

PRESENTATION ON

NATIONAL URBAN INFORMATION SYSTEM (NUIS) SCHEME



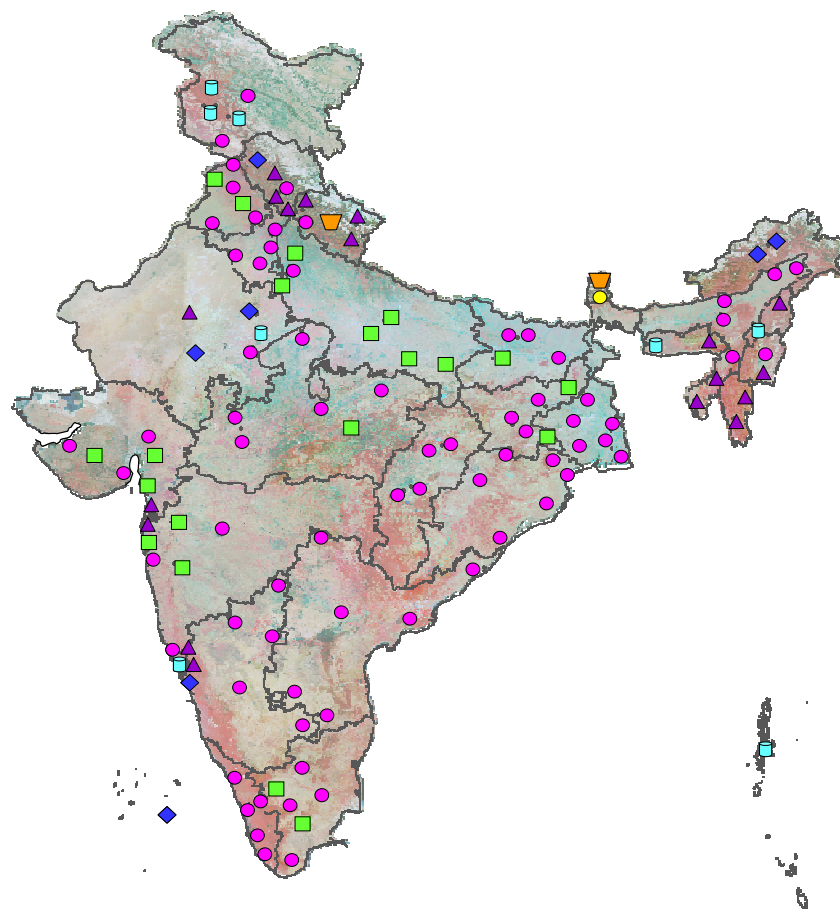
A Presentation
by

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Director of Town & Country Planning
(Government of Andhra Pradesh)

NATIONAL URBAN INFORMATION SYSTEM (NUIS) SCHEME

Phase	No. of Towns and Cities	Cost Rs. (Crores)
Phase –I	137#	66.28

***# As on date the total no. of towns
in NUIS Scheme is 152.***



OBJECTIVES

- ❑ **Develop attribute & spatial information base for various urban planning levels.**
- ❑ **Use modern data sources e.g.. satellite and aerial platforms.**
- ❑ **Develop standards - database, methodology, equipment software, data exchange format etc.**
- ❑ **Develop urban indices to measure and monitor the health of the towns and cities.**
- ❑ **Build capacity in the use of RS/GIS among town planners and town planning professionals.**
- ❑ **Provide decision support system for various levels of planning.**

COMPONENTS

NUIS Scheme comprises of two components :

- ❑ **Urban Spatial Information System (USIS): Seamless integration of databases in two scales :: 1:10 000 & 1:2000 and Utility mapping at 1:1000 Scale.**
- ❑ **National Urban Databank and Indicators (NUDBI): Attribute Data on periodic basis**

The USIS components includes.

- ❑ **Systems (HW/SW)**
- ❑ **Base Map and GIS Data Base 1:10,000 Scale & 1:2000 Scale**
- ❑ **Utility Mapping 1:1000 Scale**
- ❑ **Capacity Building**
- ❑ **Application Development**

