

VIII

CURRENCY MANAGEMENT

During 2024-25, initiatives were undertaken towards modernisation of the currency management architecture. Maintaining adequate supply of clean banknotes in circulation, sustaining the self-sufficiency in banknote production, strengthening the integrity of banknotes through research, and improving methodologies for assessing the future demand for banknotes remained key priorities.

VIII.1 The Reserve Bank remained committed during the year to ensure sufficient supply of clean banknotes and coins to meet the demand for cash from the public. Withdrawal of ₹2000 denomination banknotes initiated in 2023-24 continued during the year. The plan to modernise the currency management infrastructure in the country was taken forward during the year. An exercise to standardise the Note Sorting Machines (NSMs) being used across the currency ecosystem was undertaken in collaboration with the Bureau of Indian Standards (BIS). A research project commissioned by the Department of Currency Management (DCM) on sustainable use of banknote shreds yielded positive results and the process is being actively taken forward.

VIII.2 Against this backdrop, the rest of the chapter is organised into five sections. Section 2 covers the implementation status of the agenda for 2024-25, followed by important developments in currency in circulation along with other initiatives in section 3. The developments with regard to Bharatiya Reserve Bank Note Mudran Pvt. Ltd. (BRBNMPL), a wholly owned subsidiary of the Reserve Bank, are given in section 4. The Department's agenda for 2025-26 is provided in section 5 with concluding observations towards end of the chapter.

2. Agenda for 2024-25

VIII.3 The Department had set out the following goals for 2024-25:

- Carrying forward the project on modernisation of the currency management infrastructure (Paragraph VIII.4);
- Exploring more sustainable and eco-friendly disposal of currency note briquettes (Paragraph VIII.5);
- Finetuning policies and initiating measures for improving delivery of banknotes/coins to members of the public (Paragraph VIII.6); and
- Implementation of technical standards issued by BIS for NSMs used by banks across the country (Paragraph VIII.7).

Implementation Status

VIII.4 The Reserve Bank has embarked upon the project 'Sa-Mudra' ("With Currency"), involving multiple stakeholders for redesigning and modernising the currency management architecture in the country using network optimisation, technological solutions, automation and business process re-engineering. The underlying objective is to attain better process efficiency, clean note policy enforcement, better

security, and green shift in currency management operations. A task force has been set up to implement this project. In view of the enormity and complexities involved, it has been decided to implement the project in a phased manner.

VIII.5 With a view to move up the sustainability value chain for disposal of soiled banknotes, the Department undertook a project for identifying

alternate usage of the banknote shreds. Following research and field level trials, it has been established that the banknote shreds can be used to supplement the raw material for manufacturing of particle boards. Accordingly, a process has been initiated for empanelment of particle board manufacturers who will procure briquettes for end use as raw material in partial replacement of wood particles in their boards (Box VIII.1).

Box VIII.1

Sustainable Use of Banknote Shreds/Briquettes

In consideration of the environmental impact of the ingredients embedded in banknote paper substrate such as security threads and fibres, security inks and other chemicals used in banknote printing; the Reserve Bank has been exploring sustainable and eco-friendly solutions for disposal of the banknote briquettes. Over the past few years, the quantum of banknote briquettes produced in India annually has hovered around 15,000 tonnes.

Current Global Practices in Banknote Shred Disposal

Globally, central banks as well as other authorities responsible for managing currency operations deploy different methods for disposal of banknote shreds, with a vast majority disposing them in landfills or through incineration (Chart 1). However, these methods are not environment friendly, may affect soil and/or generally degrade the environment owing to the chemical and elemental properties of banknotes.

In comparison to the primitive disposal methods such as dumping the banknote shreds in landfill and incinerating them as fuel substitutes, re-usage of the soiled banknote shreds for fabricating certain long-lasting materials (such as board panels, materials for interior design, particle board furniture and acoustic applications) is found to be more sustainable.

Study Project with Institute of Wood Science and Technology (IWST)

The Department commissioned a study by IWST¹ for 'Evaluation of Suitability of Banknote Briquettes Replacement with Wood Particles to Manufacture Particle Boards'. The study established that particle boards created

Chart 1: Various Uses of Banknote Shreds



Source: M/s Royal Dutch Kusters Engineering, 'Waste Recovery Pyramid (Value Chain of Disposal) of Banknote Shred/Briquettes', Netherlands.

with currency briquette particles would conform to the technical requirements of particle board.

