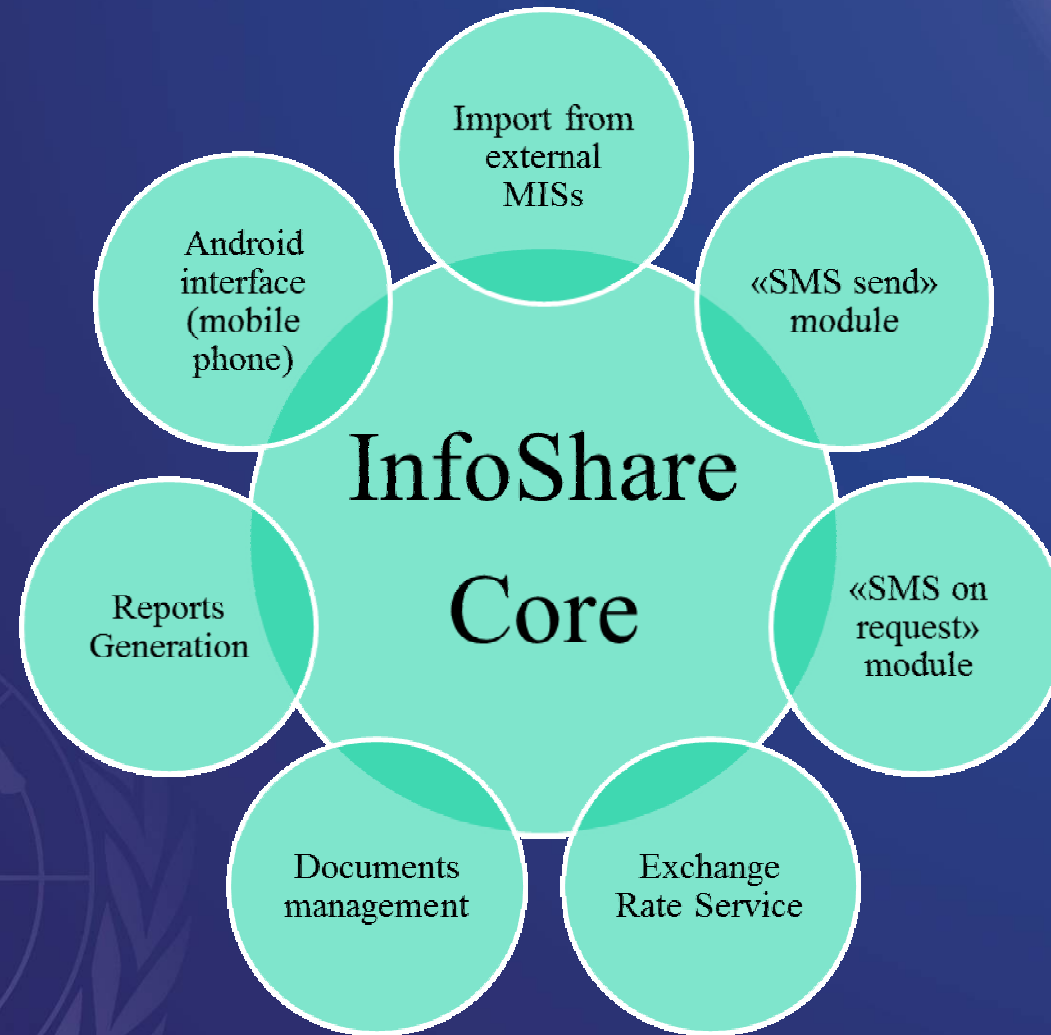
- Trinidad & Tobago: <http://www.namistt.com/>
- Guyana: <http://www.newgmc.com/>
- Jamaica: <http://www.ja-mis.com/>

Explore the technical viability of an overarching interface for the dissemination of data, based on the InfoShare software

Presentation outline

- Set the stage
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InfoShare Structure



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InfoShare Core

- **“Granularity” of authorisations - roles:**
 - Administrator - all rights on the region
 - Country Administrator – all rights on the country
 - Collector - rights on one market to add data
 - Registered user – Access to some private variables/values
 - Anonymous user – Access to public variables/values

As an Administrator, you control what users/roles are allowed to do by specifying group/user permissions

