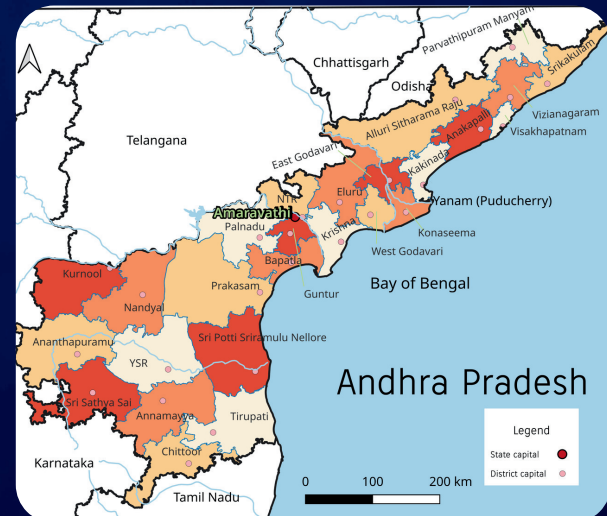
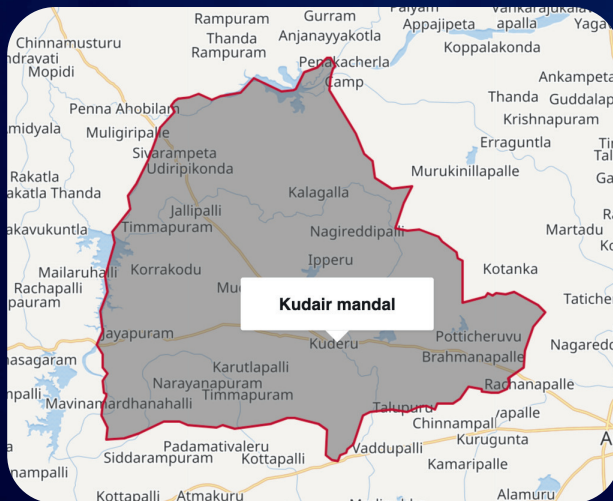




Global Forum for  
Sustainable Transformation

# KUDAIR MANDAL DIGITAL STACK

Empowering Districts Through DeepTech Digital Stack



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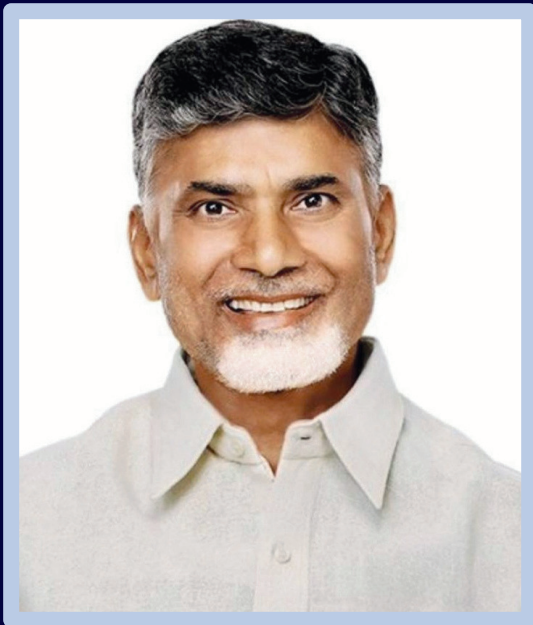
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AUTHOR

## CHIEF PATRON'S MESSAGE



Policies play a crucial role in acknowledging and mitigating, if not completely removing, the obstacles to women's full participation in economic and public spheres. This empowers them to assume leadership roles and become dynamic contributors within their families and communities.

**“ At the end of the day, policy & politics are meant to do good to the society. “**

**Shri N. Chandra Babu  
Naidu  
Chief Patron**

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# Who are We?

