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JASH

JASH ENGINEERING LTD.

Contributing to a sustainable environment…….Worldwide !

Water Business

RODNEY HUNT

Mahr Maschinenbau

WATERFRONT

Agenda

1. Opportunity & Future Prospects
2. Market Potential & Jash's Growth

Head Office at Unit 1 in Indore

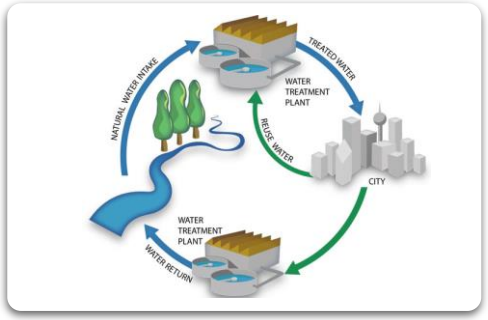
OPPORTUNITIES AND FUTURE PROSPECTS

Water, a fundamental human need, underpins the survival of populations and economic activities. The water business can be categorized into the following key segments:

1. DRINKING WATER

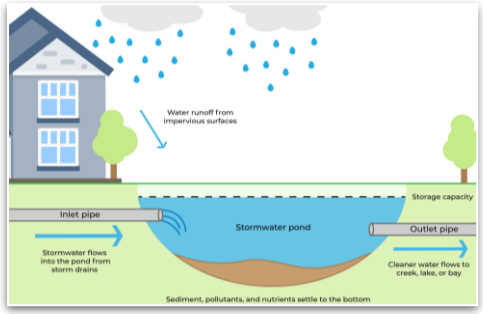
2. IRRIGATION WATER

3. WASTE WATER



4. REUSE WATER

5. DESALINATED WATER



6. STORM WATER

7. RISING SEA WATER

8. INDUSTRIAL WATER

Below is an overview of the trends, challenges, and opportunities within each segment.

1. DRINKING WATER

Current Situation

- Government prioritize drinking water access as it gets them votes in Election.
- India targets to supply 55 litres/person/day to rural households & 135 litres/person/day to Urban.
- Using Jal Jivan mission Government had a target to supply majority of rural households by 2024 with a budget of ₹3.6 lakh crore.
- Most cities and urban areas are facing water supply deficit of minimum 15% going upto 25% of total requirement in most cities.

Future Outlook

- The Jal Jivan mission Budget may have to be increased to ₹6 lakh crore and target date extended till 2028 to meet rural water supply targets @ ₹ 45,000 crores every year.
- Enhance water supply to meet current urban deficit of 15% ie 15,000 MLD water in next 5 years @ ₹ 3,000 - 4,500 crores every year.
- Enhance water supply to meet 0.8% population growth every year ie 1.14 crores people needing 1100 MLD water @ ₹ 1,000-1,500 crores every year.
- Obsolescence of old treatment plants considering 35 years plant life.
- Increase in urban water consumption from 135 litres/person/day due to increasing use of dish washers, washing machines and other modern amenities.

Jash Business Potential

- Jash supplies water control gates, screens, water hammer control valves and vessels, treatment process equipment for Drinking water supply schemes.
- Business Potential for Jash products = 45,000 x 0.5% + 3,000 x 3% = ₹ 315 crores per year in India.
- This does not include additional investment required for renovation of old plants & meet increased water consumption in future.

2. IRRIGATION WATER

Current Situation

- Government prioritize irrigation water projects as it gets them farmers votes in Election.
- India has acquired an irrigation potential of about 84.9 mha against the ultimate irrigation potential of 139.5 mha.
- The investment on irrigation is funded by the central government as well as state governments.
- Nearly 50% of irrigation in country is based on dams and canals and balance on rain water.

Future Outlook

- To achieve food security and to ensure availability of water for drinking as well as agricultural purposes, irrigation projects comprising of dams and canals has to be increased.
- Large dams face ecological challenges and submergence issues and hence smaller, environmentally friendly dams will be the future focus.

Jash Business Potential

- Jash supplies water control gates, trash rakes, screens and water hammer control valves and pressure vessels to irrigation projects.
- It is difficult to arrive at precise business potential for irrigation business. Based on current business it can be deduced that about ₹ 75 crores business potential exists for our products per year in India.

3. WASTE WATER

Current Situation

- Governments did not prioritize waste water projects till now as it does not get them votes in Election.
- India generates 80,000 MLD of wastewater but treats only 37.5% (30,000 MLD).
- Such large volume of untreated waste water is leading to contamination of fresh water resources including rivers, lakes and ponds.

Future Outlook

- Waste water contamination will eventually become an election issue once it starts affecting drinking water availability and health.
- Post 2028, wastewater treatment will gain traction with government as other infrastructure investments programs taper off.
- Treatment capacity expansion to meet current deficit of 50,000 MLD requires ₹1.5–2 lakh crore.
- Additional waste water of nearly 1000 MLD generated by 0.8% population growth every year @ 3,000-4,000 crores every year.
- Obsolescence of old plants considering 30 years plant life.
- Increase in water consumption due to increasing modern amenities resulting into higher waste water output.

Jash Business Potential

- Jash supplies screw pumps, water control gates, screens, knife gate valves and treatment process equipment for waste water treatment plants.
- Business Potential for Jash products = 150,000 x 4% / 15 years + 3,000 x 4% = ₹ 520 crores per year in India.
- This does not include additional demand for meeting obsolescence & increased water consumption in future.

4. REUSE WATER

Current Situation

- India has 18% of the world's population but only 4% of water resources.
- Industrialization is increasing in India and demand for water required by industry will increase.
- However India faces declining per capita water availability due to increasing population and unfavorable weather conditions.
- Compounding of water by building additional dams is becoming a complicated issue due to land submergence and human displacement.

