1. The best works done regarding response COVID-19 by 5-6 adjoining villages / villages adopted by the University / Institute:

Our institute, **SRKREC** (**AISHE Code: C24163**), **Bhimavaram**, West Godavari District, Andhra Pradesh has under taken relief programs in five villages it had adopted under UBA namely **1. Gollalakoderu**, **2. Peda Amiram**, **3. Jakkaram**, **4. Kalla**, **and 5. Kallakuru**.

SRKREC is supporting villages adopted under UBA program with **COVID-19** related activities and preparedness to prevent the spread of the Corona virus. The institute **SRKREC** is also sharing the **awareness material in Telugu language with community stakeholders** (Material attached).

Since the outbreak of **COVID-19**, the institute **SRKREC** has kept a strong focus on how best we can use our technical expertise to serve the nation, especially in surrounding regions. Institute **SRKREC** has worked with the villages adopted by it under the UBA program. **SRKREC** has been **conducting Covid-19 awareness programs** along with safety needs like sanitizers and masks in these adopted villages.

- 1. To promote hand wash program among the Students of Government Primary and High schools in adopted Villages.
- 2. To familiarize the people to wear face masks to avoid air-borne / communicable diseases while sneezing and coughing.
- 3. To make the people aware not to touch their face, nose, and eyes for avoiding the spreading of diseases like COVID-19.

This will be continued until the situation comes to normal. It also aims to create a bridge between the society and institute by providing knowledge and practices for emerging problems.

The Faculty of **SRKREC** are also urging the village community to download **Arogyasetu App** and **Kisan Rath App** which connects farmers and traders with transporters as requested by Government of India.

2. How the above villages have withstood the various challenges posed by COVID-19?

Both Central and State governments declared **Lockdown** under phased program from **22nd March**, **2020**. This helped total village populations to avoid social contact thereby minimizing the outbreak of **COVID-19**.

NGO's and **State governments** is supplying essential commodities like rice, pulses, vegetables etc. to the rural poor. This is imparting good energies to the poor people and developing herd immunity to fight against the **COVID-19**.

The faculty of **SRKREC** is constantly interacting with local stakeholders to ascertain their needs.

3. How India handled the 1918 Pandemic (H1N1 Virus) †Spanish Flu (Influenza) and what measures were taken to boost the Indian economy after the Pandemic?

During those days, the administration was in the hands of British government. There were no specific measures taken by the Indian rulers. The pandemic had a significant influence in the freedom movement in the country. The healthcare system in the country was unable to meet the sudden increase in demands for medical attention. The consequent toll of death and misery, and economic fallout brought about by the pandemic led to an increase in emotion against colonial rule.

The 1918–19 'Spanish' Influenza was the most devastating pandemic in recent history, with estimates of global mortality ranging from 20 to 50 million. The focal point of the pandemic was India, with an estimated death toll of between 10 and 15 million.

From the hilltops of Shimla to the isolated villages of Bihar, no part of the country remained unaffected. The speed and extent of the fatalities were overwhelming. In Bombay, 768 people died in a single day on the 6th of October in 1918.

The outbreak most severely affected younger people in the age group of 20 - 40, with women suffering disproportionately. A report released by the sanitary commissioner in

1918 later documented that it was not just Ganga that was clogged up with bodies, but all rivers across India1. The country's poor healthcare infrastructure had a key role to play in creating the disparity. But the arrival of the flu also coincided with a drought in 1918, which led to a famine in large parts of the country. Since, hunger weakens the immune system of the body, it made large segments of the population vulnerable to the virus. The colonial regime made matters worse. Despite the famine and the epidemic, Indian-grown food continued to supply the war efforts on the British front lines.



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ముందు జాగ్రత్తలు పాటిద్దాం.. కరోనా వైరస్ సంక్రమణ అలికడదాం...



