



Working Capital Management of Brahmaputra valley Fertilizer Corporation Limited: A study

(From the accounting measures taken by the management authority)

Anuraj Mahanta, Student

anurajma69@gmail.com,

Ph.no-8638975207

Bikash Borthakur, Student

Bikash22622@gmail.com

1.1.0. Abstract

The Namrup Fertilizer Complex was renamed as Brahmaputra Valley Fertilizer Corporation Limited after bi-furcation from Hindustan Fertilizer Corporation Limited from 01/04/02. It is the first factory in India, who use natural gas as basic raw material for producing nitrogenous fertilizer. Namrup fertilizer company consisted with three plants but currently two plants are in working condition. These units produce mainly ammonia and urea. Analysis has been made to highlight the working capital management of B.V.F.C.L. analysis includes current asset, working capital, liabilities etc.

1.1.1 Introduction:

Brahmaputra Valley Fertilizer Corporation Ltd.(BVFCL) was formed as a new company w.e.f. 1.4.2002 after de-merger from Hindustan Fertilizer Corporation Ltd. located on the bank of the river Dilli in the southwestern border of Dibrugarh District in Assam. It is the first factory of its kind in India to use associated natural gas as basic raw material for producing nitrogenous fertilizer. The first group of plants, i.e. Namrup-I was established in the sixties and went into commercial production in 1969. Namrup-II group of plants were added in the seventies, went into commercial production in 1976, and followed by Namrup-

III group of plants established in the eighties, which went into commercial production in 1987. All these three phases were established under Hindustan Fertilizer Corporation Ltd. The new Company is presently having its head quarter at Namrup.

Profile of Namrup Project:

In 2002, the Namrup Fertilizer Complex was bifurcated from the Hindustan Fertilizer Corporation Limited and came to exist as one of the important public sector fertilizer companies under the new name, Brahmaputra Valley Fertilizer Corporation Limited. There are in total, 3 production plants at Namrup, in the Assam's Dibrugarh district. The discovery of surplus natural gas and oil in the Naharkatia-Moran region and Lakwa oil fields respectively, provided the incentive for setting up the third production unit of Namrup. The Namrup Fertilizer Complex, renamed as "Brahmaputra Valley Fertilizer Corporation Ltd" after bifurcation from erstwhile "Hindustan Fertilizer Corporation Ltd" w.e.f 1st April 2002 located on the bank of river "Dilli" in the south western border of Dibrugarh district of Assam.

a) **Company's Share Resources** - Rs. 3,65,83,24,000

b) **Units of Namrup Fertilizer Complex**

Namrup Fertilizer Complex is consisted of three units -

- 1) Namrup I.
- 2) Namrup II
- 3) Namrup III

However at present only Namrup II & III are in operating condition

Plant	Year of Commissioning	Capacity
Namrup- I	1969	280 MT/Day
Namrup- II	1976	480 MT/Day
Namrup- III	1987	580MT/Day

Table 1.1.(A): Units of Namrup Fertilizer Complex

c) **Products:**

- 1) Mukta Urea
- 2) Mukta Bio - Fertilizers.
- 3) Mukta Vermi - Compost.

"The Starting" –Namrup I:

The entire project planning of Namrup-I, group of plants was started in the middle of 1960 by Hindustan Chemicals and Fertilizers, starting from invitation of quotation, preparation of tender specification scrutiny and of contact, co-ordination with various contracting agencies, preparation of overall factory plan, procurement of indigenous materials and equipments etc. was taken care of by the technicians and engineers. It was merged with Fertilizer Corporation of India on 1st January 1961. After crossing various

hurdles successfully, the foundation stone could be laid on 1st January 1966, by the Chief Minister of Assam, late B.P. Chaliha and the factory went into stream in the month of august 1968. Commercial production however commenced from 1st January 1969 with annual capacity of only 55000MT of Urea and 100000mt of Ammonium sulphate. Namrup-1 was built at a cost of 24.26 cores including foreign exchange of 6.36crores. Namrup-1 is the first factory in India to use natural gas as the basic raw material. Also it happened to be the first factory in the country to have used indigenous catalysts developed by then Planning and Development Division of FCI.

