## Survey documentation for the Household Income and Expenditure Survey

***Bangladesh Bureau of Statistics***

***January 2022***

***D R A F T***

The documentation consists of three parts: 1. Reference metadata 2. Releases 3. Process documentation (details about goals, methodology, roles, processes, and evaluation)

The main audience for the survey documentation is the staff working on the survey on a daily basis. In addition, the documentation can be used a) when introducing new staff, and b) when preparing overall plans, conducting quality audits and functional reviews. Finally, the survey documentation can be used when preparing changes, e.g., new IT solutions.

**1. Reference metadata (for internal and external users)**

**1.1 Contact information**

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| --- | --- |
| Contact organization | Bangladesh Bureau of Statistics (BBS) |
| Contact organization unit | Statistics and Informatics Division (SID) |
| Contact name | NA |
| Contact mail address | Parishankhyan Bhaban, E-27/A, Agargaon, Dhaka-1207, Bangladesh |
| Contact email address | NA |
| Contact phone number | NA |

**1.2 Statistical presentation**

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| Data description | Household income and Expenditure Survey (HIES) is one of the core activities of the BBS; it contains a wide range of socioeconomic information at the household level that has strong influence in the decision-making process for the government. It is used for assessing poverty level and the living standard of the people at large. Considering its importance, the national governments and the international agencies have been striving for the improvement of survey methodology and to establish of HIES technical standard. |
| Classification system | Not yet available |
| Sector coverage | The 2016/17 Bangladesh Household Income and Expenditure Survey covered the following topics: - Household Information Roster - Education - Health - Economic Activities and Wage Employment - Non-agricultural Enterprises - Housing - Agricultural Enterprises - Other Income and Assets – Consumption |
| Statistical concepts and definitions | Household and household member: A household is a group of people who eat from the same pot and sleep in the same dwelling. Members are who have eaten and slept in the dwelling for at least six months during the past 12 months (it does not have to have been 6 months in a row; it merely needs to have been 6 months in total), and have been in the household for less than six months over the past year, but they are any of the following: the head of the household; a major provider of economic support; infants under six months old; a new bride who joined the household less than six months ago; in addition, all servants are always to be counted as household members. All other persons who were away for more than six continuous months over the past year are not household members, even if they may be considered as such by other household members. Cash financial benefit received by the employees of government, semi-government, autonomous body, public enterprises or similar organization in addition to normal wages and salaries on the occasion of yearly religious festival or incentive bonus received by the employees of business or industrial enterprises.  Employment: Work for pay – any economic activity that a person does for an employer, whether in an establishment, office, farm or private residence (other than his or her own), and receives salary/wage, commission, tips, in cash or in kind, or other forms of compensation such as free meals, free living quarters, and educational support. Work for profit – any economic activity that a self-employed person does for profit in own business such as sari-sari store, farm and dress shop; or for fees in the practice of one’s profession or trade. Making a single article that is intended for sale is considered as work for profit. Work without pay on family farm or business – any economic activity that a person does without pay on a farm or business that is being operated by another family member in the same household.  Occupation refers to the type of work, trade or profession performed by the person in the job. In other words, is what the person does in the job.  Industry is nature of the business or industry of the place where the work is/was performed in connection with the occupation reported, like cocktail lounge, growing of paddy rice (lowland, irrigated), catching fish, commercial bank, retail sale of food and private household.  Bonus, Festival: Cash financial benefit received by the employees of government, semi-government, autonomous body, public enterprises or similar organization in addition to normal wages and salaries on the occasion of yearly religious festival or incentive bonus received by the employees of business or industrial enterprises.  Calorie: Calorie is the unit of heat. It is the amount of heat that requires to change the temperature of 1 cc of water to 1 degree Celsius. In case of poverty measurement, we used k.cal as the unit. It means that, the amount of heat required changing the temperature of one kilogram of water to 1 degree Celsius.  Care, Personal: Personal care items include soaps, cream, snow, powder, lipstick, shampoo, razor, blades, hairdresser, laundry, and cleaning materials, etc.  Cereals: Cereals included rice and rice flour, wheat and wheat flour, maize and various products made of rice and wheat.  Currently Student: A person aged 5 years and above currently attending any educational institution on full or part time basis.  Earner: An earner is a person who brings material return in cash or kind for services rendered and for the use of goods. Services imply labor in organization of production, while goods imply land property and capital. Thus, a pensioner is an earner as long as he receives pension in recognition of his past services. A landlord is also treated as an earner because he receives rent for the use of land or property. The concepts of earner include all persons who receive incomes and hence are similar to the definition used for depicting economically active persons including self-employed.  