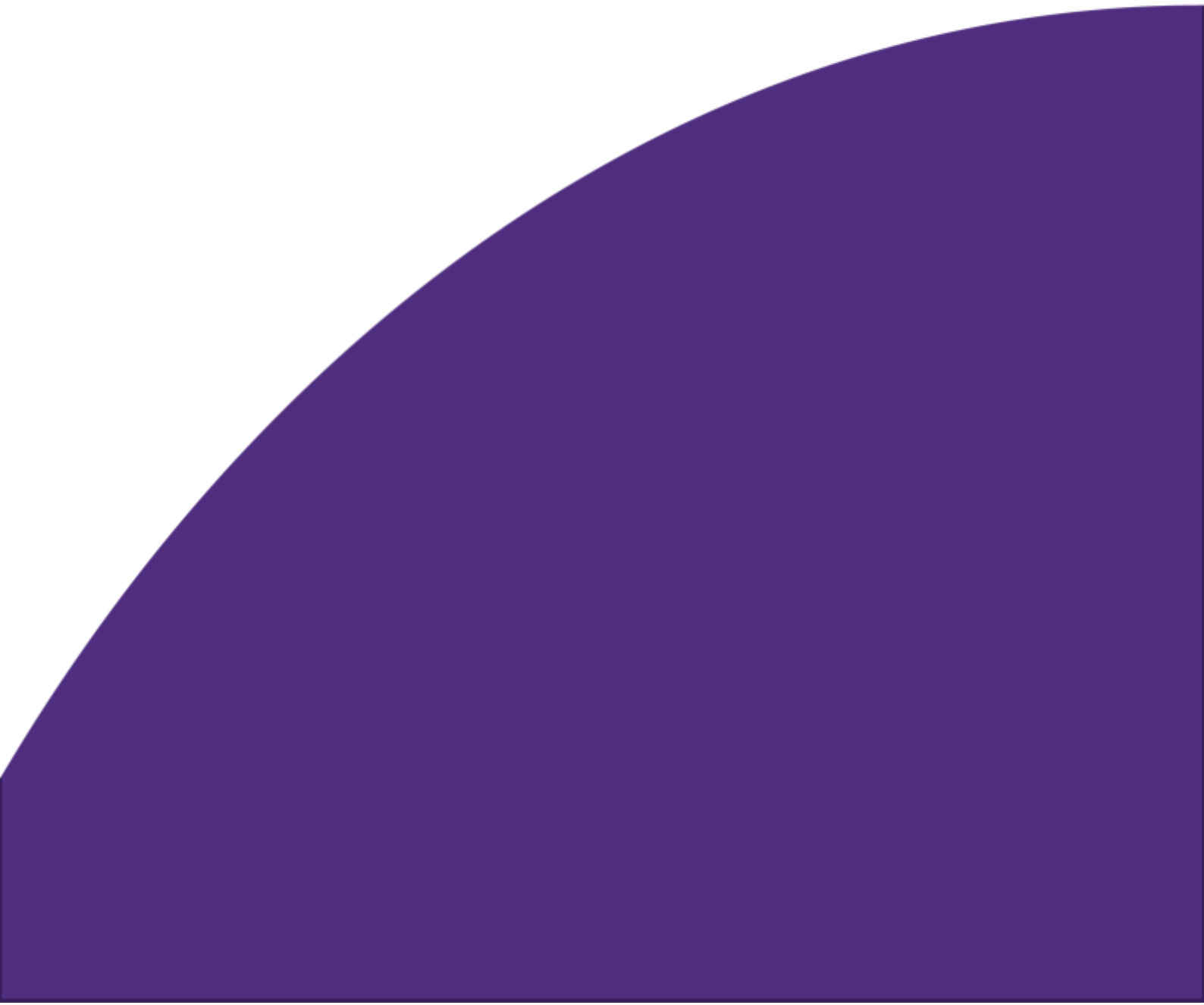


Raw Material Bank for Kakinada Printing Cluster



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Kakinada Printing Cluster

Introduction

The Kakinada printing cluster which is situated in the city of Kakinada is providing services to the customers, industries for the last 60 years and is an important part of the printing sector in the region. The Cluster has 150 units (a majority of them being Micro enterprises), spread over a radius of 10 km in and around Kakinada. At present, the cluster is employing more than 900 people directly & nearly 3,000 people indirectly, and having an annual turnover of INR. 82.50 Crore.

The major products of the cluster are business cards, text books, magazines, pamphlets, journals, wedding cards, labels, letter heads, hotel menu cards, calendars, receipt books, ID cards, packaging material etc.

