

# REVITALIZING DHANUSHKODI: NEED FOR HEALTH AND COMMUNITY SERVICES IN THE ABANDONED 'GHOST-TOWN' IN TAMIL NADU

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## ABSTRACT

**INTRODUCTION :** Evolving landscapes and trade opportunities encourage population migration, and addressing their health care becomes crucial. Migration to a place disconnected from the health system poses significant health risks, including exposure to infectious diseases, inadequate healthcare access, mental health impacts of displacement, apart from the inappropriate medical care and emergence of quackery during health care needs. Integrated health systems that keep updated with the recent population trends and cater to the unique needs of migrants and transient populations is essential to achieve the goal of 'Universal Health Coverage'. This article explores the background of one such instance in Tamil Nadu, in which tourism opportunities coupled with technological advancements, relocated people back to an abandoned town, thereby creating a demand for their basic necessities in the abandoned place.

## INTRODUCTION

Ramanathapuram district is one of the 38 districts in the state of Tamil Nadu in India, and one among the 14 coastal districts in the state. It lies in the South-East coast of India, facing the Bay of Bengal. The coastline extends up to 237 kms, and the easternmost part of Ramanathapuram district comprises the Rameswaram (also known as Pamban) island, which has an area of 96 Sq.kms and a coastline of 37 kms. Rameswaram island has cultural, ecological, spiritual and historical significance in the history of Indian sub-continent. The island is of global importance due to its rich flora and fauna. The biologically-rich coastal region comprises the Gulf of Mannar Marine Biosphere Reserve, which is the first of its kind in south and south-east Asia. The reserve houses diverse range of species and habitats and is recognized a World Heritage site.

### The Deadly Disaster:

On the midnight of 23rd December 1964, the island faced a cyclonic storm which had a huge impact on Dhanushkodi, the easternmost tip of the Rameswaram island. The 1964 Dhanushkodi cyclone (also known as Rameswaram cyclone) is still considered as one of the powerful cyclone India have ever faced. The 25 feet storm surge overturned

a running Pamban-Dhanushkodi passenger train into sea, killing all the 400 people on board and submerging the Dhanushkodi island. Around 2,000 people lost their lives due to the cyclone with wind-speeds of up to 240 kms/hour. Casualties were also reported in northern part of Sri Lanka, the erstwhile Ceylon, which lies around 18 kilometers from Dhanushkodi.

Prior to the cyclone, the Dhanushkodi town had a functional railway station, a railway hospital, a customs office, a post and telegraph office, two medical institutions, a panchayat union dispensary, a higher elementary school and port offices, established by the British. The town had human settlements and was an important commercial center. The then iconic "Boat Mail Express" from Chennai (then Madras) to Colombo, Sri Lanka (then Ceylon) was operated between the two nations connecting India and Ceylon. This was once an important route for trade and public transit due to cultural bonds between the Indian and Sri Lankan Tamil People.