- విదేశాల నుండి తిలగి పచ్చిన తరువాత కనీసం 14 రోజులు ఇంటివద్దనే ఉందవలెను.
- కుటుంబ సభ్యులకు, బంధువులకు దూరంగా ఉందవలెను.
- జనసంచారంలోకి వెళ్ళపద్దు.



జ్వరం మలియు దగ్గుతో బాధపడుతున్నట్లయితే దూర ప్రయాణాలను రద్దు చేసుకోంది



తప్పని సలయైతే 3 అడుగుల దూరంలో ఉందండి





ఆసుపత్రికి వెక్కవలసి వస్తే బస్సులో, రైలులో కాకుండా 108 వాహాసంలో ప్రభుత్వ ఆసుపత్రికి వెళ్లండి.



సబ్బ, నీరు ఉపయోగించి తరచు చేతులు శుభ్రంగా కడుగుతోవాలి

మలిన్ని వివరాలకు 24/7 కాల్ సెంటర్ 0866-2410978 కు ఫోన్ చెయ్యండి. మలియు ఆరోగ్య సలహా కొరకు 104 హెల్ఫ్ లైన్ ను సంప్రదించండి

ప్రభుత్వం తీసుకున్న చర్యలు

- అన్మి జిల్లాల్లో ఐసెకలేషన్ వార్నులు, రాపిడ్ రెస్కౌన్స్ టీమ్ల్లు సిద్ధం
- సలిపదా మందులు, మాస్క్ లు. వ్యక్తిగత సంరక్షణ కిట్లు సిద్ధం
- పారామెడికల్ సిబ్జంబికి అవసరమైన శిక్షణ అందించాము
- రాష్ట్ర మలియు జిల్లా స్థాయిలో కాల్ సింటర్స్ పర్నాటు

సురక్షితంగా ఉండండి కరోనా వైరస్ నుండి సంరక్షించుకోండి



విదేశాల నుంచి జిల్లాకు

ఎవరైనా వచ్చినట్టు తెలిస్తే

టోల్ ఫ్రీ నెం. 1800 2331077 కు

తెలియజేయండి...



0866-2410978 08812-222376

మరియు ఆరోగ్య సలహా కొరకు 104 హెల్ఫీలైన్న్లు సంప్రబంచండి

కరోనాపై కేంద్ర ప్రభుత్వం ఏర్పాటు చేసిన ప్రత్యేక హెల్మ్ లైన్ నెం. 011-23978046



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ముందు జాగ్రత్తలు పాటిద్దాం. కరోనా వైరస్ సంక్రమణ అలకడదాం.



దగ్గిన తర్వాత, ముక్కు చీదిన తర్వాత





వంటకు ముందు, తర్వాత మరియు బోజనానికి ముందు



జబ్బపడిన వ్యక్తిని పలీక్షించే ముందు, పలీక్షించిన తర్వాత



మలమూత్ర విసర్జన తర్వాత

మిమ్మల్ని మీరు రక్షించుకోండి

ජරිම්තම ධූර්ව්

బాల నుండి సురక్షితంగా ఉండండి.

ప్రభుత్వం తీసుకున్న చర్యలు

- అన్ని జిల్లాల్లో ఐసోలేషన్ వార్నులు, రాపిద్ రెస్పాన్స్ టీమ్లు సిద్ధం
- సలిపదా మందులు, మాస్క్ర్ల్లు, వ్యక్తిగత సంరక్షణ కేట్లు సిద్ధం
- పారామెడీకల్ సిబ్జంబికి అవసరమైన శిక్షణ అందించాము
- రాష్ట్ర మలియు జిల్లా స్థాయిలో కాల్ సెంటర్స్ పర్నాటు



జ్వరం, దగ్గు మలియు ఊపిల తీసుకోవడంలో ఇబ్బంబి ఉన్నట్లయితే వెంటనే మీ దగ్గరలోగి డాశ్మల్ని సంప్రబించండి.