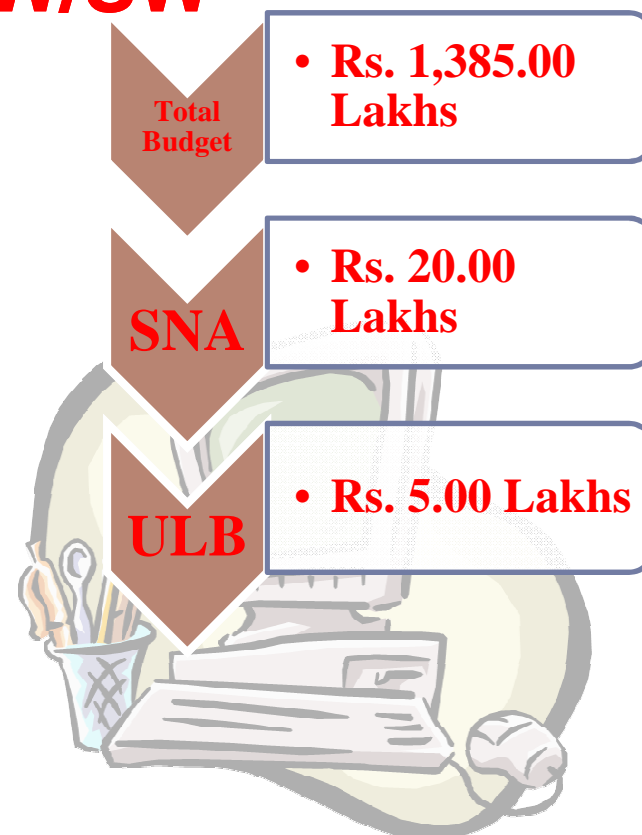
NUIS- USIS COMPONENTS- HW/SW

State Nodal Agency (SNA) = 35

Sl. No.	Configuration	Qty.
Hardware		
1	Medium End Workstation (PIV) with 1 GB RAM (2x512) upto 12 GB, 2.4 TB SCSI HDD, with cache memory of 2 MB or higher	1
2	High End PC (PIV) with 1 GB RAM, 120 GB HDD, 530 processor 3 GHz with 1 MB L2 Cache Memory or Higher	1
3	42" Plotter (Color) 16 MB Memory, Bin, Stand, Roll feeder, USB port	1
4	AO Scanner 42" monogram	1
5	5 KVA online UPS Luminous	2
Software		
6	Arc Info	1
7	ERDAS	1
8	MSOffice	2

Urban Local Bodies (ULB) = 137

Sl. No.	Configuration	Qty.
Hardware		
1	High End PC (PIV) with 1 GB RAM, 120 GB HDD, 530 processor 3 GHz with 1 MB L2 Cache Memory or higher	2
3	A4 B/W Laser Printer 28 ppm, 1200x1200dp,	1
4	1 KVA online UPS Luminous	1
Software		
6	MicroStation (Bentley)/Arc View (ESRI)	1
7	AutoDesk Map 3D	1
8	MS Office	2