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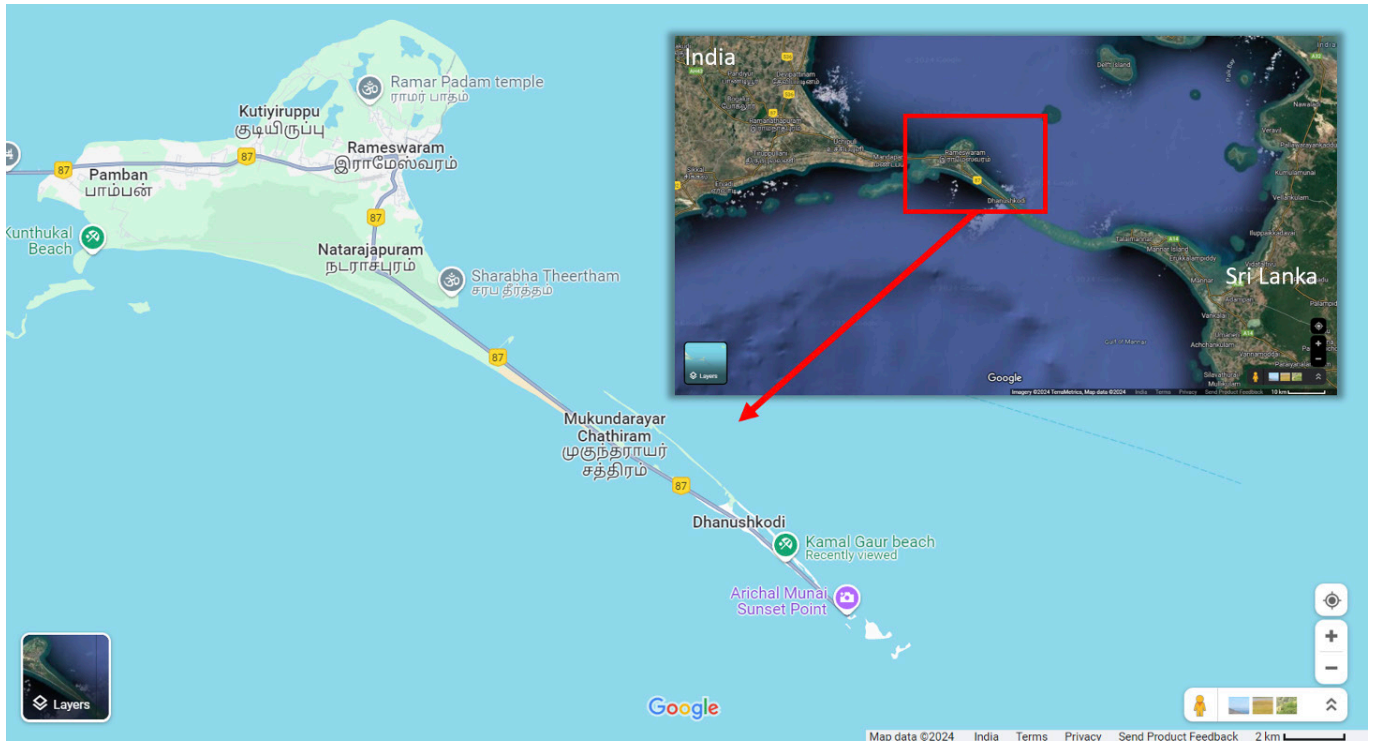


Fig.1: Map showing Rameswaram, Mukuntharayar Chathiram and Dhanushkodi. (Source: Google Maps, Retrieved: September 23, 2024)

### The Town of Uncertainty:

In the aftermath of cyclonic storm and its impact, due to the extensive damages of the infrastructure, and the impending risk factors, the Government of Tamil Nadu declared Dhanushkodi town as unfit for human settlement.

The surviving people from two villages, Palam and Kambipadu in Dhanushkodi were allotted lands in the other two villages Natarajapuram and Ramakrishnapuram, both about 21 kms from Dhanushkodi and the human settlements were limited to Natarajapuram in Rameswaram, by the Government. The abandoned town had only the remnant buildings of St. Antony's church, the railway station, temples and few other structures, that partly survived the devastating cyclone. The rail and road links to Dhanushkodi were broken and not restored or attempted for reconstruction after the cyclone. The trains were limited to Rameswaram and the roads were limited to Mukuntharayar Chathiram, about 5 kms away from Dhanushkodi. Dhanushkodi, since then had been largely inhabited and was locally referred to as a "Ghost Town".

### The Era of a Reborn town:

However, after the advent of private and commercial vehicles, during 1990s, the abandoned town and its remnants started attracting tourists. Tourism at Dhanushkodi was seen as a major source of income for the native people of Rameswaram, apart from fishing. Vehicles like vans and jeeps, with off-

road capabilities, starting from Mukuntharayar-Chathiram, started carrying tourists and plying into the shallow sea water along the sea coast. The activity drew huge tourists to the abandoned town, along with visits to the ruined buildings constructed with coral reefs during the British rule in India. The tourism industry proportionately improved with economic development and affordability of population, to own private vehicles and the local residents of Rameswaram were in no surprise to capitalize on this newly evolving business. However, Dhanushkodi town had no permanent residents since the Government had already relocated all the residents, allotted them alternate lands in a comparatively safer zone with amenities. The Government made no further efforts to officially declare Dhanushkodi as a habitation and neither provided any proof for any individual as a native resident of Dhanushkodi nor made efforts to provide electricity or establish transport facilities or a fuel station. Due to these limitations, the commercial tourism activity continued only till the sunset, and the tourists and residents themselves returned back to the nearby Rameswaram town with their assets and vehicles, as darkness set in, for reasons such as lack of security and lack of electricity. Also, the local residents involved in the commercial activity, who had their permanent houses at Rameswaram, with their family members, returned back to Rameswaram, after sunset.



