PFM Reform: Introduction of new Budget and Accounting Classification System (BACS) in Bangladesh

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Abstract

Bangladesh Government has been pursuing its PFM reform activities since its independence. One of the reform outcomes was to design and develop 13 digit Chart of Accounts in 1998 under the RIBEC project. Since this13 digits code was not capable of dealing with further reform of PFM system it has been abandoned and replaced by a newly designed and developed 56 digits Budget and Accounting Classification System (BACS). This study considered the effectiveness of the new BACS and found it quite effective to produce improved PFM outcome. The new Chart of Account follows the fundamental principles to be followed in its design and development. It is capable of - adopting accrual accounting system in government; implement International Public Sector Accounting Standard (IPSAS), produce General Finance Statistics (GFS) as per IMF requirement and produce COFOG report as per United Nations requirement. Further research areas on the implementation of BACS have been identified. This paper also highlighted on some challenges faced by the stakeholders during the implementation of new BACS and recommended some measures to be undertaken to address these challenges.

PART I
INTRODUCTION

Background

Public Financial Management (PFM) reform is a key factor for improving the governance, accountability and transparency in Bangladesh (Finance Division, MoF, 2018). Successive Governments have been continuing Public Financial Management (PFM) reform activities since the independence of Bangladesh. However, the present phase of PFM reform as reported by Finance Division, MoF (2017) began with the formation of Committee on Reform in Budgeting and Expenditure Control (CORBEC) in 1989. On the basis of recommendation of this committee Reform in Budgeting and Expenditure Control (RIBEC) project funded by DFID was launched in 1995 and ended in June 2002. RIBEC has introduced 13 digits new digital classification chart in 1998 to facilitate automation process of government accounting system in Bangladesh. Thereafter, Financial Management Reform Program (FMRP) was launched in 2003 and continued its operation until September 2009. FMRP launched in-house grown Integrated Budget and Accounting System (iBAS) software for automating government budget and accounting functions across the country. iBAS was a Local Area Network (LAN) based automated system that established links with DCA/DAO/CAO offices throughout the country. This project was followed by Deepening of Medium Term Budgetary Framework (DMTBF) and Strengthening of Financial Accounting Projects under Strengthening Public Expenditure Management Program (SPEMP) in April 2009 funded by multi-donor Trust Fund. The new Budget and Accounting Classification System (BACS) was developed and upgraded version of Integrated Budget and Accounting System ($iBAS^{++}$) has been designed under these projects. However, the newly developed 56 digits BACS and ($iBAS^{++}$) were not implemented until July 2018. After the end of the SPEMP program, GoB continued the reform initiative under GoB funded Public Expenditure Management Strengthening Program (PEMSP) since 2014. Under this program, the government of Bangladesh implemented newly developed Budget and Accounting Classification System (BACS) along with the advanced version of Integrated Budget and Accounting system ($iBAS^{++}$) in 2018. Many experts consider introduction of BACS and $iBAS^{++}$ as a land mark events of PFM reforms in Bangladesh. Part I of this article provides some back ground and introduction regarding the study. Part II briefly reviewed the available literatures on the Chart of Account. Part III briefly described the methodology of the study. Findings of the study including reasons for abandoning 13 digits codes, structure of the new BACS, strength of new BACS, implementation challenges, further research requirement and recommendations are briefly stated in Part IV of this article. A brief conclusion has also been included at the end of this report.

Objective/Research Question

Although reform is a continuous process, a pertinent question may be raised as to why it was necessary to abandon the existing 13 digits coding system within 20 years of its implementation.

The specific objectives of this study are:

a. to find out the root causes that compelled the government to abandon the 13 digits budget and accounting classification system within 20 (twenty) years of its introduction in Bangladesh; and
b. to examine the strengths and weaknesses of new 56 digits BACS and find out any challenge (if any) that the users are facing during implementation of new BACS in budgeting, accounting and reporting process.

PART II
THE CONCEPTUAL AND THEORETICAL FRAMEWORK

Importance of Public Financial Management (PFM) system

A variety of stakeholders use government financial data for different purposes such as formulating policy and making decisions on sectoral allocation of funds, monitoring the performance of various government programs, establishing accountability for budgetary compliance and analyzing overall economic impact of government policies. Citizens and civil societies generally ask some basic questions regarding public finance, such as, where the resources came from, for what purpose they were applied, who was responsible for resource mobilization and utilization, and what was achieved. PFM scholars like Jacobs et al (2009) and Saxena et al (2014) suggest that a well organized and systematic classification of budget and accounts is supposed to address these questions and allow a meaningful analysis of the government's use of public resources. Cooper and Pattanayek (2011) argued that timely delivery of specific financial information on government activities is an important function of an effective accounting and reporting system. They also suggest that a well functioning PFM framework should include an effective accounting and financial reporting system to support fiscal policy analysis and budget management. The accounting and reporting system should capture, classify, record, and communicate relevant, reliable, and comparable financial information for proper budgetary accounting and diverse reporting including reporting of actual against approved budget estimates. It should also be capable of producing general purpose financial reporting and adequate management information and statistical reporting.

The Chart/Code of Accounts (COA)

Chart of Accounts, Code of Accounts (CoA) and Classification Chart are synonymous terms often used in accounting and public finance literature. Cooper and Pattanayek (2011) termed Chart of Accounts (CoA) as a critical element of Public Financial Management (PFM) for classifying, recording and reporting information on financial plans, transactions and events in a systematic and consistent way. Saxena et al (2014) considered CoA as the linchpin of a government's accounting and reporting system and serves as a key tool to meet its business requirements. Budget and Accounting Classification Manual (FD, MoF, 2017) termed the newly developed 56 digits CoA as Budget and Accounting Classification System (BACS). CoA establishes basic foundation of general ledger based double entry accrual accounting system. Configuration of CoA represents the hierarchical structure of groups of classifications (segments) of information requirement. Each segment has discrete information and can be combined with the others to create financial reports and enforce controls with a view to meeting the needs of various users and complying with the laws and regulations in the PFM area. For effective management, the CoA should cover all transactions flows and balances (stocks) of the reporting entity for budget management and general purpose financial reporting (Saxena et al, 2014).

Cooper and Pattanayek (2011) observed that the CoA's definition and use in government systems are influenced by different PFM tradition. Countries have developed different approaches to address the information requirements of governments and as a result actual practices differ across countries. This is also due to the fact that each country based on its legal and administrative tradition, needs to have system that caters to specific control and information requirements for government budget management. Since constitution of Bangladesh distinguishes between charged expenditure (not voted) and other expenditure (voted) and therefore Bangladesh CoA must be able to comply with this constitutional requirement. This compliance may not be required for many other jurisdictions.

