Concrete objectives of Streamlining production processes and tools on the example of the Republic of Kazakhstan

Jarkinbayev Zh.A.
Deputy Chairman

Saint-Petersburg, 4 October 2012
Plan of presentation

- Current organization of main business processes in Agency
- Quality Management System and business process governance
- Development of information systems
- Main conclusions
Organisational Chart of the Agency

Leadership

- Central office
  - Branch departments (6)
  - Strategic planning
  - Information technologies, classifications
  - Registries and publications
  - Staff, legislation
  - Finance
  - International cooperation
  - Internal audit

Regional departments (16)

- Local offices (184)

Calculation Center

- Regional affiliated centers (16)

- Local offices (184)
Business processes at different levels

Central office:
- Storage
- Data Validation and Aggregation
- Analyze
- Dissemination

Regional departments:
- Data collection
- Data input
- Data Validation and Aggregation

Local offices:
- Data collection
- Data input
- Data Validation
Main system of Questionnaires' processing

Output table1
Processing Storage

Output table2
Processing Storage

Output table3
Processing Storage

... Preparation of information for dissemination

Local computer complexes (около 150)

... Questionnaires (about 150)

Publications
Internet
E-mail
Quality Management System of Agency

- 2007 – start of works to implement the Quality Management System (QMS), that corresponds with the requirements of national standard ISO 9001

- Main purpose of implementation – creation of conditions for constant quality improvements of production and processes
Confirmation of compliance of QMS with the requirements of standards

Certification of Agency

2008
Compliance with national standard
СТ РК ИСО 9001

2011
Compliance with international standard
ISO 9001:2008
Results of QMS implementation

1. Quality policy and aims were developed and approved;
2. QMS documentation was developed and annually updates;
3. Main processes of statistical activities and their interactions were identified;
4. Users and staff are interviewed annually about their satisfaction;
5. Paperwork management was improved;
6. Responsibilities and authorities of departments and staff were shared.
QMS Process landscape

Management Quality System

Declared and expected user requirements

Planning of statistical activities

- Registry maintenance
- Classification maintenance
- Development of statistical toolkit
- Establishment of sample frame
- Coordination of activities to collect administrative data

Collection of primary statistical data

- Establishment of indicator system
  - Price statistics
  - Production and environmental statistics
  - Service statistics
  - Social and demographic statistics
  - Statistics of labor and standard of living
  - Structural statistics and leading indicators
  - Establishment of SNA indicators

Processing of primary statistical data

Dissemination of statistical information

Information infrastructure management

Users

Staff management
Main problems of QMS and business process management

- QMS is not fully integrated with general management system
- QMS compliance with requirements of ISO 9001 does not provide compliance with all specific requirements for statistical products and processes
- Lack of descriptions of some important statistical processes and procedures
# Problems of business processes

<table>
<thead>
<tr>
<th>Process</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data collection</td>
<td>Financial, labor, transport and time expenditures of respondents needed to delivery paper reports</td>
</tr>
<tr>
<td>Processing</td>
<td>Low efficiency, low productivity and risk of dubbing</td>
</tr>
<tr>
<td>Data development</td>
<td>Large waste of time from data collection till issue of publications</td>
</tr>
<tr>
<td>Analyze</td>
<td>Lack of analyze instruments (cartograms, diagrams, time series), as for users of statistical information and also for Agency staff</td>
</tr>
</tbody>
</table>

16 Regions

Regions/cities

Processing centers
Aims and tasks of Unified Information System «e-Statistics» for 2011-2013

**Aim**

Automation of processes of collection, processing and dissemination of statistical information

**Tasks**

- Enabling respondents to delivery statistical reports on-line
- Establishment and development of registry systems
- Upgrading of processes of processing and storage of primary statistical data
- Establishment of United Statistical database of the Agency
- Dissemination of information in non-legible form using modern IT-technologies
- Establishment of mechanisms of interaction and integration with information systems of government bodies
Architecture of «e-Statistics» system

Integration component

Information systems of government bodies

Registries

Collection of primary data

Reference information

Metadata

Classifications

Storage and processing

Data processing

Primary and administrative data repository

Aggregated data repository

Dissemination
Possibility of management from single «point» by facilities and tools of collection, processing and dissemination (publication) of statistical indicators.

Description of output indicators (metainformation on statistical indicators for users)

Service metadata, used by technical specialists

Description of registry system attributes

Description of used classifications, nomenclatures and reference books

Description of requirements for creation of respondent catalogue.
**Aim:**
On-line use of all forms of statistical reports

- **2011** - form 1-BT, 1-TC
- **2012** - 65 forms
- **2013** - 120 forms
- **2014** - about 140 forms

- Reduction of financial, labor, transport and time expenditures of respondents
- Elimination of administrative barriers
- Reduction of data input error risks
- Possibility to choose necessary positions from drop-down reference books and classifications
Information Analytical System “Taldaw”

IAS «Taldaw»

Statistical information is AVAILABLE to all users AT ANY SUITABLE TIME

Permits to establish HIS OWN TABLES, DIAGRAMS, MAPS, PLOTS from из needed indicators

Provides review and work with ~ 2000 statistical indicators

Each user can establish his own PRIVATE CABINET, that permits to store and automatically update statistical information

Permits to carry out EVALUATION of statistical indicators
Information Analytical Environment of government bodies (IAE GB)

Aim: establishment of unified approach to develop statistical data and to organize intergovernmental data exchange in unified format.

Tasks:
- revaluation of branch classifications and reference books in accordance with the Unified methodology of carrying out branch classifications;
- description of indicators in IS Metadata;
- mutual approval by government bodies of their methodologies on calculation of indicators of branch statistics and administrative accounting;
- development/adaptation of information systems of government bodies in accordance with requirements of development IAE GB and for integration with UIS «е-Statistics».

Plans:
- 2012-2013 – advancing, analytical and methodological works;
- 2014 год – establishment of IAE GB.
Main conclusions

- Necessary to adapt the Quality Management System of Agency in accordance with Standard general principals of quality

- Quality Management System of Agency should meet the requirements of GSBPM

- Development of information systems of Agency has to take into account and fit to applied model of business process management. Necessary to study GSIM model

- Organizational chart of the Agency must be должна быть optimized in accordance with the modern requirements of organization of statistical activities
Thank you for your attention!