The quality of data is tested at FIVE layers. The following table gives the details of layers and parameters checked in each layer:

**TABLE 1: Data Quality layers**

|  |  |  |
| --- | --- | --- |
| **Layer** | **Parameter** | **Related Reports** |
| **File Quality** | 1. File and data should be in required format 2. Header properly given 3. Unique ID properly given | 1.0 |
| **Bank Level Quality** | 1. All branches are reported (as compared to BSR-7 and Last Quarter BSR-1) 2. Difference with BSR-7 3. Growth over Last Quarter BSR-1 | 2.1-2.2 and 6.1 |
| **Branch Level Quality** | 1. Difference with BSR-7 2. Growth over Last Quarter BSR-1 | 4.1-4.4 |
| **Account Level Quality** | 1. Invalid codes 2. Inconsistencies | 5.1-5.2 |
| **Data Reliability** | 1. Distribution with respect to various parameters should be proper | 6.1-6.10 |

Apart from this, report ‘**3.0 Data Quality Summary**’ contains summary information of tables 2.1-6.10 for ready reference. The details of reports are provided in Table 2 and Annexure. **These reports are generated once a file is accepted i.e. File Quality Layer must be satisfied.**

The data submitted by Bank is subjected to above five quality layers and quality is tested for all of the parameter listed above (Table 1).

**TABLE 2: Summary of BSR-1 Reports**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sr. No.** | **Table** | **Contents** | **Details** |
| 1 | File Receipt | 1.0 List of Files received with status |  |
| 2 | Receipt Report | Providing the summary of receipt of data  2.1 Receipt wrt BSR-7  2.2 Receipt wrt Last Quarter BSR-1 | This gives summary of number of branches received, their totals and comparison with BSR-7 and Last Qtr BSR-1. This will help in identifying whether all branches are sent or not. |
| 3 | Data Quality Summary | 3.0 Data Quality Summary | This provides a snapshot of various bank, branch and account level quality characteristics for quick reference. |
| 4 | Branch Level Data Quality Reports | This Includes  4.1 Classification of Branch–wise difference with BSR-7  4.2 Classification of Branch-wise Growth over last Qtr BSR-1  4.3 Branch Quality (Part-1 code-wise)  4.4 Invalid Part-1 Codes | The branch level differences with BSR-7 and previous Qtr BSR1 are provided here both in summarized form and part-1 code-wise. These needs to be either confirmed or corrected. |
| 5 | Account Level Data Quality Report | This includes  5.1 Major Inconsistencies  5.2 Distinct Invalid Codes List | Account level errors are summarized here. These need to be corrected. |
| 6 | Summary Tables | Summary tables with respect to  6.1 Population Group  6.2 State  6.3 Occupation  6.4 Type of Account  6.5 Type of Organization  6.6 category of Borrower  6.7 Interest rate and Type of Interest Rate  6.8 Asset Classification and Secure/Unsecure  6.9 Credit-Limit Classes  6.10 High Value Accounts  ‘Unique ID Details (Type of Account Wise)’ | These tables will summarize the data as per different parameters. These tables required to be vetted by Bank for distribution of credit. These need to be either confirmed or if there is discrepancy, bank needs to resubmit data. |
| 7 | Annexure | 7.0 This contains a truncated list of accounts having errors (top 200 records for each of the error (except invalid codes)) | Account level information along with the error flags. These need to be corrected. |

After receiving the key tables (description of these is provided in Table 2) of BSR-1 data from Reserve Bank, the following FOURTEEN ACTIONS classified in FIVE groups are required to be taken at Bank’s end:

**A) Account Level Corrections**

1. **Correct Invalid Codes:**

The invalid codes given for various fields of BSR-1 are mentioned in the Key Table 5.2. The location of records in data files given by bank is provided in report 7.0.

Number of accounts with occupation code 99999 is given in Table 6.3.

ACTION 1: Bank is required to correct invalid codes in all records. Put appropriate occupation code in accounts where code 99999 is used.

1. **Interest Rate Errors:**

For ‘Type of Account<50’, the number of accounts are given in Table 6.7 where

* 1. 0% interest rate given (but asset class standard/substandard)
  2. 0%<Interest rate<4%
  3. >40% interest rate given
  4. Interest rate not reported

For ‘Type of Account=50’, i.e. Packing Credit, the number of accounts are given in Table 6.7 where

* 1. 0% interest rate given (but asset class standard/substandard)
  2. >40% interest rate given
  3. Interest rate not reported

The locations of these errors are provided in annexure Table 7.0 with related flags.