Major objectives of Chart of Accounts (CoA)

Saxena et al (2014) suggest that an ideal CoA should meet the following seven major objectives:

Control: CoA need to focus on various control mechanism such as budget appropriation control e.g. budget versus actual; fund control e.g. consolidated fund and other special fund such as public accounts of the republic and other fiduciary control.

Accountability: Under the PFM system the government is accountable to general public at large through parliamentary accountability mechanism. Executive agencies such as ministries, divisions and departments are accountable against their allocated responsibility to the government. This can be achieved by tracking the transactions related to each administrative entity through an appropriate audit trail. CoA configuration need to respond to these accountability requirements.

Budget management: It refers to formulation, execution, reporting and day to day monitoring of budget. Implementation of comprehensive system of budgetary accounting for tracking budget allocations and their uses at each stage of the expenditure cycle should cover any increase or decrease of budget allocations during the year through supplementary budget authorizations, expenditure commitments and other financial obligations.

Financial planning and Management: For effective financial planning, cash management, and assets and liabilities management CoA design must focus how the assets and liabilities should be categorized and, at what aggregated level the cash and liquid assets should be monitored.

Management Information: All line agencies may not require same level of detail and disaggregated information for day to day decision making, therefore it may not be necessary to track such information for the whole of government. Rather, the individual line agency should be able to track such detail information by using their own detailed accounts codes as long as these are linked to higher level codes which are used for consolidation of accounting data across the whole of reporting entity.

General Purpose Financial Reporting: The accounting system should be able to prepare financial statement and reports in accordance with national and international accounting standards such as International Public Sector Accounting Standards (IPSAS). General purpose financial statements need to be prepared for different users such as public, parliament, creditors/ donors with adequate information regarding the financial reporting entity.

Statistical reporting: Statistical reports such as General Finance Statistics (GFS) need to be generated for macro economic analysis, international comparisons and reporting to international organizations such as IMF. A Chart of Accounts compatible with the IMF General Finance Statistics Manual (GFSM) is therefore, desirable for ensuring auto generation of GFS compliant report from the same accounting information.

Key Principles and Factors for Designing the Chart of Accounts

Saxena et al (2014) identified three basic principles of classifications of chart of accounts. These are homogeneity, independence and comprehensiveness. Cooper and Pattanayek (2011) also agreed to these three basic principles and added some more factors that need to be considered in designing a CoA. These principles and factors are briefly discussed below:

Comprehensiveness: The CoA should be comprehensive enough to capture all required information and needs to reflect not only the budget framework but also the accounting framework. Budget classification should not be different and should be embedded in government accounting classification. The accounting and reporting system should be the primary source of financial information for reporting on budget execution. However, the accounting and reporting system may have additional classification to meet the financial management needs and comply with accounting standards.

Adequate granularity: The segments and sub-segments of CoA should be designed to facilitate many possible combinations of data elements necessary for control and reporting purpose. Each segment should have sufficient data to meet all control and accountability, management, and reporting needs of various stakeholders.

Independence: Each classification should have defining characteristics that are different from and independent of the others.

Avoiding redundancy: There is no need for independent segment in the CoA if the related information could be derived from another segment. Where there are multiple classifications, it is useful to explore the relationship between those classifications. The requirement of GFS classification can be derived from economic classification and the United Nations Classification of Function of Government (COFOG) can often be derived either from the administrative classification or the program classification. It also helps to reduce the volume of data capture which in turn reduces the chances of data input error.

Homogeneity: Each of the classification schemes should have a unique set of defining characteristics to which every transaction must comply. Homogeneous numbering system and structure helps make CoA user friendly and reduces chances of coding errors.

Unified Framework: A unified CoA is configured with a hierarchical set of linked codes based on parent-child relationships, with lower level codes being used by individual accounting units and higher level codes used for consolidation of financial information.
Sometimes individual accounting units require some flexibility in designing their own specific accounting codes at a detailed level to capture specific information for internal management and control of their units. However, the CoA framework should be unified to ensure that at least the information at the aggregated levels uses the same accounting classification to ensure consistency between the two sets of accounting data.

Scalability: The CoA should be flexible for future additions and changes as far as possible. It should be capable of capturing additional data in future, particularly when such information has been identified as part of an ongoing PFM reform program. Providing room for growth can help ensure a CoA remains relevant for a long period of time as the business environment, regulatory requirement and reporting needs evolve.

Standard Classification of Government Fiscal Operations

Jacobs et al (2009) argues that governments typically classify fiscal data on more than one attribute. Cooper and Pattanayek (2011) also agreed to this notion and identified the following classifications that are essential for controlling, managing and reporting on the implementation of government budget:

A**dministrative classification:** CoA has to be classified according to the administrative unit responsible for collecting revenues and utilizing funds (e.g., the ministry of education, health, etc., and at a lower level, schools and hospitals etc.). A typical administrative classification is organized into multiple levels of hierarchy, such as ministries, departments, divisions, and cost centers. It is usually the main basis for establishing accountability in budget management. Bangladesh budgetary system requires parliamentary votes for appropriations by different administrative ministries and therefore requires such administrative classification
.
E**conomic classification:** Transactions are classified on the basis of the economic nature of resources (e.g., pay and allowances, goods and services, transfers, subsidies, etc.). Economic classification is the basis for macroeconomic analysis, monitoring of fiscal aggregates, and micro-level control over the use of resources. This classification is fundamental to input-based budgeting structures. Economic classification also forms the base for structuring financial statements.

Functional classification: Transactions are classified on the basis of their broad purpose or objectives (e.g., education, health, defense, agriculture, energy etc.). Functional classification is useful for policy formulation and analysis, resource allocation decisions at the macro-level, historical analysis of public spending and cross-country comparisons.

P**rogram classification:** Transactions are classified in accordance with government's policy objectives. Program is a group of activities carried out to meet a specific policy objective. Programs typically identify the goals and policies that the government spending is expected to serve (e.g., preventive healthcare for all) and are usually sub-divided into homogenous activities (e.g., vaccination) required to meet the goals. A program classification transparently establishes a government's policy priorities, as reflected in the budgetary allocations, and forms the basis for monitoring and evaluating performance by allowing the specification of measurable program targets in terms of outputs and outcomes.

Geographic classification: Captures transactions on the basis of locations where revenues were generated and expenditures were incurred (e.g., regional distribution of tax collections, location of the beneficiaries of government subsidies and transfers, etc.). A geographic classification is useful in inter-regional analysis, particularly in studying the regional impact of government policies.