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කවරාා පරිි්රු ත්වක්

కారకు 104 హెల్ఫీలైన్ ను సంప్రబంచండి

విదేశాల నుంచి జిల్లాకు ఎవరెనా వచ్చినటు తెలిసే



S.R.K.R. Engg.College, Bhimavaram



50කයි-19 (ජිගිනිත බූරිති) කුුඩුපි සපිති ජා ఎමංමේ තිංසංරූං මියින බීතුත්ම් පැතිඩුමාබුම් පෙති බූගමෙස (NIV)*-పుඹේ, ස.සි.තිඩුමමේ** -කාංසංගා කාපරාා තිබාවේ තිඩුමමේ***-పාඹේ තිංතුමජා සිංසති නිඛුణාలා තිබූල සිතිරේ.

మూలం: ప్రెస్ కాన్ఫరెన్స్ మరియు మీడియా రిపోర్డ్స్

- ప్రపంచంలో ఎక్కడా చికెన్ తినడానికి కరోనా వైరస్ వ్యాప్తికి సంబంధం ఉన్నదని అనలేదు.
- ఇబి ఇలా ఉంటే, అమెలికా, చైనా మలియు ఇతర అభివృద్ధి చెంబిన దేశాల్లో కరోనా వైరస్ వ్యాప్తి తర్వాత చికెన్ మలియు చికెన్ ఉత్పత్తుల వినియోగం విపలీతంగా పెలిగింబి.
- పౌల్టీ మలియు పౌల్టీ ఉత్పత్తుల వినియోగం మానవులకు సురక్షితం మలియు ప్రతి
 ఒక్కరు సామాజిక మాధ్యమాల్లో వ్యాపిస్తున్న తప్పుడు వదంతులను నమ్మవద్దు.
- కరోనా వైరస్ కు, చికెన్ మలియు గుడ్ల వినియోగానికి సంబంభించి నకిలీ వార్తలు మలియు తప్పుడు సమాచారం వ్యాప్తి చేస్తున్న ఇద్దరు వృక్తులను మహారాష్ట్ర పాలీస్ (సైబర్ కైం సెల్) వారు అరెస్టు చేసారు.

ీనేషనల్ ఇన్స్టోట్యూట్ అఫ్ వైరాలజ (NIV) భారతదేశంలో వివిధ వైరస్ వ్యాధుల పద్ధవేక్షణలో నిమగ్నమైన భారత ప్రభుత్వ ప్రధాన జాతీయ సంస్థ

^{**}జె.జె.హాగ్నిటల్ - మహారాష్ట్ర ప్రభుత్వ వైద్యశాల, ముంటయి

^{***}ససూన్ హాస్టిటల్ - మహారాష్ట్ర ప్రభుత్వ వైద్యశాల, పూణె

Awareness Programs at Primary Schools















Distribution of Food and Essential Commodities for Needy People





Measures to accelerate and sustain growth of economy in various sectors:

Under the present adverse environmental scenarios due to COVID-19, development of Inland navigation in the Godavari and Krishna deltas may be very helpful to avoid environmental hazards and to improve economy in the region. After separation of state into Andhra Pradesh and Telangana, Andhra Pradesh has got no industrial development and it is with very poor economic scenarios. If we develop surface water transportation in Godavari and Krishna canals, automatically avoids water pollution in the canals and facilitates the development of tourism like that of Kerala. We strongly recommend the conversion of existing canals into navigation canals. So that environment and economy will develop parallel to each other without causing any pollution into the environment.

Note on the necessity to revive inland navigation in the Krishna - Godavari delta region for economic development

The bifurcation of the state of Andhra Pradesh has slowed down the migration of job seekers and first time entrepreneurs from coastal Andhra Pradesh to Hyderabad and resulted in greater appreciation of land value and investment in the coastal districts. The most conspicuous sign of this trend was the increase in sales of automobiles and the increase in apartments, even in towns and villages. About 10 lakh vehicles have been registered, every year since the bifurcation. That is about 250 new vehicles added to the roads every day, in each district. The infrastructure to support this growth in automobile ownership viz public parking, roads, foot paths, traffic signals etc., are not increasing at any noticeable rate compared to the years before 2014. There is not enough land or financial resources to match the growth of transportation infrastructure with the proliferation of personal automobiles. Even if we invest in overbridges, flyovers, bypasses, intersections and expressways to ease the flow of traffic, it will only be a temporary solution.