**A not-for-profit think tank transforming  
vision into reality**

**GFST is a Think tank  
promoting:**

**Sustainable development  
Resilience  
Inclusive growth**

Not-for-Profit  
Platform

Policy Advocacy  
& Research

Knowledge  
sharing &  
entrepreneurship  
promotion

Bridge the gap  
between policy  
and practice,

# What are we trying to do?

## Our approach on Digital Stack and RTGS for GovTech & DeepTech Governance Efficiency

**01**

### **Preparing a Digital Stack**

Profile of Mandal to District

**02**

### **Setting-up Monitoring Systems**

Data-Driven Insights

**03**

### **Empowering Families**

One Family One Entrepreneur

**04**

### **Real Time Governance (RTGS)**

Happiness Index

# Our Vision

**Future-ready governance framework,  
embedding social equity and inclusive  
growth to foster a prosperous digital future  
for Andhra Pradesh and beyond**

- **Preparing Digital Stack**
- **One Family - One Entrepreneur**
- **Setup Monitoring Systems**
- **LogFrames & RTGS**

# Our Challenges

**Our approach on Digital Stack and RTGS for Empowering Families**

**1**

**Data in Silos**

Profile of Mandal to District

**2**

**Real-time Monitoring System**

Data-Driven Insights

**3**

**Lack of Entrepreneurs**

One Family One Entrepreneur

**4**

**Empowering Families**

Happiness Index

# Assumptions

## Cleaning/Inputting & Processing Inconsistencies like Null, Special Characters, Irrelevant data

- **Special Characters:** Improper data entries %, NNN, @&%&;AB; ,(for example Mandal name has Date Time Stamp) **in RCH**
- **Null Values:** More than 45% columns null values (Out of 297 Columns) in RCH and other datasets
- **Irrelevant Data points:** Improper Age to Qualification mapping in Livelihood & Income (Age is 3 years and Qualification is Below 10th)
- **First-Level Data Capture:** Additional Data on Others is not captured in majority of datasets

**Inference:** Majority of datasets with aforementioned inconsistencies are imputed

# Our Approach

- Create a robust project mode
- Utilize new analytical tools to make informed decisions
- Address data deficiencies, and
- Implement corrections for continuous improvement

**Data Collection  
and Analysis &  
Leveraging Tools**

---

**Qualitative  
Parallel  
Studies**

---

**Process  
Documentation  
for Mid-Course  
Corrections**

---

**Continuous  
Improvement  
and Real-Time  
Governance**

---

# Objective Guide for Project Mode

## Our approach on Digital Stack and RTGS

### Utilizing New Tools for Analysis

---

Advanced Data Analytics, Visualization Tools, AI/ML, GIS Mapping etc.

### Addressing Data Deficiencies

---

Identification of Inconsistencies & Gaps for Data Quality Improvement

### Creating a Project Mode

---

Identify large problem areas with the eagle view approach so that this macro stage is useful for knowing the outcome of our work.



# Action Plan

**Future-ready governance framework, embedding social equity and inclusive growth to foster a prosperous digital future for Andhra Pradesh and beyond**

**Continuous Monitoring evaluation will guide to achieve :**

- **Short-Term (1-2 Years):** Empowering 7 Lakh Families Annually
- **Medium-Term (3-5 Years):** Transforming Health of 1.4 Crore Families and 5.29 Crore People of Andhra Pradesh
- **Long-Term (6-10 years & Beyond):** Vision: 2047 – Universal, Technology Enabled, and Affordable Public Services and prosperity placing Andhra Pradesh & India at Forefront of Innovative Governance

