Study visit of PEMPAL Treasury Community of Practice (TCOP)

_____

Seoul, South Korea

On March 25-27, 2015, representatives of PEMPAL Treasury Community of Practice went on a study visit to the Ministry of Strategy and Finance of South Korea. The event was attended by 23 TCOP representatives from eight countries (Albania, Azerbaijan, Belarus, Georgia, Kazakhstan, Moldova, Russian Federation and Turkey). The visit was conducted in accordance with the Action Plan of the thematic group on "Use of Information Technologies in Treasury Operations". The main purpose of the visit was to learn about the main features of "dBrain" information system used in the public finance management system of South Korea. During the visit, members of the TCOP were presented extensive information on PFM reforms implemented in South Korea in several areas (budget planning, cash management, public procurements, etc.).

The study visit was held with the support of TCOP resource group of the World Bank. Administrative support was provided by specialists of the Center of Excellence in Finance from Slovenia. Agenda of the event is presented below.

South Korea SV Agenda_ENG_RUS.do

The event started with welcoming address of the Deputy Minister of Strategy and Finance of South Korea Mr. **Noh, Hyung-ook,** who thanked participants of the visit for their interest in public finance management system of his country. He noted that the Government of South Korea pays special attention to strengthening of the national fiscal system, also because it is an efficient way to resist global and regional financial crises. Financial crisis of 1997 in South-East Asia was the starting point of comprehensive reforms of public finance management system in South Korea, as this crisis had serious negative impact on national economy and budget system of the country. One of the most important steps toward strengthening of the national PFM system and making it more efficient was implementation of "dBrain" information system. Mr. Noh Hyung-ook confirmed that his colleagues are ready to share their experience in the system development and implementation and are ready to share any other information related to PFM reforms in their country. **Mr. Vugar Abdullaev,** the Chairman of TCOP, thanked representatives of the Ministry of Strategy and

Finance of South Korea on behalf of all participants of the study tour. He extended gratitude for their consent to host delegation of the Treasury Community of practice. He noted that TCOP members are very much interested in PFM reforms in South Korea and in "dBrain" information system. PEMPAL Team Leader **Ms. Elena Nikulina** also expressed gratitude to the hosts and mentione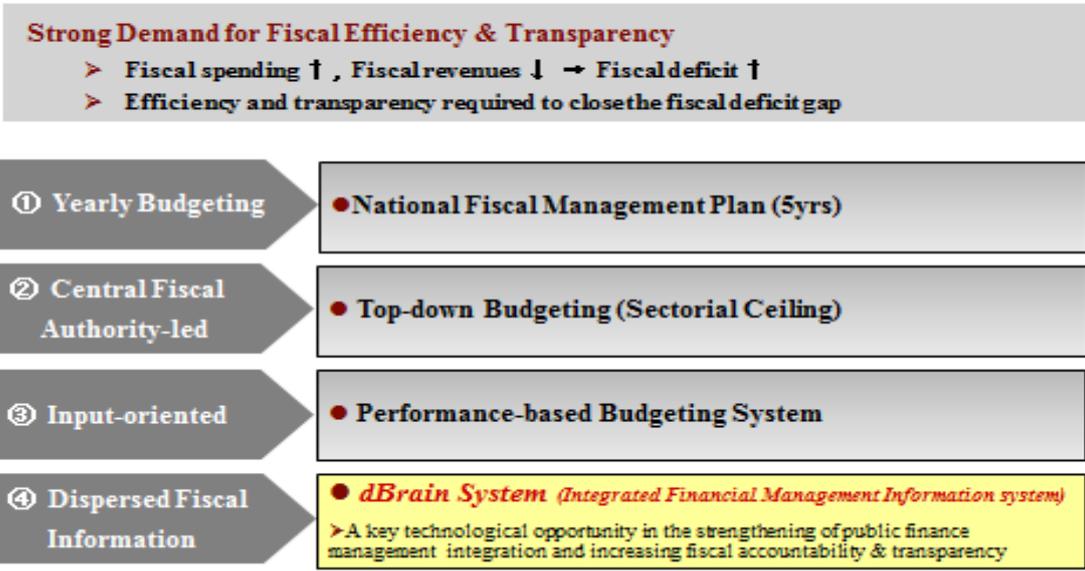d that the interest of the TCOP members in the PFM information system in South Korea is caused by the leading position of this country in information technologies development and their application in various spheres of public sector management. TCOP members have had an opportunity to learn about certain features of "dBrain" system at two seminars where experts from South Korea were invited. Information presented at those events generated even more interest in the system from the part of TCOP members, that is why this visit was organized to study "dBrain" at detail. Ms. Nikulina also mentioned that the Ministry of Strategy and Finance of South Korea is an important partner of the World Bank, and provides significant financial resources to support joint programs with the World Bank, including PEMNA program that was set up on the model of PEMPAL for the countries of South-East Asia. The Team Leader of PEMPAL noted interest in discussing similar support from the part of the Ministry of Strategy and Finance of South Korea also to PEMPAL program.