Kakinada is known to be an educational hub in the region and for this reason, the printing cluster products have good demand in the market. Majority of the text books in the State are published in this cluster.

In order to flourish in the ever-changing market and trends the industry has to take up necessary up gradations and has to embrace newer technologies to face the market challenges. For this reason, 130 printing units in the region have come together, formed a Special Purpose Vehicle (SPV) by the name 'Sri Satyadeva Printing Cluster Association' to establish a Common Facility Centre (CFC) with necessary equipment and machinery under MSE-CDP scheme of Ministry of MSME, Government of India.

The proposal of 'Sri Satyadeva Printing Cluster Association' to establish a CFC for use by printing units in the Kakinada Cluster, with a project cost of INR 14.76 Crore was accorded final approval by Ministry of MSME, GoI and sanction order was issued on 29th July, 2021. As the project is approved under MSE-CDP scheme, the SPV is eligible to receive GoI grant of INR 10.33 Crore and GoAP matching grant of INR 2.95 Crore towards establishment of CFC. At present, the project is under implementation and is expected to be completed in the coming 3-4 months.

Need for Raw Material Bank

Raw material required by printing units is paper & boards (different varieties varying in size, texture, gsm etc.), inks, gums & glues, printing plates, and other accessories such as clips, pins etc. Out of all these raw materials, cost of paper and boards is single major item constituting about 85%-90% of cost final printed product/ output.

Kakinada printing cluster on an average consumes about 2,000 tonnes of paper per annum. At present, most of the raw material (including paper) is procured individually by the units from dealers located in Rajahmundry, Vijayawada, Hyderabad, and Kakinada.

Once the Common Facility Centre (CFC) being established under MSECDP scheme is operationalised in the next few months, printing units in Kakinada Cluster will be able to execute orders in Kakinada itself without dependence on facilities in other cities such as Vijayawada/ Rajahmundry will decrease. Further, it will result in increase in raw material requirement of printing units in Kakinada Cluster.

As individual buyers, printing units in Kakinada Cluster lack the bargaining power to negotiate better terms of procurement (lesser prices/ better quality/ transportation costs etc.) and also cannot avail the benefits of economies of scale due to low volumes of procurement by individual printing units. As cost of raw material significantly impacts the profitability of printing units in the cluster, now few units the Kakinada Printing Cluster are proposing to form a Raw Material Bank for procuring printing raw material in bulk from suppliers at better terms and passing on the benefit to printing units in and around the cluster while selling raw material to them. This way, the viability and sustainability of Kakinada Printing Cluster can be ensured.

Similar intervention, in the form of Raw Material Bank, was implemented in Krishnagiri Printing Cluster, Tamil Nadu. During 2018-19, Thirty-nine (39) printing units in the cluster together formed a Private Limited Company (M/s KRG Golden Printech and Papers Private Limited) under Companies Act-2013, with paid-up share capital of ₹35 Lakh to aggregate, purchase raw material (paper and other consumables etc) required for units in the printing cluster and supply them at competitive rates by taking advantage of economies of scale. At any given point of time, this Raw Material Bank maintains raw material worth ₹1 Crore with it. The working capital needs of the Raw Material Bank are met partly from loans/ advances (ranging from ₹50,000 to ₹1 Lakh per shareholder) provided by shareholders and working capital loan (₹50 Lakh) taken from Bank. This Raw Material bank has been running successfully for the past 3 years.

Members of Kakinada Printing Cluster participated in an exposure visit to Krishnagiri Printing Cluster during 1st to 3rd September, 2022 to understand the best practices in that cluster for and adopt them for Kakinada Printing Cluster. The entrepreneurs of Kakinada found the visit very useful to understand day-to-day operations of Common Facility Centre and the concept of Raw Material Bank being operated in Krishnagiri Printing Cluster. Equipped with the knowledge of operations and benefits of Raw Material bank, members of Kakinada Printing Cluster are interested to establish a Raw Material Bank for the benefit of the printing cluster in the region.

Raw Material Bank - Kakinada Printing Cluster

Structure of Raw Material Bank in Kakinada Printing Cluster

Drawing from the experience of Raw Material bank established and operationalised in Krishnagiri Printing Cluster, about 25 members of Kakinada Printing Cluster intend to form a Special Purpose Vehicle (under Companies Act-2013), separate from the SPV formed for establishment of CFC under MSECDP Scheme, to establish and operate the Raw Material Bank.

Each of the members of the proposed Raw Material Bank is expected to contribute an amount not less than ₹ 50,000 to pool an equity amount of around ₹12.5 Lakh for the SPV, which can also be used as margin money for working capital needs of the Raw Material Bank.