Source of Financing Classification: Governments also use source of financing classification to associate expenses with the funds that financed them and classification of beneficiaries of government transfers and subsidies.
Saxena et al (2014) made a cautionary note that successful implementation of a multi-segment classification system depends on the level of automation achieved in transaction processing and accounting. Given that computerized and automated integrated budget and accounting system (iBAS) has been in use since 2010, implementation of multi-segment classification system should not face any major difficulty in Bangladesh.

PART III
METHODOLOGY

Issues Identified for the Study

As mentioned in PART 1 the major objective of this study is to find out the root causes that compelled the government to abandon the 13 digits budget and accounting classification system within 20 (twenty) years of its introduction in Bangladesh; and to examine the strengths and weaknesses of new 56 digits BACS and find out any challenge (if any) that the users are facing during implementation of new BACS in budget preparation, budget execution, accounting and reporting process.

This study tries to find the answers of the following questions:

- Whether BACS classifications were made in accordance with Government Finance Statistics Manual (GFSM) or not?
- Whether GFS reports generated from iBAS^{++} system is in accordance with IMF requirement?
- Whether budget sectors included in BACS match with the United Nations Classification of Function of Government (COFOG) classification?
- Whether the new BACS would support program budgeting in future?

Methods of Collecting Information

The study is explorative in nature. Data and information were collected from both primary and secondary sources. PFM documents published by the Ministry of Finance such as PFM Reform Strategy 2016-2021, PFM Action Plan 2018-23, Budget and Accounting Classification Manual 2017, Annual Development Plan (ADP) published by the Planning Commission, annual budget documents, documents relating to 13 digits codes, technical notes provided by IMF missions regarding 56 digits new Budget and Accounting Classification System (BACS) were analyzed as a secondary source of data.

Key personnel who played important roles in planning and designing BACS and the key persons who are playing important roles in implementing new BACS were interviewed. A semi-structured face to face interview questionnaire has been prepared for this purpose and shown in Appendix-1. Some key stakeholders of new BACS were also interviewed to get their feedback regarding the benefits, user friendliness and difficulty (if any) faced by them during the preparation and execution of budget, accounting of actual transactions and generating reports for decision making purpose under the new system.

In order to ensure spontaneous participation in the interview declaration was given that to the effect that confidentiality would be maintained. Findings from the interviews would be reported in a manner where specific statements could not be attributed to particular individual or group.

Interview Guide

The interview guide shown in Appendix-1 was prepared for conducting face-to-face interview with the stakeholders from Ministry of Finance, Office of the Comptroller and Auditor General of Bangladesh (OCGA), Controller General of Accounts (CGA) and Strengthening Public Expenditure Management Program (SPEMP). These questions dictated the topic or issues and were followed up by supplementary questions for more clarification and in-depth understanding. Duration of each interview was of one hour to one and haft-hours. Detailed notes were taken during interviews. Since interviews have a long and practical experiences on PFM reforms in Bangladesh, some interviewees were directly engaged in designing the new Budget and Accounting Classification System (BACS) and other interviews are working in the field levels for implementation of BACS it is expected that they would be able to give authentic input regarding the limitations of old 13 digits code, strength and weaknesses of new BACS and challenges faced by them during the implementation stage.

Scope of the Study

The scope of this study was quite limited. It only focuses on overall design of the Chart of Accounts (CoA) but did not conduct detailed study on each of the nine segments of CoA. Each segment of CoA demand specific and detailed study for evaluating effectiveness of each segment of the coding system. Moreover, chart of account is only one aspect of Public Financial Management (PFM) system. Other integral parts of this system such as macro economic framework, resource mobilization, debt management, planning and budget process, public sector performance management have significant effect on the outcome of the PFM system.

PART IV
FINDINGS OF THE STUDY

Structure of 13 Digits Code

Documents related to 13 digits Chart of Accounts (CoA) which was developed by RIBEC and replaced previous major head-minor head account classification system in 1998 has been studied thoroughly. The 13 digits coding structure and its uses are shown in the following two tables:

Four levels 13 digit coding structure			
Level 1 (Legal)	Level 2 (Organizational)	Level 3 (Operational)	Level 4 (Economic)
1 digit	4 digits	4 digits	4 Digits
Examples			
1-Consolidated Fund Receipts			1211-Land Revenue
2-Charged Expenditures	0101-President's Office		4601-Staff Salary
3-Other Expenditure	2721-Medical Colleges	0047-Cox's Bazar Medical College	4501-Officer's Salary
5-Development Expenditure	2711- Directorate of Health	5011-Establishment of Kushtia Medical College	6821- Furniture Purchase

Abandonment of 13 digits code

As shown in Appendix-1, the first interview question was asked to identify the reasons for abandoning this 13 digits code in 2018. Technical notes documents provided by the three IMF technical assistance missions in 2009, 2011 and 2014 have been thoroughly studied. All the respondents agreed to the fact that Bangladesh could not reform its public financial management (PFM) keeping the 13 digits code in place. They have mentioned some fundamental defects in designing the coding system and explained them with practical examples. All three IMF missions, on the other hand, categorically identified the weaknesses of 13 digits coding system. Based on the response from interviewees and technical notes of the IMF missions, most important disadvantages of the 13 digits coding system can be summarized below:

Not properly designed: Did not follow basic principles applicable for designing a chart of account primarily for government budget and accounting purpose but eventually for overall public finance management.

Analytical information not available: The existing code comprises four segments of classification namely: legal code (1 digit); institution (4 digits); function (4 digits); economic (4 digits). Except the legal code, each of the other segments provides two levels of disaggregation, but the overall structure do not facilitate multiple combinations of data elements necessary for control and reporting purpose. The segments do not have the capacity to generate sufficient data to meet all control and accountability and reporting requirements of various stakeholders.

Improper grouping and alignment of accounts: Groups that were placed within level-1 are not homogenous. For example, Consolidated Fund receipts and Development Expenditures are two separate issues and should not remain in same segment. As a result, data from these two groups cannot be consolidated.

Existence of numerous redundant accounts:

745 codes out of existing 1590 codes were redundant. These codes were created to meet specific demand which has no relevance at present. These redundant codes need to be cleaned up.

Limited room for expansion: The coding system have 4 levels with 13 pre-defined codes, which are fixed in nature and cannot be increased or decreased. This coding system does not have any specific code for capturing own source for budgeting. In addition to spending grant money, the autonomous bodies and state owned enterprises (SoE) also spend money from their own source. Around 200 autonomous bodies and state owned enterprises (SoE) remained outside the purview of government budget and accounting system. Since no code is available for own source funding in 13 digits code, this coding system would fail to include extra budgetary entities into the whole of government budgetary system.