Based on the findings of the study, the Reserve Bank has initiated a process for empanelment of particle board manufacturers who will procure briquettes for end use as partial replacement of wood particles in their boards. Going forward, the Department would continue to actively pursue its initiatives towards finding more environment-friendly ways for disposal of banknote shred/briquettes.

Source: RBI.

¹ Institute of Wood Science and Technology is an autonomous body under the Ministry of Environment, Forest and Climate Change, Government of India.

VIII.6 The Reserve Bank undertook various initiatives to improve the circulation of coins such as their distribution and exchange of lower denomination notes through Mobile Coin Vans (MCVs), coin *melas* and packaging of coins in value-based small pouches.

VIII.7 In pursuance of the clean note policy, the Reserve Bank has issued instructions on 'Note Authentication and Fitness Sorting Parameters' for NSMs installed in the banks. However, lack of uniformity in sorting of banknotes was observed due to non-standardisation of NSMs in use by the banks. To address this issue, BIS, at the Reserve Bank's initiative, framed and issued IS 18663:2024 titled 'Note Sorting Machines - Specifications' in March 2024. The laboratory facility of BIS is being leveraged for certification of NSMs that duly meet the standards and performance testing parameters. Banks have also been advised to

deploy only such NSM models that conform to these standards and are duly certified by BIS beginning November 1, 2025.

3. Developments in Currency in Circulation

VIII.8 Currency in circulation includes banknotes, central bank digital currency (CBDC) and coins. Presently, banknotes in circulation comprise denominations of ₹2, ₹5, ₹10, ₹20, ₹50, ₹100, ₹200, ₹500 and ₹2000. The Reserve Bank is no longer printing banknotes of denominations of ₹2, ₹5 and ₹2000. Coins in circulation comprise denominations of 50 paise and ₹1, ₹2, ₹5, ₹10 and ₹20.

Banknotes

VIII.9 The value and volume of banknotes in circulation increased by 6.0 per cent and 5.6 per cent, respectively, during 2024-25 (Table VIII.1). During 2024-25, the share of ₹500 banknotes at

Table VIII.1: Banknotes in Circulation (end-March)

| Denomination (₹) | Volume (pieces in lakh) | | | Value (₹ crore) | | |
|------------------|-------------------------|--------------------|--------------------|---------------------|---------------------|---------------------|
| | 2023 | 2024 | 2025 | 2023 | 2024 | 2025 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 2 and 5 | 1,10,843 (8.1) | 1,10,547 (7.5) | 1,10,352 (7.1) | 4,263 (0.1) | 4,249 (0.1) | 4,239 (0.1) |
| 10 | 2,62,123 (19.2) | 2,49,506 (17.0) | 2,53,590 (16.4) | 26,212 (0.8) | 24,951 (0.7) | 25,359 (0.7) |
| 20 | 1,25,802 (9.2) | 1,33,973 (9.1) | 1,38,398 (8.9) | 25,160 (0.8) | 26,795 (0.8) | 27,680 (0.8) |
| 50 | 85,716 (6.3) | 89,783 (6.1) | 98,959 (6.4) | 42,858 (1.3) | 44,892 (1.3) | 49,480 (1.3) |
| 100 | 1,80,584 (13.3) | 2,05,656 (14.0) | 2,27,891 (14.7) | 1,80,584 (5.4) | 2,05,656 (5.9) | 2,27,891 (6.2) |
| 200 | 62,620 (4.6) | 77,108 (5.2) | 86,754 (5.6) | 1,25,241 (3.7) | 1,54,215 (4.4) | 1,73,509 (4.7) |
| 500 | 5,16,338 (37.9) | 6,01,770 (41.0) | 6,34,458 (40.9) | 25,81,690 (77.1) | 30,08,847 (86.5) | 31,72,287 (86.0) |
| 2000 | 18,111 (1.3) | 410 (0.03) | 318 (0.02) | 3,62,220 (10.8) | 8,202 (0.2) | 6,366 (0.2) |
| Total | 13,62,137 | 14,68,754 | 15,50,720 | 33,48,228 | 34,77,805 | 36,86,811 |

Note: 1. Figures in parentheses represent the percentage share in total volume/value.