“The Expansion” - Namrup-II:

While operation of Namrup-I was in progress, it was found that the surplus natural gas would be available in the adjoining Moran-Naharkatia oilfields of M/s Oil India Limited. In 1965, Government decided to gainfully utilized this associated natural gas by putting up another fertilizer factory. The techno-economic report of expansion of Namrup Fertilizer Factory was approved by the Ministry of Chemicals and Fertilizer in 1967. For implementation of the scheme the then FCI entered into a contract with M/s Technimont of Italy for supply of plant and machinery and signed a 10 years credit agreement in October '67 which became effective from 10th March 1968. The execution work then started on 27th March 1968. This plant was designed and engineered by Fertilizer (P&D) India limited, earlier known as Planning and Development division of FCI. To promote indigenous fabrication, Namrup fertilizer has gone all the way to provide facilities like workshop drawing, special quality raw materials special types of machineries for fabrication and also undertaken inspection/testing at different stages of fabrication. The factory's equipments, which were imported earlier, are now being indigenously manufactured. Another major achievements of this project have been import substitution by using FCI's own catalysts. Except ammonia synthesis and natural gas desulphurization catalysts all other catalysts were developed by P&D Division of FCI. Namrup was commissioned on 23rd April '76 when ammonia was produced and the plant produce Urea on 30th April, 1976. The plant went into commercial production on 1st October 1976. Namrup-II was built at a cost of Rs.74.9crores including foreign exchange of 23.6 crores rupees.

Plant	Rated Capacity / Day
Ammonia- II	600 tones
Urea-II	1000 tones

Table 1.2.(B): Rated capacity per day of Namrup-II

Total output of nutrient in the end of product is 1,51,800 tones Nitrogen in the form of 3,30,000 tons of Urea per annum. Thus total capacity of Namrup-I and Namrup-II is 1,96,800 tons of Nitrogen, the end product being 3,85,000 tons of Urea and 1,00,000 tones of Ammonium Sulphate per annum.

“The Aggrandizement” Namrup-III:-

The availability of surplus natural gas in the Naharkatia, Moran and Lakwa Oilfields led to the second phase of expansion of Namrup plants. Namrup-III was designed to produce 1167 MT/Day of Urea. The capacity of 167 MT/day of Urea I plant, operation of which was stopped w. e. f, September '86 was also included in this. However, with effect from 1.11.94. Urea-III plant has been declined with Namrup-I plant and capacity reduced to 1000 MT/Day. Namrup-II has been erected at a cost of about Rs. 301 crores including a foreign exchange component of Rs. 54 crores.

The Plant's Brief Description (Namrup-I, II & III):-

Water Treatment Plant:-

a) Raw Water:

Raw Water from the River Dilli will be drawn into jack well through concrete bed underground. River water in the jack well also joined with the water from seepage of subsoil water through pipes embedded with the wall of jack well. After detention for some time clear water is obtained. Water pumped from jack well is fed to water treatment plant through 24” main line.

b) Capacities:-

- i. Process Water - 4MG/D.
- ii. Sanitary Water- 2MG/D.

Water Treatment plant of BVFCL, Namrup

Bagging Plant:-

There are two modern bagging plants, one each for Urea II & III plants. The urea pills fallen from the top pilling tower collected on a conveyor belt, and sent to the bagging plant by running conveyor belts for packaging purpose. There the urea pills are measured accurately by the automatic weighing machine at 50kgs rate and are stitched the bags by automatic sewing machines after filled with weighed urea. The bags are marked as Mukta Urea with the symbol representing the Brahmaputra Valley Fertilizer Corporation Ltd., Namrup. The bags are purchased from competitive markets.

1.1.2. Review of Literature :-

Brahmaputra Valley Fertilizer Corporation Limited (BVFCL) is one of the major public sector fertilizer companies in India. In fact, it is considered the pioneer in using associated natural gas for producing nitrogenous fertilizer. There are lots of paper work done by researcher in this field in their prospective studies. “Technical efficiency subsidy and financial performance : A case study of BVFCL , Bharali and Chakraborty mention that labour variable is significant and indicating overuse of labour in the field of production and also technical efficiency of the unit is on a declining mode due to age old technology. In another study “ Environmental management at BVFCL , Namrup “ S. Sarkar and Rahman explain that in

both production unit two and three various pollution abatement measures were implemented but not at a moderate level at all. A. mech , K.C borah, and Mech in their study of “ Determination of rural non farm employment : A study in Dibrugarh District “ state that BVFCL plays a vital role in generating employment facilities in the district and helps in capital formation. According to them BVFCL , APL and Thermal power station have transformed the area into a business hub creating various avenues of non farm employment .