After the completion of the welcome session, the participants visited specialized center responsible for information security of "dBrain". Representatives of the center made brief presentation about main approaches and information security policies in the public finance management system of South Korea.
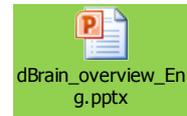
After brief session on information security, Mr. **Bae Sang Rock,** Director of Fiscal Information Division of the Ministry of Strategy and Finance of South Korea made presentation in which he provided general information about "dBrain" system and the history of its development. Financial crises of 1997 and 2008 urged the government to implement comprehensive fiscal reforms aimed at fostering robustness of the public finance system of South Korea towards such risks. The slide below reflects four main priority areas of the reforms implemented in public finance system of South Korea.

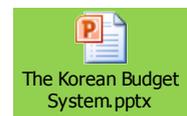I – 3. Four Key Fiscal Reform Initiatives in Korea

Strong Demand for Fiscal Efficiency & Transparency
➢ Fiscal spending ↑ , Fiscal revenues ↓ → Fiscal deficit ↑
➢ Efficiency and transparency required to close the fiscal deficit gap

① Yearly Budgeting → ● National Fiscal Management Plan (5yrs)

② Central Fiscal Authority-led → ● Top-down Budgeting (Sectorial Ceiling)

③ Input-oriented → ● Performance-based Budgeting System

④ Dispersed Fiscal Information → ● *dBrain System* (*Integrated Financial Management Information system*)
➢ A key technological opportunity in the strengthening of public finance management integration and increasing fiscal accountability & transparency

