

'INSPIRATION'

'INSPIRATION' – STARTED BY LATHA AND JAIGOPAL - INSPIRED BY LONG PERSONAL INTERACTIONS WITH LAURIE BAKER. HAD OPPORTUNITY FOR PASSIONATE INTERACTION WITH EMINENT PEOPLE OF ALL WALKS OF LIFE.....

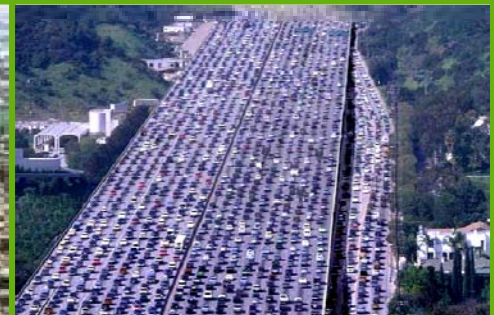
- WORKED SIMULTANEOUSLY WITH NGO, SUSTAINABLE BLDG. SECTOR
- SAME TIME AS PRINCIPAL DESIGNERS WITH GAMMON INDIA WHO WERE TRYING TO SET UP A NEW REAL ESTATE SECTOR
- SAME TIME WAS ASKED TO SPEAR HEAD CORPORATION OF COCHIN'S PEOPLES' 'MASTER PLAN' INITIATIVE
- SAME TIME WE TRIED TO BALANCE OUR OWN PRACTICE
- TRIED TO BE EQUALLY 'SENSITIVE' IN ALL SECTORS !

URBAN SPRAWL, AUTOMOBILE DEPENDENCE AND COMMUTING DISTANCES.

- REALISED - TO ENCOURAGE LOCAL MATERIAL USE AND CRAFTED LOAD BEARING WALL BLDGS; AVAILABLE FSI SHOULD BE ONLY LESS THAN EVEN 0.75, KEEPING COVERAGE AT REASONABLE 40% ALLOWING FOR GOOD VEGETATION.

- BUT FOR CITIES, THIS WOULD MEAN SPRAWLS, AUTOMOBILE AND COMMUTING DISTANCE.

- ALSO REALIZED THAT ABSOLUTELY POOR LAND USE PLANNING IS WHERE EVERYTHING IS STUCK !!



CRUCIAL IMPORTANCE OF LAND USE PLANNING

- ❑ LAND PRICE SPECULATION IS BECAUSE OF **POOR LAND USE PLANNING**.
- ❑ WATER SCARCITY IS BECAUSE LAKES, PONDS, WELLS ETC. GOT FILLED UP, FORESTS AND MANGROVES DESTROYED AGAIN DUE TO **POOR LAND USE PLANNING**.
- ❑ LACK OF HOUSING FOR EWS POPULATION NEAR WORK PLACE IS AGAIN **POOR LAND USE PLANNING**.
- ❑ LONG COMMUTING TIME, URBAN SPRAWL, MASSIVE INCREASE IN TRAFFIC CONGESTION, POLLUTION ETC. ARE DIRECT RESULTS OF **POOR LAND USE PLANNING**.

CRUCIAL IMPORTANCE OF LAND USE PLANNING

- 1) FOOD INCLUDING LIVESTOCK AND FOR LIVESTOCK
- 2) WATER
- 3) ASSIMILATION OF SOLID, LIQUID AND GASEOUS WASTES
- 4) BULK RAW MATERIALS FOR CONSTRUCTION AND FOR INDUSTRY SUCH AS FROM MINES, QUARRIES, CASH CROPS ETC.
- 5) PRODUCTION AND TRANSMISSION OF ENERGY
- 6) BIO-DIVERSITY AND CONSERVATION OF NATURAL HERITAGE
- 7) BUILT UP AREAS FOR HUMAN SETTLEMENT

ARE ALL FACTORS OF EFFICIENT LAND USE PLANNING.

SDZ CONCEPT WAS BORN OUT OF THIS REALISATION –
DURING COCHIN MASTER PLAN DELIBERATIONS.