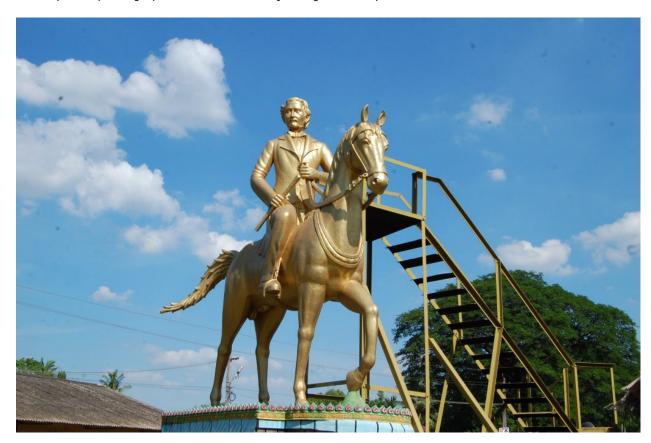
Traffic congestion wastes our time and fuel. Air Pollution and Sound Pollution take their toll on our health and this leads to further loss of productive time of the work force. More people die of Air Pollution than due to accidents every year. The rate of road accidents is also a serious concern as the growth rates are alarming. With the penetration of mobile telephony and affordable data and call rates, people can't get off them even when they ride on roads. During the month leading upto general elections in April, over 300 people died within 10 days, all in road accidents as the police personnel were deployed in election duties. This is really a cause for concern to travel safely on road. However, there seems to be no going back on the economic development model which favours private motorised transportation and road woes will only worsen in the days to come.

If we look back to the mid 19th century, when electricity, petroleum were not discovered and harnessed for powering industry and transportation, all the heavy load handling was on waterways both inland and international. The last mile connectivity from the wharf or jetty was provided by animal drawn carts. The development of waterways, railways and roadways for transporting raw materials to England and dumping their produce on Indians was initiated by the East India Company. Development of waterways was the foremost and the prodigious building of irrigation canals was but a side benefit to the colonised people. The irrigation and drainage network built in the Godavari and Krishna Delta are some of the best examples for inland navigation, complete with locks, gates and tall bridges to allow sail boats to pass unencumbered in the canals.

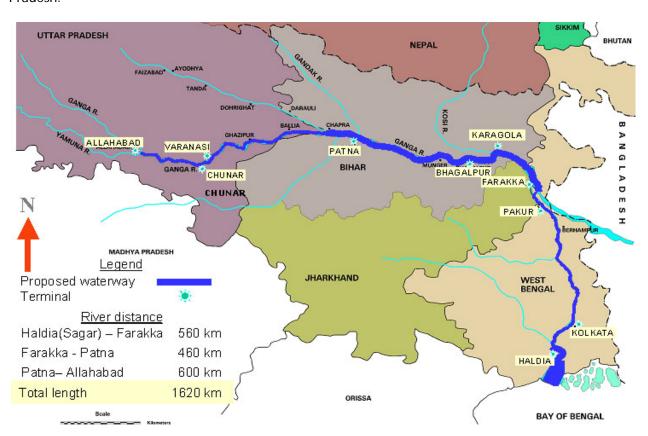
The success of the Godavari scheme encouraged the construction of the Buckingham canal from Bezawada to Madras for navigation. Though this fell out of use and is encroached in some

places, the entire stretch is still intact. Based on this experience Sir Arthur Cotton has repeatedly urged the British Government to link Ganga to Cauvery with navigable canals to connect the entire country. This is the first ever river linking scheme proposed in India and was mainly for promoting inland navigation. However, the rulers were interested in promoting British Industry of the day which was running high on coal and steel. Private and State railways were built by giving contracts to British Industry and Entrepreneurs. They were funded by public money to make profit for private entities. With the opening of the Havelock rail bridge on the Godavari River between Kovvur and Rajamahendravaram, the two Presidency towns of Howrah and Madras got connected by train travel and there was no looking back for train transport on the East Coast. In the years leading upto and thereafter the government spent ignored the development of inland navigation or irrigation. Everybody forgot about linking of rivers.