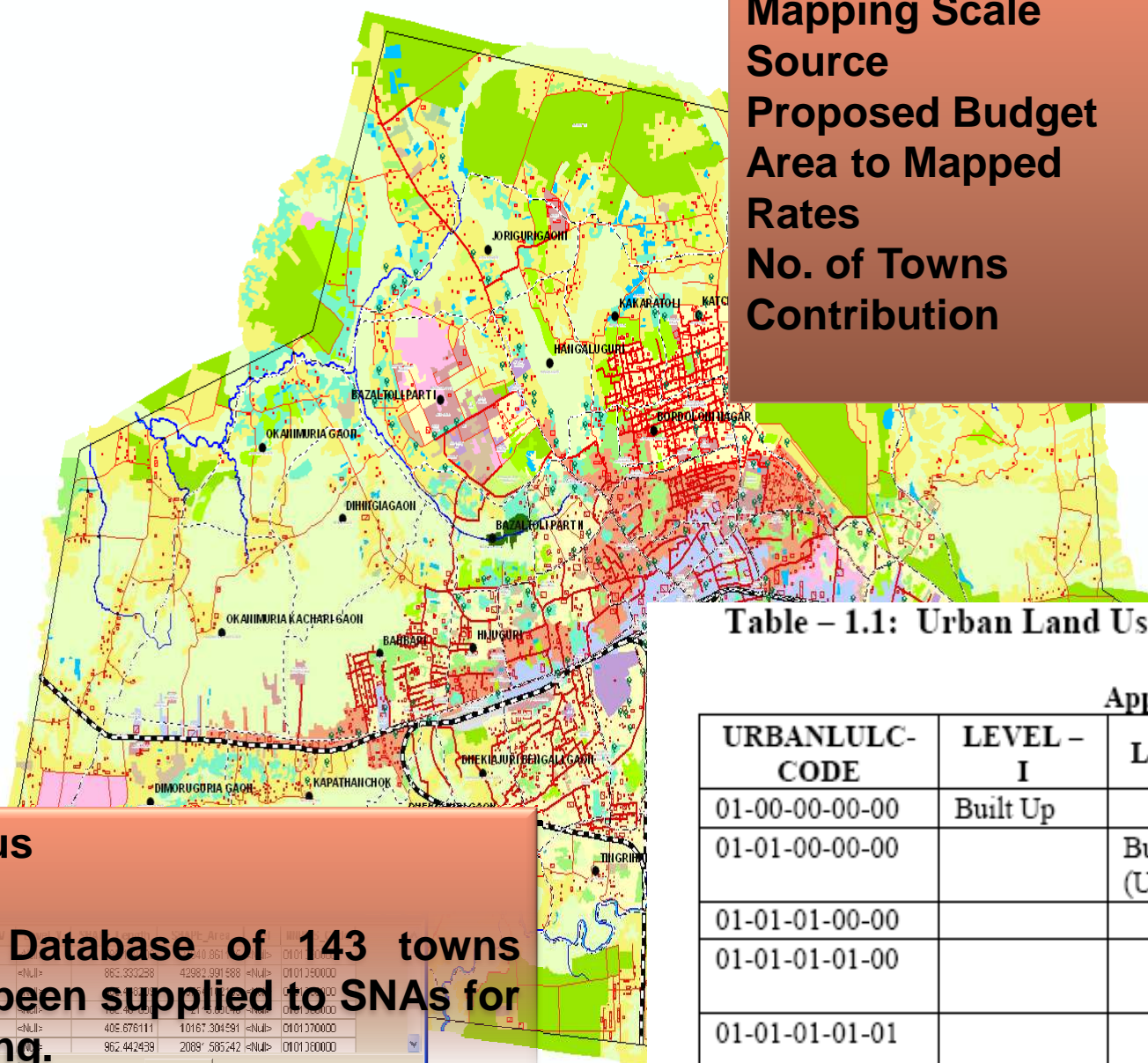
Status

Central Share Released

1st Installment : 31 States
2nd Installment : 22 States

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NUIS - USIS COMPONENTS- BASE MAP



Mapping Scale : 1: 10,000
Source : Satellite
Proposed Budget : 1,673.00 Lakhs
Area to Mapped : 55,755.45 Sq. km
Rates : Rs. 3000/sq. km
No. of Towns : 152
Contribution : Central-75 %
 State - 25 %

Table – 1.1: Urban Land Use/ Land Cover

Applicable for layer: Luse10NUI			
URBANLULC-CODE	LEVEL – I	LEVEL – II	LEVEL – III
01-00-00-00-00	Built Up		
01-01-00-00-00		Built Up (Urban)	
01-01-01-00-00			Residential
01-01-01-01-00			
01-01-01-01-01			