# Our Tools

More than 7+ technologies are leveraged to reach the objectives

## BEST PYTHON LIBRARIES FOR MACHINE LEARNING



**PYTHON**  
Hugging Face

  
TensorFlow

 Keras

 matplotlib

 SciPy

 pandas

 PyTorch

 orange

 NumPy

 sklearn

 theano

Visualization



GIS Map



Design & Editing



Documentation



Office 365

# KUDAIR- MANDAL PROFILE



# About Kudair

**Kudair Mandal**  
**Ananthapuramu District**



Total 13,761 Households\*

**Revenue  
Villages  
(RV)  
13**

**Village  
Secretariats  
11**

**No. of  
Hamlets (+RV)  
28**

**Total Gram  
Panchayat  
14**

**Rythu Seva  
Kendralu  
12**

# Mandal Profile & Analysis

## Tool based data analysis for better decision-making and support system

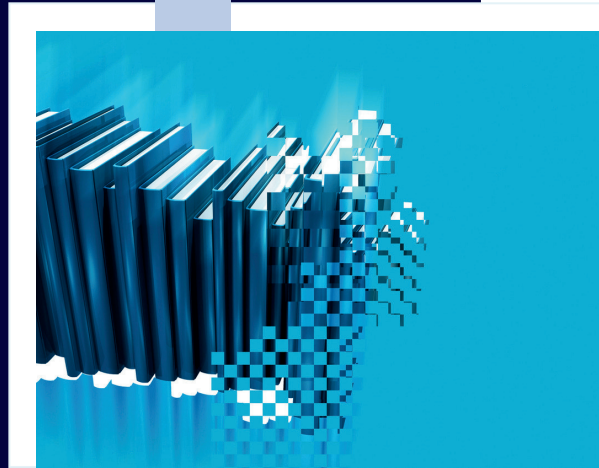
- **History:** Kudair Mandal was formed in the year 1985
- **Mandal Head Quarter:** South of Ananthapuramu Municipal Corporation approximately 21 Km from Ananthapuramu Town
- **Population: As per 2011 Census**
  - Total Population 38312
  - Male population is 19470
  - Female population is 18842
- **Forest:** The Forest in the mandal is thin and scanty and not rich in Forest wealth.
- **Forest Land:** There is 3814 hectors of Forest land available out of 38320 hectors of total Geographical area.
- **Rainfall & Soil:** The normal Rainfall of the Mandal is 346.6 mm and the soil is commonly Red

# Household

Majority of Household are headed by Female as per data provided

Gender	Head	Member	Total
FEMALE	7949	12409	20358
MALE	5741	14992	20733
TRANSGENDER	3	5	8

# **DIGITAL STACK & KUDAIR ANALYSIS**





# Digital Stack & Analysis

**Stacking more than 7+ datasets by cleaning and processing data with our tools for creating digital stack and analysis Ananthapuramu District (Kudair Mandal)**

- Household Grama & ward Sachivalayam (GSWS - 2019 & 2024)
- Reproductive Child Health (2022-24)
- Child & Women Welfare (2022-24)
- Communicable Diseases (2022-24)
- SERP/SHG Dataset (2019 & 2024)
- Agriculture Dataset (2019 & 2024 - Kharif)
- Pensioners Dataset (2019)
- Ration Card Dataset (2024)