EDA KOCHI CASE STUDY AREA ON GOOGLE

COMPONENT ZONES OF A TYPICAL SDZ BASED ON A CASE STUDY OF A BROWN FIELD PROJECT AREA IN KERALA

- ❑ **RED – HIGH DENSITY ZONE – APPROX. 4 - 5% OF LAND AREA TO BE DEVELOPED AS HIGH DENSITY ZONE TO ABSORB THE IMPACT OF GROWTH**
- ❑ **YELLOW – LOW DENSITY ZONE – 65 -70% OF LAND AREA TO BE RETAINED AS LOW RISE LOW DENSITY DEVELOPMENT**
- ❑ **GREEN – NO DEVELOPMENT ZONE - APPROX. 20 - 22% TO BE EAR MARKED AS PROTECTED NATURAL & BUILT HERITAGE ZONES**
- ❑ **BLUE – SERVICE AREAS – 4 - 5% OF LAND AREA TO BE EAR MARKED FOR RAIN HARVESTING LAKE & OTHER SERVICES**
- ❑ **WHITE – SOCIAL INFRASTRUCTURE ZONE – 2-3% OF LAND AREA TO BE RETAINED FOR HOUSING & COMMUNITY AREAS FOR ECONOMICALLY WEAKER SECTIONS (WHO CURRENTLY DO NOT HAVE ANY SHELTER & SANITATION AT ALL)**



RED – HIGH DENSITY ZONE

- ❑ **LAND AREA NOT MORE THAN 75 ACRES – MIXED USE HIGH DENSITY** - 20000 PEOPLE LIVING/RESIDENTIAL AND 7500 PEOPLE WORKING IN COMMERCIAL OFFICES/ RETAIL.
- ❑ **AVERAGE HEIGHT BUILDINGS - 12 FLOORS** – HEIGHT THAT A HEALTHY HUMAN BEING CAN COMFORTABLY CLIMB IN 10 MINUTES – FSI ACCORDINGLY.
- ❑ **33% COVERAGE** ENSURES PLENTY OF OPEN SPACES
- ❑ **TOTAL ABSENCE OF AUTOMOBILES** ENSURES THAT IT IS CHILD, ELDERLY AND DISABLED FRIENDLY AND POLLUTION FREE.
- ❑ **ALL WEATHER COVERED WALKWAYS**, ESCALATORS, ELEVATORS AND SMALL ELECTRIC POWERED VEHICLES WHERE NEEDED, ENSURE COMFORTABLE CIRCULATION WITHIN EACH SUCH CORE TOWNSHIP.
- ❑ AMPLE PARKING TO BE PROVIDED IN PERIPHERY



‘WALKABLE’ GREEN TOWNSHIPS



TOTAL ABSENCE OF AUTOMOBILE WITHIN CORE TOWNSHIP

GREEN – NO DEVELOPMENT ZONE

- NATURAL HERITAGE FEATURES SUCH AS FORESTS, WETLANDS, COASTAL AREAS, PADDY FIELDS, LAKES ETC. TO BE CONSERVED AS NDZ.
- WILL **ASPIRE TO GROW 50 TO 60% OF THE SDZ's FOOD REQUIREMENTS** BY ENCOURAGING URBAN AGRICULTURE
- BUILT HERITAGE AREAS ALSO TO BE CONSERVED AS NDZ.
- OWNERS OF PRIVATELY OWNED SUCH AREAS TO GET COMPENSATION AS DEVELOPMENT RIGHTS IN HDZS BY A CONCEPT OF TRANSFER OF DEVELOPMENT RIGHTS. (TDR) (OR AS SIMPLE COMPENSATION).



WHITE – SOCIAL INFRASTRUCTURE ZONE

- COMFORTABLE SPACE FOR ACCOMMODATION, RECREATION, EDUCATION ETC OF THE EWS (ECONOMICALLY WEAKER SECTIONS) POPULATION NEAR THEIR WORK PLACES.
- CONSIDERING 15% OF THE POPULATION BELONGING TO EWS, SUBSIDIZED RENTAL HOUSING OF BUILT UP AREA OF AN AVERAGE OF 60 SQ FT PER PERSON TO BE PLANNED FOR, AT 2 FAR.
- OTHER SOCIAL INFRASTRUCTURE FACILITIES LIKE ANGANWADIS AND PHCS, MARKETS, WOMEN'S DEVELOPMENT ZONES ETC. ESPECIALLY FOR THE EWS TO BE PROVIDED.

BLUE ZONE – SERVICE AREA

- ❑ SPACE FOR RAIN WATER HARVESTING RESERVOIRS ..
- ❑ PARKS, PLAYGROUNDS AND COMMUNITY OPEN SPACES.
- ❑ PUBLIC SPACES SUCH AS COMMUNITY HALLS, MARKETS, BUS STAND, RAIL OR MASS TRANSIT STATIONS ETC.
- ❑ WATER TANKS, PUMP HOUSES AND SPACE FOR MAIN UTILITY LINES.
- ❑ ROADS, FOOT PATHS, STREET LIGHTS AND STORM WATER LINES.
- ❑ TRANSFORMERS, POWER STATIONS, SPACE FOR DECENTRALIZED POWER GENERATION AND BUFFER ZONES.
- ❑ DECENTRALIZED SOLID WASTE, SEWAGE AND LIQUID WASTE TREATMENT / MANAGEMENT AREAS AND BUFFER ZONES.