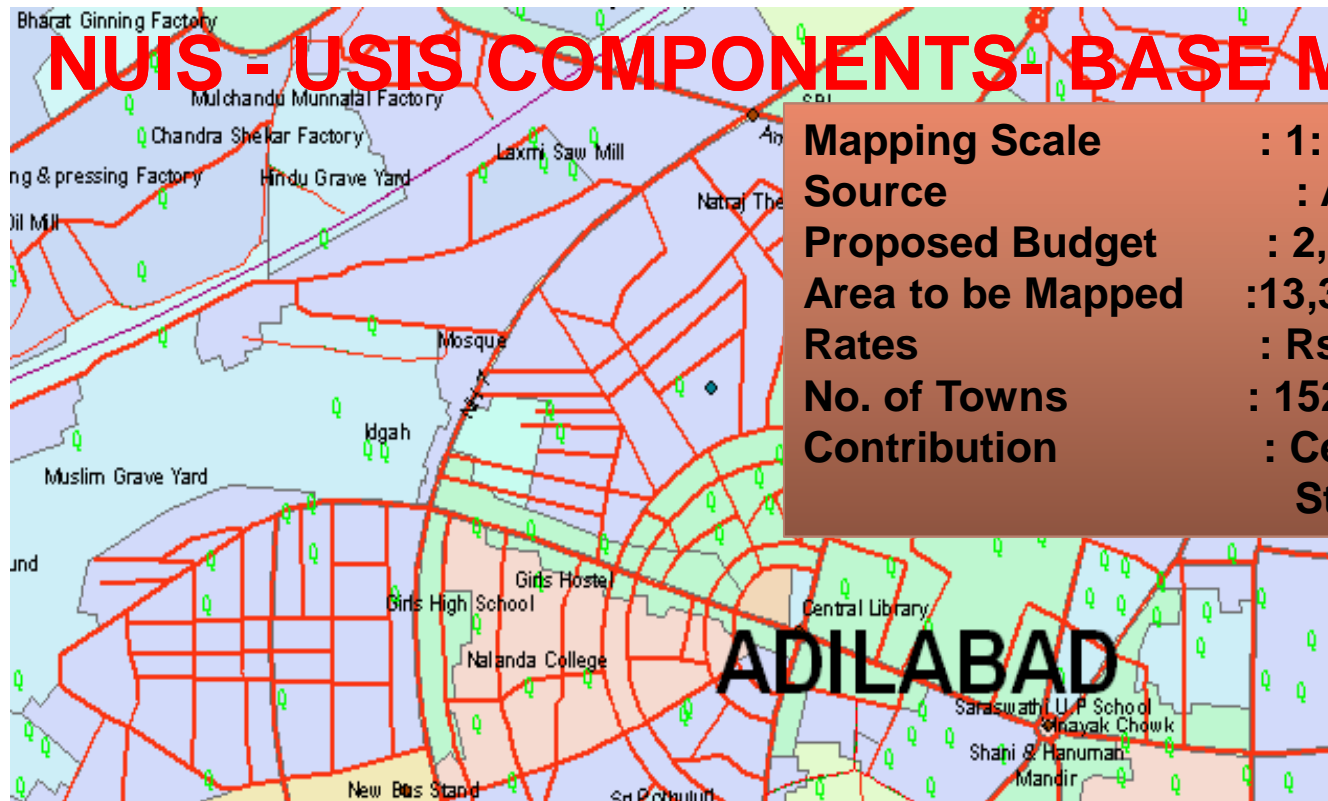
Status

GIS Database of 143 towns has been supplied to SNAs for vetting.

Area	<Null>	<Null>	863.333238	42982.991588	<Null>	0101360000
Area	<Null>	<Null>	182.491501	121.560000	<Null>	0101360000
Area	<Null>	<Null>	405.676111	10167.304591	<Null>	0101370000
Area	<Null>	<Null>	962.442439	2089.585242	<Null>	0101360000

Records (Out of 2542 Selected) Options

NUIS - USIS COMPONENTS-BASE MAP

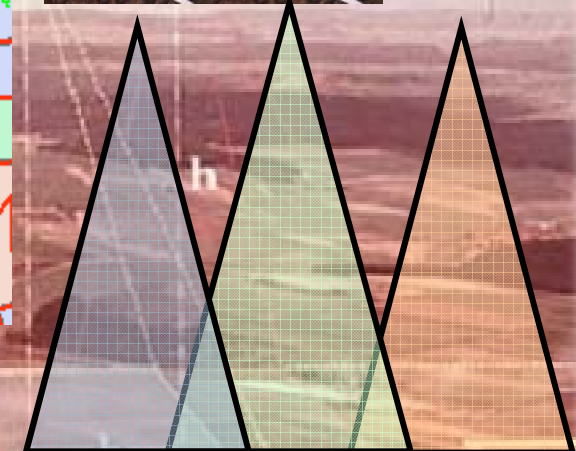


Mapping Scale	: 1: 2,000
Source	: Aerial Photo, Total Station
Proposed Budget	: 2,007.20 Lakhs
Area to be Mapped	:13,381.31 Sq. km.
Rates	: Rs. 15000/sq. km.
No. of Towns	: 152
Contribution	: Central-75 % State - 25 %

Table – 1.1: Urban Land Use/ Land Cover

Applicable for layer: Luse10NUISYear

URBANLULC-CODE	LEVEL – I	LEVEL – II	LEVEL – III	LEVEL – IV*	LEVEL – V*
01-00-00-00-00	Built Up				
01-01-00-00-00		Built Up (Urban)			
01-01-01-00-00			Residential		
01-01-01-01-00				High density residential	
01-01-01-01-01					High rise apartments/Flats
01-01-01-01-02					Medium rise apartments /Flats
01-01-01-01-03					Low rise apartments /Flats
01-01-01-01-04					Low rise Row houses
01-01-01-01-05					Low rise Group Houses / Tenaments
01-01-01-01-06					Slums/Clusters
01-01-01-01-07					Others



Status

GIS Database of 126 towns has been supplied to SNAs for vetting.