One of the main directions of the reform was development of "dBrain" system designed to ensure higher efficiency of public finance management and foster budget accountability and transparency. Mr. Bae Sang Rock divided presented information into 5 main blocks: (i) system development and implementation; (ii) functioning of the system; (iii) main achievements; (iv) plans to further develop the system; (v) lessons learned. Detailed information on all these sections is available in the attached presentation. Extensive information on "dBrain" role in the reform of the PFM system in South Korea (in English) is also presented in the brochure on the website of the Ministry of Strategy and Finance here:
https://eng.digitalbrain.go.kr/dotumbook/DuBook.jsp?pid=bdo10040&page=0
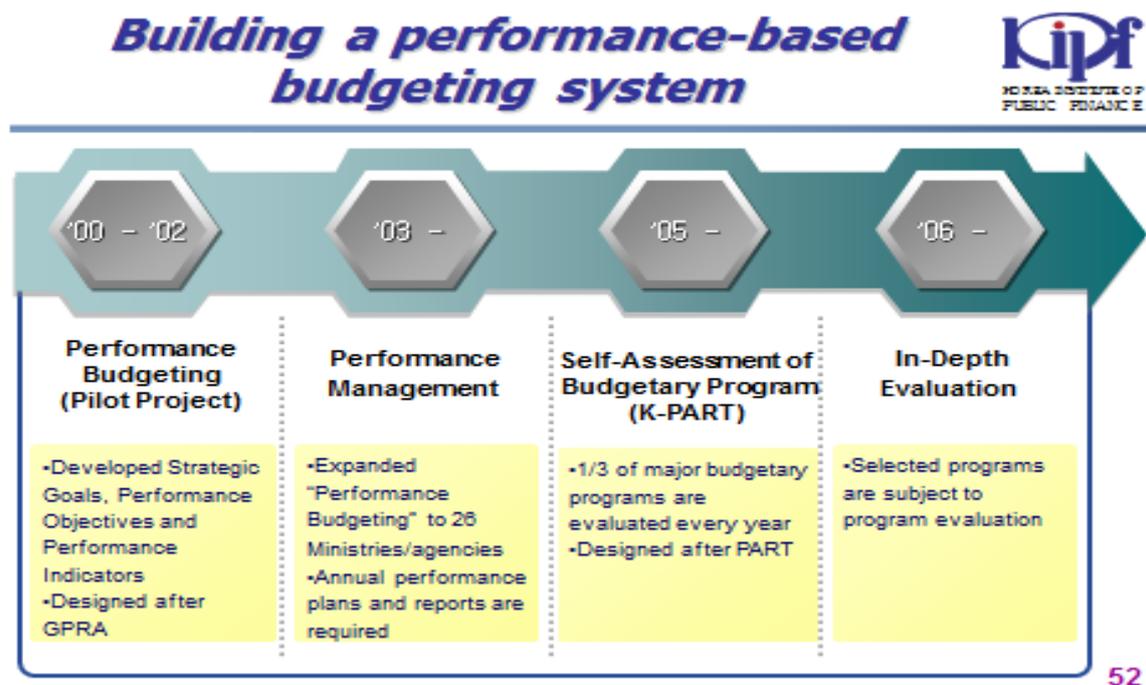
At the end of his presentation, Mr. Bae Sang Rock noted the interest of the Ministry of Strategy and Finance of South Korea to deepen bilateral relations with the Ministries of Finance of other countries, which would promote exchange of information and experience in implementation of the reforms aimed at strengthening the efficiency of public finance management. Currently, Memorandum of Understanding have been signed with five countries from different parts of the world (including with the Russian Federation) and Mr. Bae Sang Rock proposed PEMPAL member-states who took part in the study tour to consider possibility of signing respective agreements with South Korea. Such agreements would provide PEMPAL state-members additional opportunities to study the experience of South Korea and to have mutually beneficial exchange of information in the area of PFM.

Mr. John Kim, Head of PEMNA, representative of the Institute of Finance of Korea made presentation "Korea's Budget System Overview". In his

presentation, Mr. Kim provided very interesting review of the budget system of South Korea, its evolution during last fifty years, as well as review of the main reforms implemented in the area of public finance management. Special focus was made on specific features of economic and budget planning in the country, similarities and differences with budget models of other countries, and plans for future reforms of the budget system of South Korea. One of the distinctive features of the Korean model is concentration of authorities of economic planning and budget policy in one ministry (Ministry of Strategy and Finance), which facilitates better correlation of economic development plans with the financial capacity of the country. For a long period, budget planning was aimed at restoration of the economy after the war, and at that time, the concept of "planning oriented at ensuring financing" was developed. Starting with reforms in late 90-s, South Korea began active implementation of modern budget planning methods. Currently, according to the OECD assessment, the country is one of the global leaders in midterm planning and performance budgeting. Different stages of performance budgeting implementation in South Korea are reflected in the slide below.

The presentation was followed by Q&A session, where participants of the study tour got exhaustive information on specific features of midterm budget planning in South Korea, main lessons learned in the course of PFM reforms implementation, interrelation between short-term annual planning with midterm and long-term development plans, etc.