The Board of Directors of the SPV so formed will oversee and control all operations related to procurement and sale of raw material, keeping the interests of SPV shareholders and larger interests of the printing cluster in mind.

Raw Material requirement in Kakinada Printing Cluster

Based on the raw material requirement and consumption patterns of units in Kakinada Printing Cluster, it is proposed to maintain a healthy quantum of raw material stock (consisting of various paper, boards, inks, chemicals, stickers etc.) in the Raw Material Bank on regular basis, to serve needs of the industry better.

The details of raw material to be maintained in the Raw Material Bank on regular basis and their costs (during initial year) are provided below:

Table 1: Kakinada Raw Material Bank – Details of Stock to be Maintained

| Raw Material Details | Units | Stock Required |
|---|-------------------|----------------|
| Paper | Tonnes | 18.0 |
| Art paper & Boards | Tonnes | 9.0 |
| Inks (4 colours) | Tonnes | 0.4 |
| Cut colours | Tonnes | 0.1 |
| Plates - D/D | Number of Plates | 500 |
| Plates - S/D | Number of Plates | 500 |
| All chemicals | Litres | 500 |
| Stickers (12x18, 13x19) | Number of Packets | 1,000 |
| Boards (12x18, 13x19) | Number of Packets | 2,000 |
| Web machine paper reels - All sizes | | Lumpsum |
| Raw material (lamination, binding, pins etc) | | Lumpsum |

Table 2: Kakinada Raw Material Bank – Cost of Stock

| Raw Material Details | Units | Item Rate (₹ Lakh /Unit) | Cost (₹ Lakh) |
|--|------------------|-----------------------------|---------------|
| Paper | ₹ Lakh/Tonne | 1.13 | 20.34 |
| Art paper & Boards | ₹ Lakh/Tonne | 1.20 | 10.80 |
| Inks (4 colours) | ₹ Lakh/Tonne | 5.0 | 2.00 |
| Cut colours | ₹ Lakh/Tonne | 5.0 | 0.50 |
| Plates - D/D | ₹ /plate | 350 | 1.75 |
| Plates - S/D | ₹ /plate | 175 | 0.88 |
| All chemicals | ₹ /Litre | 150 | 0.75 |
| Stickers (12x18, 13x19) | ₹ /packet | 550 | 5.50 |
| Boards (12x18, 13x19) | ₹ /packet | 500 | 10.00 |
| Web machine paper reels - All sizes | ₹ Lakh (Lumpsum) | | 10.00 |

| Raw Material Details | Units | Item Rate (₹ Lakh /Unit) | Cost (₹ Lakh) |
|--|------------------|-----------------------------|---------------|
| Raw material (lamination, binding, pins etc) | ₹ Lakh (Lumpsum) | | 10.00 |
| Total Cost of Raw Material to be maintained on regular basis (₹ Lakh) | | | 72.52 |

It can be observed that raw material worth about ₹72.52 Lakh is to be maintained in the Raw Material Bank during the first year. With an estimated annual increase of raw material quantities (20% in 2nd year and 25% for 3rd year) and annual increase in raw material procurement prices (10% per annum), the cost of raw material to be maintained in the Raw Material Bank for the coming years is as below:

Table 3: Cost of Raw Material to be maintained in Raw Material Bank

| Cost of Procurement | Year 1 | Year 2 | Year 3 |
|--|--------------|--------------|---------------|
| Paper | 20.34 | 26.85 | 36.92 |
| Art paper & Boards | 10.80 | 14.26 | 19.60 |
| Inks (4 colours) | 2.00 | 2.64 | 3.63 |
| Cut colours | 0.50 | 0.66 | 0.91 |
| Plates - D/D | 1.75 | 2.31 | 3.18 |
| Plates - S/D | 0.88 | 1.16 | 1.59 |
| All chemicals | 0.75 | 0.99 | 1.36 |
| Stickers (12x18, 13x19) | 5.50 | 7.26 | 9.98 |
| Boards (12x18, 13x19) | 10.00 | 13.20 | 18.15 |
| Web machine paper reels - All sizes | 10.00 | 13.20 | 18.15 |
| Raw material (lamination, binding, pins etc) | 10.00 | 13.20 | 18.15 |
| Total Cost of Procurement (₹ Lakh) | 72.52 | 95.72 | 131.61 |

Sale and Raw Material Replenishment Pattern

Raw material procured during a fortnight is expected to be sold to buyers in the next 3 successive fortnights (20% in 1st fortnight; 30% in 2nd fortnight; 50% in 3rd fortnight), so that procurement and sale of procured material is completed in 3 fortnights. The sale prices of raw material and revenue from sale of raw material during the first year of operation of Raw Material Bank are:

Table 4: Sale Prices of Raw Material

| Sale Prices of Raw Material | Units | Year 1 |
|-----------------------------|--------------|--------|
| Paper | ₹ Lakh/Tonne | 1.20 |
| Art paper & Boards | ₹ Lakh/Tonne | 1.28 |
| Inks (4 colours) | ₹ Lakh/Tonne | 5.50 |
| Cut colours | ₹ Lakh/Tonne | 5.50 |
| Plates - D/D | ₹/plate | 385.00 |
| Plates - S/D | ₹/plate | 190.00 |
| All chemicals | ₹/Litre | 170.00 |
| Stickers (12x18, 13x19) | ₹/packet | 590.00 |

| Sale Prices of Raw Material | Units | Year 1 |
|---|------------------|--------|
| Boards (12x18, 13x19) | ₹/packet | 540.00 |
| Web machine paper reels - All sizes | ₹ Lakh (Lumpsum) | 10.50 |
| Raw material (lamination, binding, pins etc) | ₹ Lakh (Lumpsum) | 10.50 |

Further realisation of sales done during a fortnight is expected to complete in the next 2 successive fortnights (realisation of 60% sale proceeds to be completed during 1st fortnight & realisation of remaining 40% to be completed during 2nd fortnight).

Therefore, the entire cycle of procurement, sale and realisation of sale proceeds takes 4 fortnights (2 months). Every fortnight 40% of the raw material is procured to replenish the stock in Raw Material Bank.

With an estimated annual increase of raw material quantities (20% in 2nd year and 25% for 3rd year) and annual increase in raw material sale prices (10% per annum), sale value of raw material maintained in Raw Material bank, for the coming years is as below:

Table 5: Sale Value of Raw Material maintained in Raw Material Bank

| Revenue from Sale of Raw Material | Year 1 | Year 2 | Year 3 |
|---|--------------|---------------|---------------|
| Paper | 21.6 | 28.5 | 39.2 |
| Art paper & Boards | 11.5 | 15.2 | 20.9 |
| Inks (4 colours) | 2.2 | 2.9 | 4.0 |
| Cut colours | 0.6 | 0.7 | 1.0 |
| Plates - D/D | 1.9 | 2.5 | 3.5 |
| Plates - S/D | 1.0 | 1.3 | 1.7 |
| All chemicals | 0.9 | 1.1 | 1.5 |
| Stickers (12x18, 13x19) | 5.9 | 7.8 | 10.7 |
| Boards (12x18, 13x19) | 10.8 | 14.3 | 19.6 |
| Web machine paper reels - All sizes | 10.5 | 13.9 | 19.1 |
| Raw material (lamination, binding, pins etc) | 10.5 | 13.9 | 19.1 |
| Total Revenue from Sale of Raw Material (₹ Lakh) | 77.30 | 102.03 | 140.29 |

Employee and Administrative Expenses

The SPV will hire staff required for regular and smooth operations of the Raw Material Bank with the staff salaries and other administrative expenses to be met completely from the business operations of the Raw Material bank.

The details of staff to be employed, their salaries are provided below:

Table 6: Annual Employee and Administrative Expenses

| Expenditure Details | | Headcount | | |
|---------------------|---------------------|-----------|--------|--------|
| Employee Costs | Annual CTC (₹ Lakh) | Year 1 | Year 2 | Year 3 |

| Expenditure Details | | Headcount | | |
|---|-----|-----------|------|------|
| Annual escalation in employee cost | | NA | 5% | 5% |
| Accountant | 4.0 | 1 | 1 | 1 |
| Sales persons | 2.4 | 2 | 2 | 2 |
| Helpers | 1.8 | 2 | 2 | 2 |
| Security Staff | 1.5 | 1 | 1 | 1 |
| | | | | |
| Employee Costs (₹ Lakh) | | 13.9 | 14.6 | 15.3 |
| Rent, Admin & travel costs (₹ Lakh) | | 5.0 | 5.3 | 5.5 |
| Annual escalation in admin & travel costs (%) | | | 5% | 5% |

Working Capital Requirement

As explained in earlier sections procurement expenses and sale realisation have different patterns because of which working capital is required to meet the short-term obligations of the Raw Material Bank.

Calculation of working capital requirement of Raw Material bank for the next 3 years is done based on assumptions mentioned in earlier sections.