Source: NRSA

UTILITY MAPPING

Mapping Scale	: 1: 1,000
Source	: Ground Penetrating Radar (GPR)
Proposed Budget	: 606.00 Lakhs
Area to be Mapped	: 10,100.00 Linear Km.
Rate	: Rs. 6000/Linear km
No. of Towns	: 22
Contribution	: Central-75 % State - 25 %

SPATIAL	ATTRIBUTE																																								
<p>A) FROM AERIAL PHOTOS:</p> <p>1. Urban layer of point features</p> <p>2. Urban network layer of line features</p> <p>3. Urban land cover layer of polygon features</p> <p>(B) MAPS FROM GPR SURVEYS/CITY RECORDS:</p>	<p>Attributes as applicable – but containing all details of each utility.</p> <div><p>National Urban Information System</p><p>Design and Standards for Utility Mapping at 1:1000 scale</p><p>1.0 Water Supply System</p><p>1.1 Layer of Point features</p><p>Table 1.1: Applicable for Layer : UtilityWaterYEAR</p><table><tr><th>CODE</th><th>DESCRIPTION OF SPATIAL FEATURES</th><th>CODE</th><th>Attribute</th></tr><tr><td>01</td><td>Valve</td><td>01 02</td><td>Valve-ID, size</td></tr><tr><td>02</td><td>Sluice Valve</td><td>01 02</td><td>Valve-ID, size</td></tr><tr><td>03</td><td>Scour Valve</td><td>01 02</td><td>Valve-ID, size</td></tr><tr><td>04</td><td>Booster Pump</td><td>04</td><td>size</td></tr><tr><td>05</td><td>Overhead (Service Reservoir)</td><td>05</td><td>Capacity in Liters</td></tr><tr><td>06</td><td>Tee</td><td>06</td><td></td></tr><tr><td>07</td><td>Meters</td><td>07</td><td></td></tr><tr><td>08</td><td>Cap</td><td>08</td><td></td></tr><tr><td>09</td><td>Public Taps</td><td>09</td><td></td></tr></table></div>	CODE	DESCRIPTION OF SPATIAL FEATURES	CODE	Attribute	01	Valve	01 02	Valve-ID, size	02	Sluice Valve	01 02	Valve-ID, size	03	Scour Valve	01 02	Valve-ID, size	04	Booster Pump	04	size	05	Overhead (Service Reservoir)	05	Capacity in Liters	06	Tee	06		07	Meters	07		08	Cap	08		09	Public Taps	09	
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Status

GPR :Procured

Tender : 12 Towns

Status
GPR : Procured
Tender : 12 Towns

telecommunication network

NUIS - USIS COMPONENTS - CAPACITY BUILDING

Proposed Budget : 118.00 Lakh
Proposed Training Programme : 30
Proposed No. of Trainee : 600
Contribution : Central-100 %

Status
Trg. Prg. Organised : 38
Participants Trained:679
National Workshop :1
Regional Workshop : 4
State Workshop Proposed : 6

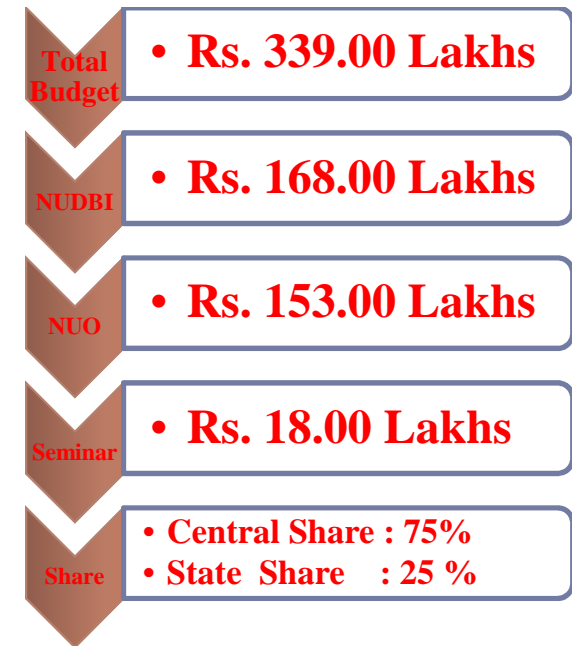
Course Title	Technical Orientation to NUIS	Planning Appraisal of NUIS	Orientation Course on NUIS
Target Group Working level	Junior/Assistant. Planners/Assistant. Directors/ Planning Assistant Officers and Analogous Posts	Senior/Associate Town Planners, Dy. Directors, Sr. Planning Officers and Analogous Posts	Decision Makers Chief Planners/ Vice Chairmen/ Dy. Secretaries/ Administrators and Analogous Posts Municipal Councilors
Duration	4 Weeks	2 Weeks	3 Days
Personnel required	A minimum of 2 people required from towns and 1 from State	A minimum of 1person required from town and 1 from State	A minimum of 1person required from towns and 1 from State

APPLICATION DEVELOPMENT

Proposed Budget	: 350 lakhs
Contribution	: Central Share -100 %

- **Master/Development/Zonal Plan**
- **Land and Natural Resources**
- **Settlement Pattern**
- **Study of Slums and Blighted Areas**
- **Improvement of Urban Environment**
- **Redevelopment/Re-densification of Towns/Cities**
- **Land Monitoring**
- **Monitoring of Land Regulation and Urban Fringe**
- **Transport Planning and Environmental Assessment and Safety.**

National Urban Databank & Indicators (NUD&BI)



- Provide necessary inputs/ report on the health of urban settlements to MOUD, Planning Commission, States, public domain etc.