1.1.3. Significance of the Study :-

The field of working capital management is crucial for identifying the profitability of the company. It helps the management to make decision making process. The study was conducted to one organization i.e. Brahmaputra Valley Fertilizer Corporation Ltd. (BVFCL) to make a case study of the financial statement with the help of working capital management. Analysis was done within the organization and within the time period during which the study was conducted. Each and every efforts are being made to reach realistic conclusion and to give a true and clear picture of the financial statements with the help of various working capital management.

1.1.4. Objectives of the study :-

The main aim of the study is to get an overview of the Financial Statement of Brahmaputra Valley Fertilizer Corporation Ltd. Namrup with the help of working capital management and the specific objectives are as follows:-

- a) The liquidity position of BVFCL regarding working capital is satisfactory.
- b) To find out different ratio's related with working capital of BVFCL.
- c) To know the current trend of Assets and Liabilities.

1.1.5. Methodology :-

The research design of the study is both descriptive as well as quantitative in nature. The study begins with the concept of knowing Fertilizer Industry in India and then about the activities and performance of Brahmaputra Valley Corporation Ltd.

Data Collection Instrument:-

1. Primary Data Collection:- Under Primary data collection method, Researcher collected information from the concerned department officers and by discussion with the management.
2. Secondary Data Collection:-
 - a) A number of books on the working capital management were referred to collect the theoretical concept.
 - b) The secondary data of the organization are taken from the annual reports.

1.1.6. Conceptual framework:-

For analysis of data, various qualitative as well as quantitative tools have been used to make the study simple and precise. The tools like bar, graph are used for the understanding of the data more clear, meaningful and interesting.

Plan of Analysis:-

Tables were used for the analysis of collected data.

Questionnaire:-

Data is collected with the help of questionnaire for getting sufficient information for the study purpose.

Statistical device:-

In this study pie diagram, bar diagram has been used as statistical device.

1.1.7. ANALYSIS AND FINDINGS

Through this analysis, an attempt has been made to highlight the working capital management of Brahmaputra Valley Fertilizer Corporation Limited regarding the various analyses including Current asset, Current liabilities, Net working capital, Current ratio, Quick ratio and working capital turnover ratio etc.

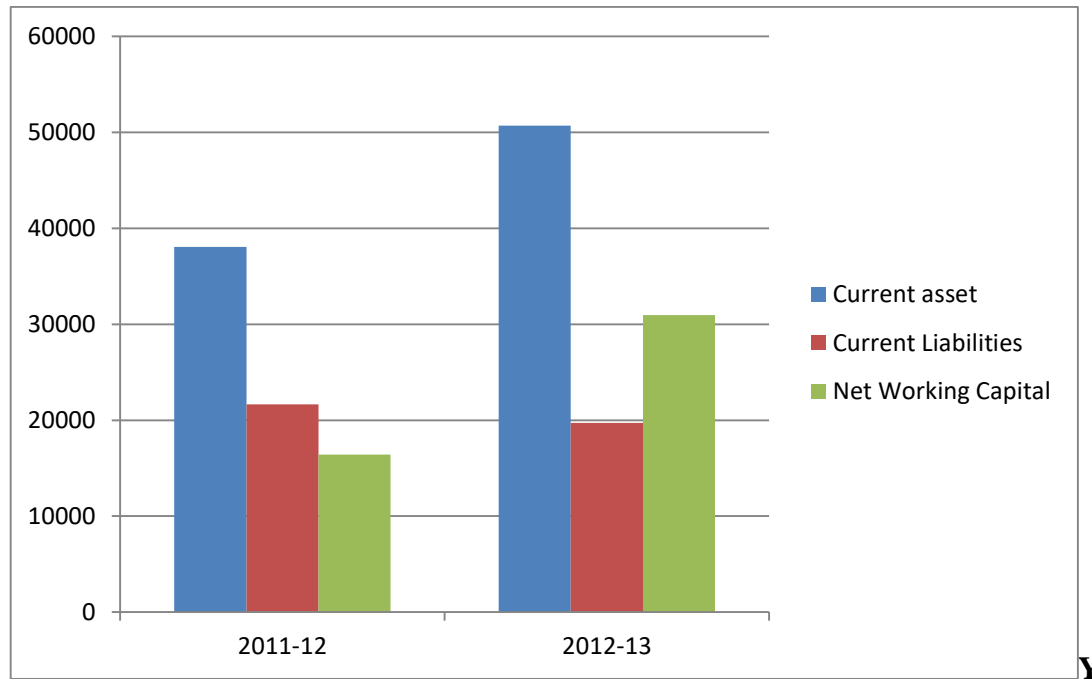
Table No.1.1.(C) showing the performance of Current Assets & Current Liabilities of Brahmaputra Valley Fertilizer Company Limited Last Two Years 2011-12 to 2012-13