# ARISE - UNIFIED DIGITAL STACK

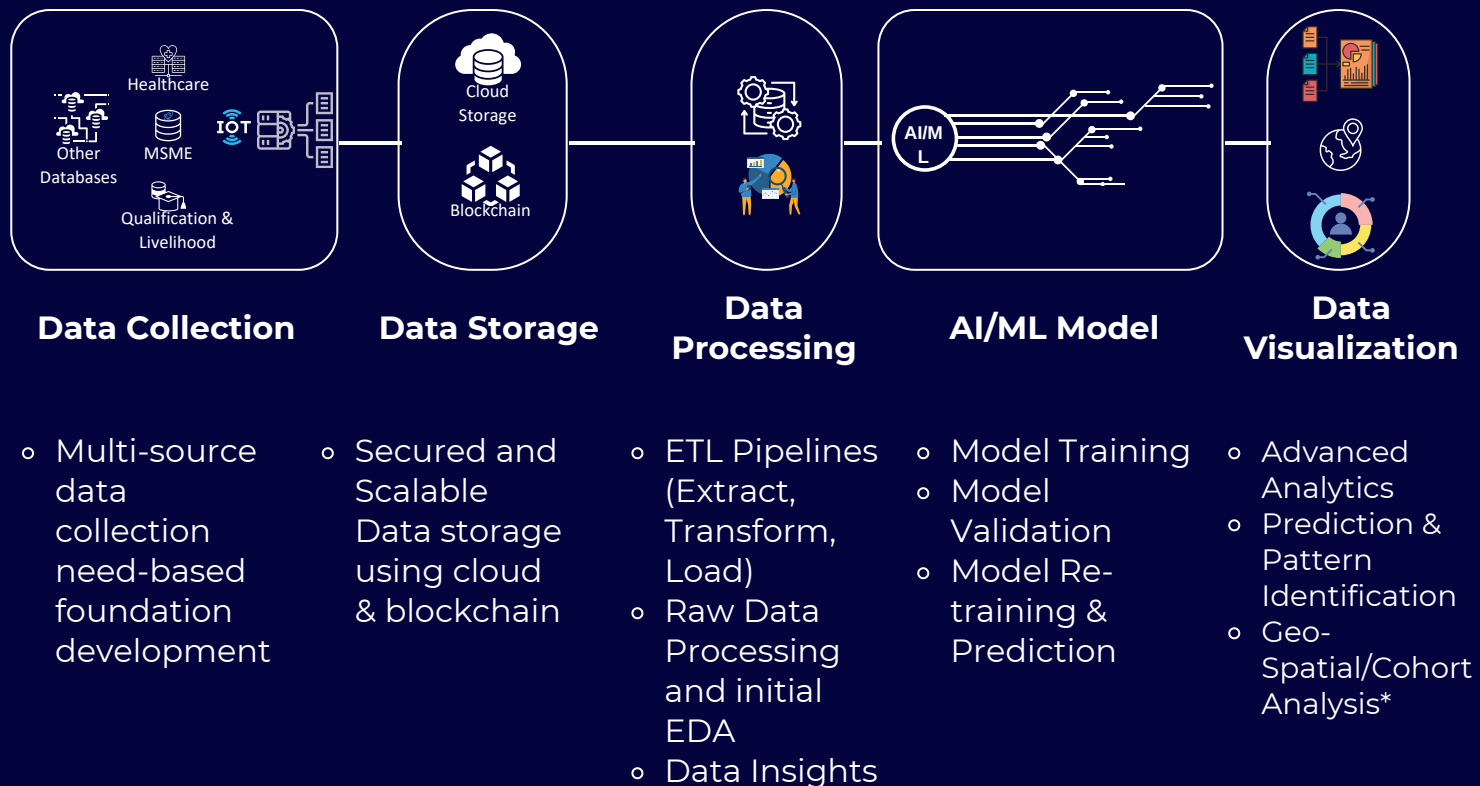
## Andhra Pradesh **R**esilient, **I**ntegrated, and **S**mart **E**cosystem

The foundation of any transformative governance model is robust and actionable data.

A data stack refers to the integrated system of technologies, processes, and frameworks that collect, store, process, analyze, and present data to drive decision-making. Building an effective data stack for governance enables real-time insights, actionable strategies, and citizen-centric outcomes, laying the groundwork for **Viksit Bharat 2047**.