Not consistent with modern accounting standard:

The 13 digits code is not consistent with the modern reporting standards such as International Public Sector Accounting Standards (IPSAS), Government Finance Statistics (GFS), etc., and therefore extensive manual data manipulation is involved in producing fiscal reports. This potentially limits the accuracy, detail and timeliness of these reports.

No fund classification: Although Bangladesh constitution and the Public Money and Budget Management Act, 2009 (PMBMA) use the concept of a fund i.e. consolidated fund and public accounts of the republic, the existing 13-digit classification does not include a fund classification. Fund classification helps to identify different sources of fund for implementing one single program.

Above mentioned limitations in designing the 13 digits chart of account (CAO) have had long lasting impact on the ability of the PFM system and eventually failed to provide required financial information for making key decisions and therefore had to be abandoned. All the key stakeholders who were interviewed considered designing the new BACS as quite relevant and a milestone initiative in the field of PFM reform in Bangladesh.

Broad Structure of new Budget and Accounting Classification System (BACS)

Budget & Accounting Classification Manual, 2017 has been thoroughly studied for understanding the new Budget and Accounting Classification System (BACS). Responses from the interviewees who were engaged in designing and implementing the new BACS also helped further in-depth understanding of the author. Overall structure of the 56 digits new BACS is shown in next sections.

Overall Structure of BACS

The overall structure of the new BACS comprises of 9 segments which are divided into three parts- Core Part, Additional Part and Reporting Part. The 'Core Part' has 37 digits and four segments. These segments are Organization (13), Operation (9), Fund (8) and Economic (7) digits. In fact, core segments are those that involve a user of the accounting system to describe their transactions through providing input into the system. This way transaction are posted or recorded in the general ledger. The overall structure is shown in the following table:

Table showing overall Structure of the new Budget and Accounting Classification system

Type	Segment Name	Digits	Purpose
Core Posted Segments	Organization	13	Identifies organization type (Budgetary central government, extra-budgetary central government, local government, public non-financial institutes, public financial institutes), Ministry/Division/Department/unit
	Operation	9	Operating (General, Special, Support, Transfer to local Government)/ Development (ADP/non-ADP) and more details for development program, scheme and projects
	Fund	8	Consolidated fund and Public account of the republic and further details of consolidated fund such as general fund, specific foreign fund and foreign grant
	Economic	7	Economic nature of transactions such as tax revenue, pay & allowances, goods and services etc
Additional Posted Segments	Mode of Financing	1	Project financing such as reimbursable project aid through GoB (RPA through GoB), RPA through special account, Direct Project Aid (DPA)
	Location	9	Location of transaction Union/ Thana/ District/ Division
Non posted (derived/ reporting) Segments	Authorization	1	Parliamentary requirement, charged expenditure and other expenditure (voted)
	COFOG	4	United Nationals Classification of function of Government (COFOG) in 10 categories
	Budget Sector	4	Bangladesh Government's own sector classifications (14 Sector) Identify purpose of transaction in accordance with IMF's Classification of Function of Government (CO
Total Number of Codes		**56**	

Pictorial representation of New Budget and Accounting Classification (BACS)								
Posted Segments (Require data entry)						**Non-posted Segments (No data entry is required**		
Core Part (4 parts, 37 digits)				Additional Part (2 parts 10 digits)		Reporting Part (3 parts, 9 digits)		
Organizational (13 digits)	Operational (9 digits)	Fund (8 digits)	Economic (7 digits)	Mode of Financing (1 digit)	Location (9 digits)	Authorization (1 digit)	COFOG (4 digits)	Budget Sector (4 digits)

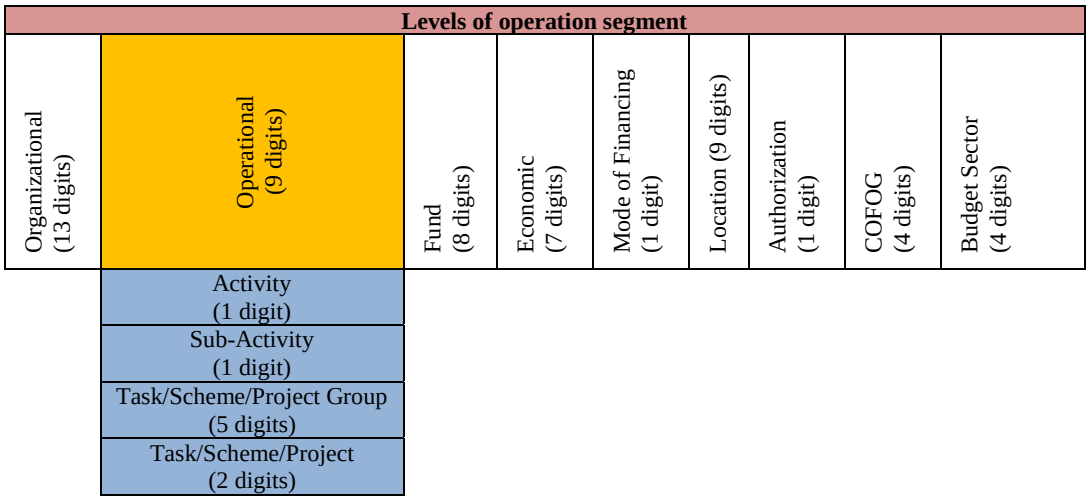
Organizational Segment

Organizational segment is hierarchical in nature. First one digit is for Public Sector Entity, next two digits are for Ministry/Division, next two digits are for Directorate or Department, next two digits are for Subordinate Office/Institutional and last six digits are for the Institutional Unit at the bottom of the hierarchy. First digit of this 13 digits segment has been kept for public sector. It is a new dimension of BACS that encompasses the comprehensiveness principle of chart of account. The key benefit of identifying the type of public entity is that it will enable recording of the budgets and accounts in iBAS^{++} of a broader set of government entities beyond the budgetary central government. A new element at the start of the administrative segment can identify the type of public entity e.g. 1-Budgetary Central Government, 2- Extra-budgetary Central Government, 3- Local Government, 4&5-Other General Government, 6- Non-financial Public Corporations and 7-Public Financial corporations. Using this additional coding element for the type of organization, coverage of accounts may be extended to include all autonomous bodies, local governments and state owned enterprises (SOE) and, to enable implementation of IPSAS and reporting GFS for the general government.