(Rs. in Lakhs)

<i>Working Capital</i>	<i>Amount of 2011-12</i>	<i>Amount of 2012-13</i>	<i>Amount of Increased or Decreased</i>	<i>% of Increased or Decreased</i>
A)Current Assets:				
Inventories	3718	5421	1703	45.80%
Trade receivables	10758	19842	9084	84.45%
Cash & cash Equivalents	23106	24943	1837	7.95%
Other Current Assets	491	491	0	0%
Total Current Assets(A)	38073	50697	12624	33.16%
B)Current Liabilities				
Other Current Liabilities	17499	14100	-3399	19.42%
Provision	4158	5630	1472	35.40%
Total Current Liabilities(B)	21657	19730	-1927	8.90%
Net Working Capital (A – B)	16416	30967	14551	88.64%

Bar diagram, chart no 1. showing the performance of current assets and current liabilities and net working Capital of BVFCL.

X



X –Axis shows the different head of working capital. Y axis shows the different years.

Current Assets:

From the tables No.1.1(C) and Bar diagram Chart No-1. it has been found that the current assets of BVFCL in the year 2011-2012 is Rs. 38073 (in lakh) and in the year 2012-2013 is Rs 50697 (in Lakh). Thus the amounts of Rs 12624 (in lakh) is increased which indicate a potential strength of BVFCL. It is a good sign for BVFCL is that 33.16% increased within one accounting year. Increased the current assets means increased the stability of BVFCL. it is seen that the current assets of BVFCL over current liabilities is more which is shown a sound liquidity position of BVFCL.

Current Liabilities:

From the tables it is seen that the current liabilities for the year is 2011-2012 is Rs.21657(in lakh) and in the year 2012-2013 is Rs 19730 (in lakh). Therefore it is decrease within one accounting year up to Rs 1927(in lakh). Which is shown a very good position of BVFCL. Decreasing rate of current liabilities means decrease the amount of creditors. Alternatively, reduce the burden of BVFCL regarding creditors.

Working Capital:

Working capital is the excess of current assets over current liabilities. It may be positive or negative. When the current assets exceed current liabilities, the working capital is positive. In addition, the negative working capital results when the current liabilities are more than current assets. From the table No. 1.1 seen that the position of net working capital of BVFCL is positive. In the last two year the position of

positive working capital allows a firm to utilize efficiency the fixed assets due to availabilities of liquids funds and it is not affected its profitability or the rate of return. Therefore, the BVFCL continue the business and it is satisfactory. From the table it is seen that the possibility strength of working capital is 88.64%. Which we can say a good liquidity position of BVFCL.

Year	2012-2013	2011-2012
Current Asset	50697	38073
Current Liabilities	19730	21657
Current Ratio	2.57	1.76

Table: Current Ratio $\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$.

Current Ratio: Current ratio may be defined as the relationship between current assets and current liabilities. This ratio, also known as working capital ratio, is a measure of general liquidity and is most widely used to make the analysis of a short-term financial position or liquidity of a firm. It is calculated by dividing the total of current assets by total of the current liabilities.

Interpretation:-

A relatively high current ratio is an indication that the firm is liquid and has the ability to pay its current obligations in time as and when they become due. On the other hand, a relatively low current ratio represents that the liquidity position of the firm shall not be able to pay its current liabilities in time without facing difficulties. An increase in current ratio represents improvement in the liquidity position of a firm while a decrease in the current ratio indicates that there has been deterioration in the liquidity position of the firm. A ratio equal or near to the rule of thumb of 2:1 i.e., current assets as compared to current liabilities is considered to be satisfactory. However, the rule of 2:1 should not be blindly followed while making interpretation of the ratio, because firms having less than 2:1 ratio may be having a better liquidity than even firms having more than even firms having more than 2:1 ratio. This is so because the current ratio measures only the quantity of current assets and not quality of current assets.

Analysis :-

The liquidity position of BVFCL in 2012-13 is 2.57:1 which is better when compared with the year 2011-12 (i.e., 1.76 :1). The reason for the increase in the current ratio is mainly due to the increase in the current assets by 64.33% mainly on account of increase in inventories, sundry debtors, cash & bank balances and other current assets.

Quick ratio:-

Quick Ratio is also known as Acid Test or Liquid Ratio is a more rigorous test of liquidity than the current ratio. The term Liquidity refers to the ability of a firm to pay its short term obligations as and when they become due. Quick ratio may be defined as the relationship between

quick/liquid assets and current or liquid liabilities. Quick ratio includes sundry debtors, cash & bank balances, loans & advances and other current assets.