YELLOW – LOW DENSITY ZONE

- ❑ VILLAS WITH GARDENS AND OPEN SPACES.
- ❑ INDUSTRIES, AUTOMOBILE WORKSHOPS, ENTERPRISES WHICH NEED LAND.
- ❑ BUILDINGS PREDOMINANTLY WITH LOCAL MATERIALS, LAND WITH MAXIMUM GREEN COVER, WILL HARVEST RAIN WATER FULLY FOR OWN REQUIREMENT, TREAT ONES OWN SOLID AND LIQUID WASTES ETC.
- ❑ CAN HAVE OWN RENEWABLE ENERGY SYSTEMS
- ❑ TAX RELAXATIONS AND OTHER INCENTIVES TO ENCOURAGE THE ABOVE.
- ❑ FEEDER BUSES WITHIN AN SDZ TO LINK ALL PARTS OF SDZ TO THE HDZ FROM WHERE MASS TRANSIT LINES OR TRUNK BUSES TO TAKE COMMUTERS TO MORE DISTANT PLACES.
- ❑ ELECTRONIC ROAD PRICING (ERP) WILL REGULATE AUTOMOBILES WITHIN SDZS.



YELLOW ZONE COMBINES BENEFIT OF NATURE AND 'FRUITS OF DEVELOPMENT'

NETWORK OF SDZs




CONCEPT OF SDZ MOOTED AS ALTERNATIVE TO SEZ

1. CAN ASSIST CONSIDERABLE IMPROVEMENT OF URBAN INFRASTRUCTURE WITHOUT GOVERNMENT FUNDING.
2. CROSS SUBSIDISES HOUSING AND FACILITIES FOR EWS OF SOCIETY.
3. CONSERVATION OF NATURAL AND BUILT HERITAGE.
4. CHANELIZES NRI / FDI INVESTMENT AND ECONOMIC DEVELOPMENT.

CONCEPT OF SDZ MOOTED AS ALTERNATIVE TO SEZ

5. CAN ASSIST DEMOCRATIC DECENTRALISATION AND BRING REAL POWER TO LOCAL BODIES
6. ARRESTS SPECULATION IN LAND PRICES
7. IMPROVES URBAN PLANNING AS IT ARRESTS URBAN SPRAWL, AUTOMOBILE DEPENDENCE AND COMMUTING DISTANCES.
8. CHILD FRIENDLY, DISABLED FRIENDLY, AGED FRIENDLY, POLLUTION FREE AND HEALTHY.



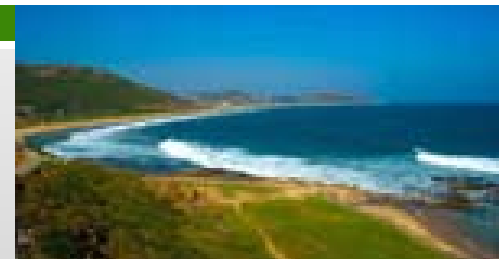
THE CORE OF THE CONCEPT HAS GONE THROUGH MORE THAN 10 YEARS OF RIGOROUS DEBATES IN THE COUNTRY AND ABROAD, AMONG SEVERAL EXPERTS IN THE FIELDS OF TOWN AND COUNTRY PLANNING, URBAN PLANNING, FINANCE, ENVIRONMENTALISTS, BUSINESS PERSONS, MEDIA, POLITICIANS, BUREAUCRATS.....

FIRST APPRECIATION FROM PROF.M.K.PRASAD..

HAS RECEIVED NATIONAL AND INTERNATIONAL APPRECIATION AND CRITICISM..