Earning from Trade, Commerce and Industry: Earning has been defined as gross yearly income received from trade, commerce or industry minus expenditure incurred to generate gross income from trade, commerce or industry.  Education, Formal: Education received from any type of education institution.  Educational Institutions: Educational institutions mean any primary school, kindergarten school, high school, college, university, madrasa (religious institutions) technical/vocational school, etc.  Effects, personal: Consumption items include handbags, belts, umbrellas, walking sticks, sunglass, watch, cigarette lighter and jewelry, etc.  Employment Status of Household Member: Various categories were used to depict employment status of household members. Employer implies person who employs other persons (say, as agricultural or industrial wage labors) and related to employers engaged in agricultural, as well as, non-agricultural sectors. Self-employed include owner-cultivators, owner cum-tenants, self-employees in forestry, livestock and fishery sectors, as well as, persons engaged in non-agricultural self-employment activities. Employees refers to persons who work as service holders of government, semi government and autonomous bodies, service workers or private sector enterprises (both organized and unorganized). The category other included agricultural wage laborers, non-agricultural laborers, households, etc.  Family Member: A family member is a person who depends on the family. Family member can be a head of household, spouse, unmarried sons and daughters, married sons who are direct dependents, parents, unmarried sisters divorced or separated daughters or sisters. Servants, laborers and lodgers who have no other usual place of residence but live and eat together within the household with or without payments are not considered as family members.  Fitra: A religious levy binding on every solvent Muslim family (Who is capable) to pay to any poor person (willing to accept) before Eid-ul-fitar festival. Rate of fitra per person is fixed according to prevailing market price of 1.75 kg of wheat, by the religious leaders before Eid ul-fitar.  Goods, Durable: Durable goods are those whose individual life expectancy is one year or more. These include radio, TV, Tape, recorders, wooden and steel furniture, chinaware (not for daily use), cutlery and kitchen utensils, etc. Goods, Non-Durable: Item whose durability is less than one year are termed as non- durable goods. These are food items, clothing, fuel and lighting, medicines, etc. Services are also regarded as non-durable goods.  Household: Household is the smallest unit of social institution. Almost all the socio-economic activities are being performed around this unit. It can be defined as a dwelling unit where one or more persons live and eat together under a common cooking arrangement. Matrimonial or blood or both relations, exit among most of the persons who reside in the dwelling.  Household Expenditure: Household expenditure includes household consumption and certain other outlays of the household. Consumption expenditure of the household is the aggregate value of goods and services actually consumed during the reference period. The non-consumption expenditure of the household includes income tax and other taxes, pension and social security contributions and related insurance premium, gifts and other transfers. Items extended from the expenditure schedule are additions to saving, various types of investment expenditure (both monetized and non-monetized) including amount spent.  Household, Head of: Head of household means a member of the household who is the decision- maker regarding the different activities of the household. This household is also being run under his command. In case of Household Income and Expenditure Survey, a member is regarded as head of a household whom the other members consider him so. Generally, the eldest male or female earner of the household or the main decision-maker is considered to be the head of household.  Household, member: Household member include permanent family members, as well as, boarders and lodgers, servants and other employees who often live in the household and take food together. These also included person temporarily away from the household. Persons whose usual place of residence elsewhere but found staying with the household at the time of enumeration are not deemed a member of the household. Guests visiting a household temporarily or a person normally resides and takes food outside is not considered as a member of the household for the survey.  Income, Actual Agricultural: Actual agricultural income has been defined as the income received from gross household agricultural produce from crop, poultry, bovine, etc. minus expenditure incurred to produce the gross agricultural produce.  Income: Actual Agricultural (Regular)-Non-Cash: Yearly wages and salary received in kind from regular employment or investment in agriculture.  Income, Household: Income means material return in cash or kind received in exchange of goods and services in a particular period. In case of household income, it refers to the material return of all the members of the household in the same period. So, household income in a particular period can be defined as the sum of the earnings of all the members of the household in cash or kind in the same period of time. Income from wages and salaries, pensions, contributions and professional fees earned by the members of the household are estimated on yearly basis. Income from interest, dividends, earnings from agricultural activities, business, commercial and industrial establishments, land and property, rent, gifts and assistance and insurance benefits, including other special types or receipts by the member of the household are also estimated on yearly basis. Income, Imputed: Assigning a value to any goods consumed or services enjoyed by the household received as gifts or homemade or procured in any other manner other than cash purchase. Rent of a rent-free/owner-occupied house, values of home-made goods or services are the examples of imputed income.  