# ARISE - UNIFIED DIGITAL STACK



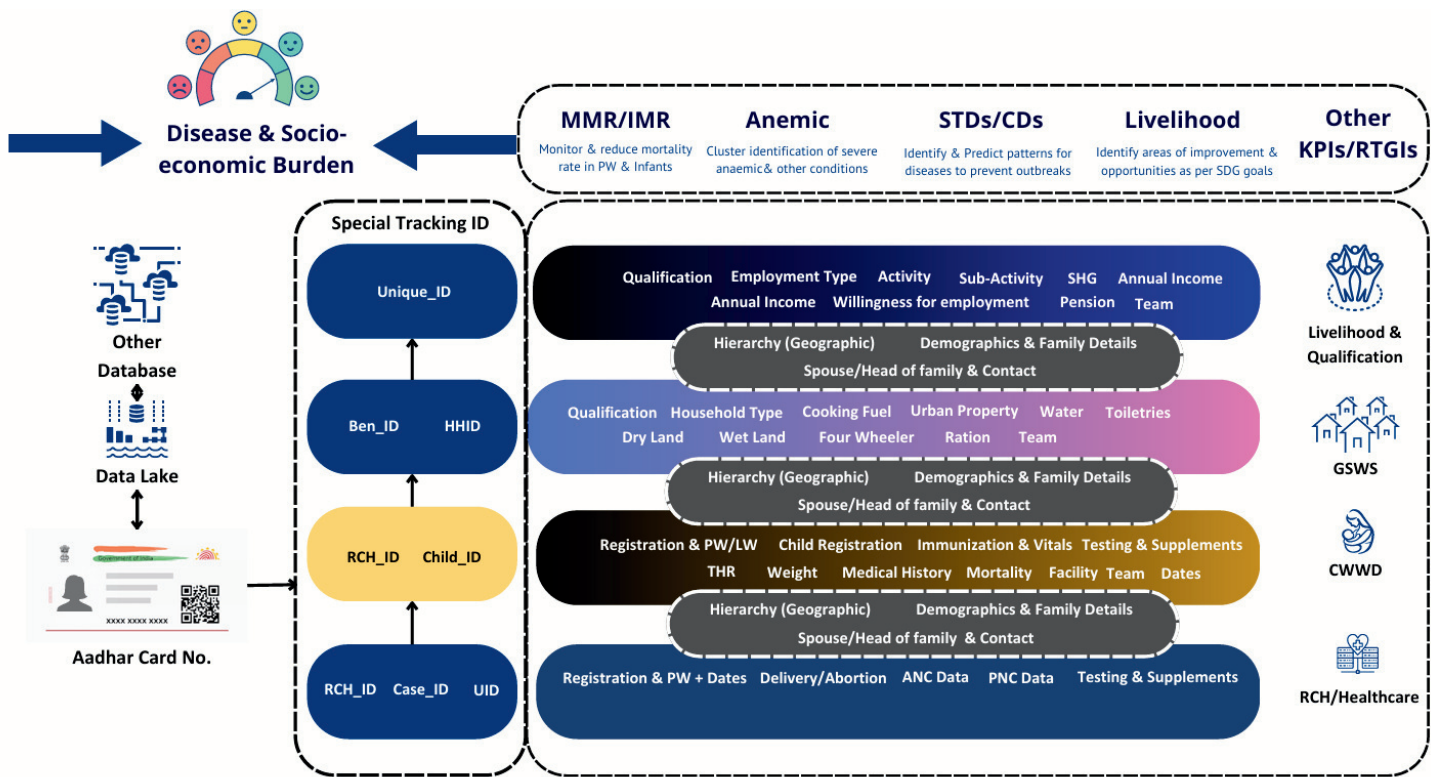
# Digital Stack & Analysis

## Our methodology in creating stack and dashboard

- Create a digital data stack for overall Kudair using data triangulation
- Unique & Primary\_key Identifiers to join records across multiple dataset
- Enhanced dashboard on 5+ key aspects enabling Real-Time Governance (RTGS)
- **Aadhaar as a Unique Identifier** can be the common link across datasets and to be included for future analysis
- Virtual PMU (Project Management Units) in execution, KPIs provide Disease & Socio-Economic Burden Factors (SDGs) of various individual in the roadmap translating to **Happiness Index**

# DIGITAL STACK - KUDAIR MANDAL (ANANTHAPURAMU DISTRICT)

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# KUDAIR HEALTHCARE



# KUDAIR - HEALTHCARE

## OBJECTIVE

A **Swarna Andhra** where every citizen-regardless of geography or income-has access to the best healthcare technologies, setting a benchmark for global health innovation.





