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Bank of Zambia Experience with Polymer Bank notes

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Outline of presentation

- Introduction and background.
- Initial problems with the 2003 polymer banknotes.
- Durability of polymer banknotes in Zambia.
- Benefits of polymer banknotes.
- Main challenges encountered.
- Conclusion.

Location of Zambia



Introduction and background

- Zambian population 11 million people.
- Currency denominations:
- (K 50,000, K 20,000, K 10,000, K5,000, K1,000, K 500, K 100, K 50, K20).

Introduction and background

- In 2003 the Bank of Zambia restructured its currency structure to include two low value polymer denominations of the K 500 and K 1,000.
- The new polymer banknotes were previously paper based notes.
- Zambia was the first African country to use polymer notes.

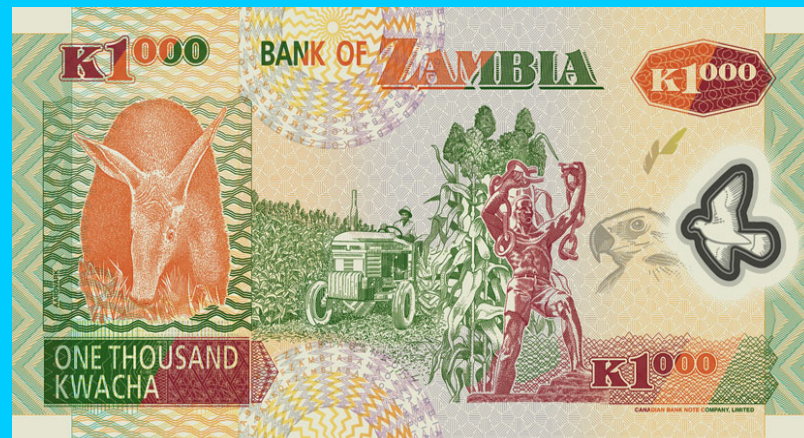
Introduction and background

- The reasons for choosing polymer notes include:
 - Bank's primary concern was cost reduction through **durability** to maintain clean notes and therefore contribute to the Bank's "Clean Note Policy".
 - Expectation was to save nearly US\$ 3.4 million.
 - Counterfeiting of the two denominations was not a major concern.

Initial problems with the 2003 polymer banknotes

- The launch of the 2003 series of the K1,000 and K500 became a problem due to premature fading of inks particularly intaglio inks. In total about 45 million of these notes were delivered and put into circulation.
- The problem was resolved between the Bank of Zambia and the printers resulting in new durable upgraded notes in 2004.

The K 500 and K 1,000 polymer notes



The K 500 and K 1,000 polymer notes



Number of K 1,000 and K500 notes in circulation and withdrawn –mils pieces.