Income, Non-Agriculture: The nonagricultural income of the households are those income which was accumulated from business, industry and investment in different sectors. These incomes are collected on yearly basis.  Income, Other Sources of: Include receipt from dis-saving and dis-investment of assets and properties, as well as, loan repayments received, etc. Also, security benefits, G.P. Fund receipts, windfall gains, etc.  Income, Secondary Extra: Income received from extra source other than main source. This share of extra income must be less than that of main source.  Land, Cultivable: Land under temporary agricultural crop such as paddy, jute, rabi crop, Kharif crop, etc. is termed as cultivable land. It also includes fallow land.  Land, Leased-In: Land taken from other household or institution for the purpose of habitation, farming fishery, etc. in lieu of fixed rent or on share cropping basis or on mortgaged or in any other term is considered as land leased-in.  Land, operated: Area of land under the possession of household for the purpose of habitation, farming, fishery, etc. is considered as land operated by the household. Operated land is the sum of area of land owned plus land leased-in minus land leased-out.  Land, owned: Legal ownership of any area of land in the name of all the family members is considered as land owned by the household.  Landless (Operated): Household that does not have any operated land on the day of enumeration is considered as landless (operated).  Landless (Own Land): Household that does not own any land in the name of any family member of the household is considered as landless (Own land).  Literate: A person aged 7 years and above and who is able to write a letter is considered as literate.  Occupation: Occupation is generally the acceptable means of income to fulfil the financial requirement. It can be defined as a means associated with the activities from which the individual earns livelihood. Occupation may be a major or a minor, according to the grater or smaller share in income.  Pension: Currently received allowances in lieu of services rendered in past to government, semi-government, autonomous bodies, non-government organization, international bodies, private or any other organization.  Poverty-(DCI), Absolute: For measuring the degree of poverty in DCI method, a person whose daily calorie intake is lower than 2122 kcal is considered in the category of absolute poverty.  Poverty-(DCI), Hard-Core: For measuring the degree of poverty in DCI method, a person whose daily calorie intake is lower than 1805 kcal is considered in the category of hard-core poverty.  Poverty-(DCI), Hard-Ultra: For measuring the degree of poverty in DCI method, a person whose daily calorie intake is lower than 1600 kcal is considered in the category of ultra-poverty.  Poverty (CBN): Poverty is the state of poorness. It can be earmarked by income level of the household. The concept of absolute poverty is the minimum level of income that is needed for physical survival. Thus, a poverty line can be defined as the minimum level of household income that can be able to purchase a bundle of goods and services to satisfy the basic needs of the household.  Protein: Protein is one of the nutrients of food that is responsible for growth of human body. It is also responsible for maintaining or increasing the resistance power of the body.  Ratio, Dependency: It relates to the ratio of population in the age group 0-14 and 60 years and over to the population in the working age 15-59.  Ratio, Sex: It is the number of male per hundred female.  Reading Materials, Recreational: Items, such as, newspapers, magazines, cinema, journals, membership fees for sports or recreational organizations, license fees for TV, VCR, radio, etc.  Training, Technical/Vocational: Technical/Vocational training means any training on typing, shorthand, computer data entry, programming, motor mechanic, electrical, air-conditioning, refrigeration, welding, weaving, carpenter, goldsmith, blacksmith, potter, sewing work, tailoring, health and family planning technician (village doctor), agricultural extension, livestock, poultry, etc.  Water Supply: Pure drinking water supplied from any sources maintained by the statutory body of the government of any non-government organization.  Zakat: A religious levy binding on every solvent Muslim family who does not have any debt and has more than 7.5 tola of gold or 52.50 tola of silver and or surplus money in excess of working capital in an accounting year. The amount of Zakat is calculated at the rate of 2.5% on the market price of gold and surplus saving. |
| Statistical unit | Private household |
| Statistical population | All private households in Bangladesh |
| Reference area | The HIES 2016 covered the whole country including all administrative divisions. |
| Time coverage | HIES has been carried out regularly in Bangladesh since 1857. After independence, HES was first carried out in 1973-74, then 1974-75 and 1975-76. The results of these survey were not published. Subsequently, some selected tables of the surveys 1976-77, 1977-78 and 1978-79 were published, as well as HES 1981-82. Then HES were conducted in 1985-86, 1988-89, 1991-92, 1995-96, and 2010. Statistical results for these surveys were regularly published.  Household Income and Expenditure Survey (HIES) is the standalone data source for estimating household income, expenditure, consumption, income inequality and incidence of poverty in Bangladesh. Household Expenditure Survey (HES) is being conducted since the pre-liberation period in the territory now constituting Bangladesh. After the liberation of the country in 1971, the first round of HES was conducted in 1973-74. In the year 2000 the scope of the survey was broadened and accordingly it was renamed as Household Income and Expenditure Survey (HIES). It is heartening to note that 15 rounds of surveys have so far been conducted after liberation of Bangladesh. The present survey is the 16th in the series. |
| Base period | Not yet available |