- **Objects:**

- Country
- Market
- Product
- Variable
- Value

Market + Product + Name
Ex. Macoya – Orange(S) - Price

Variable+Date+Value
Ex. (Macoya – Orange(S) – Price) →
28/01/2011 - 50 TTD

variable

InfoShare roles and privileges

Role/Group	Description	Privileges as set in Infoshare
Admin	System Administrator - Unrestricted rights to all Infoshare pages (data displayed and functionality offered by the page)	<p>Administrative privileges to manage all profiles:</p> <ul style="list-style-type: none"> ➤ View roles; create new roles; delete existing roles ➤ View users; create new users; delete existing users ➤ Assign users to groups; view user group affiliation; edit user group affiliation ➤ View permissions; edit permission; grant permissions - user/group level <p>Administrative privileges to manage objects:</p> <ul style="list-style-type: none"> ➤ Create and edit country and sub-national settings ➤ Create national organizations ➤ Customise variables
Country Admin	Local Administrator - Local administrator privileges are defined and granted by the System Administrator	<p>Administrative privileges (as above) but at the local (national) level:</p> <ul style="list-style-type: none"> ➤ Does not control national setting (only sub-national) ➤ Does not create administrators (only lower-level roles) ➤ Authorised to access ONCC/Cameroun pages only
Collectors	Data collectors	Insert values
Users	All other users - Privileges defined by the Local/System Administrator	View values



InfoShare Core - Countries

The hierarchy of geographic information is defined as following:
Region → Country → Market

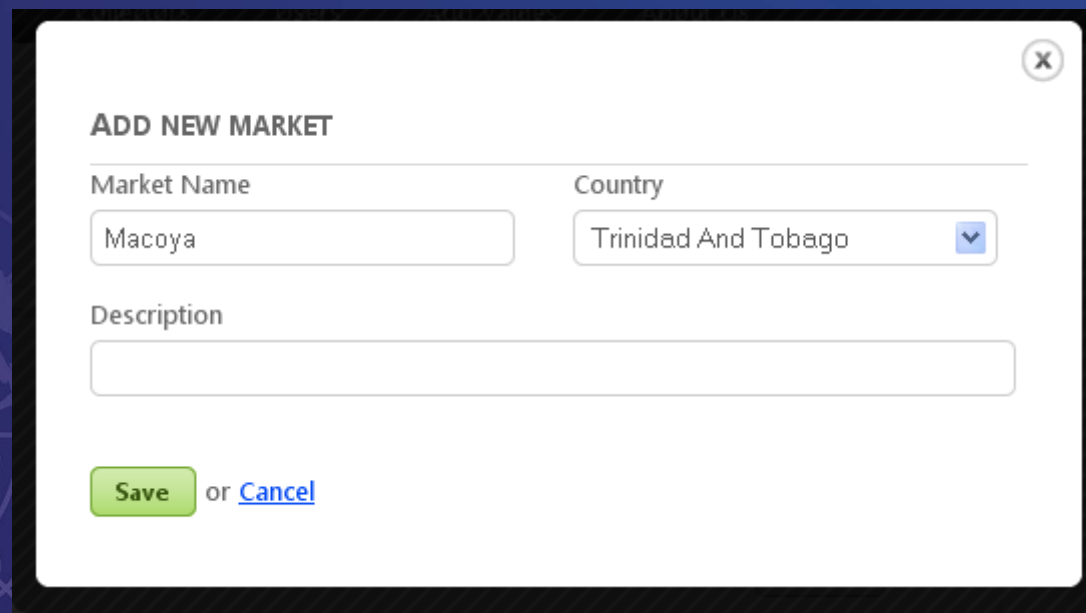
The scope of the project is Africa, Caribbean and Pacific (ACP, the regions considered). Then the suggested tree (first 2 levels) is :



In the system it is possible to enable/disable a country.