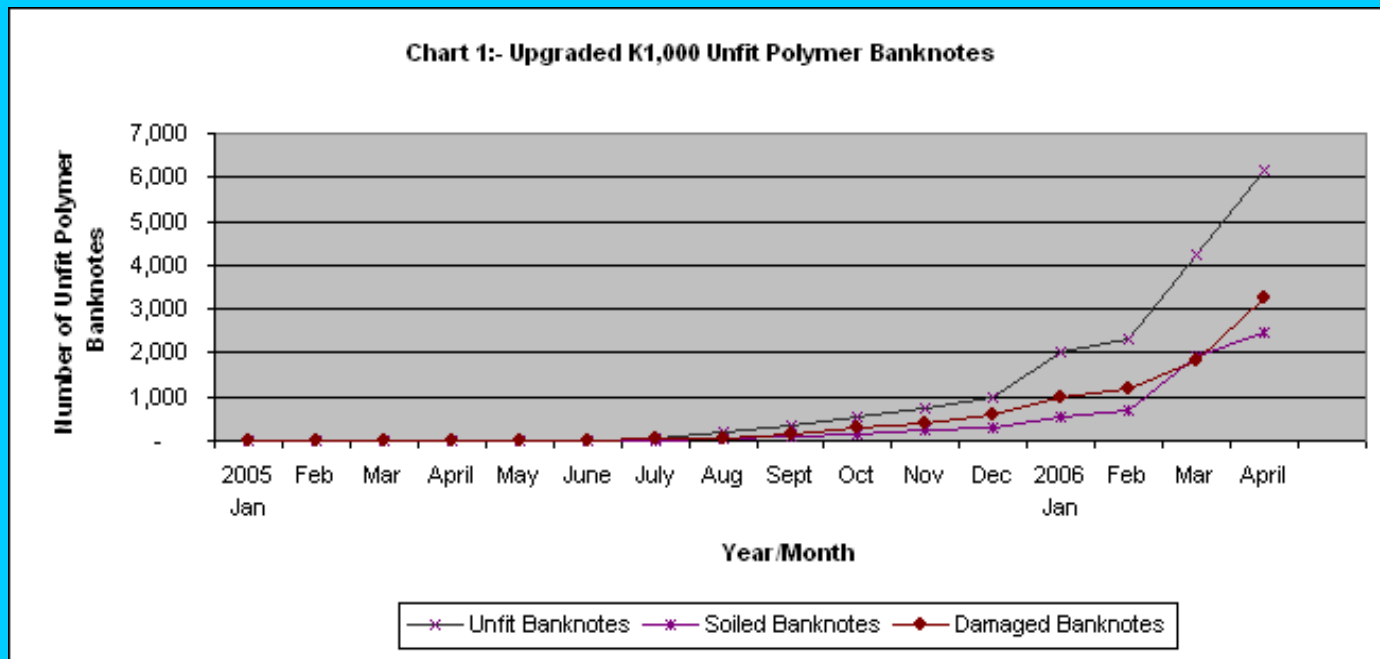
	2003	2004	2005	2006
Issued - polymer notes	20.3	25.4	33.2	24.5
Withdrawn- polymer notes		3.3	24.0	20.2
Total notes in circulation- includes paper notes	37.7	42.4	48.6	52.3