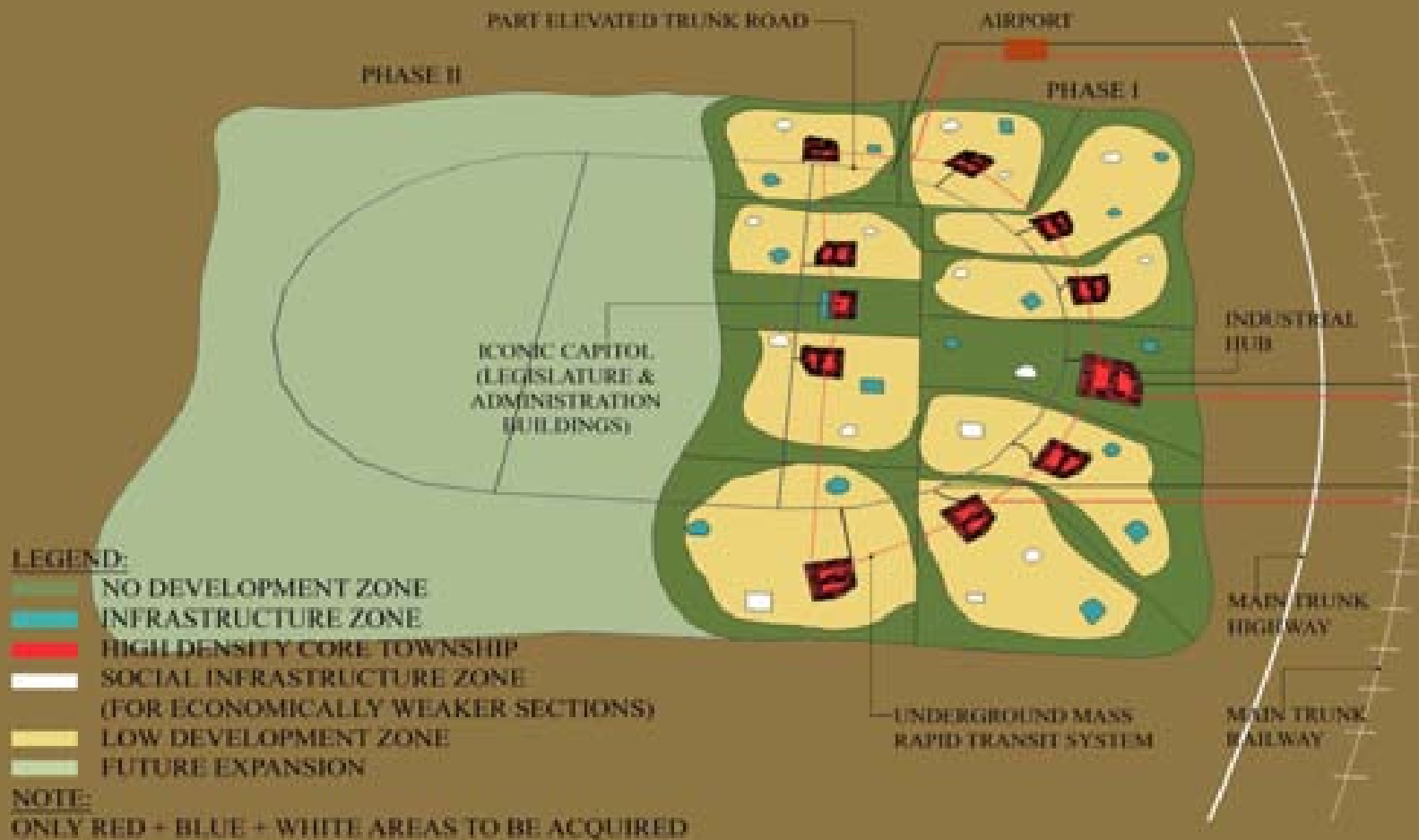
RECENTLY BEEN INVITED TO EXHIBIT IN VENICE ARCHITECTURE BIENNALE 2014

CAPITAL CITY FOR ANDHRA PRADESH



- THE NEW CAPITAL CITY FOR ANDHRA PRADESH IS ENVISAGED AS **THE SMARTEST, GREENEST AND MOST SOCIALLY SENSITIVE OF CITIES.**
- **DESIGNED FOR A POPULATION OF 5 LACS IN THE NEXT 4 YEARS, SPREAD OVER AN AREA OF 40 SQ. KM.**
OF WHICH ONLY LESS THAN 15 % OF LAND NEEDS TO BE ACQUIRED. (REMAINING TO BE WITH THE CURRENT OWNERS WITH ENHANCED INFRASTRUCTURE – SO THAT THEY BENEFIT FROM THE FRUITS OF DEVELOPMENT)
- MAKING THE CONCEPT, A PATH BREAKING MODEL IN PARTICIPATIVE AND SENSITIVE LAND USE MANAGEMENT.
- **PROVISION FOR FUTURE EXPANSION TO 15 LAC POPULATION.**

SCHEMATIC DIAGRAM - NETWORK OF SUSTAINABLE DEVELOPMENT ZONES (SDZs)