Status
NUDB&I Data Collected: 115
towns

NUDB&I INDICATORS

23 UNCHS Indicators (clustered under 6 heads) as given below have been identified as universal priorities from the commitments and strategies of Habitat-II.

(i) Shelter

1. Tenure Types
2. Evictions
3. Housing Price to Income Ratio
4. Land Price to Income Ratio
5. Mortgage to Non-Mortgage
6. Access to Water
7. Household Connections

(ii) Social Development and Eradication of Poverty

8. Under Five Mortality
9. Crime Rates
10. Poor Households
11. Female – Male Gaps

(iii) Environmental Management

12. Urban Population Growth
13. Water Consumption
14. Price of Water
15. Air-Pollution
16. Waste Water Treated
17. Solid Waste Disposal
18. Travel Time
19. Transport Modes

(iv) Economic Development

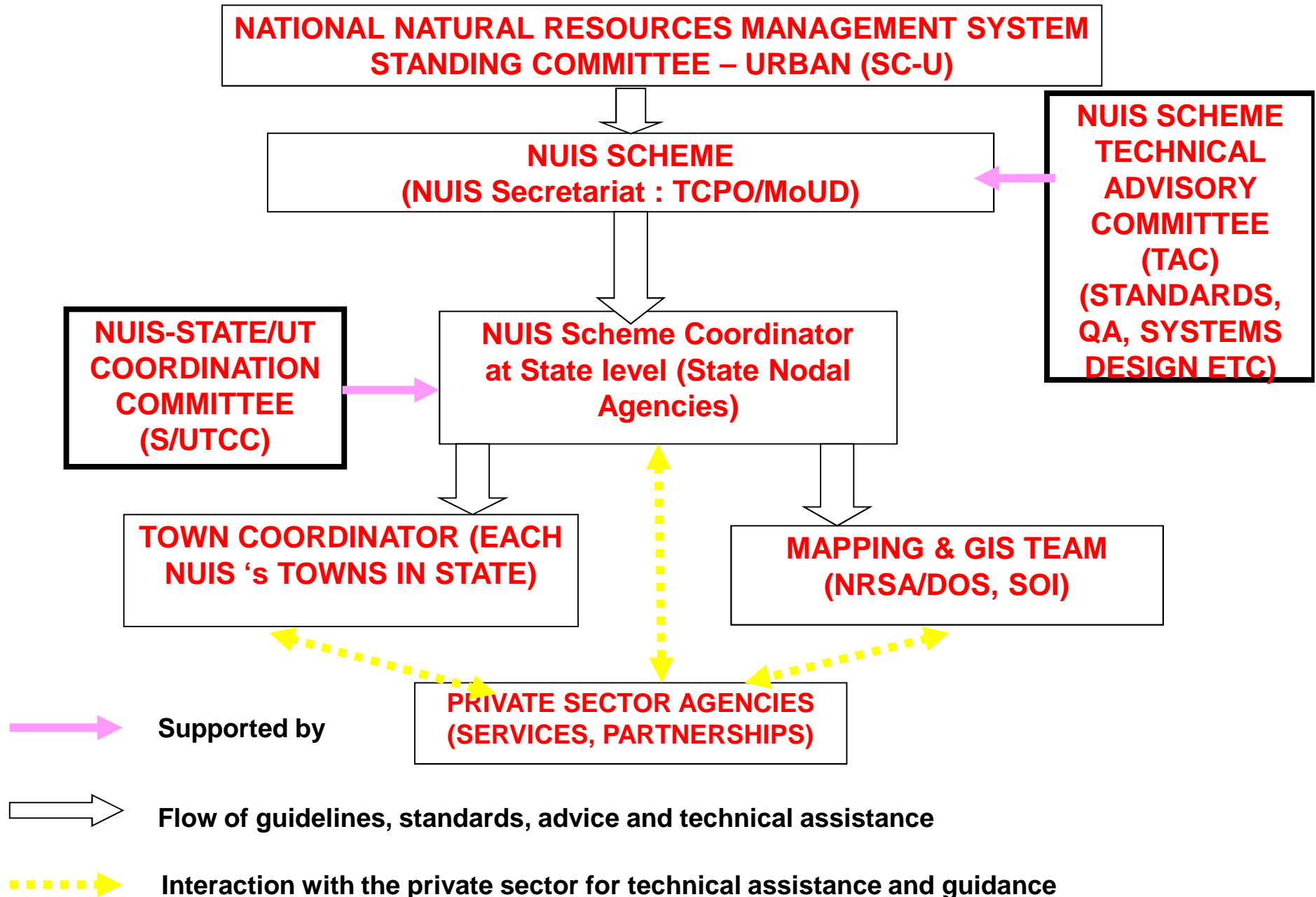
20. Informal Employment
21. City Product
22. Unemployment