**1.3 Statistical processing**

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| Source data | The HEIS is carried out at household level and is based on a combination of interviews and accounting of the participating households. Data is collected from households using direct interview by field workers.  The HIES 2016 deviates from the sampling design used in the previous round of HIES 2010 in several ways. The objectives of HIES 2016 have changed significantly from HIES 2010. In HIES 2010, sample was designed to provide reliable annual estimates at division level with urban & rural breakdown. But in HIES 2016, the sample was designed to achieve three objectives:   1. reliable annual estimates at 64 district level 2. reliable quarterly estimates at the national level and 3. reliable annual estimates at the division level for urban and rural areas.   A stratified, two-stage sample design was adopted for the HIES 2016/17 with 2304 Primary Sampling Units (PSU) selected from the list of the 2011 Housing and Population Census enumeration areas. Within each PSU, 20 households were selected for interviews. The final sample size was 46,080 households (Ahmed et.al, 2017).  In Bangladesh, divisions are the first-level administrative geographical partitions of the country. As of 2016, the country has eight divisions: Barisal, Chittagong, Dhaka, Khulna, Mymensingh, Rajshahi, Rangpur, and Sylhet. Each division is subsequently divided into 64 districts, or zilas.  Each district is further subdivided into smaller geographic areas, with clear rural and urban designations. In addition, urban areas in the main divisions of Chittagong, Dhaka, Khulna, and Rajshahi are classified into City Corporations (CCs), and other urban areas. PSUs in the HIES 2016/17 were allocated at the district level. Therefore, the sample was stratified at the district level. Since there was a total of 64 districts in Bangladesh, the sample design included a total of 132 sub-strata: 64 urban, 64 rural, and four main CCs. The sample was also implicitly stratified by month. |
| Frequency of data collection | The survey is carried out on a quasi 5-year frequency subject to national agenda and availability of funding. |
| Data collection | Data collection for the current round of HIES 2016 was started from the 1st April 2016 and continued without any interruption up to the 31st March, 2017. The HIES 2016 was done in a very large sample of 2304 Primary Sampling Units (PSUs) comprising 46080 households. Thus, HIES 2016 covered nearly four times higher sample than 2010. This facilitated to provide quarterly estimates of poverty and poverty rates at the district level. The field operation was done during April, 2016 through March, 2017.  The data collection, entry and data transferring process for the HIES 2016 was developed using Paper and Pencil Interviewing (PAPI) combined with Computer Assisted Field Entry (CAFE). With this method, the interviewers regularly collected all the information during the interview using PAPI and entered the data into Laptop Computers at the end of the day. If they found any inconsistencies in the data, they went back to the relevant households of the PSU and made required changes or corrections to remove the discrepancies while they were still in the that locality. Once they had completed and checked the information, they also ensured that the data entered through data entry program were accurate and consistent. Thus, the data were substantially cleaned and validated right at the field level.  The data entry program was developed in CsPro and contained with a cloud-based data transferring system, which allowed enumerators to transfer data from the field almost in real time using mobile internet connection. After the data was transferred to BBS headquarters, this was compiled and exported to a readable version by standard statistical software using a built-in routine in the data entry program.  After the data entry was completed in the field, the filled-in questionnaires were also sent to the BBS headquarters. The transferred data were then promptly examined and verified with the questionnaires if necessary to ensure that the errors and inconsistencies that were required to be removed by the enumerator were done properly. The data sets were then re-examined by programmers and senior officials. It may be mentioned that the software for the data entry task was developed in such a manner as to detect most of the errors, omissions or inconsistencies right at the data entry level. However, some more editing, specially inter record inconsistencies, were required to be done by the senior officials at BBS headquarters.  From the data sets thus produced, data files were created through specially designed software. Finally, tables were generated from the cleaned data sets using data analysis software like STATA, FoxPro and SPSS. |