Action 2: Bank needs to correct these interest rate figures. If they submit that the figures are correct, they need to provide reason for this.

1. **Misclassification in food credit code and inter-bank advance codes**

The list of branches reporting food credit and Inter-Bank Advances is provided at the end of Table 6.3.

Action 3: bank needs to check and correct if required.

1. **Inconsistencies in data:**

Table 5.1 provides the number of records with inconsistencies with respect to use of codes in Occupation, Type of Account, Type of Organization and Category of borrower.

The list of records is provided in annexure Table 7.0.

Action 4: Bank is required to make corrections with respect to Table 5.1.

**B) Branch Level Corrections**

1. **Difference in Branch Totals with BSR-7:**
   1. The number of branches where positive amount reported in both BSR-1 and BSR-7 are provided in Table 2.1 with flag ‘F1’ and distribution of difference in branch total is given in Table 4.1.
   2. The numbers of branches where zero amounts reported in BSR-1 but positive amount reported in BSR-7 is given in Table 2.1 with flag ‘F3’.

The list of part-1 codes is given in Table 4.3.

Action 5: With respect to point (a) and (b) above, Bank need to correct/confirm the amount of branches where difference with BSR-7 is very large.

1. **Growth of Branch Totals with Last Quarter BSR-1:**
   1. The number of branches where positive amount reported in BSR-1 for both current as well as previous quarters are provided in Table 2.2 with flag ‘G1’ and distribution of growth in branch totals is given in Table 4.1.
   2. The numbers of branches where zero amounts reported in BSR-1 but positive amount reported in last quarter BSR-1 is given in Table 2.2 with flag ‘G3’.

The list of part-1 codes is given in Table 4.3.

Action 6: With respect to point (a) and (b) above, Bank need to correct/confirm the amount of branches where growth/decline over last quarter BSR-1 is very large.

**C) Bank Level Corrections**

1. **Branches reported in BSR-7 but not reported in BSR-1:**

The number of such branches is given in Table 2.1 and list of part-1 codes are given in Table 4.3 with flag ‘F7’ and ‘F8’.

Action 7: Bank needs to submit data of these branches.

1. **Branches reported in BSR-1 last Quarter but not reported in BSR-1 current quarter:**

The number of such branches is given in Table 2.2 and list of part-1 codes are given in Table 4.3 with flag ‘G7’ and ‘G8’.

Action 8: Bank needs to submit data of these branches.

1. **Bank level difference in total credit of BSR-1 current quarter with BSR-7 (similarly bank level Credit Growth with respect to last Quarter BSR-1):**

The difference in credit between BSR-1 and BSR-7 as well as credit growth of BSR-1 with respect to last quarter are reported in Table 6.1.

Action 9: Bank needs to correct if there is substantial variation without any reason.

**D) Data Reliability**

1. **Consistency of Unique ID across quarters:**

The report ‘Unique ID Details (Type of Account Wise)’ provides the number of unique IDs reported in current quarter which were also reported in previous quarters (**Common Accounts**). Similarly, the number of **new unique IDs** i.e. reported in current quarter only is also provided.

Action 10: bank needs to confirm the number of common and new unique IDs.

1. **Distribution of Credit with respect to various parameters:**

Tables 6.1 to 6.9 provide distribution of credit wrt various parameters in BSR-1 for both current and last quarter. The credit growth in each of the categories of parameter is also given.

Action 11: Banks needs to do complete vetting of the distribution given in Key tables and confirm the same. If distributions are not matching with their internal data, bank needs to make corrections and resubmit the data.

1. **High Value Credit Accounts:**

Tables 6.10 gives list of accounts with high credit limit.

Action 12: Banks needs to do complete vetting of these accounts and make corrections if required.

**E) Others**

1. **Invalid Part-1 codes:**

The list of such branches is given in Table 4.4.

Action 13: Bank needs correct the invalid part-1 codes and resubmit the data for these branches. If part-1 code is not obtained, bank needs to get these branches updated in Reserve Bank Master Office File urgently and resubmit the data of these branches with part-1 code provided by Reserve Bank.

1. Action 14: Provide information as per the attached document ‘Information from Banks’.

**Important Notes:**

1. If there is any correction in some accounts, Bank may resubmit only those accounts data as per required file format of BSR-1 (including Header).
2. The corrections should be done at the base data level.