(v) Governance

23. Local Government Revenue and Expenditure

(vi) International Cooperation

SCHEME IMPLEMENTATION



PHYSICAL PROGRESS OF NUIS SCHEME (as on date)

S NO.	NUIS COMPONENT	NO. OF TOWNS/ STATES
1.	Release/Sanction of State Share to SOI for mapping	32 States (including 5 UTs) have released the State Share, Tamil Nadu, NCT Delhi & Uttarakhand have been dropped from the scheme.
2.	GIS data base at 1:10000 ready and forwarded to SOI for QC	143 Towns
3.	Data at 1:10000 Scale delivered SNAs for vetting	143towns
4.	Vetting completed of 1:10000 Scale	34 towns
5.	Data at 1:2000 Scale delivered SNAs for vetting	126owns
6.	Vetting completed of 1:10000 Scale	24 towns
7.	NUDB&I data collection completed	115 towns
8.	Training Programmes	38
9.	National Workshop	1
10.	Regional Workshop	4
11.	National Interactive Session	2

TOWNS COVERED UNDER NUIS SCHEME IN ANDHRA PRADESH

1	Madanapalle	4	Nalgonda
2	Tadepalligudem	5	Dharmavaram
3	Adilabad	6	Srikakulam

National Urban Information System (NUIS ~ USIS + NUDBI)

Towns = 06

Geodatabase = 265 sq. km.

Scale - 1:10,000

Cartosat (PAN) and LISS - IV data

Sl. No.	Towns	Area Mapped (sq. km)	Municipal Area (sq. km)	Development Area (sq. km)	Population (2011)
01	Adilabad	30	18.80	--	1,39,103
02	Dharmavaram	85	38.97	--	1,21,992
03	Madanapalle	30	15.37	--	1,79,267
04	Nalgonda	38	14.72	--	1,53,736
05	Srikakulam	34	11.71	--	1,46,988
06	Tadepalligudem	48	24.02	--	1,03,703

16 layers (Base, Urban, Soil, Geology/Geomorphology, City/Town Boundaries, Village, Forest etc.)

Adilabad

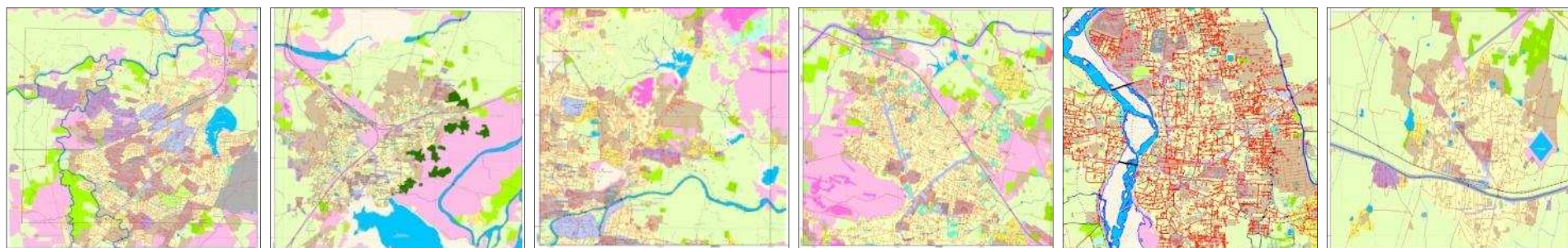
Dharmavaram

Madanapalle

Nalgonda

Srikakulam

Tadepalligudem



(Useful for Town Planning, Infrastructure Development and u-Governance)