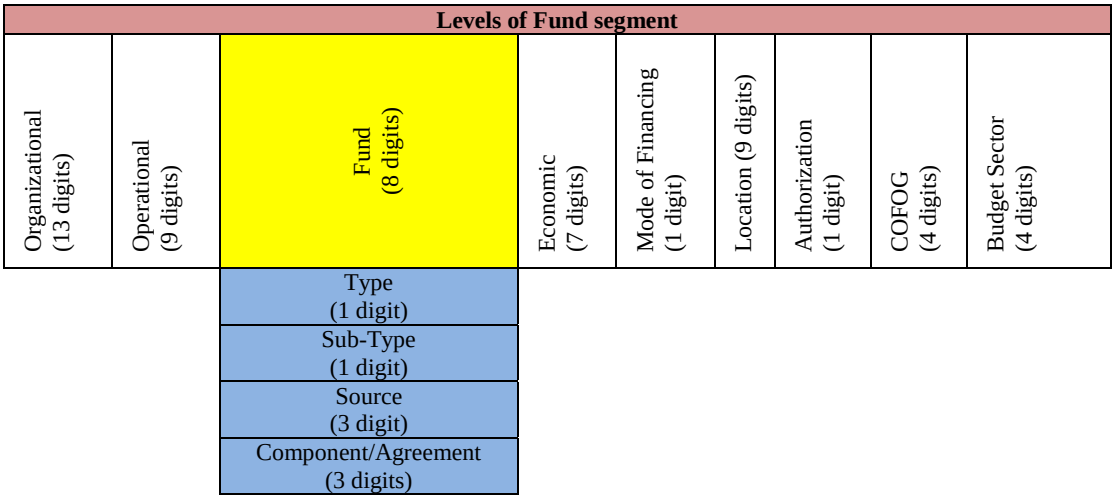
Levels of organizational segment								
Organizational (13 digits)	Operational (9 digits)	Fund (8 digits)	Economic (7 digits)	Mode of Financing (1 digit)	Location (9 digits)	Authorization (1 digit)	COFOG (4 digits)	Budget Sector (4 digits)
Public Sector (1 digit)								
Ministry/Division (2 digits)								
Directorate/Department (2 digits)								
Subordinate office/Institutional Unit Group (2 digits)								
Institutional Unit (6 digits)								

Operation Segment

Operation segment allows budget and accounting data to be captured on the basis of operations. It has four dimensions such as Activity, Sub-Activity, Task/Scheme/Project Group and Task/Scheme/Project. First one digit is for defining the activity either 1-Operating Activity or 2- Development Activity. Next one digit is for Sub-Activities. Sub-Activities under Operating Activity are 1-General Activity, 2-Special Activity, 3-Support Activity, 4- Transfer to Local Governments. Sub-Activities under Development Activity are 1-Non-annual Development Program and 2-Annual Development Program. Next 5 digits are for Task/Scheme/Project Group. Next two digits are for specific Task/Scheme/Project.



Fund Segment The purpose of the Fund Segment is to identify and control where funds will be drawn from at the time payment is made. This segment distinguishes between transactions of the Consolidated Fund and transaction of the Public Accounts of the republic. Within the Consolidated Fund, the fund segment also distinguishes between transactions using fund that are not restricted. Previous 13 digits classification system did not have this Fund Segment. First one digit is for Type such as 1-Consolidated Fund, 2-Public Account of the Republic and 3-General Fund. Next one digit is for Sub-Type such as 1-General Fund, 2-Specific Foreign Grant, 3-Specific Foreign Loan. Next three digits are to capture data regarding the source of fund such as GoB, Foreign Government's Organizations/International Organizations etc. Next three digits are to capture specific component/agreements related to that funding.



Economic Segment The purpose of economic segment is to facilitate accounting, reporting and control in accordance with international standards. It also provides data about Government receipts and payments in a form useful for macro-economic modeling and preparation of the national accounts. First one digit is for 'Type' that indentifies each of the major elements, such as revenues, recurrent expenditures, assets etc. Next one digit is for 'Category' which provides high level aggregation of each major element, such as Tax Revenues, Non-Tax Revenues etc. under 'Revenue' head and Compensation of Employees, Goods and Services etc. under 'Expenditure' head. Next one digit is for Sub-Category that provides aggregation of sub-elements of each major element. Next one digit is for 'Item' which provides the breakdown of each sub-element. Next one digit is for 'Sub-Item' that provides lower level information for the head of ministries/institutions to analyze plan and monitor the revenue /expenditure. Next two digits are 'Detail' that provide information for decision makers to further disaggregated form.

Levels of Economic segment								
Organizational (13 digits)	Operational (9 digits)	Fund (8 digits)	Economic (7 digits)	Mode of Financing (1 digit)	Location (9 digits)	Authorization (1 digit)	COFOG (4 digits)	Budget Sector (4 digits)
			Type (1 digit)					
			Category (1 digit)					
			Sub-Category (1 digit)					
			Item (1 digit)					
			Sub-Item (1 digit)					
			Detail (2 digits)					

Level-1 aggregated level reports by economic segment will give following information for the users:

Economic Segment (7 digits)		
Level-1 (01 digit)		
Code	**Type**	**Mode of Transactions**
1	Revenue	Cash inflow
2	Capital Receipt	Cash inflow
3	Recurrent Expenditure	Cash outflow
4	Capital Expenditure	Cash outflow
5	Holding Gains/Losses	Gains and Losses in Assets and Liabilities
6	Volume Change	Gains and Losses in Assets and Liabilities
7	Assets	Inflows, Outflows and Stock of Assets
8	Liabilities	Inflows, Outflows and Stock of Liabilities
9	Net Assets/Equity	Assets minus Liabilities

Mode of Financing Segment

Mode of financing segment is created to indicate various financing mechanisms available for government projects. This new segment has designed a single digit code to know whether projects are supported directly by government or receive finance from foreign sources.

Levels of Mode of Financing Segment								
Organizational (13 digits)	Operational (9 digits)	Fund (8 digits)	Economic (7 digits)	Mode of Financing (1 digit)	Location (9 digits)	Authorization (1 digit)	COFOG (4 digits)	Budget Sector (4 digits)
				1-RPA through GoB				
				2-RPA through Special Account				
				3-DPA				

Location Segment

Location segment allows whole of government expenditure and receipt reports to be prepared by location e.g. by Divisions, Districts, Upazilla and Union Parishad. It will provide useful analytical information for inter-regional comparison of government spending.

Levels of Location Segment								
Organizational (13 digits)	Operational (9 digits)	Fund (8 digits)	Economic (7 digits)	Mode of Financing (1 digit)	Location (9 digits)	Authorization (1 digit)	COFOG (4 digits)	Budget Sector (4 digits)
					Division (2 digits)			
					District (2 digits)			
					Upazila (2 digits)			
					Union (3 digits)			

Authorization Segment

The purpose of authorization segment is to differentiate between Charged Expenditure and Other Expenditure. This differentiation is a constitutional requirement and therefore included in the new BACS.