The morning session of the second day was dedicated to the demonstration of annual budget preparation in "dBrain" information system. Based on a specific example, **Mr. Park,**

Choong-yeol, Head of Budget Operations of „dBrain" Operation Team demonstrated all the stages of budget planning directly in the system. He demonstrated all the steps necessary for generation of the budget request for the next financial year, possibilities to modify budget request, generation of request on budget execution in the previous fiscal year and review of the respective response on budget funds utilization in the previous fiscal year, registration of the budget request, as well as possibilities to generate and print reports. All the stages of budget planning in "dBrain" information system are reflected in the following slides. The attached WORD file contains descriptions to these files.

[Session 3] dBrain demo_Budget Plannin   [Session 3] dBrain demo_Budget Plannin

During the demonstration, the participants raised some questions, which are briefly presented here.

B: Is information only from dBrain used for planning purposes or from other sources as well?
O: Information from other sources is also used, but only offline.

B: *Is dBrain used at all levels of the government during the budget process, or only at the central level?*
O: *Only at the central level, but aggregated budget information from local governments is also uploaded (depending on the type of information it can be uploaded on-line or during the day).*

B: *What confirms legal validity of the document in the system?*
O: *A separate system is used for internal communication between various institutions, while legal status of the documents generated and sent via dBrain system is assigned automatically.*

B: *When investments are planned in assets, where do you get information on costs (are there any price catalogues)?*
O: *This information is included in the system (G2B) used by Public Procurements Agency that is connected to dBrain system.*

B: *Is dBrain system installed in spending units (hospitals, schools)?*
O: *Various categories of users have different access to "dBrain" system.*

B: *How data is entered into "dBrain" system?*
O: *Persons responsible for the respective projects enter data into the system both manually and automatically.*

B: *How many ministries are there in South Korea?*
O: *17 ministries. In addition, there are various central government agencies and departments (36).*

B: When is the Law on budget published, what is the level of detail of information. What is the level of detail upon approval by the Parliament?
O: As a rule, during approval by the Parliament and publication the details are provided at the level of programs. However, there are many cases, when information is presented at the level of a project.

B: Can the budget be amended during the year? If so, how does it take place and how frequently can it be amended?
O: The budget can be amended by adoption of a supplementary law by the Parliament, the draft of which is drawn up in accordance with the procedure set forth for the Budget Law.

In the afternoon, there was Questions and Answers session on design and functional aspects of "dBrain" system. Brief review of the questions and respective answers is presented below.

B: What is the number of the system users?
O: About 65000 individual users use 'dBrain" system.

B: What is the ratio between short-term and long-term projects?
O: The share of short-term projects (1-2 year) is about 10% of the total number of the projects. Feasibility study is mandatory for the projects for the amount exceeding 50 mln won.

B: What type of database is used?
O: Currently, Oracle database management system is used.

B: What document format is used for document exchange with other systems?
O: XML format and web service are used

B: Do other ministries and central authorities use their own servers or do they use only the servers provided by the central government? Are cloud technologies used for data storage?
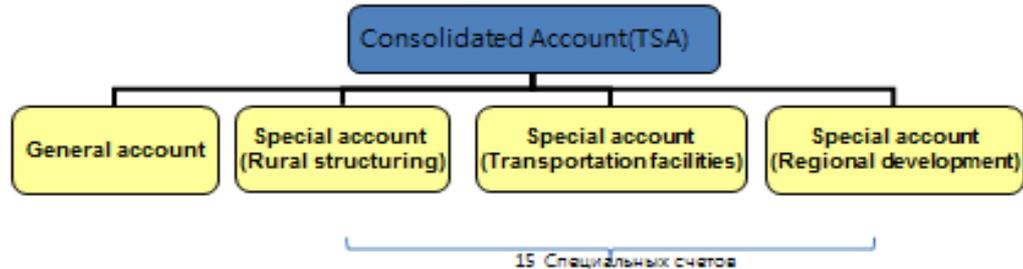*O: Some agencies have their own servers for information storage, but their capacity is not big, and the main bulk of information is stored on the servers of the central government (there is data center that is subordinate to the Ministry of Administration. This center also serves as hosting for "dBrain" system).*