Table 7: Annual Working Capital Requirement

| Working Capital Requirement (₹ Lakh) | | | |
|--|------|--------|--------|
| Year | 1 | 2 | 3 |
| Working Capital Requirement (₹ Lakh) | 75.9 | 33.3 | 0.0 |
| | | | |
| Working Capital - Margin contribution by SPV | 16% | 38% | |
| Working Capital - Loan | 84% | 62% | |
| Working Capital - Rate of Interest | 13% | 13% | 13% |
| Working Capital - Margin contribution by SPV | 12.5 | 12.5 | 0.0 |
| Working Capital Loan (₹ Lakh) | 63.4 | 20.8 | 0.0 |
| Interest on Working Capital Loan (₹ Lakh) | 6.5 | 3.0 | 0.1 |
| | | | |
| Increase (decrease) in Margin Money Contribution (₹ Lakh) | 12.5 | - | - |
| Increase (decrease) in working capital borrowings (₹ Lakh) | 63.4 | (42.6) | (20.8) |

Financial Viability Analysis of Raw Material Bank

Based on the revenue and cost details provided in earlier sections, and further considering that the Raw Material Bank would be completing multiple cycles of procurement and sale of raw material to buyers, the annual revenue and profitability of the is estimated to be as below:

Table 8: Profit & Loss Statement of Raw Material Bank

| Profit & Loss Statement (in ₹ Lakh) | | | |
|---|---------------|---------------|----------------|
| Year | 1 | 2 | 3 |
| Revenue | | | |
| Revenue from sale of raw material to units in the Cluster | 748.22 | 979.48 | 1,346.79 |
| Total Revenues | 748.22 | 979.48 | 1346.79 |
| Expenditure | | | |
| Total Cost of Procurement | 702 | 919 | 1,264 |
| Employee costs | 13.90 | 14.60 | 15.32 |
| Admin & Travel Costs | 5.00 | 5.25 | 5.51 |
| Total Expenses | 720.85 | 938.76 | 1284.34 |
| PBIDT | 27.37 | 40.73 | 62.45 |
| Depreciation | - | - | - |
| PBIT | 27.37 | 40.73 | 62.45 |
| Interest on Working Capital | 6.48 | 3.05 | 0.14 |
| PBT | 20.89 | 37.68 | 62.31 |
| Income Tax @ 31.2% | 6.52 | 11.76 | 19.44 |
| PAT | 14.37 | 25.92 | 42.87 |

It can be observed that annual revenue of Raw Material Bank is many times more than the average stock value maintained by it, signifying high turnover rates. Higher the turnover of raw material is desirable as it results in high overall margins for the SPV in a given time period, thereby resulting in higher profitability for the SPV.

Table 9: Cash Flow Statement of Raw Material Bank

| Cash Flow Statement (in ₹ Lakh) | | | |
|---|-------------|---------------|---------------|
| Year | 1 | 2 | 3 |
| Inflows | | | |
| PAT | 14.4 | 25.9 | 42.9 |
| Depreciation | - | - | - |
| Increase in share capital | 12.5 | - | - |
| Increase in working capital loan | 22.4 | (37.7) | (62.3) |
| Total Inflows | 49.3 | (11.8) | (19.4) |
| Outflows | | | |
| Increase in Inventory | 34.9 | (37.7) | (62.3) |
| Total Outflows | 34.9 | (37.7) | (62.3) |
| Cash - Opening Balance | - | 14.4 | 40.3 |
| Cash - Addition | 14.4 | 25.9 | 42.9 |
| Cash - Closing balance | 14.4 | 40.3 | 83.2 |

The SPV is self-sustainable and financially viable from first year of operation, by being able to completely meet expenses relate to raw material procurement, salaries of staff, administrative expenses etc. completely from the margins from sale of raw material.

Table 10: Annual Employee and Administrative Expenses

| Balance Sheet (in ₹ Lakh) | | | |
|---------------------------------------|-------------|-------------|-------------|
| Year | 1 | 2 | 3 |
| Liabilities | | | |
| Reserves & surplus | 14.4 | 40.3 | 83.2 |
| Equity | 12.5 | 12.5 | 12.5 |
| Total Equity | 26.9 | 52.8 | 95.7 |
| Working capital loan | 22.4 | (15.3) | (77.6) |
| Total Liabilities | 22.4 | (15.3) | (77.6) |
| | | | |
| Total Equity & Liabilities | 49.3 | 37.5 | 18.1 |
| | | | |
| Assets | | | |
| Working Capital | 34.9 | (2.8) | (65.1) |
| Cash Balance | 14.4 | 40.3 | 83.2 |
| Total Assets | 49.3 | 37.5 | 18.1 |

Due to good profitability of SPV right from the first year of operation, in subsequent years internal accruals can be used to partly fund the working capital requirement, thereby resulting in reduced working capital loan from Banks/ Financial Institutions.