- THE CAPITOL COMPLEX, TEN SDZs AND TWO INDUSTRIAL HUBS SHALL CONSTITUTE THE NEW CAPITAL CITY.
- THESE SHALL BE CONNECTED BY MASS RAPID TRANSIT SYSTEMS.
- MINIMAL LENGTHS OF PARTLY ELEVATED EXCELLENT TRUNK ROAD SYSTEMS WILL ALSO CONNECT THESE CORE TOWNSHIPS ENSURING GROUND LEVEL TO BE FREE FOR PEDESTRIANS, CYCLES, ENSURING NATURAL DRAINAGE AND FREE FLOW OF WATER.
- ELECTRONIC ROAD PRICING (ERP) WILL ENSURE OPTIMUM VEHICLE NUMBERS AND CONGESTION FREE ROADS.
- MRT AND TRUNK ROADS WILL ALSO CONNECT TO LONG DISTANCE RAIL, HIGHWAYS, SEA PORT AND AIRPORT ENSURING SEAMLESS CONNECTIVITY.



MRTS AND PRTS

THE INDUSTRIAL HUB IS EXPECTED TO ATTRACT INVESTMENT FROM MANUFACTURING SECTOR INCLUDING MULTI AXLE HEAVY AUTOMOBILES, RAILWAY COACH FACTORY FOR HIGH SPEED RAKES, BOTH CURRENTLY NOT MADE IN INDIA. THESE INVESTMENT COULD BE TO THE TUNE OF **INR 25000 CR.** INCLUDING CAPTIVE POWER PLANTS (RENEWABLE SOURCES WHERE POSSIBLE)



ICONIC BUILDINGS

- ICONIC LEGISLATIVE AND ADMINISTRATIVE OFFICES WITH AN OVERALL AREA OF 15 LAC SQ.FT WILL FORM THE CENTRAL SYMBOLIC HUB.
- TOGETHER WITH THIS, THE NEW CITY WILL HAVE IT & MANUFACTURING INDUSTRIES AND THEIR COMMERCIAL OFFICE / RETAIL / HOUSING NEEDS TOO AS ITS' ECONOMIC ENGINE.
- THIS WILL ENABLE DEVELOPMENT OF THE ENTIRE INFRASTRUCTURE FOR THE 40 SQ.KM, FOR THE ENTIRE POPULATION OF 5 LACS, WITH ABSOLUTELY NO GOVERNMENT SPENDING.
- GOVERNMENT ONLY NEEDS TO 'BUY IN' THE SPACES NEEDED FOR ITS' LEGISLATIVE COMPLEXES, ADMINISTRATIVE OFFICES, HOUSING AND OTHER NEEDS CUSTOM DESIGNED TO MEET THE ICONIC STATURE.

REVENUE MODEL

- **TOTAL INVESTMENT** EXPECTED DURING FIRST PHASE IS IN THE ORDER OF **INR 30,000 CR.**

- EXPECTED RETURNS FOR THE DEVELOPER TO BE FROM:
 - A. **REAL ESTATE** IN THE CORE TOWNSHIPS
 - B. NEGOTIATED COMPONENTS (WITH LOCAL BODIES AND INDUSTRIES) OF **REVENUE STREAM FROM INFRASTRUCTURE FOR 15 YEARS.**

SDZ – CONCEPT FOR THE FUTURE

- SDZ IS A NEW POSSIBILITY IN DECENTRALIZED PLANNING WHICH CAN BE INITIATED BY LOCAL BODIES – 74TH AMENDMENT BRINGS TREMENDOUS POSSIBILITIES.
- HAS POSSIBILITY TO BRING IN PRIVATE – PUBLIC PARTNERSHIP AND CAN CHANNELIZE REMITTANCES AND INVESTMENTS FROM ABROAD, INTO FACILITIES WHICH ARE OF COMMON BENEFIT FOR ALL.
- IT CAN BUILD CONSENSUS AMONG ENVIRONMENTALISTS, BUSINESS PEOPLE, HUMAN RIGHT ACTIVISTS, PLANNERS, BUILDERS!

- Is this is a vision which we can aspire for ? If acceptable, then India now has investors who are capable of investing in this scale and making a success of it.
- But have to strengthen diligence, teeth and clarity in policies of our democratic institutions and peoples' vigilance groups, NGOs and the media, so that these corporates are allowed to function, very strictly within their allowed mandate, for the benefit of all.
- The first step is by 'Sensitive Land use planning' – there can be a separate discussions on this subject, if CSE can initiate the process.....