Future Outlook

- Instead of investing huge sums of money on building new dams , pumping stations and transmission pipe lines it would be advisable for many cities to invest in waste water reuse, wherever possible.
- An estimated ₹1.25–1.5 lakh crore investment could enable 20,000 MLD reuse water capacity enough to meet Industrial water requirement and help divert raw water for use in drinking water and irrigation.
- Reuse will become a critical strategy for urban water management post 2030.
- Cities like Surat and Nagpur are already reusing treated wastewater for industrial needs and some cities like Singapore use reuse water for drinking purposes as well.

Jash Business Potential

- Jash supplies water control gates, screens, knife gate valves, and tertiary treatment equipment for reuse water projects.
- Business Potential for Jash products = 125,000 x 5% / 15 years = ₹ 416 crores per year in India.

5. DESALINATED WATER

Current Situation

- Cities located on sea coast will have to opt for desalinated water instead of investing into making dams / pumping stations / transmission lines etc to compound and transport raw water to cities for drinking purposes.
- Coastal cities like Chennai , Dahej, Visakhapatnam have started adopting desalination to meet their water requirement. Most of middle east is also surviving on sea water desalination.
- As newer technologies emerge and as more desalination plants are being built , the eventual cost of desalination will come down making it a secure source of drinking water for most coastal cities.

Future Outlook

- Chennai is investing over ₹ 4000 crores to build 400 MLD desalination plant.
- Other coastal cities including Mumbai are looking towards desalination to meet their water need. Similarly huge investment in sea water desalination is taking place in middle east
- Annual investment of ₹4,000 – 5,000 crore is possible in India as desalination costs decline and adoption increases.

Jash Business Potential

- Jash supplies water control gates, screens, knife gate valves, and treatment equipment for desalination projects.
- Business Potential for Jash products = 4,000 x 2% = ₹ 80 crores per year in India.

6. STORM WATER

Current Situation

- Once in 10 year occurrence of flooding in past did not motivate cities and government enough to act prevent storm water disruption.
- Currently it is not an election issue or a vote catching issue due to infrequent occurrence.
- Mumbai is investing over ₹3,000 crore on storm water pumping projects.

Future Outlook

- Climate change-induced heavy rainfall and inadequate drainage infrastructure will cause frequent urban flooding.
- Rising public pain and financial and human losses to cities due to recurring flooding will drive investments in stormwater management systems in future.
- Cities on the coast will be particularly vulnerable because high rains along with simultaneous high tide will not allow storm water to flow out to sea and in the process inundate large parts of city.
- This will call for massive investment in storm water pumping stations worldwide.

Jash Business Potential

- Jash supplies Screw pumps, water control gates, screens and knife gate valves for storm water pumping projects.
- It is difficult to arrive at precise business potential for stormwater business. Based on current business it can be deduced that about ₹ 50 crores business potential exists for our products per year in India.

7. RISING SEA WATER

Current Situation

- Indonesia will shift its capital from Jakarta to Kalimantan before the end of this decade due to rising sea level.

Future Outlook

- Many countries and cities face existential risk on account of rising sea water level in future.
- Singapore will face storm surge level of 1.15 meter by 2100 and will soon start work on coastal protection running into billions of dollars.
- Infrastructure investments in coastal protection and stormwater management will become essential and critical for planners within a decade.

Jash Business Potential

- Jash supplies screw pumps, water control gates, screens, and knife gate valves for rising sea water projects.
- It is difficult to arrive at precise business potential for rising sea water situation. Our budgetary offer for equipment required for Singapore coastal protection is in excess of Rs 5000 crores. Similarly the Manhattan project which we did not take due to limited resources in USA was of over ₹ 250 crores.
- Based on current movement on this situation it can be deduced that about ₹ 100 crores business potential exists for our products per year.

8. INDUSTRIAL WATER

Current Situation

- In developed countries up to 18% of raw water is used for industrial purposes.
- As India becomes more industrialized its need of water for industrial needs will also increase.

Future Outlook

- India faces declining per capita water availability due to increasing population. This will make it difficult to divert limited drinking water sources for industrial use.
- Industries in future will have increasingly rely on treated wastewater and desalination to meet their process water needs.
- Growth in reuse and desalination technologies will address industrial needs.

Jash Business Potential

- Jash manufacture a range of products for reuse water as well as for desalination.

MARKET POTENTIAL AND JASH'S GROWTH PATH

In India

- India’s water sector offers an annual business opportunity of ₹1000 crore per year presently for Jash products. However, this is expected to grow exponentially in coming years as urbanization, climate change, population growth and government attention drive demand. When this happens, the annual business opportunity for Jash products is expected to grow to ₹ 2000 crores.
- Jash aims to triple its Indian revenue from ₹350 crore in 2025 to ₹1,100 crore over the next decade.

Outside India

- In 2010, after realizing that waste water , stormwater , reuse and desalination were not priority sector for investment by the government, we decided to focus on markets outside India.
- This has paid us rich returns and today our revenue from markets outside India is over 55%.
- The export market offers us faster growth , higher margins , keeps us updated on latest developments on product technology internationally and reduces risk from being only in domestic market.
- Our acquisitions in Austria, Hongkong, USA and now in UK will help us maintain high revenue growth outside India ensuring that we are able triple our revenue from outside India from ₹350 crore in 2025 to ₹1,100 crore over the next decade.

Jash Growth Potential

- Our strong capabilities and experience positions Jash as a key player in evolving water business worldwide.
- By leveraging our expertise across diverse segments we can meet the growing national and international demand in water business to achieve tripling our revenue from the current ₹ 675 crores in 2025 to over ₹ 2000 crores by 2035.

THANK YOU

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