InfoShare Core - Markets

- Name
- Country
- Description (if needed)



ADD NEW MARKET

Market Name:

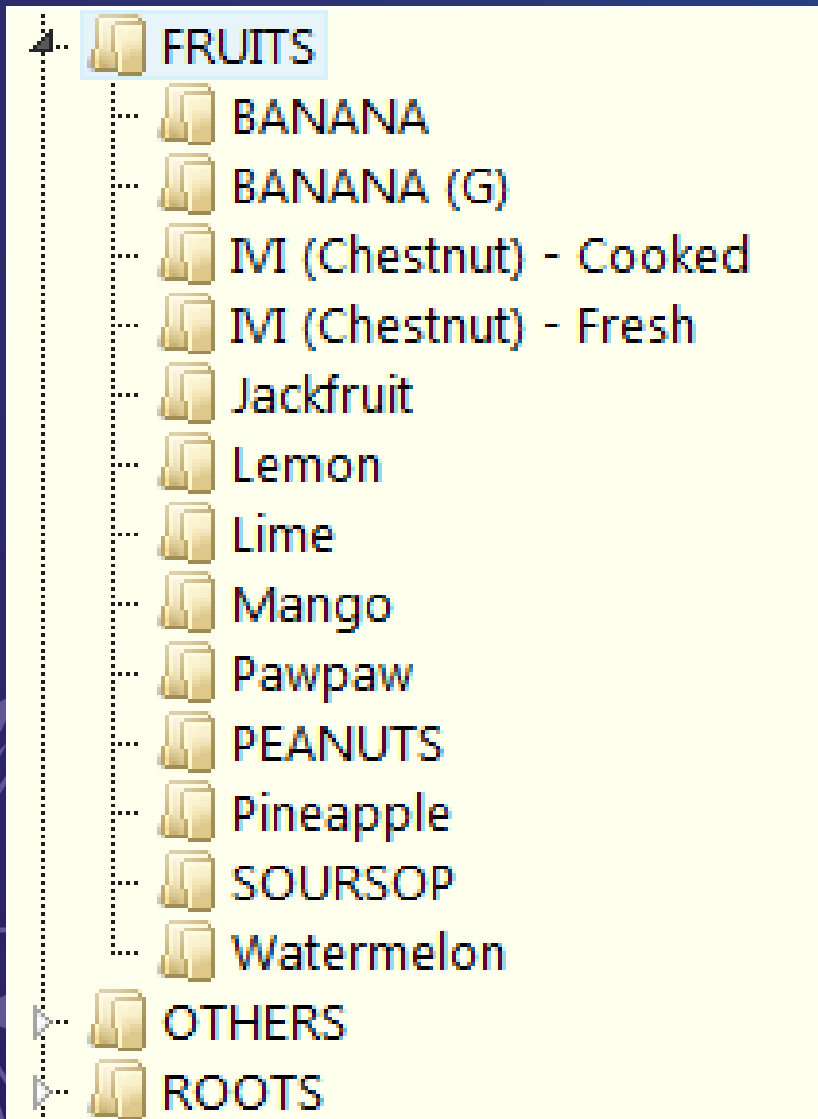
Country:

Description:

or [Cancel](#)



InfoShare Core - Products



Products are organized in 2 levels: the product group and the product name.

Product Group → Product Name



Main products

as agreed at the 32nd meeting of
COTED (Agriculture), Georgetown, Guyana, September 18, 2009

Small ruminants*: sheep

Small ruminants*: goats

Papaya

Hot pepper

Poultry

Sweet potato

Aquaculture

Vegetables*

Coconut (water)

Cassava

Golden apple

Red pea

Cow pea

Marine fish

* Groups of products



InfoShare Core - Variables

A variable is a combination of product, market, unit and currency.

Ex. For Market Macoya in Trinidad and Tobago and the product Banana, it is possible to have several variables: average price, production, etc.



InfoShare Core - Values

A “value” or “Data point” is the value of a variable for a specific day or time period.

Values are managed by collectors and they are visible to registered and/or un-registered users.