The third day of the study tour started with the presentation on the experience of South Korea in cash management. Participants were informed about approaches used for budget funds projection and allocation, single treasury account, actions in situations of funds shortage, available instruments for cash management, as well as about integration of cash management and debt management functions. The main features of the STA system used in South Korea are presented on the slide below.

II. How to operate TSA (Treasury Single Account)?

- All the government cash is converged Consolidated Account(=TSA)
- TSA introduced in 2005 to manage efficiently all government cash by minimizing idle money
- Consisting of general account and 15 special accounts(excluding 3 accounts*)
  - * Postal Insurance/Postal Saving/Grain Management special accounts

Consolidated Account(TSA)

| General account | Special account (Rural structuring) | Special account (Transportation facilities) | Special account (Regional development) |

15 Специальных счетов

- The unified structure of government bank accounts composed of 7,200 sub-accounts under General Account & each Special Accounts.

The presentation was followed by Q&A session.

B: *What is the procedure for fines exaction in case the funds were not used?*
O: *No fines are imposed if budget funds are not used. Various sanctions are imposed like withdrawal of non-used funds. Amount of allocations for the next year can be reduced. These transactions are automatic.*

B: *Are borrowings in foreign exchange possible?*
O: *Yes, borrowings in foreign exchange are allowed, including by issuance of securities denominated in foreign exchange.*

B: *Approaches to placement of temporary surplus?*
O: *When these surpluses appear, a contract is concluded for the specific case with one of three agencies selected for this purpose (KBB Bank, Industrial Bank and Investment Bank). Treasury with the help of "dBrain" system transfers respective free funds to these agencies for management. Usually the period of management of these funds does not exceed 1 month. Afterwards, the agencies report on the procedure of investing these funds provided by the treasury. Proceeds gained by the agencies in the course of these funds management are transferred to the government in full. Remuneration for the services on management of free funds is commission fee paid by the government to these agencies.*

B: *Do these agencies take the risks related to investment of the funds received from the government?*
O: *These agencies invest government funds at rather low rates, but with very high level of security, that practically excludes any loss risks.*

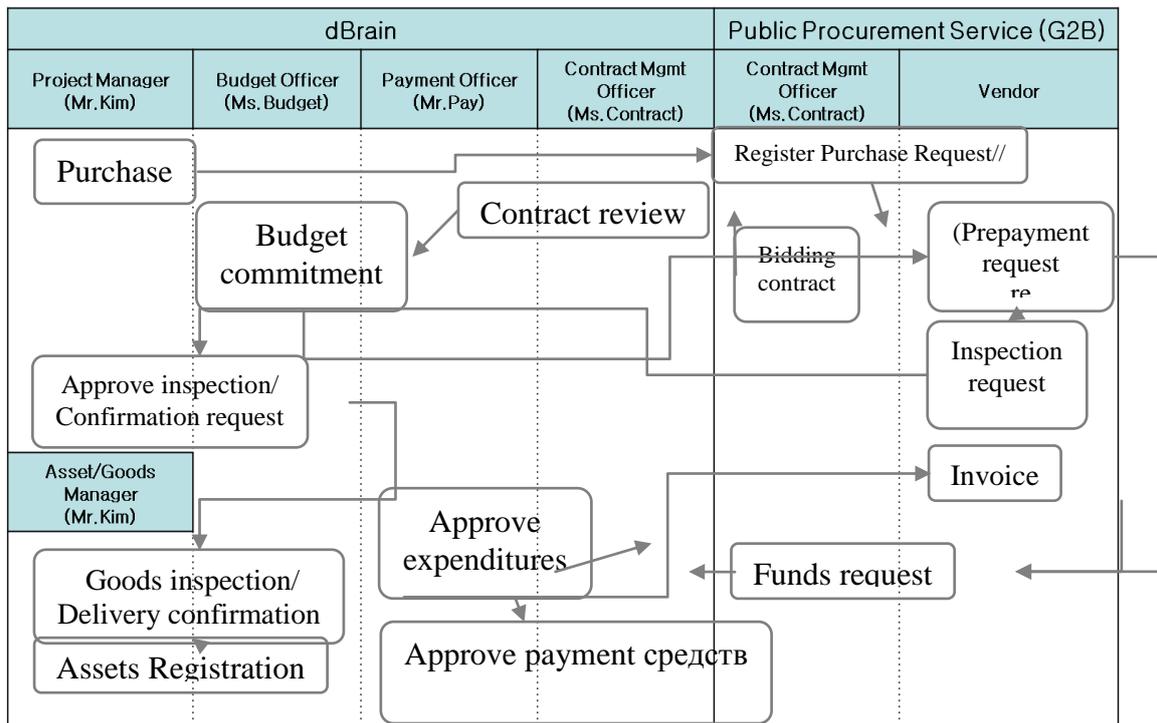B: *Is there a separate module in dBrain for cash management?*

