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**TITLE: SETUSAMUDRAM CHANNEL PROJECT
AN EPOCH MAKING EVENT - “SHAM NO VARUNAH”**

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ABSTRACT

The Vedic Sages regarded Lord Varuna as the Lord of the sea, who ruled the waves and storms. They prayed him for his blessings and safe journey. Our forefathers, who went by the land route as well as sea route since remote past to spread the message of our civilization. The impact of our culture is manifested in several inscriptions and sculptures in various countries of the world and especially in South-East Asia. It is indeed befitting that our Indian Navy has adopted “ SHAM NO VARUNAH “as its motto.

During last two centuries man has opened the Panama Canal and Suez Canal for progress and welfare of the mankind. On the same lines since a century, the government and several scientific institutes of repute in India are considering the feasibility of opening a Sea route between the Rameshwaram (India) and Mannar (Sri Lanka).

Extreme caution is warranted because the above referred Setu Samudram Channel Project is unlike the Panama or Suez Canals, which are land-based canals while the present channel alignment is mostly under the ocean subjected to extreme currents, periodic cyclones and now, Tsunami.

As an epoch-making project affecting the lives of lakhs of people and the mankind at large, it is essential to sincerely analyze the various aspects and its impact on the people living in the proximity and the best solution meted out.

“SHAM NO VARUNAH”

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We, The Indians are fortunate to have a peninsular coast of 7517 Kms. There are 12 major ports and 185 intermediary and minor ports and has had maritime trade with various countries of the world since time immemorial. However shipping trade between the east and west coasts of India has not picked up a substantial trade via shipping route as it lacks a continuous navigation channel connecting the east and west coasts.

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Currently the ships coming from the west coast of India and other western countries with destination in the east coast of India and vice versa have to navigate around Srilankan coast. This is due to the presence of a shallow region (25 to 30 feet deep) around Ramasetu, also recorded as Adam’s bridge, located southeast of Rameswaram near Dhanuskodi, which connects the Talimannar Coast of Srilanka. Ramasetu is prepared of Shoals and it is hardly 3 to 4 feet under the sea level thereby divides the sea into Palk Bay and Gulf of Mannar. (Refer Slide 1 & 2)

Who else could describe this manmade divide in better words than Kavishreshtha Kalidasa. Here I can not resist myself from quoting the words of Kavishreshtha Kalidasa in the 13th Sarga of Raghuvansha. While returning from Srilanka to Dandakaranya in a Pushpak Plane,

Sriram tells Sitamai,” Behold, Sita, My Setu of mountains dividing this frothy ocean is like the milky way dividing the sky into two parts.” This is visible in a satellite image published by NASA in a pictures way. (Refer Slide- 3)

Sethusamudram Ship Channel Project, which envisages dredging of a ship channel across the Palk straits between India and Srilanka, is finally taking shape. The project will allow ships sailing between the east and west costs of India to have a straight passage through India's territorial waters, instead of having to circumvent Sri Lanka. This will lead to a saving of 254 to 424 nautical miles and reduce sailing time of ships by 21 to 36 hours.

PROPOSED SCHEME

As per the current plans, two channels will be created - one across Ramasetu (Adam's Bridge), south-east of Pamban Island and another through the shallows of Palk Bay, deepening the Palk straits. (Refer slide- 4)

The total length of these two channels would be 89 Kms.

This would result into, considering the saving of fuel too, about 4 to 5 lakhs of Rupees per vessel per trip.

The channel will become an invaluable asset from national defence and security point of view enabling easier and quicker access between the coasts. Indian Coast Guard and Naval ships will not have to circumnavigate around Sri Lanka.

Transshipment of Indian Cargo on foreign shores will gradually decrease and after some time stop altogether.

The Project will lead to considerable savings and earnings of foreign exchange. It is estimated that EXIM trade incurred on additional expenditure of approx Rs. 1000 Crores in foreign exchanging in transshipment of Indian cargo outside the country during the financial year 2003 -04 alone.