Levels of Authorization Segment (Derived Segment)								
Organizational (13 digits)	Operational (9 digits)	Fund (8 digits)	Economic (7 digits)	Mode of Financing (1 digit)	Location (9 digits)	Authorization (1 digit)	COFOG (4 digits)	Budget Sector (4 digits)
						1-Charged Expenditure		
						2-Other Expenditure (Voted)		

COFOG Segment

This segment has been included in the new BACS to generate reports in compliance with the Classification of Functions of Government (COFOG) as suggested by the Statistics Division of the United Nations. This will facilitate to generate COFOG report from iBAS^{++} system.

Levels of COFOG Segment (Derived Segment)								
Organizational (13 digits)	Operational (9 digits)	Fund (8 digits)	Economic (7 digits)	Mode of Financing (1 digit)	Location (9 digits)	Authorization (1 digit)	COFOG (4 digits)	Budget Sector (4 digits)
							Major Function (2 digits)	
							Minor Function (1 digit)	
							Detail Function (1 digit)	

Budget Sector Segment

In addition to the COFOG functional grouping a separate segment has been included in the new BACS to group planned expenditure by budget sectors. Nine of the budget sectors are aligned to COFOG with economic function expanded to fourteen budget sectors.

Levels of Budget Sector Segment (Derived Segment)								
Organizational (13 digits)	Operational (9 digits)	Fund (8 digits)	Economic (7 digits)	Mode of Financing (1 digit)	Location (9 digits)	Authorization (1 digit)	COFOG (4 digits)	Budget Sector (4 digits)
								Sector (2 digits)
								Sub-Sector (2 digits)

Strengths of new Budget and Accounting Classification System

Critical analysis of Budget & Accounting Classification Manual, other related documents and information gathered from the interview suggested the following key characteristics of the new Budget and Accounting classification system:

Whole of Government Comprehensive Coverage
With nine mutually exclusive and independent segments the new BACS become comprehensive. Inclusion of 'Public Sector' as the first digit of organizational segment made BACS capable of encompassing all other extra budgetary entities such as local governments, autonomous bodies and state owned enterprises (SoE) into a broader set of government entities beyond the budgetary central government. The new element of 'Public Sector' at the start of the administrative segment can identify the type of public entity.

Multi-Dimensional Classification System
The new BACS has multiple dimensional classification frameworks. It has administrative or organizational dimension that would ensure availability of budget and accounting for ensuring financial control and administrative accountability. With operational segment the government can identify and group the transactions to provide information on the exact cost of the government policy objectives and delivery of services. Fund segment has been included in BACS to identify all the cash inflows and outflows from Consolidated Fund and Public Accounts of the Republic. Economic segment of BACS is now capable of capturing more detail information in multiple disaggregated and aggregated levels. Inclusion of locations segment in BACS is new dimension that allows policy makers to analyze government revenue and expenditure on geographical basis. Inclusion of derived segments such as Authorization, COFOG and Budget Sector would meet national and international requirements for producing financial and statistical reports.

Capable of generating diverse and detailed level of information
The hierarchical and parent-children relationship types of organization structure is capable of generating diverse and very detailed information that can be used by the decision makers in effectively performing day to day activities of each and every level of the organization. BACS can generate activity reports by the most bottom level of budgetary units under any Ministry and Division. For example, different types of aggregated reports for the purpose of budgetary control can by generated by the Ministry of Primary and Mass Education at Secretariat level. These reports can also be generated by Directorate of Primary Education that would give aggregate information for whole directorate. Another level of aggregated information can be generated by using 'Government Primary School' group code. Here all relevant information regarding revenue and expenditures generated/incurred by all primary schools in Bangladesh will be available. Finally, if we want to know the revenue and expenditure detail of the lowest tier administrative unit, for example a specific primary school say 'Choto Nilgonj Government Primary School' BACS is capable of generating this report through iBAS^{++} instantly.

Capable of implementing accrual accounting system

BACS is on general ledger framework that allows the system to record transactions on double entry basis. This would allow Bangladesh to move forward with the implementation of accrual accounting system without needing any structural changes to the classification codes.

Third party payments such as Direct Project Aid can be differentiated and reported separately

With the inclusion of 'Mode of Financing' segment the new BACS become capable to capture third party payments such as Direct Project Aid (DPA) in the iBAS^{++} system. It would give the comprehensive of government expenditures including payments made by third party donor countries through project aid.

Capable of producing IPSAS compliant reports

The six segments multi-dimensional coding structure with three additional derived segments the new BACS is now capable of generating the following IPSAS compliant reports:

- Cash flow statement classified according to operating, investing and financial activities as specified in IPSAS 2 Cash Flow Statement;
- Statement of financial operations showing the results of the operating performance of the government and the resulting surplus or deficit;
- Statement of financial position showing financial assets and liabilities under present accounting basis evolving a complete disclosure of all assets in future;
- Statement of changes in net assets/ equity showing value and volume changes to assets and liabilities that are not related to a transaction entered into the government

Capable of producing GFS compliant reports

IMF Government Finance Statistics Manual (GFSM) has been extensively followed in designing the structure of BACS and it is therefore supposed to generate GFS compliant report. However this study found some deviations from GFS Manual which would be discussed in later part of this paper.

New BACS is capable of adopting with the integration of (operating + development budget)

The benefit of distinguishing between development and non-development expenditures is eroding. Modern integrated financial management system is therefore favouring integration of both operating and development budget into one single unitary budgetary system. Once the government decides to integrate both operating and developing budget into one operating budget, the new BACS is capable of implementing this decision.

Capable of generating consolidated reporting

Since BACS followed a unified classification structure it enables all government entities i.e. budgetary and extra budgetary to share data for aggregation of data within the system. This would help to produce consolidated reports covering the whole of Government.

Capable of establishing parliamentary control

Parliament allocates funds through the annual Appropriation Act, which requires accountability and controls on subsequent spending. The authorization classification which has been included in new BACS can be used to present the combined demands for grant and appropriations to ensure transparency and accountability of public spending.

Capable of implementing program budgeting

Inclusion of separate coding structure for 'Scheme' under operation segment would allow the government to go for implementation of program budget in future.

Implementation Issues and Challenges

Although benefits of BACS are evident from the study the new chart of account is not fully free from implementation challenge. During the interview some of the key stakeholders raised number of issues that are hindering smooth implementation of the new coding system. These are briefly discussed in the following

paragraphs.