**Annexure**

**Description of Flags**

**Level 1: Invalid Code/Value in individual fields**

|  |  |
| --- | --- |
| **Error Type** | **Description** |
| EA | Wrong District utilization code |
| EB | Wrong Population utilization code |
| EC | Wrong Type of account code |
| ED | Wrong Organization code |
| EE | Wrong Activity/occupation code |
| EF | Wrong Category of Borrower code |
| EG | Wrong Asset classification code |
| EH | Wrong Secured/Unsecured code |
| EI | Wrong Fix/Floating code |
| EJ | Wrong Rate of Interest (blank, special character say 11.4, #112 etc, negative say -112) |
| EK | Wrong Credit Limit (blank, special character, negative, decimal) |
| EL | Wrong Amount (blank, special character, decimal) |
| EM | Wrong Foreign Currency Loan (FCL) code |

**Level 2: Inter-consistency of codes across different Fields**

|  |  |  |
| --- | --- | --- |
| **Error Type** | **Description** | **When to be checked condition** |
| WA | Given population code don't exist in given district code | EA and EB don't exist |
| WH | Occupation is Personal Loan but Type of Account is Packing Credit or Bills/TCs/DDs | EE and EC don't exist |
| WI | Occupation is Personal Credit Card but Type of Account is Other than Personal CC | EE and EC don't exist |
| WJ | Occupation is Personal Loan but Organization is Other than Household/Co-operative/Non-Resident sector | EE and ED don't exist |
| WK | Occupation is Personal Loan but Category of borrower is Manufacturing/Service Enterprise | EE and EF don't exist |

**Level 3: Other Cautions/Warnings/Errors**

|  |  |  |
| --- | --- | --- |
| **Error Type** | **Description** | **When to be checked condition** |
| CG | Interest rate 0%, asset classification 1 or 2, Type of Account less than equal to 50 | EC, EG, EJ don’t exist |
| CH | 0%<Interest rate<4%, Type of Account less than 50 and non FCL | EC, EJ, EM don’t exist |
| CI | Type of account is other than Personal/General/Other cards (Exclude type of Acc >50) but Interest rate >= 40% | EC, EJ Don’t exist |
| CJ | Type of account is Personal/General/Other cards but Interest rate >= 40% | EC, EJ Don’t exist |
| CK | Credit limit=0, asset classification 1 or 2 | EK, EG don’t exist |
| CL | Amount<0 | EL doesn’t exist |

**Branch Receipt: With Respect to Current Quarter BSR-7**

|  |  |  |
| --- | --- | --- |
| **Receipt Of Branch** | **Credit Status In Branch** | **Flag** |
| Reported in Both BSR-1 and BSR-7 | POSITIVE CREDIT IN BOTH | F1 |
| POSITIVE CREDIT IN BSR-1 AND NIL CREDIT IN BSR-7 | F2 |
| NIL CREDIT IN BSR-1 AND POSITIVE CREDIT IN BSR-7 | F3 |
| NIL CREDIT IN BOTH | F4 |
| Reported in BSR-1 Only | POSITIVE CREDIT REPORTED IN BSR-1 | F5 |
| NIL CREDIT REPORTED IN BSR-1 | F6 |
| Reported in BSR-7 Only | POSITIVE CREDIT REPORTED IN BSR-7 | F7 |
| NIL CREDIT REPORTED IN BSR-7 | F8 |

**Branch Receipt: With Respect to Previous Quarter BSR-1**

|  |  |  |
| --- | --- | --- |
| **Receipt Of Branch** | **Credit Status In Branch** | **Flag** |
| Reported In Both Current and Last Quarter | POSITIVE CREDIT IN BOTH QUARTERS | G1 |
| POSITIVE CREDIT IN CURRENT QUARTER AND NIL CREDIT IN LAST QUARTER | G2 |
| NIL CREDIT IN CURRENT QUARTER AND POSITIVE CREDIT IN LAST QUARTER | G3 |
| NIL CREDIT IN BOTH | G4 |
| Reported In Current Quarter Only | POSITIVE CREDIT REPORTED IN CURRENT QUARTER | G5 |
| NIL CREDIT REPORTED IN CURRENT QUARTER | G6 |
| Reported In Last Quarter Only | POSITIVE CREDIT REPORTED IN LAST QUARTER | G7 |
| NIL CREDIT REPORTED IN LAST QUARTER | G8 |