SALIENT FEATURES OF THE PROPOSED SCHEME

Two way channel

Bottom Width of Channel = 300 m

Depth of Channel = -12 CD

Permissible Draft of Vessel = 10m

Permissible Speed of Vessel in Channel = 8 Knots

Over all length of Channel = 167 Km

Navigation by Day and Night

Maximum Vessel Size Length = 215 m, Breadth = 33 m, Draft = 10 m

Even in the past there have been many proposals to develop a sea-route connecting Hind Mahasagar and Bay of Bengal.

To name a few:

- 1. 1860 Commander Taylor's Proposal**
- 2. 1861 Mr. Townshend's Proposal**
- 3. 1862 Parliamentary Committee's Proposal**
- 4. 1863 His Excellency Sir William
Dennison's R.E. (Governor of Madras) Proposal**
- 5. 1871 Mr. Stoddart's Proposal**
- 6. 1872 Mr. Robertson's (Harbour Engineer)
Proposal**
- 7. 1884 Sir John Code's Proposal for South India
Ship Canal, Port & Coaling Station, Limited**
- 8. 1903 S.I. Railway Engineer's Proposal based on
their Survey**
- 9. 1922 Sir Robert Bristow's(Harbour
Engineer) Proposal**
- 10. 1956 Sethusamudram Project Committee Report,
headed by Sir A. Ramaswamy Mudaliyar**
- 11. 1967 Dr Nagendra Singh Committee Report**
- 12. 1981 H. R. Lakshminarayan Committee Report**
- 13. 1996 M/s. Pallavan Transport Consultancy
Services Report**

The major difference between all these above referred proposals is basically the route to be followed.

(Refer Slide- 5)

In February, 1997, the Ministry of Surface Transport made Tuticorin Port Trust as Nodal Agency for the Project, and subsequently the National Environmental Engineering Research Institute (NEERI), Nagpur was appointed by Ministry of Surface Transport in July 1997 to prepare the Initial Environmental Examination (IEE) of the Project. The IEE study report indicated that the Project is environmentally safe with negligible effect on the eco system and the Marine National Park of the Gulf of Mannar. The report also recommended a particular alignment of the canal cutting the Pamban Island, east of Kothandaramasamy temple, which will cause least damage to the biota and the environment. As per instructions of the Ministry in February, 2002, NEERI was entrusted to conduct the following studies:-

- (i) Techno-economic viability, and**
- (ii) Environmental Impact Assessment.**

CURRENT STATUS OF THE PROJECT

Dredging work is going on and about 10% of overall work is completed.

As an epoch-making project effecting the lives of lakhs of people and the mankind at large, it is essential to sincerely analyze the various aspects and its impact on the people living in the proximity and the best solution meted out.

Extreme caution is warranted because the above referred Setusamudram Ship Channel Project is unlike the Panama or Suez Canals, which are land-based canals while the present channel alignment is mostly under the ocean subjected to extreme currents, periodic cyclones and now, Tsunami.

The present alignment of the channel has attracted criticism from many corners and needs to be reconsidered and reoriented before the irrecoverable damage is done.

ECONOMICS

Since the overall length of the channel is much more in the present alignment, the estimated cost of the project has also escalated from Rs 282 crores as per the alignment of 1981 to Rs 2427 crores and expected gestation period has also increased to minimum of 15 years. Both these estimates of the government can go haywire as its past project experience is not very encouraging.

TECHNOLOGY

The present alignment on which the project execution is on the way is not the one for which complete study by NEERI (National Environmental Engineering Research Institute (NEERI), Nagpur and NIOT (National Institute of Ocean Tecnology, Chennai) is done, particularly in light of tsunami Calamity.

DEFENCE

Since the present alignment is nearing the International border, it can only be left to the imagination of wise persons as to what can happen when Naval Ships of U.S.A. and China shall start moving in the area. Acts of Western Powers during SUEZ crisis must not be forgotten. Mr V.R.Krishna Iyer, Former Judge, Supreme Court, has already warned our Prime Minister vide a letter dated April 13, 2007. (Refer Slide- 6)

THORIUM

It is presumed that almost 70% of the known sources of Thorium in the world are located in this region. U.S. Government estimates it to 75,000 M.Tons whereas B.A.R.C. opines that it could be over 3, 50,000 M.Tons. In any case present alignment and the necessary drugging in the region can be catastrophic. Many scientists and experts in Atomic Energy field have raised an Alarm.