| Data validation | Strong supervision and quality control measures were adopted in HIES 2016. There were 128 teams, each team comprising 2 enumerators-cum data entry operators and 2 female facilitators. In order to ensure smooth collection of data and their quality, 64 supervising officers were appointed to supervise the work of 128 teams.  The Deputy Directors of District Statistical Offices and officers from the HQs were engaged as supervising officers. In addition, 2 Supervising officers were kept as reserve for meeting any emergency and 4 enumerators were also kept as reserve for the same purpose. Thus, the number of enumerators and supervising officers were 260 and 70 and 66 respectively. There were also senior officials from HQs who frequently visited the sample areas randomly to ensure the quality of survey data. The supervising officers were required to examine all the questionnaires completed by the field staff and also verify that each interview had been carried out in time and the questionnaires were completed correctly.  They also ensured that the seasonal variations in income and expenditure pattern have been reflected in the collected data sets. In cases where further corrections were needed, the respective enumerators were instructed to do the same. The enumerators and the female facilitators used to inform the supervising officers of any problem they faced during the period and the supervising officers, in turn, helped the enumerators in solving their problems.  The enumerators, soon after completion of data collection and data entry, sent the soft copy of the data sets to the headquarters through Dropbox and simultaneously sent the filled-in questionnaires either through special messengers or through courier service to the HQs. These data sets were promptly verified in the headquarters. In case any error or inconsistency was found, it was immediately communicated to the concerned enumerator and the supervising officers.  These control and supervising measures enhanced the quality of data and the data entry system to a great extent. |

**1.4 Quality dimensions**

**Relevance**

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| User Needs | Not yet available |
| User Satisfaction | Not yet available |
| Data completeness rate | Not yet available |

**Accessible and clarity**

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| Release calendar access | Not yet available |
| News release | Not yet available |
| Publications | Final report on HIES 2016 can be accessed in pdf. format on BBS website <http://bbs.gov.bd/site/page/b588b454-0f88-4679-bf20-90e06dc1d10b/> |
| On-line database | Not yet available |
| Micro-data access | Not yet available |
| Other | NA |
| Documentation on methodology | Final report on HIES 2016 provides detailed methodological information on sample design, data collection and data processing, and poverty estimates and indicators. |
| Quality documentation | Not yet available |

**Timeliness and punctuality**

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| --- | --- |
| Timeliness and time lag - final results | Not yet available |
| Punctuality | Not yet available |

**Coherence and comparability**

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| --- | --- |
| Comparability - geographical | All HIES were carried out with national geographic coverage. |
| Comparability over time | Changes introduced on successive HIES over time may limit time comparability. |
| Coherence - cross domain | Changes introduced on successive HIES over time may limit domain comparability. |
| Coherence - internal | Not yet available |