# KUDAIR HEALTHCARE

## Challenges

- Lack of End-to-end monitoring on health of the individual
- Lack of access to proper health coverage and maternal/child well-being
- Lack of awareness on schemes & benefits for In-born deliveries and facility preference
- Lack of deep-dive monitoring on child vaccination and immunization
- Economic and Financial Burden in livelihood of the individual

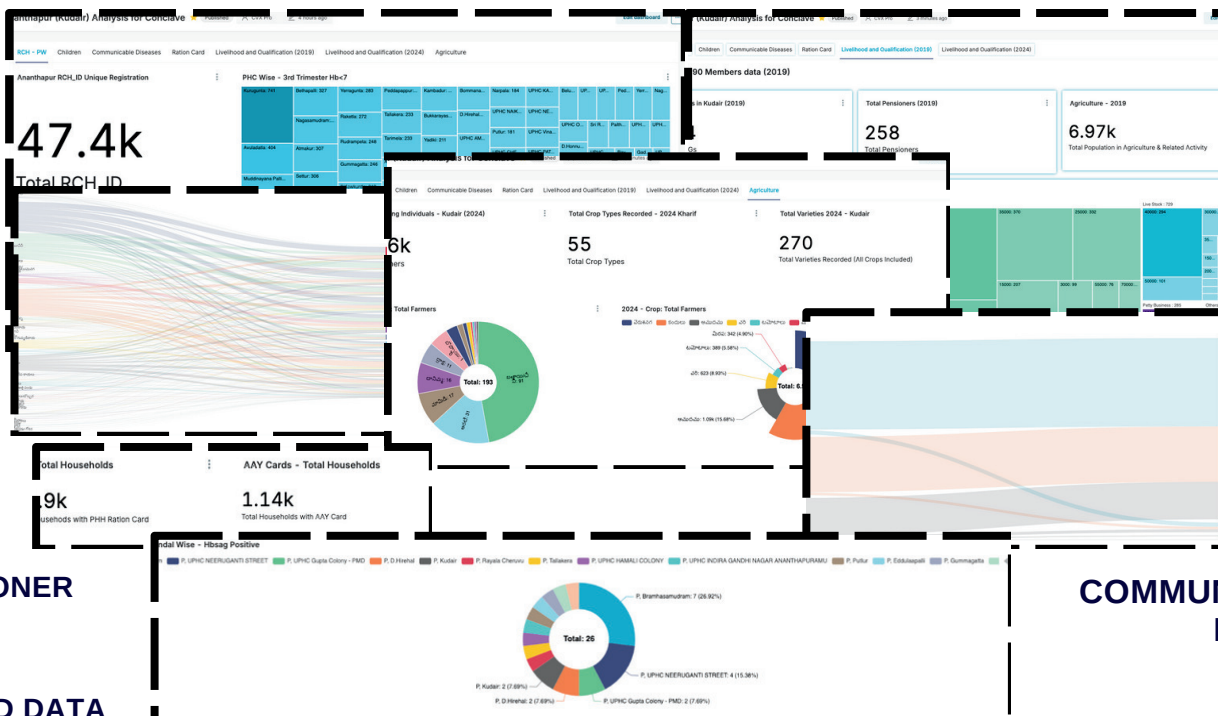
## KUDAIR PROFILE IN DISEASE BURDEN, LIVELIHOOD, SOCIO-ECONOMIC, MSME (ENTREPRENEURSHIP)

## RATION DATA

SHG &amp; GSWS DATA

## PENSIONER DATA

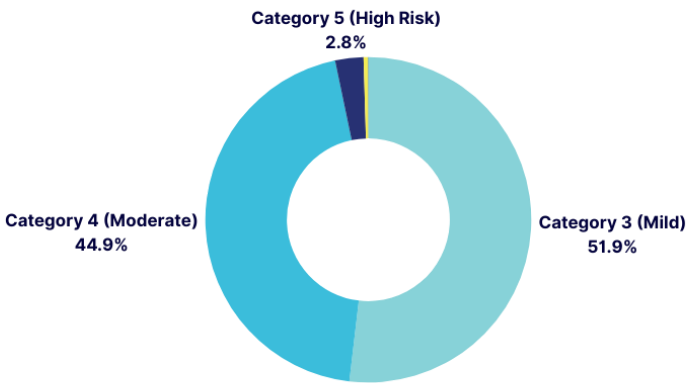
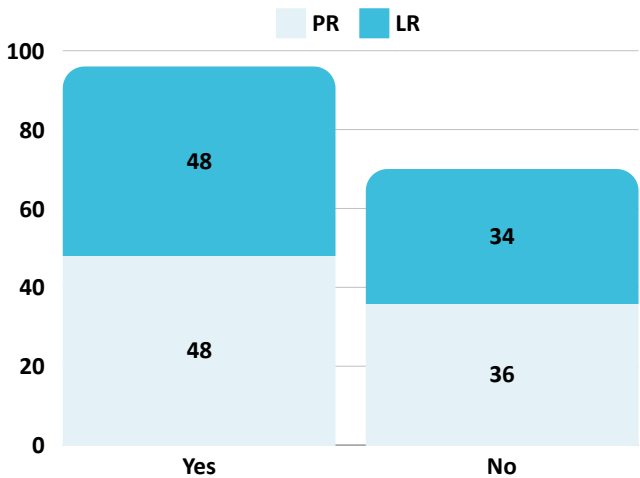
## STD DATA