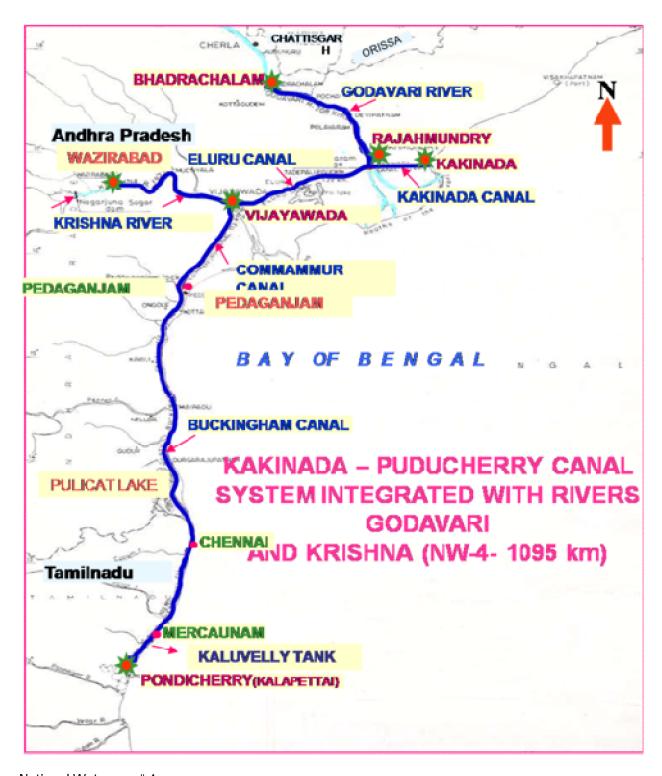
There are about 3000 statues of Sir Arthur Cotton in the Godavari Districts. That means, there would be no village without one. Yet, we seem to remember only half of his legacy which is irrigation for crops and forget that other half which is inland navigation. After the bifurcation of the state, development picked up in the coastal districts with development of National Highways, widening of state highways, electrification and doubling of railway lines. It is high time we also developed inland water transport in relation to the National inland waterways being developed in the country. This will surely go a long way in supporting the sustainable social and economic development of the agri-based Delta area. Renewing the water transport will help transport agri produce economically and get better price for them in the market.



Just as we have National Highways, R&B (State Highways), Municipal Roads, Panchayati Road, private roads, we need to create a similar hierarchy in water transport. The Central Government has established the Inland Waterways Authority of India in 1986. Their development has received great push in the previous term of the central government. More than 100 national waterways have been notified and they are being operationalised. The Waterway 1 connecting Prayagaraj to Haldia port has been operationalised. Infrastructure for container transport as well as cruise vessels has been developed. The National Waterway # 4 connects the Godavari, Krishna and Penna Rivers systems and provides for transport from Kakinada in East Godavari to Puducherry. This waterway expands the Buckingham canal system further North in Andhra and South in Tamil Nadu. A large terminal is proposed in the new capital Amaravathi of Andhra Pradesh.



National Waterway # 1



National Waterway # 4

Not surprisingly Kerala is at the forefront of inland navigation. The National Waterway # 3 on the West Coast Canal is the sole round-the-year navigable waterway right now. This has been made possible by the Geography as well as the 50 year old State Water Transport Department which has been operating boats for transporting people and tourists. Even with conventional

boats operating by diesel (truck) engines, water transport is the most economical and eco friendly. Kerala State Water Transport Department has successfully launched a solar boat in 2016 which successful. Now they are going to launch faster solar boats by the end of 2019. Due to connectivity with the sea (backwaters) Kerala is blessed with waterways that are navigable round the year.