**Accuracy and reliability**

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| --- | --- |
| Overall accuracy (response rate) | Not yet available |
| Sampling errors | Not yet available |
| Non-sampling error | Not yet available |

**2. Releases**

| **ReleaseTitle** | **PlannedReleaseDate** | **ActualReleaseDate** |
| --- | --- | --- |
| Final report on Household Income and Expenditure Survey 2010 | 2010 | 2010 |
| Final report on Household Income and Expenditure Survey 2016 | 2016 | 2016 |

**3. Process documentation (for internal users)**

**3.1 General information**

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| --- | --- |
| Goals/objectives in workplan/strategy | See publication chapter 1.2 |
| Other goals | NA |
| Statistical program type | Sample based survey program |
| Methodology (general) | **1. DESIGN OUTPUTS**  *Summary information*  *Publication*  Final report on HIES 2016 can be accessed in pdf. format on BBS website  <http://bbs.gov.bd/site/page/b588b454-0f88-4679-bf20-90e06dc1d10b/>  *Dimensional data*  NA  *Unit data*  NA  **2. DESIGN VARIBABLE DESCRIPTIONS**  NA  **3. DESIGN COLLECTION**  See publication chapter 1.4 and 1.5 and 1.6  \*4. DESIGN FRAME AND SAMPLE\*\*  See publication chapter 1.3 Sample design  **5. DESIGN PROCESSING AND ANALYSIS**  See publication chapter 1.6  **6. DESIGN PRODUCTION SYSTEM AND WORKFLOW**  See roles and processes below. Each process describes who is doing what, input, output, tools and specific methodology aspects. See also description of IT solution (general) |
| IT solution (general) | NA |

**3.2 Roles and human resources**

| **Name** | **Description** | **Number of staff allocated in one instance of the survey (man-months)** |
| --- | --- | --- |
| Top management - HQ | Director General | NA |
| Subject matter specialist HQ | Subject matter staff allocated to survey | NA |
| Dissemination staff | Staff allocated to dissemination and data storing | NA |
| Other roles HQ (IT etc.) | Staff allocated for data capture tasks | NA |
| District office staff | Enumerators  Supervisors ensuring quality of enumeration | NA |

**3.2 Collection, Processing, Analysis and Dissemination**

**Data collection**

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| Who is doing what | 1. Subject matter specialist prepares data collection: questionnaires, plans etc. 2. District office staff uses paper questionnaire to collect data. 3. District office staff and send questionnaire by post / transport to the headquarters for data transcription? (Or is the data transcription done at the district level). 4. HQ staff do data capture |
| Input | Sample, directory, questionnaires and tools for data capture designed and tested in the design and build phase |
| Output | Directory information, completed paper questionnaires, Inputdata Data in CSPro / Stata / SPSS |
| Methodology | See general information |
| Tools | Customized Software (CSpro), SPSS, STATA |

**Data processing**

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| --- | --- |
| Who is doing what | Subject matter specialists do data editing, create weights |
| Input | Input database: Data file in CSPro |
| Output | Clean database: Stata/SPSS files |
| Methodology | See general information |
| Tools | Customized Software (CSpro), SPSS, STATA |

**Data analysis**

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| --- | --- |
| Who is doing what | Subject matter specialists prepare tables, do analysis  Technical committee reviews  Top management approves |
| Input | Output from processing phase, draft tabulation plan from design phase |
| Output | Output database: file, report etc. |
| Methodology | See general information |
| Tools | Stata and word |

**Data dissemination**

|  |  |
| --- | --- |
| Who is doing what | Subject matter specialist prepares press release with highlights and invite press for presentation of results  Meeting with press  Dissemination staff release report and update release calendar  Press publishes press release |
| Input | Output from analysis phase |
| Output | Approved report, pdf file at the website, press release etc. |
| Methodology | See general information |
| Tools | General purpose office tools and web tools |

**3.3 Evaluation**

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| Evaluation: results compared to goals | NA |
| Evaluation: results compared to indicators for processes | NA |
| Issues based on evaluation | NA |
| Recommendations | NA |