The interface for the final user permits:

1. To view data
2. To export data in csv format
3. To generate charts
4. It is possible to add other functionalities

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InfoShare Modules

Import from
external
MISs

Android
interface
(mobile
phones)

SMS
modules (2)

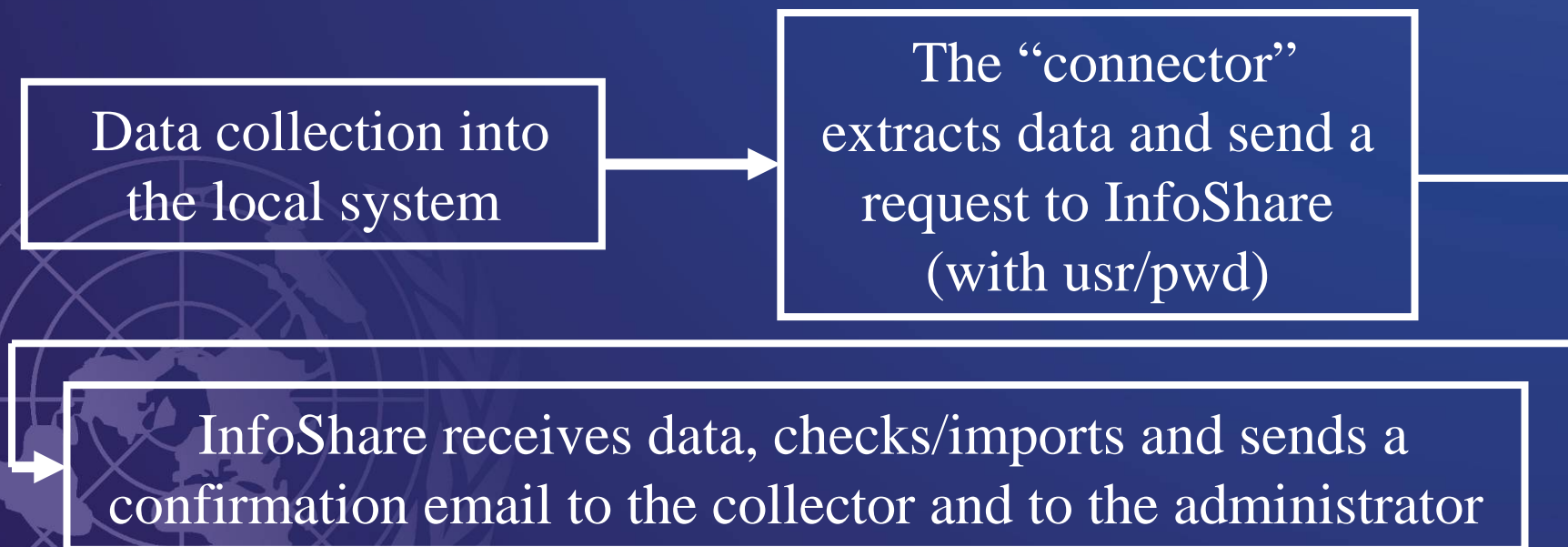
Report
Generation

Exchange
Rate Service

InfoShare Modules



- It is possible to upload data from an external system.
- A “connector” (software to “translate” the data in the right format) is needed



InfoShare Modules



Import from
external
MISs

- A local process (we can help to write the code, but we would need to know the technologies currently used) will send daily updates to an InfoShare web service in a standard format.
- The web service will be secured by using user and password (to avoid unauthorized upload of wrong data). A workflow to manage doubles, updates and different cases has to be implemented, but in the first phase we can transfer to the InfoShare database only new data (if a price is already in the database for a specific date, it is not updated).

InfoShare Modules



Variable code

Variable Code	Name	Date	Value
CTTM1BANAP	Banana – Market 1 – Average Price	01.12.2010	20

Where the variable code is

C TT M1 BAN AP

	Example	Description
Region	C	Caribbean
Iso 2-Digit Country Code	TT	Trinidad and Tobago
Market ID	M1	Market 1
Product Code	BAN	Product Name
Variable Code	AP	Average Price



InfoShare Modules



- It is possible to generate report using data stored in InfoShare in CSV/XLS/PDF format.
- The report are hardcoded (it is not possible to change without further development)
- If necessary, it is possible to develop a “Report generator” to permit the dynamic generation of reports.

To be analysed



InfoShare Modules



- There is the possibility to use a mobile phone (based on Android) to collect data or to view data

Collectors

The collector stores the data on the mobile phone and uploaded when a connection is disponible.