2. Figures may not add up to total due to rounding off of numbers.

Source: RBI.

86 per cent, declined marginally in value terms. In volume terms, ₹500 denomination at 40.9 per cent, constituted the highest share of the total banknotes in circulation, followed by ₹10 denomination banknotes at 16.4 per cent. The lower denomination banknotes (₹10, ₹20 and ₹50) together constituted 31.7 per cent of total banknotes in circulation by volume.

Withdrawal of ₹2000 Denomination Banknotes from Circulation

VIII.10 The withdrawal of ₹2000 banknotes from circulation, initiated in terms of press release dated May 19, 2023, continued during the year and 98.2 per cent of ₹3.56 lakh crore in circulation at the time of announcement have returned to the banking system up to March 31, 2025. The facility for exchange and deposit of the ₹2000 banknotes is presently available at 19 issue offices² of the Reserve Bank. The ₹2000 banknotes can also be sent through India Post to any of the 19 issue offices for credit to bank accounts in India.

Coins

VIII.11 The value and volume of coins in circulation increased by 9.6 per cent and 3.6 per cent, respectively, during 2024-25 (Table VIII.2). As on March 31, 2025, coins of ₹1, ₹2, and ₹5 together constituted 81.6 per cent of the total volume of coins in circulation, while in value terms, these denominations accounted for 64.2 per cent.

e₹ in Circulation

VIII.12 The value of e₹ in circulation increased by 334 per cent during 2024-25 (Table VIII.3).

Currency Management Infrastructure

VIII.13 The functions relating to issuance of currency (*i.e.*, banknotes and coins) and their management are performed by the Reserve Bank through its 19 issue offices, 2,689 currency chests and 2,299 small coin depots across the country. As on March 31, 2025, State Bank of India accounted for the highest share of currency chests (Table VIII.4).

Table VIII.2: Coins in Circulation (end-March)

| Denomination (₹) | Volume (pieces in lakh) | | | Value (₹ crore) | | |
|------------------|-------------------------|--------------------|--------------------|-----------------|------------------|------------------|
| | 2023 | 2024 | 2025 | 2023 | 2024 | 2025 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Small coins | 1,47,880 (11.6) | 1,47,880 (11.2) | 1,47,880 (10.8) | 700 (2.3) | 700 (2.1) | 700 (1.9) |
| 1 | 5,21,618 (40.8) | 5,29,934 (40.0) | 5,38,720 (39.3) | 5,216 (17.2) | 5,299 (15.9) | 5,387 (14.7) |
| 2 | 3,47,277 (27.1) | 3,55,929 (26.9) | 3,64,605 (26.6) | 6,946 (23.0) | 7,119 (21.3) | 7,292 (19.9) |
| 5 | 1,94,155 (15.2) | 2,05,471 (15.5) | 2,16,198 (15.8) | 9,708 (32.1) | 10,274 (30.8) | 10,810 (29.5) |
| 10 | 59,764 (4.7) | 68,637 (5.2) | 83,636 (6.1) | 5,976 (19.8) | 6,864 (20.6) | 8,364 (22.9) |
| 20 | 8,483 (0.7) | 15,667 (1.2) | 20,180 (1.5) | 1,697 (5.6) | 3,133 (9.4) | 4,036 (11.0) |
| Total | 12,79,178 | 13,23,518 | 13,71,218 | 30,242 | 33,389 | 36,589 |

Note: 1. Figures in parentheses represent the percentage share in total volume/value.

2. Figures may not add up to total due to rounding off of numbers.

Source: RBI.

² Ahmedabad, Belapur, Bengaluru, Bhopal, Bhubaneswar, Chandigarh, Chennai, Guwahati, Hyderabad, Jaipur, Jammu, Kanpur, Kolkata, Lucknow, Mumbai, Nagpur, New Delhi, Patna and Thiruvananthapuram.