# KUDAIR - SUMMARY - HEALTHCARE

- RCH needs further monitoring and improvement in maternal healthcare in ANC Visits, Anemic cases and Inconsistencies to be reduced in RCH data as observed for more than 29000 data points across 116 columns
- CWD needs further monitoring and deep-dive analysis on end-to-end child vaccination and overall immunization outcomes
- Communicable diseases have decreased substantially by 37% from 2022 (For Dengue)
- Low Birth Weight is still major cause for Infant Mortality
- ANC Cases and PNC Cases to be captured more digitally as observed with mandated pre-filled entries for each field in data capture

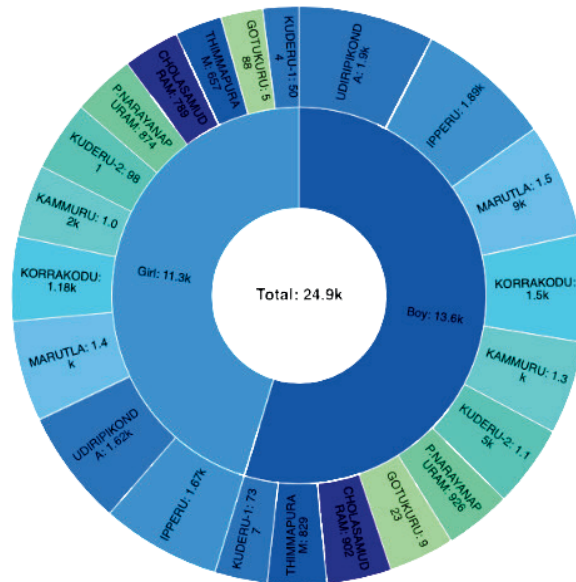
# HEALTHCARE DATA ANALYSIS



- In Kudair, over the past two years, 297 pregnant women were identified in the severe anemia stage (Hemoglobin <7) during their last trimester.
- Between 2022 and 2024, Kudair reported a total of 4,810 women, comprising 2,750 pregnant women (PW) and 2,050 lactating mother (LM).
- Among 1,100 women eligible for Take Home Ration (THR), 172 women have not received benefits. These non-beneficiaries require real-time governance tracking to ensure child nutrition outcomes.
- In 2023, Kudair recorded 325 antenatal cases (ANC) with moderate to critical risk levels related to ANC visits, out of 6,845 district-level cases.
- Two Cases in Category 7 were reported in Gunthakal and Peddapappur Mandals; these high-risk cases need immediate tracking.
- Kudair also recorded one high-risk Category 6 ANC case, which is among 30 such cases reported across the district, and it requires monitoring.