Long and Complex Coding System

General perception among filed level users of BACS is that it is long and quite complex. On this complexity issue interview responses came up with mixed reactions. One group of respondent thinks that complexity issue would be taken care of by the computerized iBAS^{++} software system. This group believes that users do not require knowing the detail mechanism of coding structure. They only require their user ID and password to get into the iBAS^{++} system and the system would automatically map most of coding structure in the system. Moreover the requirement of data entry in iBAS^{++} is very limited. Most of the users only require inputting data that relates with economic codes only which user can easily get from iBAS^{++} platform. This platform is very user friendly that provides require information in many ways.

Ownership Issue

The new Budget and Accounting Classification System has been developed by an internal team of Strengthening Public Expenditure Management Program (SPEMP) with the help of few international experts. Three IMF technical missions have also advised MoF in designing an appropriate chart of accounts for budgeting and accounting purpose. Concerned has been raised in regarding lack of ownership of this system by important stakeholder. It is argued that preparation and amendment of Chart of Accounts is a core function of the CGA office but its contribution in designing and developing the BACS is quite insignificant. CGA's technical staffs are not well aware of the structural architecture of this new chart of accounts and therefore chances of committing mistakes in administering this sophisticated system is quite high.

Capacity Development Issue

Although training and capacity development programs are continuous organized by SPEMP office it is not adequate compared to the training requirements. Under the new BACS and iBAS^{++} system all Drawing and Disbursement Offices (DDO) including the lowest level field office across the country become budget holder and require using the BACS and iBAS^{++} systems. Training all the relevant officials dealing public finance remain a challenge. Frequent transfer of officials and staff to and from budget sections and wings in all ministerial/divisional, departmental and unit levels made the capacity development issue even worse.

Economic codes classification-inconsistent with GFSM

Although Chart of Accounts differs in different jurisdiction to meet their own requirement, countries usually follow Government Finance Statistic Manual (GFSM) in designing an effective Chart of Account. Bangladesh also took GFSM as a standard framework. Following table compares the economic code nomenclatures and numbering designed in BACS and GFSM framework.

Economic Code comparison: BACS vs. GFS Manual 2014

BACS, 2018		**GFS Manual 2014**	
Group economic code	Nomenclature	Group economic code	Nomenclature
1	Revenue	1	Revenue
2	Capital Receipts	2	Expenses
3	Recurrent Expenditure	3	Transactions in Assets and Liabilities
4	Capital Expenditure	4	Holding Gain/ Loss of assets and liabilities
5	Holding Gain/ Loss	5	Volume Change of assets and liabilities
6	Volume Change	6	Stock positions in assets and liabilities
7	Assets	7	Total Expenditure as per COFOG classification
8	Liabilities	8	Net financial worth
9	Net Assets/Equity	9	Net worth and its changes

GFSM framework has allocated (1) for all revenue but BACS divided revenue in two categories i.e. revenue (1) and capital receipts (2). GFSM defines (2) for all expenses whereas, BACS divided expenditure in two categories i.e. recurrent expenditure (3) and capital expenditure (4). Due to this significant difference between BACS and GFSM coding designs BACS and iBAS^{++} are not able to automatically generate GFS reports.

Continuous changes of Chart of Account

Once the design of Chart of Account is complete and the codes are implemented these should remain constant until the CoA is amended. If CoA is amended it should not even applied unless all stakeholders are properly appraised regarding the amendment. It is observed that although the new BACS and iBAS^{++} has been implemented from July 2018 and budgets for the FY 2018-19 and 2019-20 were prepared and executed under new BACS and iBAS^{++} systems, the organizational and economic codes are getting changed regularly without intimating the stakeholders. One example of such code change may be worthwhile to mention here. The nomenclature for economic code 3632104 as printed in 2018-19 original budget book and revised budget book of Ministry of Cultural Affairs was 'Research Grant' but the nomenclature of the same economic code 3632104 become 'Grant for Construction of Building and Structure' in 2019-20 budget document of the same ministry. This kind of change would seriously hamper the integrity of data and such data would lose its reliability and be meaningless and incomparable.

BACS has not yet been implemented for revenue receipts

BACS could not be implemented for capturing revenue even after two years of its implementation. Till to date all revenues are being deposited by the citizens and taxpayers are using 13 digits old codes in deposit forms and challans. This unusual delay is seriously undermining the reform process.

Limited coverage of public sector entities

Out of 8 budgetary and extra budgetary organizations under 'Public Sector' only one i.e. Budgetary Central Government is currently in use. All other public sector entities such as extra budgetary autonomous bodies, local governments, public non-financial corporations and public financial corporations are still outside the coverage of government budgetary and accounting system. As a result whole of government budgetary control and accountability not yet been established.

Different functional classifications are in use

Inconsistency has been observed in using different types of functional classifications in various types of budget documents. BACS follows a separate classification for government functions following 10 categories specified by United Nations. Another 14 categories of Budget Sector classification has also been included in derived segment of BACS. On the other hand Planning Commission has classified government functions in 17 categories. A comparison of government functions included in BACS and UN COFOG has been shown in Appendix-2. Another category of government functions as mentioned by the Planning Commission in its Annual Development Program (ADP) has been shown in appendix-3.

While the difference between COFOG classification and a separate budget sector classification for the purpose of meeting government requirement is understandable, it is not clear why the budget sector classified in BACS differ from Planning Commission classification. It has been reported that functional reports could not be generated from iBAS^{++} because of these inconsistency.

All accounting and management reports are not available

Full benefit of BACS and iBAS^{++} could not yet been capitalized as because templates for numerous accounting and management report could not yet been finalized in iBAS^{++} system.

Difficulties in preparing appropriation accounts

Appropriations accounts could not be centrally generated from iBAS^{++} system. Currently appropriations accounts are separately prepared by the individual Chief Accounts Officer of different ministries or Divisions and these separate appropriation accounts need to be compiled manually.

Relevance, Efficiency, Effectiveness and Sustainability

Findings of this study as discussed earlier support that reform for improvement of PFM system of Bangladesh was not possible with continuation of 13 digits chart of accounts. It was therefore essential to abandon the 13 digits coding

system introduced in Bangladesh in 1998 and designing a new Budget and Accounting Classification System in line with international standard was significant and quite relevant for further reform of PFM system in Bangladesh.

BACS was implemented as part of overall PFM reform process under the Strengthening Public Expenditure Management Program with the technical assistance from IMF and no significant extra cost was required for this purpose. In that context introduction of BACS can be considered efficient as well. Although there are implementation challenges as discussed earlier the study identified significant strengths in BACS that certainly improved the overall effectiveness of PFM system in Bangladesh.