Durability of polymer notes in Zambia

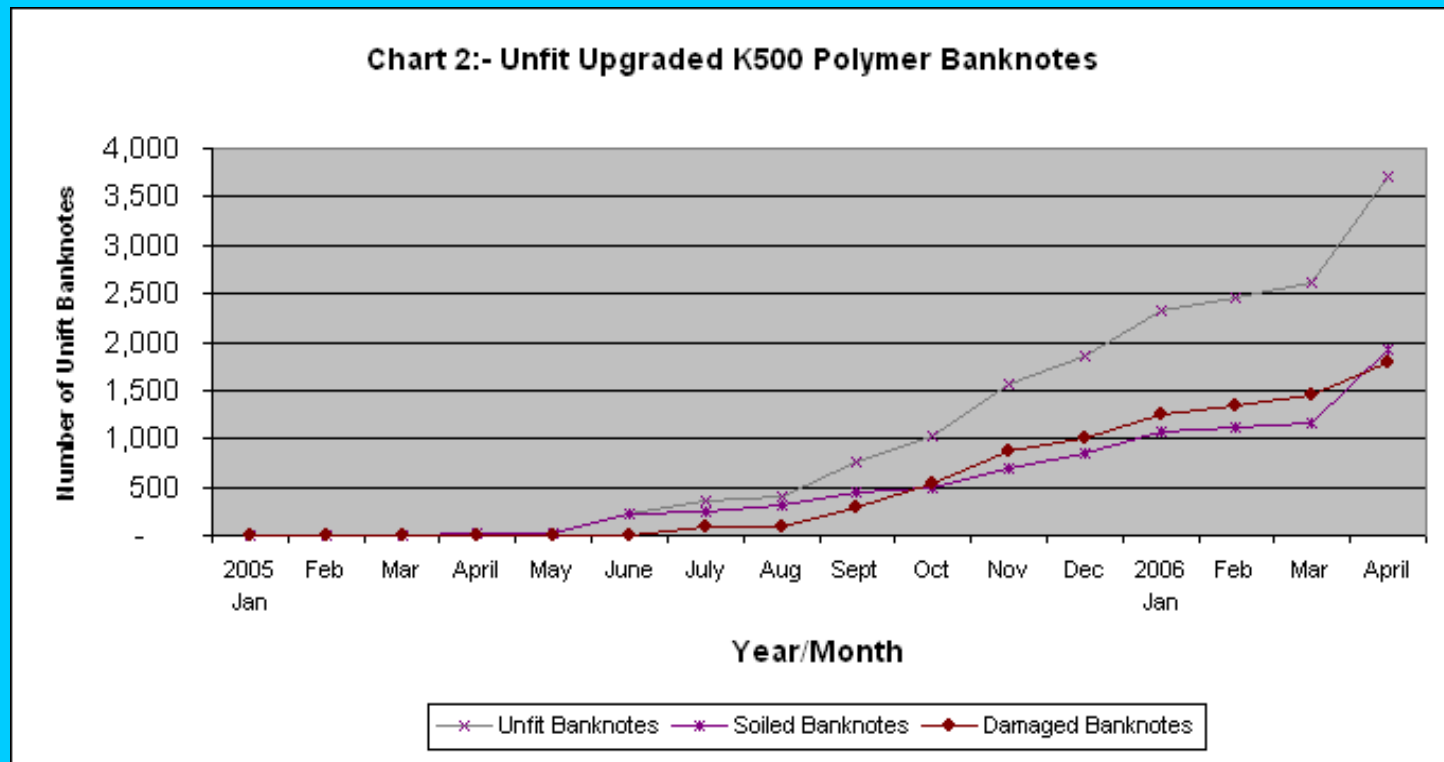
- An in-house study done 2006 to find out the durability or withdrawal rate of upgraded polymer (2004 onwards)
- The number of notes are out of a sample of 2,500 notes of unfit banknotes and 16 samples (40,000) for each from the K1,000 and K 500 were examined over a period of 16 months. January 2005-April 2006.
- Results:
 - Showed that the rate of withdrawal was almost zero for the first six months increasing significantly after the twelfth month.
 - Principle reason for withdrawal was mutilation 52.5%.
 - Proportion of unfit notes below 15%, i.e. 5.5% of sample.

Conclusion was that on average the notes last at least twelve months before they start showing significant signs of stress.

Durability of polymer notes in Zambia



Durability of polymer notes in Zambia



Benefits of polymer banknotes

- Clean banknotes in the two denominations
- Carried out a cost benefit analysis end of 2006
- Based on the following:
 - Actual prices paid and notes in circulation as at January 2006.
 - Polymer notes circulation life span **twelve** months.
 - Paper notes of same denominations circulation life **three** months.

Estimated financial benefits

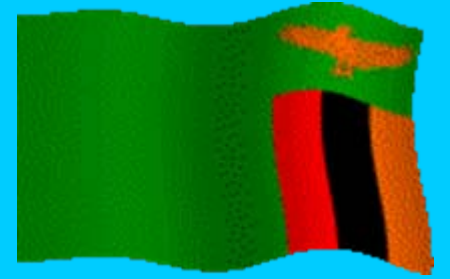
- Estimation of number of replacement notes over a five year period.
- Cost of procurement of paper notes and polymer notes.
- Results: The cost of acquiring polymer notes for same period would be significantly lower than paper notes of same denominations.
- Hence major savings for the two denominations are anticipated.

Main challenges encountered

- Removal of unfit polymer notes.
- Bank notes in rural areas have proved particularly difficult to remove as there are no easy means to do so.
- Mutilation still remains an issue.

Main challenges encountered

- Methods of destruction of polymer notes not tested in Zambia.
- Recycling of polymer not feasible.



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