NRSC / ISRO and APSRAC Initiative

Towns covered under NUIS Scheme

S.No	Town Name	Existing Master Plans Notified Years	Validity Period of Notified Master Plans	Revision to be Taken-up for New Master Plans	Use of NUIS Database for New Master Plan Preparation /Revision
1	Adilabad	1988	2008	Yes	Yes
2	Dharmavaram	1993	2014	No (Validity exists)	No (Validity exists)
3	Nalgonda	1987	2007	Yes	Yes
4	Madanapalle	2001	2021	No (Validity exists)	No (Validity exists)
5	Srikakulam	2000	2020	No (Validity exists)	No (Validity exists)
6	Tadepalligudem	1988	2008	Yes	Yes

Note : Preparation of Environmental Improvement Plans/City Development Plans using NUIS Data proposed for Nalgonda, Madanapalle and TPGudem

Status of Thematic Mapping Under USIS

Status of 1:10,000 Scale

- Draft Maps received from Survey of India for 6 towns
- Vetting by SNA/ULB's has been completed for all 6 towns
- Final Digital Database received from NRSC/ISRO

Status of 1:2,000 Scale

- Draft Maps received for all 6 towns.
- Attribute Data Collection in progress

Status of NUDBI Data Collection

- Data collected for all 6 Towns & 3 NUO Towns are submitted to TCPO, New Delhi

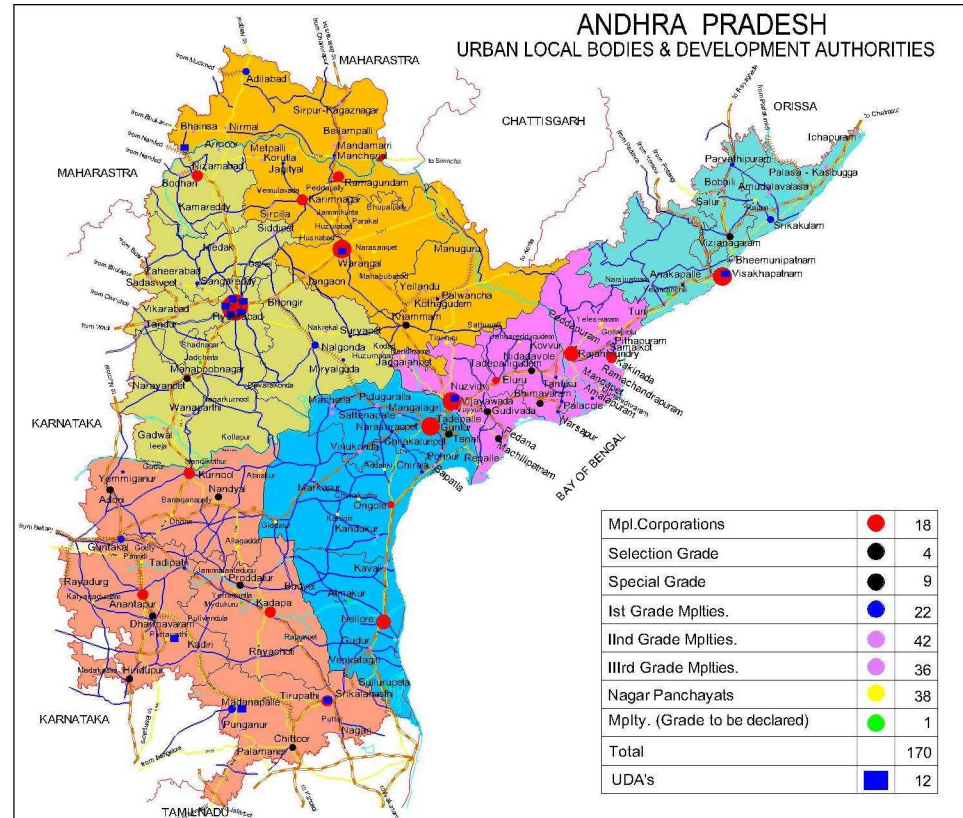
Capacity Building & Training

Details of Training Programs Conducted under NUIS Scheme

- 05 Municipal Commissioners
- 10 Officers under Supervisor Level
- 15 Officers Under Working Level
- 46 Officers Were Trained by NIIT
- 59 Officers Were Trained by NRSC
- 35 Officers Were Trained by SOI
- **Total 170 Officers Were Trained Under the Scheme**
- In addition to this regular training in Town Planning subjects was done
- So far trained about 250 personnel in the last 4 months

Near Future

- ❑ Qualitative Improvement Training Programme For All Existing Town Planning Staff Is Proposed (2012)
- ❑ GIS Cells to be established in DTCP (proposal with Government)
- ❑ Urban Transport Cells to be established (GO 117 dated August, 2011)



THANK YOU

(www.dtcp.ap.gov.in)