Since BACS design requires further refinement for making proper alignment with GFSM, COFOG and ADP document the author is a bit skeptical regarding long term sustainability of BACS in its present form. The new chart of account needs to be modified to meet the future demand and this sort of modification is possible without abandoning BACS like previous 13 digit codes. The new BACS is flexible in nature and is scalable for future adjustment.

Further Research Area Identified

The BACS that has been introduced in Bangladesh in July 2018 is less than two years old system. This study suggest that BACS could not yet been fully implemented and significant challenges on the way to full implementation of BACS remained to be addressed. Successful implementation of BACS is greatly depends on the proper design and implementation of automated iBAS^{++} system. Generation of adequate accounting and management reports could be automatic output if reporting templates are properly programmed in iBAS^{++} system. This may require additional skill and deployment of additional work force. A thorough research should be done to identify the reporting requirements of various stakeholders and to verify how many of them have been designed in iBAS^{++} system and how many are yet to be developed. Specific research may be conducted to examine how far the BACS complies with international norms and find the areas where modification of BACS is required to make it as much compatible as possible with the international best practices such as International Public Sector Accounting Standards (IPSAS) and Government Finance Statistics Manual (GFSM). Another feasibility study may also be conducted for taking preparation to implement accrual accounting system in government accounting system of Bangladesh.

Recommendations

Although significant improvement has already been done in PFM reform area by the implementation of new chart of account in Bangladesh, more coordinated effort is required from all stakeholders for maximizing the benefits from the new system. In this regard the following short term, medium term and long term actions are recommended:

Short Term

Comprehensive training programs needs to be continued on BACS and iBAS^{++}systems;

i. In order to ensure proper stewardship, building ownership and making the reform sustainable, special measure is required to engage as many officials and staffs as possible from the controller general of accounts (CGA) office in BACS and iBAS^{++} reform process;
ii. Further work is required to reduce the inconsistencies between BACS and GFSM in respect of designing economic coding system;
iii. Immediate measure need to be undertaken to agree with a uniform functional categorization of budget sector by the Planning Commission and Ministry of Finance;
iv. No organizational, operational, fund or economic code should be changed or amended without proper consultation with the stakeholders and without knowledge of the concerned authority;
v. Although revenue codes are available in BACS but these are not yet been used rather the old four digits economic codes are still used by the stakeholders. This is giving wrong message to the stakeholders regarding the reform process and therefore new revenue codes should be implemented without any delay.

Mid Term

i. Extra budgetary government organizations such as autonomous bodies, local governments, state owned enterprises (SoE), non-financial public corporations, financial public corporations should be included in the overall government budgeting and accounting process. Gradual expansion strategy by including these public

institutions in to the whole of government budgetary process one after another might be followed for this purpose;

ii. Need to take necessary preparatory actions for adopting IPSAS standard in government accounting system of Bangladesh;

iii. Initiate preparatory works to move into accrual accounting system.

Long Term

i. Implement IPSAS standards in government accounting as much as possible;

ii. Implement full accrual accounting system in whole government accounting system of Bangladesh.

Conclusion

Transparency and accountability are the two most important factors for an effective public financial management (PFM) system. All public spending must be done in transparent way to ensure value for taxpayers' money and all executive responsible for spending public money for achieving specific outcome must also be accountable to the citizens of the country. Proper budget and accounting are therefore remaining the two centre points of this accountability framework. Without proper budgeting process accountability framework cannot be established. In this regard chart of account plays most important role as it is the backbone of this overall process. Public financial management reform process in Bangladesh is progressing quite well since mid 1980s and further strengthened at the beginning of this decade with starting automation of overall budget and accounting process through iBAS. This PFM reform process has got further strengthened with the introduction of improved version of iBAS^{++} and introduction of new budget and accounting classification system. The new BACS more or less followed basic principles of formulation of chart of account and aligned with internationally best practices. The less than two years old iBAS^{++} and BACS are currently facing few implementation challenges which are manageable. Public Financial Management (PFM) system will significantly improved after full implementation of new BACS in all public sector entities of Bangladesh.

APPENDIX-1

Interview guide for conducting face to face semi-structured interviews with the key stakeholders of the new Budget and Accounting Classification System (BACS) in Bangladesh

1. In your opinion why GoB required abandoning 13 digit charts of accounts which Bangladesh has just introduced just 20 years ago?
2. Do you think the new 56 digits code complies with the requirements of International Public Sector Accounting Standard (IPSAS), IMF's Government Finance Statistics Manual (GFSM) and United Nations Classification of Functions of the Government (CoFoG)?
3. Whether the new 56 digits code is capable of generating Whole of Government Accounts (WGA)? What are the biggest challenges for preparation of WGA under the new BACS?
4. Planning Commission prepared the ADP dividing all government activities in 17 economic sectors. Adopting 10 COFOG sectors in line with the UN the new BACS added another segment with 14 sectors to meet the local context. What is the explanation regarding this inconsistency? What should be the next course of action to remove this difference?
5. The biggest advantage of 56 digits new code is said to be the ability of generating numerous reports that will assist all levels of management in taking effective decisions. Whether the users are now easily getting these reports from iBAS++ system and using them in taking management decisions?
6. Long coding system may tends to committing mistakes, thus may lead to wrong classification of income and expenditure. Taking last two years' implementation experience into account, how big you think the risk is?
7. Do you think new BACS is user friendly? What challenges are you facing in implementing this 56 digits new code in your tasks related to budget preparation, execution, accounting and reporting?

Appendix-2

Government Functions comparison- BACS vs. COFOG			
BACS Budget Sectors		**COFOG Sectors**	
1	General Public Service	1	General Public Service
2	Defense	2	Defense
3	Public Order and Safety	3	Public Order and Safety
4	Industrial and Economic Services	4	Economic Affairs
5	Agriculture		
6	Power and Energy		
7	Transport and Communications		
8	Local Government and Rural Development		
9	Environmental Protection	5	Environmental Protection
10	Housing and Community Amenities	6	Housing and Community Amenities
11	Health	7	Health
12	Recreation, Culture and Religion	8	Recreation, Culture and Religion
13	Education and Technology	9	Education
14	Social Protection	10	Social Protection

Appendix-3
Government functions as categorized in ADP by the Planning Commission

1	Agriculture
2	Rural Development and Rural Institution
3	Water Resources
4	Industry
5	Power
6	Oil, Gas and Natural Resources
7	Transport
8	Communications
9	Physical planning, water supply and housing
10	Education and Religion
11	Sports and Culture
12	Health, nutrition, population and family planning
13	Public Relations
14	Social welfare, women affairs and youth development
15	Public administration
16	Science, information and communication technology
17	Labour and employment

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