TSUNAMI

The whole nation is aware of the damages and losses of over 2, 00,000 persons due to “Tsunami” waves on December 26, 2004. Dr T. S. Murthy, well known Tsunami expert and the advisor of the Government of India on the ‘Tsunami’ has informed the government

that the present alignment of the channel shall cause much more havoc than the earlier Tsunami attack as the present alignment shall break the Ramasetu, which protected southern part of India by reducing the impact of tsunami attack in December 2004.

Ramasetu Channel passage in Gulf of Mannar is an invitation for disaster. If another tsunami strikes, the passage will absorb the tsunami energy and devastate Tamilnadu and Kerala coastline just the same way the Alaska 1964 tsunami did through Albern Canal. The plea is that the channel passage should become a canal across Dhanushkodi without desiccating Rama Setu which had saved the coastline from tsunami of Dec. 26, 2004.

PMO, Office of the Prime Minister, has also raised the objections due to same issue to the Nodal Agency; which received a cavalier response instead of in depth study by the certifying agencies such as NEERI and NIOT.

ARCHEAOLOGICAL

The present alignment is based on the route, which shall break the Ramasetu. While the whole world is trying to protect the 2600 years old China Wall and 4500 years old Pyramids, It would be disastrous and depriving the humanity in general to destroy the construction of Shoals, whether you call it Ramasetu or Nalasetu, which is anticipated to be 17,00,000 years old. Dr Jamkhedkar, Former Director, archaeology has also appealed to the Government to look for an alternate route.

Dr S.R.Rao, President of Indan Marine Archeaology, has requested Government to save Ramsetu and surrounding area from getting destroyed as it is a world's cultural heritage.

Dr V.Srinivasan, Consultant Geologists has said that this bridge is manmade and not a natural collection of stones.

CULTURAL

It is believed by the hundreds of crores of people for centuries together that Sriram constructed this bridge in order to cross the ocean to reach Srilanka to release his wife Sitamai who was kidnapped by Ravana the demon. The place where Pooja of Lord Shankara was performed by Sriram is called Rameshwaram. In fact every item in the vicinity has a reference to the life of Sriram.

Rushi Valmiki describes the construction of setu in detail.

In Ramayana in Yudha kanda (2-22-58) he says, Vaanara (Vana nara) having huge bodies, with mighty strength, uprooted elephant sized rocks and mountains; and transported them by Yantras (machines).

Vedavyasa refers to Nalasetu and notes how the setu was protected during Mahabharata times (3102 B.C.) by saying (3-267-45) “which even today, popular on earth as Nala’s bridge, mountain-like, is sustained out of respect for Rama’s command.”

HISTORICAL

1—Gazetteer of Madras Presidency (1893) not only describes the Ramasetu but also mentions that this was used to cross over by people till it got damaged in the storms of 1480.

(Refer Slide 7)

2—Encyclopedia Britannica while describing Adams Bridge, refers it as Ramasetu, Chain of Shoals, connecting Rameshwaram (India) to Mannar (Srilanka). Book says, its length is 48kms and is 3 to 4 feet below sea level.

(Refer Slide- 8)

3—Map prepared by Netherlands, in the year 1747, refers the area as Ramarcoil.

(Refer Slide- 9)

4—Map prepared by Australia, in the year 1788, refers it as Ramar bridge.

(Refer Slide- 10)

5—Mr James Renenell, First Surveyer General in the year 1804 published a map with the name as Adams Bridge.

(Refer Slide 11 & 12)

6—Sanskrit-English Dictionary published by Mr William Yates, in 1846 says ‘samudriya’ means ‘Ramasetu’.

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CONCLUSION

Considering cultural and Historical aspects of human life in India, Defence of our nation, Danger of Tsunami as well as Protection of World Heritage; it becomes absolutely necessary that Government of India reviews the project with immediate effect and completes the Sethusamudram Ship Channel Project by adopting a route (alignment) directed by the Steering Committee of the Government of India.

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