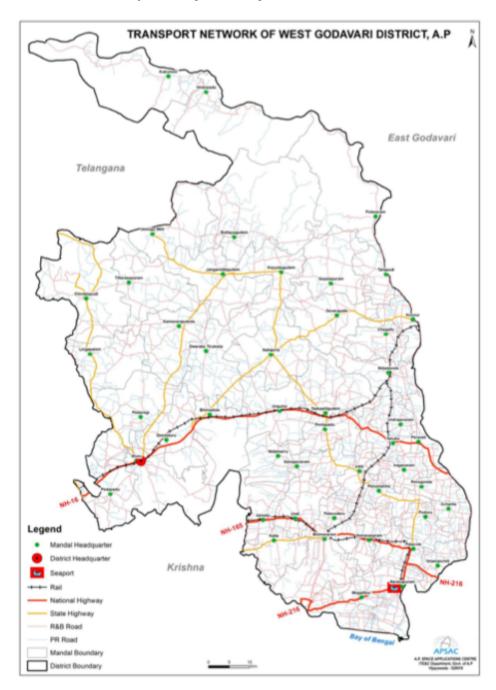




Kerala Water Transport 1. Express Solar boat 2. Solar Boat 3. Diesel Boat 4. Canal Lock

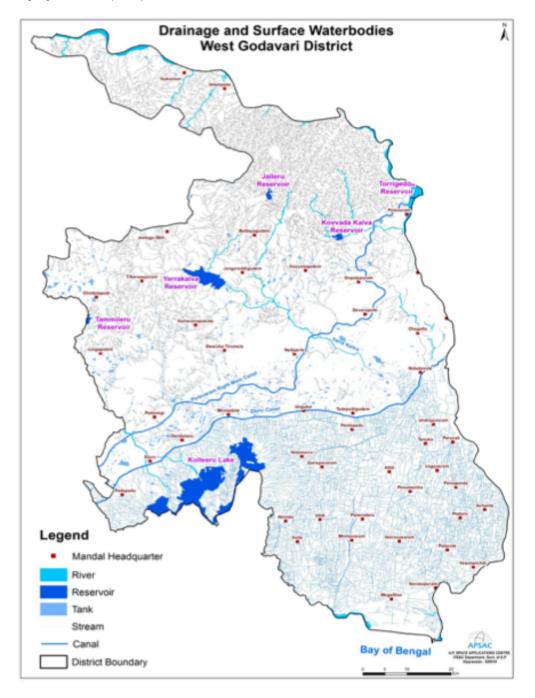
The scheme of canals devised during the Dhavaleswaram Anicut project were all designed to be navigable and the banks were wide enough for cart track with locks and gates for interchange of vessels as well as high bridges for roads to cross over the canals. The goods transport which is carried on HCV's and LCV's today can be shifted to water transport. This will help regulate commercial traffic on the already busy roads. By initiating transport along canals, the irrigation department will step up its efforts to maintain the banks and the bed of the canal which will also

facilitate better flow of water till the tail end. Land abutting navigable canals will also appreciate in value and storage and processing facilities can come up in those zones promoting further economic growth in the region. Konaseema which is no less than Kerala in beauty and culture can be made even more popular by giving access to the beautiful vistas only possible by cruising on the river and canals. Air Pollution which is reducing almost 5 years of life expectancy of urban Indians can also be checked by reducing diesel engine emissions.