*Fig.2: Tourist attractions and activities during 2016: Clockwise from top: (i) Remnants of St. Antony's Church at Dhanushkodi, surrounded by temporary structures serving as shops for tourists; (ii) and (iii) Off-road vehicles plying tourists through the sea waters in Dhanushkodi; (iv) Road connecting Mukuntharayar Chathiram of Pamban island to Dhanushkodi, under construction during 2016.*

During 2016-17, a new stretch of road was constructed connecting Mukuntharayar Chathiram of Pamban island to Dhanushkodi. This road allowed entry of private vehicles till Arichalmunai, the tip of Dhanushkodi, which eventually became a fresh destination for tourists. The Government started plying public transport buses till Arichalmunai for tourists and local residents. The new road, added with increased availability of private vehicles, completely shut down the business of off-road vans and

vehicles that were plying tourists on the sea shore. The local residents were forced to see an alternate source of income, by setting up their temporary huts with thatched roofs in the available places in areas where people congregated, establishing eateries and selling hand-made sea-shell products. Still, electricity was seen as a major detriment for the local residents, which forced them to return back to Rameswaram town after the dusk.



*Fig.3: An aerial view of Dhanushkodi in 2023, showing the newly constructed road, with temporary settlements and shops set by local people on either side of the road, to cater the tourists.*

The health services for the people in Rameshwaram island, including Dhanushkodi is catered by a Rural Primary Health Centre (PHC) at Pamban with its Health Sub-centers (HSCs) surrounding Pamban and by an Urban Primary Health Centre (UPHC) located at Rameswaram municipality with its Urban Health Sub-centers. The secondary care hospital is also located in the Rameswaram municipality. The nearest Health Sub-center (HSC) for Dhanushkodi is located in Natarajapuram (Natarajapuram HSC), about 13 kms away and the nearest Primary Health Centre is Rameswaram UPHC, located 16 kms away. The nearest secondary care centre, Rameswaram Government Hospital (GH) is located about 16 kms away. Few private clinics numbering around 20 are concentrated and located in Rameswaram town. The tertiary care facility for Ramanathapuram district is a Government Medical College Hospital (MCH) located 70

kms away from Dhanushkodi. Currently, the villages enlisted under Natarajapuram HSC for providing primary care and outreach services by the Directorate of Public Health & Preventive Medicine (DPH&PM) includes 13 villages, namely Karaiyur, MRT Nagar, Karaiyur Kadarkarai, Attamaal, Maariyamman Kovil, Serankottai, Natarajapuram, Puthu Road, Ramakrishnapuram, Dhanushkodi, Mukuntharayar Chathiram, Nethaji Nagar and Rajagopal Nagar, with a total of 3,147 houses, which includes 102 houses with 329 people in Dhanushkodi and 31 houses with around 50 people in Mukuntharayar Chathiram. The houses and population in both these places are enlisted by DPH&PM solely for the purpose of providing health care services. The villages still remain to be officially inhabited and since all the houses are made from temporary structures, the enlisted number of houses and population tend to be dynamic in nature.

Table 1: Village wise houses and population details of Natarajapuram Health Sub-Centre, Urban PHC Rameswaram, Mandapam Block, Ramanathapuram Health Unit District

S. No.	Villages	Houses	Population (n)										Male	Female	Total
			<1 year	1-5 years	5-10 years	10-15 years	15-19 years	19-29 years	30-45 years	46-59 years	> 60 years				
1	Karaiyur	300	7	96	85	105	98	173	518	470	197	887	862	1749	
2	MRT Nagar	383	7	86	77	86	65	142	271	248	139	512	609	1121	
3	Karaiyur Kadarkarai	172	9	75	78	87	48	138	220	220	106	491	490	981	
4	Attamaal	40	9	40	22	25	49	61	61	57	34	157	201	358	
5	Mariyamman Kovil	108	11	67	56	81	56	102	74	81	103	317	314	631	
6	Serankottai	244	9	63	74	72	106	138	307	278	226	615	654	1269	
7	Natarajapuram	887	11	75	272	331	302	332	329	364	341	1157	1200	2357	
8	Pudhu Road	164	7	57	83	83	112	318	224	352	260	777	719	1496	
9	Ramakrishnapuram	285	12	62	55	89	126	326	264	327	298	786	773	1559	
10	<b>Dhanushkodi*</b>	<b>102</b>	<b>5</b>	<b>49</b>	<b>32</b>	<b>50</b>	<b>28</b>	<b>32</b>	<b>32</b>	<b>49</b>	<b>52</b>	<b>161</b>	<b>168</b>	<b>329</b>	
11	<b>Mukuntharayar Chathiram*</b>	<b>31</b>	<b>1</b>	<b>6</b>	<b>5</b>	<b>7</b>	<b>4</b>	<b>5</b>	<b>5</b>	<b>8</b>	<b>8</b>	<b>24</b>	<b>26</b>	<b>50</b>	
12	Nethaji Nagar	218	11	72	66	62	58	69	31	90	101	276	284	560	
13	Rajagopal Nagar	213	11	64	81	86	66	126	87	47	47	305	310	615	
<b>Total</b>		<b>3147</b>	<b>112</b>	<b>856</b>	<b>1010</b>	<b>1211</b>	<b>1145</b>	<b>1990</b>	<b>2454</b>	<b>2637</b>	<b>1949</b>	<b>6603</b>	<b>6757</b>	<b>13075</b>	