O: There is no such module, because all transactions are executed by the bank of Korea. However, all the information related to budget funds can be seen in "dBrain" system.

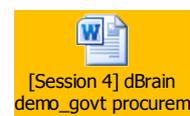*B: Are transfers to local governments made through dBrain system?*
O: Yes, transfers from the central government to local governments are made through the system.

Afternoon session started with demonstration of spending process that includes public procurement stage via "dBrain" information system. Below, the graph reflecting spending process is presented. It includes execution of public procurements by means of interaction of two information systems, namely, "dBrain" and G2B information system used by the State Procurement Agency.

Government Procurement Process – Asset Purchase (G2B(Electronic) Contract)

Detailed information about all the stages of these processes is presented in the inserted WORD file, which contains screenshots of pop-up windows in the course of procurement, as well as descriptions of these screenshots.

[Session 4] dBrain demo_govt procurem

During Q&A session that followed demonstration, participants asked, amongst others, how lists of suppliers of goods and services is compiled (it is done by the Public Procurement Agency); how procurements are made in case of unexpected failure of "dBrain" system (availability of government Database Center practically excludes any risks related with failure of "dBrain" system. In addition, there is a special protocol in case of emergency, which stipulates clear actions on damage control. Special trainings are held on monthly basis); there were questions about format of purchase contracts (contracts are standardized, standard contract forms are developed and supported by the Public Procurements Agency), etc.

After the discussion, the participants noted that information systems used in South Korea have very well developed functionality related to integration of procurement process in the course of execution of the budget expenditures, and constitute best international practice in this respect.

During Q&A session, representatives of the Ministry of Strategy and Finance noted that starting from the moment "dBrain" system was commissioned it was constantly upgraded and improved and currently it represents integrated FMIS that encompasses all ministries of South Korea.

One of the issues that is being analyzed right now is transfer from licensed software to "open source" with the aim of reducing costs for the system development and maintenance.

The final session of the event was held in the form of the meeting of TCOP thematic group "Use of Information Technologies in Treasury Operations". The main purpose of the meeting was discussion of plans of future activity of the thematic group. As a result of the discussion, decision to organize videoconference in June 2015 was confirmed. Experience of Georgia in implementing public procurements through information system of Public Procurement Service of Georgia will be presented. Also, given that the Action Plan of TCOP envisions a small workshop on information technologies in treasury operations, decision was made that before May 1, 2015, members of the thematic group would present their proposals on the topic, dates and venue of the event (by means of traditional online evaluation survey that will be held after the visit to South Korea). Action plan of this thematic group will be reviewed in line with the decisions made by the group members in Seoul.