Users

Authorized data are downloaded locally when a connection is available and the user can navigate “off-line”



InfoShare Modules



For each country daily prices are displayed in local currency. The idea is to display the daily prices in tabular format and charts in the local currency and in USD (the USD conversion would allow to compare prices across countries). To do this (price conversion), we need to know the daily exchange rate and to do this we have 2 options:

- Manual upload (administrator?)
- Automatic gathering (and a system to gather exchange rates)

InfoShare Modules

Exchange
Rate Service

Country	Currency	Symbol	USD
Antigua And Barbuda	East Caribbean dollar	XCD	0.370370
The Bahamas	Bahamian dollar	BSD	0.994780
Barbados	Barbados dollar	BBD	0.490680
Belize	Belize dollar	BZD	0.496800
Dominica	East Caribbean dollar	XCD	0.370370
Grenada	East Caribbean dollar	XCD	0.370370
Guyana	Guyanese dollar	GYD	0.004860
Haiti	Haitian gourde	HTG	0.024690
Jamaica	Jamaican dollar	JMD	0.011600
Montserrat	East Caribbean dollar	XCD	0.370370
St. Kitts and Nevis	East Caribbean dollar	XCD	0.370370
Saint Lucia	East Caribbean dollar	XCD	0.370370
St. Vincent and the Grenadines	East Caribbean dollar	XCD	0.370370
Suriname	Surinamese dollar	SRD	0.364300
Trinidad and Tobago	Trinidad and Tobago dollar	TTD	0.158200



Email/SMS alerting (push)

« SMS
send »
module

A daily scheduled task
checks the SMSs to be send



InfoShare Server



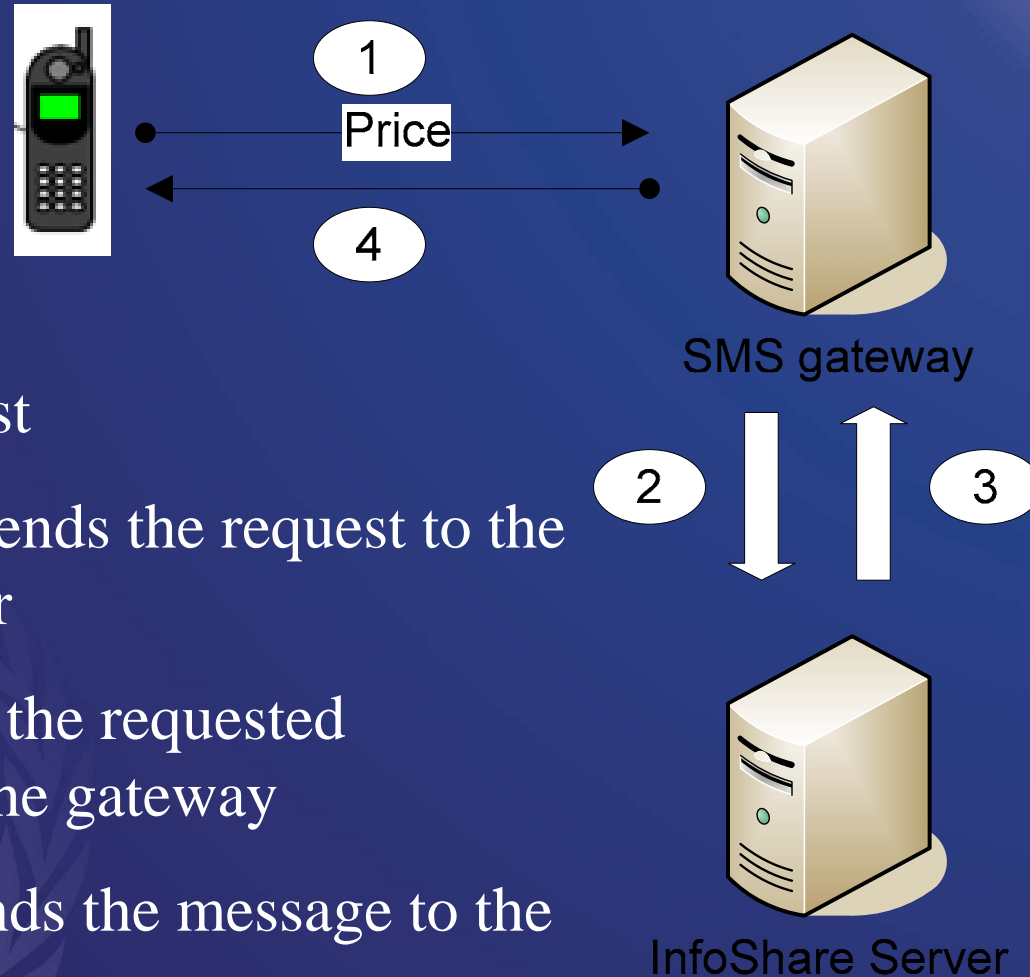
SMS gateway



The system cannot receive SMS

SMS on request (pull)