\*Temporary houses with Dynamic population, estimates, as of 2023, by DPH&PM

During the COVID-19 era, the movement of people was completely restricted, and tourism which was the only activity in the place, was completely shut down. The local residents had no choice but to stay in Rameswaram. Slowly, as the COVID-19 restrictions were relaxed, tourism regained its momentum and local residents were back to the abandoned Dhanuskodi town to carry on their commercial activities.

During the course of time, Solar panels as source

of electricity were marketed to a large extent in India, and were widely available across the country at cheaper costs. The local residents, reeling with lack of electricity and being forced to return after the dusk, were soon to capitalize on this and started installing solar panels on their huts. The solar panels with battery paved way for their uninterrupted power supply after sunset, and also facilitated usage of fans inside their huts. This brought all their family members including

children back to Dhanushkodi, so that they can comfortably stay even during nights and summer, without returning back to their permanent houses back at Natarajapuram or Rameswaram. Though the Government have neither granted them lands legally nor permitted them to stay in the island, the abandoned town now has significant number of huts

with solar panels atop, with population of all ages, including vulnerable groups such as pregnant women, children and elderly people, with family members engaged in commercial activities including tourism and fishing, serving as their source of income.



Fig. 4: Satellite view showing temporary structures set-up at Dhanushkodi. (Source: Google Maps, Retrieved: September 23, 2024)

#### Emerging need for Essential services:

During the course of above developments, a Government Primary School (Class I to V) was opened at Mukundarayyar Chathiram on 01.06.2006, which was upgraded to a Middle School (Class I to VIII) in 2010, to cater the educational needs of the children residing at Dhanushkodi. The school too, relies on Solar panels for electricity. During the year 2023, around 52 students were found to be enrolled in the school, aged between 5 and 14 years with 3 teachers. An Anganwadi under the Integrated Child Development Services (ICDS), have also been set up in a temporary structure by the Government, for the women and children. However, no temporary or permanent Health Sub-Center (HSC) have been set up till date.

The Village Health Nurse (VHN) from the Directorate of Public Health and Preventive Medicine and the Anganwadi worker from the Integrated Child Development Scheme (ICDS) posted at Natarajapuram, the nearest habitable settlement declared by the Government, continue to take care of the residents at these temporary settlements, since the relocated residents have their permanent addresses within their demarked population area.

With mobile phones still, a rarity and very basic communication systems established in Dhanushkodi, people are forced to rely on their own transport vehicles during medical emergencies.

The roads connecting the settlements are at sea level making commutation difficult during rains. The services available (provided by the Government and availed by the people) to the children and pregnant women in this isolated and abandoned place, was found to be lesser compared to those of other areas.

With no qualified private medical personnel or service available at this abandoned town and with gradually increasing population, few petty shop vendors who sell snacks and consumables including vegetables, for the local residents and tourists, were found possessing and dispensing Over-the-Counter (OTC) medicines and prescription-drugs to the people residing there, due to local demand.

The pregnant women found staying in the settlements failed to turn-up for their scheduled antenatal visits to the nearest health care facility due to these limitations in transportation facilities.



Fig. 5: Clockwise from top: (i) A newborn being examined in Dhanushkodi at a temporary settlement; (ii) Interaction with the local community on health needs; (iii) Inspection of local shops for possession of OTC and prescription drugs; (iv) OTC and prescription drugs found in local shops.

## CONCLUSION

The above needs and challenges necessitate the establishment of a Health Centre and Anganwadi with a permanent structure with all basic facilities at Dhanushkodi, not only to cater the needs of the resident people, but also to the tourists visiting Dhanushkodi. With the flourishing tourism and newer technologies being adopted by local people, the Government may consider rebuilding the town and supporting the local community with all basic

necessities like any other village in the district. As the nation marches towards the motto of “Universal Health Coverage”, restructuring and strengthening the health care infrastructure and extending to the grass-root level is prudent in attaining the goal.

## DECLARATION OF INTEREST

The authors declare no conflict of interest