Table VIII.3: e₹ in Circulation (end-March)

| e₹ | Denomination (₹) | Volume (pieces in lakh) | | | Value (₹ crore) | | |
|-----------------|---------------------|----------------------------|----------------|-----------------|--------------------|------------------|------------------|
| | | 2023 | 2024 | 2025 | 2023 | 2024 | 2025 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| e₹-R | 0.5 | 2.7 (16.1) | 18.4 (7.7) | 23.0 (4.7) | 0.01 (0.2) | 0.09 (0.04) | 0.11 (0.01) |
| | 1 | 3.8 (22.2) | 37.3 (15.7) | 45.7 (9.3) | 0.04 (0.7) | 0.37 (0.2) | 0.46 (0.05) |
| | 2 | 2.8 (16.2) | 27.1 (11.4) | 38.8 (7.8) | 0.06 (1.0) | 0.54 (0.2) | 0.78 (0.08) |
| | 5 | 2.4 (13.9) | 27.3 (11.5) | 35.4 (7.2) | 0.12 (2.1) | 1.37 (0.6) | 1.77 (0.2) |
| | 10 | 1.5 (8.8) | 21.4 (9.0) | 30.6 (6.2) | 0.15 (2.6) | 2.14 (0.9) | 3.06 (0.3) |
| | 20 | 1.2 (6.8) | 19.7 (8.3) | 32.0 (6.5) | 0.23 (4.1) | 3.94 (1.7) | 6.39 (0.6) |
| | 50 | 0.8 (4.6) | 17.0 (7.1) | 33.3 (6.7) | 0.39 (6.9) | 8.49 (3.6) | 16.64 (1.6) |
| | 100 | 0.8 (4.8) | 20.7 (8.7) | 38.2 (7.7) | 0.83 (14.5) | 20.73 (8.9) | 38.23 (3.8) |
| | 200 | 0.6 (3.4) | 16.0 (6.7) | 45.7 (9.2) | 1.16 (20.4) | 32.01 (13.7) | 91.33 (9.0) |
| | 500 | 0.5 (3.2) | 32.9 (13.8) | 171.5 (34.7) | 2.71 (47.5) | 164.36 (70.2) | 857.68 (84.4) |
| | 2000 | - | - | - | - | - | - |
| Total e₹-R | | 17.1 | 237.8 | 494.1 | 5.7 | 234.0 | 1,016.5 |
| Total e₹-W | | ... | ... | ... | 10.7 | 0.08 | - |
| Total e₹ | | 17.1 | 237.8 | 494.1 | 16.4 | 234.1 | 1,016.5 |

-: Nil. e₹-R: e₹-Retail. e₹-W: e₹-Wholesale. ...: Not applicable.
Note: 1. Figures in parentheses represent the percentage share in total volume/value.
2. Figures may not add up to total due to rounding off of numbers.
Source: RBI.

Indent and Supply of Currency

VIII.14 The volume of indent of banknotes and coins for 2024-25 was higher than 2023-24 (Tables VIII.5 and VIII.6). The printing presses supplied banknotes as per indent placed with them.

Disposal of Soiled Banknotes

VIII.15 The disposal of soiled banknotes increased by 12.3 per cent during 2024-25 as compared with the previous year (Table VIII.7).

Table VIII.4: Currency Chests and Small Coin Depots (end-March 2025)

| Category | Number of Currency Chests | Number of Small Coin Depots |
|-----------------------|---------------------------------|-----------------------------------|
| 1 | 2 | 3 |
| State Bank of India | 1,372 | 1,221 |
| Nationalised Banks | 1,072 | 869 |
| Private Sector Banks | 227 | 193 |
| Cooperative Banks | 5 | 5 |
| Foreign Banks | 5 | 3 |
| Regional Rural Banks | 7 | 7 |
| Reserve Bank of India | 1 | 1 |
| Total | 2,689 | 2,299 |

Source: RBI.

Counterfeit Notes

VIII.16 During 2024-25, out of the total Fake Indian Currency Notes (FICNs) detected in the banking sector, 4.7 per cent were detected at the Reserve Bank (Table VIII.8).