« SMS on request »
module



1 - SMS user request

2 - SMS gateway sends the request to the InfoShare server

3 - InfoShare sends the requested information to the gateway

4 - The gateway sends the message to the user



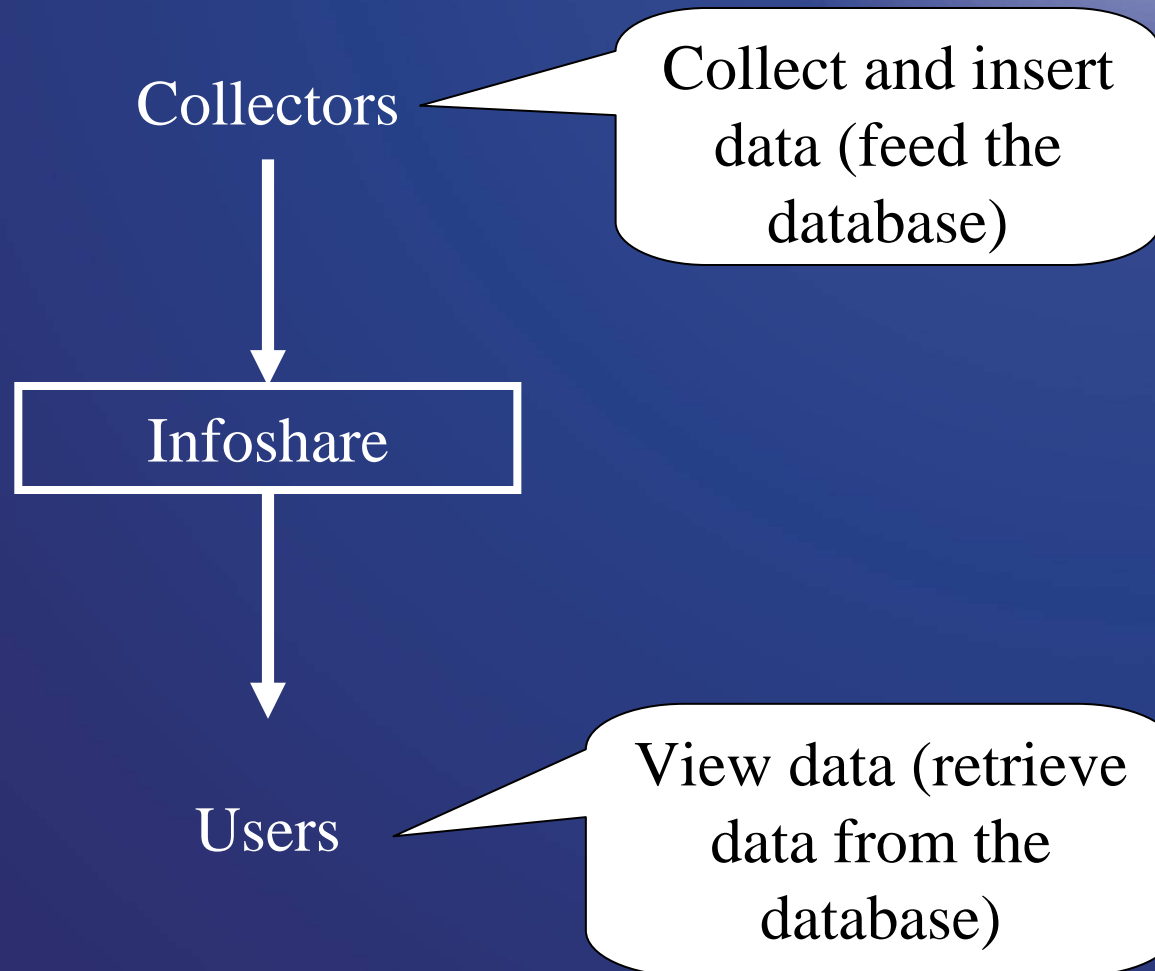
SMS on request (pull)