Year	2011-12	2012-13
Quick Assets	23106	24943
Current liabilities	21657	19730
Quick Ratio	1.07	1.26

Quick Ratio or Acid Test Ratio= Quick or Liquid Assets/Current Liabilities

Interpretation:-

A high acid test ratio is an indication that the firm is liquid and has the ability to meet its current or liquid liabilities in time and on the other hand a low quick ratio represents that the firm's liquidity position is not good. As a rule of thumb or a convention quick ratio 1:1 is considered satisfactory. It is generally thought that if quick assets are equal to current liabilities then the concern may be able to meet its short term obligations. Although quick ratio is a more rigorous test of liquidity than the current ratio, yet it should be used cautiously and 1:1 rule should not be used blindly. A quick ratio of 1:1 does not necessarily mean satisfactory liquidity position as inventories are not absolutely non-liquid. Hence, a firm having a low quick ratio may have a good liquidity position if it has fast moving inventories. The quick ratio is very useful in measuring the liquidity position of a firm. It measures the firm's capacity to pay off current obligations immediately and is a more rigorous test of liquidity than the current ratio. It is used as a complementary ratio to the current ratio.

Analysis:-

The Quick ratio of BVFCL in the year 2012-13 is 1.26 which is better as compared to the year 2011-12 (1.07) which shows that in the year 2012-13 the company has the capacity to pay off current obligation immediately and also it can easily convert its quick assets i.e cash and bank balances, sundry debtors, loans and advances to meet its current liabilities as compared to the year 2012-13.

Findings:-

From the above data and analysis, following findings have been concluded by me:

1. The working capital of the company is positive which means that the company has enough cash to meet its daily requirements. Another positive indicator is the increase in working capital over the years.

2. The current ratio of the company has increased over the years, which is a positive indicator and get a favourable ratio rather than the ratio of 2:1.
3. The quick ratio of the company is quite good and it has also increased over the years. It means that the company has a long term liquidity.
4. From the analysis it is seen that the liquidity position of working capital of BVFCL is good. Therefore BVFCL having a potential strength in future stability.

1, 1.8. Suggestion:-

Although the working capital position of the company is good enough so far as the ideal ratio is concerned, a high ratio may not be good in all type of organization. Sometimes a high working capital ratio represents an ideal structure of assets that goes not performed any more. Management should give special attention on this issue.

Moreover mere birth eye view only on their working capital position does not provide any instrument to measure the entire financial health of the company.

As per the information available, the company running at a loss year after year apart from this, the company already becomes defaulter in case of repayment of government of India loan. This issue must be addressed; otherwise, the company will only survived as if it is a government of India undertaking at the cost of public money.

1.1.9. Conclusion:-

Newly formed company Brahmaputra valley fertilizer corporation is one of the major public sector company with potentiality of high profit. There are three fertilizer complex but at present only two complexes are at working condition. The company is in a positive path and it may be able to revive itself if proper working capital management is provided. There has been an increase in its working capital over the years along with its current ratio. The company has made itself capable of paying off the short term liabilities. The company is also investing in new assets and the returns are also increasing. On the downside there has been a decrease in the quick ratio and the working capital turnover ratio. The performance of B.V.F.C.L. is becoming more efficient and some positive improvements can be seen from last three years. It has been achieved by proper working capital management and also by making investments in major repairs and maintenance, purchase of new equipments etc. The company is burdened with a heavy rate of interest annually on GOI loan. The positive indicators show a lot of promise for a better future of the company but it still has a long way to go and a lot of hard work and dedication lies ahead for the stakeholders of the company and Working Capital Management will have a huge hand to play in it.

2.10.References:-

1. Anthony, Roberts N.: Management Accounting Taxes and Cases Homewood Illinois Richard D. Irwin, 1998.
2. Sharma, Adesh. (1999). Investment and Financing in Pesticides Industry in India. Indian Journal of Finance and Research. Vol.V. (II). pp. 67-83.

3. Agarwal N.K.: Analysis of Financial Management, New Delhi, National Publishing House, 2001.
4. Vijaykumar. A and Venkatachalam A. “Working Capital and Profitability – An Empirical Analysis,” The Management Accountant, October 1995 p. 748-750.
- 5 . Chakrabarty and Bharali "Technical efficiency , subsidy and financial performance : a case study on BVFCL.”