VIII.17 The counterfeit notes detected in the denominations of ₹10, ₹20, ₹50, ₹100 and ₹200 declined during 2024-25, while those in ₹200

Table VIII.5: Indent and Supply of Banknotes by BRBNMPL and SPMCIL (April-March)

(Pieces in lakh)

| Denom- ination (₹) | 2022-23 | | 2023-24 | | 2024-25 | |
|--------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | Indent | Supply | Indent | Supply | Indent | Supply |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 5 | - | - | - | - | - | - |
| 10 | 6,000 | 6,000 | 8,000 | 8,000 | 18,000 | 18,000 |
| 20 | 20,000 | 19,999 | 20,000 | 20,000 | 15,000 | 15,000 |
| 50 | 20,000 | 20,000 | 25,000 | 25,000 | 30,000 | 30,000 |
| 100 | 60,000 | 60,000 | 70,000 | 70,000 | 80,000 | 80,000 |
| 200 | 20,000 | 20,000 | 30,000 | 30,000 | 40,000 | 40,000 |
| 500 | 1,00,000 | 1,00,004 | 90,000 | 90,000 | 1,20,000 | 1,20,000 |
| 2000 | - | - | - | - | - | - |
| Total | 2,26,000 | 2,26,002 | 2,43,000 | 2,43,000 | 3,03,000 | 3,03,000 |

-: Nil
BRBNMPL: Bharatiya Reserve Bank Note Mudran Pvt. Ltd.
SPMCIL: Security Printing and Minting Corporation of India Ltd.
Note: Figures may not add up to total due to rounding off of numbers.
Source: RBI.

Table VIII.6: Indent and Supply of Coins by Mints (April-March)

(Pieces in lakh)

| Denomination (₹) | 2022-23 | | 2023-24 | | 2024-25 | |
|------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | Indent | Supply | Indent | Supply | Indent | Supply |
| 1 | 2 | 3 | 4 | 5 | 7 | 8 |
| 1 | 1,000 | 1,000 | 3,000 | 3,058 | 1,000 | 1,000 |
| 2 | 3,000 | 3,000 | 3,000 | 3,000 | 1,000 | 1,000 |
| 5 | 3,000 | 3,000 | 3,000 | 3,000 | 8,000 | 8,000 |
| 10 | 1,000 | 1,002 | 1,000 | 1,000 | 1,000 | 1,000 |
| 20 | 2,000 | 2,000 | 2,000 | 1,999 | 4,000 | 4,000 |
| Total | 10,000 | 10,002 | 12,000 | 12,056 | 15,000 | 15,000 |

Note: Figures may not add up to total due to rounding off of numbers.
Source: RBI.

and ₹500 denominations increased by 13.9 and 37.3 per cent, respectively, as compared with the previous year (Table VIII.9).

Expenditure on Security Printing

VIII.18 The expenditure incurred on security printing during 2024-25 was ₹6,372.8 crore as against ₹5,101.4 crore during the previous year mainly due to increase in indent for printing of banknotes.

Table VIII.7: Disposal of Soiled Banknotes (April-March)

(Pieces in lakh)

| Denomination (₹) | 2022-23 | 2023-24 | 2024-25 |
|------------------|-----------------|-----------------|-----------------|
| 1 | 2 | 3 | 4 |
| 2000 | 4,824 | 18,458 | 2,211 |
| 1000 | - | 4 | - |
| 500 | 51,092 | 63,320 | 89,855 |
| 200 | 13,062 | 13,594 | 24,756 |
| 100 | 58,282 | 60,217 | 58,334 |
| 50 | 34,219 | 19,095 | 25,720 |
| 20 | 21,393 | 13,971 | 16,503 |
| 10 | 45,077 | 23,461 | 20,799 |
| Up to 5 | 1,315 | 370 | 384 |
| Total | 2,29,264 | 2,12,493 | 2,38,563 |

-: Nil.
Note: Figures may not add up to total due to rounding off of numbers.
Source: RBI.