- Only registered (and approved) users can request information:
- To be defined/studied according to technical specifications:
 - output message format (ids of variables to be sent, syntax of the message, etc)
 - input message format (ids of variables to be sent, syntax of the message, etc)

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InfoShare Data Flows



InfoShare Workflows

Collectors – case 1

The collector goes to the local market daily (or weekly/monthly) with a form (see example)

The collector manually fills the paper form

The collector uses a computer and copies the data collected manually into InfoShare

InfoShare Workflows

Collectors – case 2 – Government collectors

Data are already collected and stored in an Information system

The collector exports data in a specific electronic format (TBD)

The collector imports the previously exported data into InfoShare

InfoShare Workflows

Users – case 1

Typical profile: user with an internet connection and sufficient computer skills

The user opens the InfoShare web page and views the variables values

- Advantage: it is possible to view documents and texts
- Costs: internet connection

[Pdf report](#)

InfoShare

Users – case 2

Typical profile: user with an internet connection and an email address

The user configures his profile to receive emails with data for one or more variables



The system sends an email according to the user requests (daily or weekly)

- Advantage: it is possible to receive documents and texts
- Costs: internet connection to check email

InfoShare Workflows

Users – case 3

Typical profile: user with a mobile phone, but without internet connection

The user goes to a Focal Point (internet connection) and subscribes/asks to subscribe to one or more variables

The system sends an sms according to the user requests (daily or weekly)

- Disadvantage: it is NOT possible to receive documents and texts
- Costs: to be defined: probably 1 sms will be charged

InfoShare

Users – case 4

Typical profile: user with a mobile phone, but without internet connection

To avoid unnecessary traffic (and costs), only mobile phone numbers authorized in the system can access this option

A **subscriber** sends an SMS from a registered mobile phone to ask the current « price » of a commodity

The system sends an SMS immediately according to the user request

- Disadvantage: it is NOT possible to receive documents and texts
- Costs: to be defined: probably 2 sms will be charged

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InfoShare

- MY QUESTIONS
 - Products
 - Regions
 - Information needs (prices, quantities, etc.)
 - Frequency (daily/weekly...)
 - Your impression

Survey

In order to plan the development and to choose the solution that fits your needs, I will ask you to fill a short “survey”.

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

Thank you !

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SMS Technical Solutions

- **Mobile phone directly connected to the server (or to a dedicated server)**
 - Cheaper 😊, but High maintenance costs ☹️
- **Local SMS gateway (which provider?)**
 - Costs to be discussed (annual subscription, cost for each user request, etc...)
- **Geneva based SMS gateway**
 - Costs to be analysed

QUESTIONS

- Target users technical skills (computer user, mobile phone, etc): if it is possible prepare a survey.
- Information needs and format (numbers, text, video..)
 - spot information /long data series; qualitative (eg farming practices, quality /quantitative (eg prices, quantities, stocks); ...
- Fiji internet availability/coverage
- Fiji mobile phones availability/coverage

Infoshare Cameroon

- Group /User permission

- Key element in Infoshare is the Administrator's ability to control the data displayed and the functionality offered by a page based on role/user visiting
 - User: the name (ID) of a specific person who has been granted access to the database. A user may have a number of privileges associated with it. A user may belong to one or more roles.
 - Role / Group: the name of a group of users that have a common set of privileges defined. Associating a user with a role, automatically gives the user the privileges defined for that role. The roles are central to the whole configuration design
 - Privilege / Permission: the right to visit a particular set of pages, to view the data displayed and/or to execute the functionality offered by a page.
- In granting privileges/permissions, the best practice is to use role-based permissions: you define privileges for roles and associate specific users with these roles. To retain flexibility, in Infoshare privileges can also be granted on a user-by-user basis

Technical details

- ASP.NET 3.5/4.0, C#;
- SQL Server 2005 (but it is possible to use a different provider if needed)
- GZIP compression for images, style sheets and scripts
- Ajax (asynchronous requests)
- Reduced http requests (css concatenation, js compression, sprites, ...)
- Tested on Firefox, IE8
- To be tested with the other browser