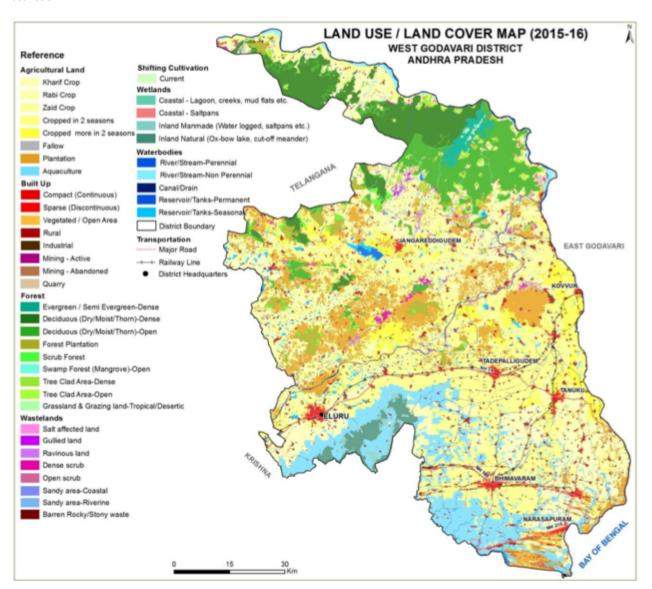
The Delta region of West Godavari District lies to the South of the National Highway 65 passing through the district and has more dense population, road network and accident rate than other

parts of the state of Andhra Pradesh. Incidentally, the roads in the delta are also high maintenance roads as they were laid on the banks of the irrigation and drainage canals which are prone to subsidence when impacted by heavy traffic. Rather than spend resources in repairing and relaying roads every monsoon, it makes better sense to move the heavy traffic off the roads, into the waterways which only need water in the canal and no re-paving ever, except for dredging and the upkeep of the banks.



The Delta region has a canal network that is even more dense and elaborate than the road network. Most of the roads are already aligned along one or the other canal. It doesn't

necessitate any expensive and litigious land acquisition to develop water transport unlink new or expansion projects in railways and roadways. Waterways will in fact increase the reach of transport to many unreached areas and facilitate faster movement of agri and aqua produce to the processing facilities and the markets. Even if the road and rail scenario remains business as usual, the cost-effectiveness and the existing canal network makes the inland water transport development a new economic opportunity and will promote tourism and better upkeep of our canals which are the lifelines of the delta population. That itself is an incentive enough to get started.



Land Use & Land Cover Map of West Godavari District.

As an agrarian economy which boomed since the construction of the Dhavaleswaram Anicut, all the urban centres are located on canals. Eluru (Administration), Tadepalligudem (Trading of agriproduce), Nidadavolu (the headworks of the canal system), Tanuku (Industries), Bhimavaram

(aquaculture), Palakollu (Horticulture), Narasapuram (access to sea) are all connected by canals and can exchange goods on the waterways instead of roadways which are already high on traffic. We can prioritise passenger traffic on roads and goods traffic on canals. The inland waterways authority of India has given a great push to inland navigation due to the economic benefits and the huge scope for development. Not even 0.1 % of domestic goods movement in India is by waterways. In the US, it is about 21% for domestic goods transport. European Union and China also have comparable share of goods movement through inland navigation. There is tremendous scope for us to develop inland transport.

Mode	Pre tax freight	Post Service tax freight
	(Rs. per tonne Km)	(Rs. per tonne km)
Railways	1.36	1.41
Highways	2.50	2.58
IWT	1.06	1.06

Cost comparison for goods movement on various modes.





Europe was the cradle of Industrial Revolution and all the modern modes of transport. Yet, they have not given up on water transport in spite of having the world's best highways (AutoBahns in Germany) or Bullet Trains (TGV, Eurostar, Thalys in France, UK and Benelux region) The material and goods transport from and to ports in Europe is mostly carried out by inland navigation. Capitals like Paris, Rome, Budapest, Amsterdam are located on Rivers or Canals that are major tourist attractions. Countries like Netherlands and Belgium which have a high density of canal network also have people using small boats for personal transportation. Europe is heading with a vision for a Circular and Biobased economy where inland navigation was seen as the most sustainable mode of transportation with tremendous opportunity for growth. We cannot go wrong by reviving our inland navigation systems to add transport capacity to the already dense and busy road network we have in the delta area.

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