Other Initiatives

Awareness Campaign on Coins, Mobile Aided Note Identifier (MANI) and Exchange Facility for Soiled Banknotes

VIII.19 During the year, the Reserve Bank conducted awareness campaigns through digital media, social media and All India Radio (AIR) to increase awareness about coins among members of the public. The Reserve Bank also conducted awareness campaign for the visually impaired through AIR about MANI App which facilitates identification of denomination of Indian banknotes. Further, print, digital and

Table VIII.8: Number of Counterfeit Notes Detected (April-March)

(Number of pieces)

| | 2022-23 | 2023-24 | 2024-25 |
|-------------------------------|--------------------|--------------------|--------------------|
| 1 | 2 | 3 | 4 |
| Detection at the Reserve Bank | 10,465 (4.6) | 17,613 (7.9) | 10,255 (4.7) |
| Detection at Other Banks | 2,15,304 (95.4) | 2,05,026 (92.1) | 2,07,141 (95.3) |
| Total | 2,25,769 | 2,22,639 | 2,17,396 |

Note: 1. Figures in parentheses represent the percentage share in total.
2. Does not include counterfeit notes seized by the police and other enforcement agencies.
Source: RBI.

Table VIII.9: Denomination-wise Counterfeit Notes Detected in the Banking System (April-March)

(Number of pieces)

| Denomination (₹) | 2022-23 | 2023-24 | 2024-25 |
|----------------------------|-----------------|-----------------|-----------------|
| 1 | 2 | 3 | 4 |
| 2 and 5 | 3 | 1 | 3 |
| 10 | 313 | 235 | 159 |
| 20 | 337 | 297 | 253 |
| 50 | 17,755 | 15,366 | 12,015 |
| 100 | 78,699 | 66,310 | 51,069 |
| 200 | 27,258 | 28,672 | 32,660 |
| 500 (Specified Banknotes) | 6 | 11 | 5 |
| 500 | 91,110 | 85,711 | 1,17,722 |
| 1000 (Specified Banknotes) | 482 | 1 | 2 |
| 2000 | 9,806 | 26,035 | 3,508 |
| Total | 2,25,769 | 2,22,639 | 2,17,396 |
| Source: RBI. | | | |

social media campaigns were organised for creating awareness on exchange facility for soiled notes.

Procurement of New Security Features for Indian Banknotes

VIII.20 The Reserve Bank is actively taking forward the process of introduction of new/upgraded security features for banknotes.

Indigenisation of Inputs for Banknote Production

VIII.21 To reduce dependencies on foreign sources, the Reserve Bank has actively pursued indigenisation of banknote production over the years. With persistent efforts, all the primary raw materials used for the production of banknotes, i.e., banknote paper, all types of inks (offset, numbering, intaglio and colour-shifting intaglio ink) and all other security features are now being procured from domestic sources.

4. Bharatiya Reserve Bank Note Mudran Pvt. Ltd. (BRBNMPL)

VIII.22 The BRBNMPL has been playing a critical role in designing, printing and supply of banknotes. BRBNMPL, a subsidiary of the Reserve Bank, has been a partner in the implementation of the Reserve Bank's strategic goal of indigenisation of banknote production. It has also been consistently focusing on enhancing logistics efficiency and bringing cost effectiveness by increasing direct remittances to various currency chests. BRBNMPL has established learning and development centre at its Mysuru campus, which is primarily focused on imparting and sharing banknote printing and allied knowledge to the domestic as well as global stakeholders.

VIII.23 For conducting advanced testing of security features of Indian banknotes, counterfeit deterrence tests, forensic/scientific analysis of forged notes, ethical counterfeiting of notes through the use of latest available tools and technologies and for the development of security/design features for Indian banknotes, a Currency Research and Development Centre (CRDC) has been set up under the administrative control of BRBNMPL.

5. Agenda for 2025-26

VIII.24 During the year, the Department will focus on the following:

- Carrying forward the project on modernisation of the currency management infrastructure;
- Strengthening the integrity of Indian banknotes through introduction of new/upgraded security features;

- Installation and commencement of operation of new SBS machines;
- Capacity augmentation for processing of banknotes; and
- Understanding the payment behaviour of the public through survey.

6. Conclusion

VIII.25 During 2024-25, the Reserve Bank continued its efforts to improve the efficiency of banknote and coin distribution, raise public

awareness about security features of banknotes and acceptance of coins, and ensure adequate supply of clean currency notes for the public. Action towards modernisation and automation of currency management infrastructure also gained momentum. Going forward, sustaining self-sufficiency in banknote production, analytical and developmental currency research towards further strengthening the life and integrity of banknotes and understanding the trends in public preference for cash *vis-à-vis* other modes of payment shall continue to remain key focus areas.