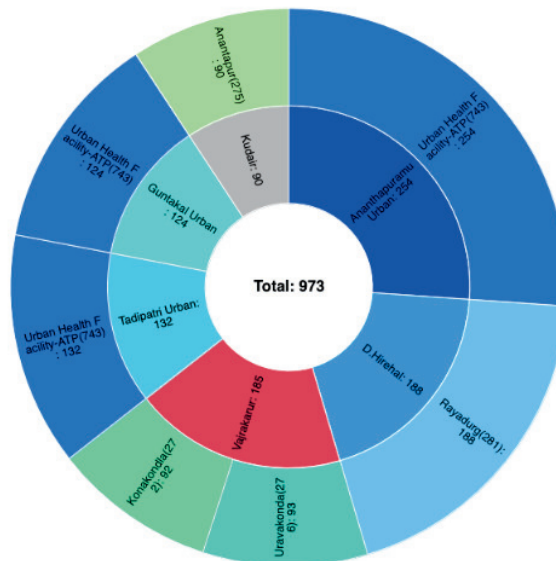
# CWWD DATA ANALYSIS

- **Stillbirth Data:** From 2022 to 2024, 689 stillbirths have been recorded in the RCH data for Kudair Mandal.
- **Child Population and Parity Ratio:** The female child population in Kudair stands at approximately 11,300. The Parity Ratio (PR) of male to female children is 1.20, indicating a slightly higher male child population compared to females.
- **Maternal Mortality:** A total of 61 maternal deaths were recorded across Ananthapuramu District between 2022 and 2024. In Kudair Mandal, one maternal death was attributed to pulmonary embolism in 2022.



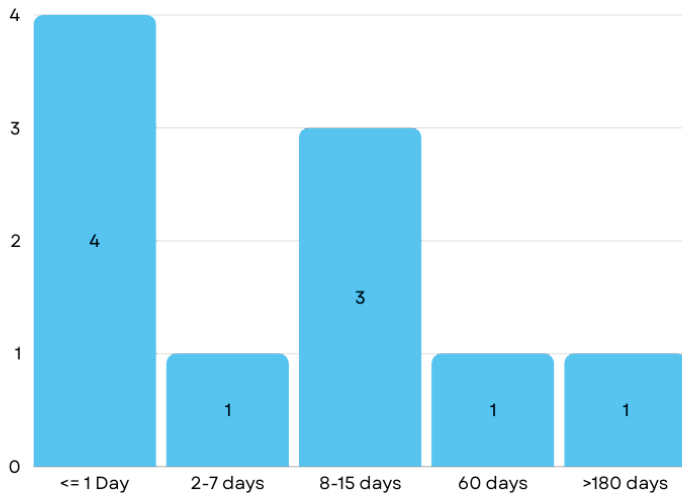
Top-performing  
Mandals in  
Immunization:  
The top five Mandals in  
immunization efforts  
in Ananthapuramu  
District are:

- Ananthapuramu Urban (ATP743 Facility)
- D.Hirehal (Rayadurg281)
- Vajrakarur
- Tadipatri Urban
- Guntakal Urban



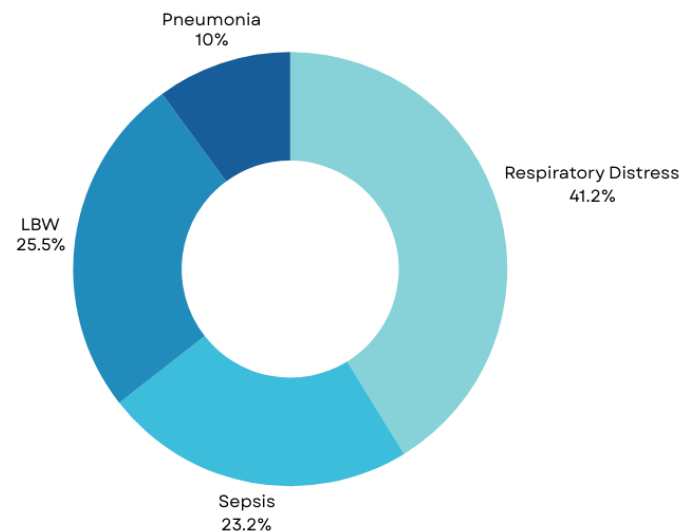
- Need for Improvement in Kudair Mandal: Kudair requires significant improvement in its immunization efforts.
- Currently, 90 children are due for the Measles and Rubella (MR1) vaccination.
- This highlights the need for focused vaccination drives to ensure timely immunization based on children's dates of birth and scheduled vaccination timelines.

# CHILD PROFILE - MORTALITY LOW BIRTH WEIGHT - A MAJOR FACTOR

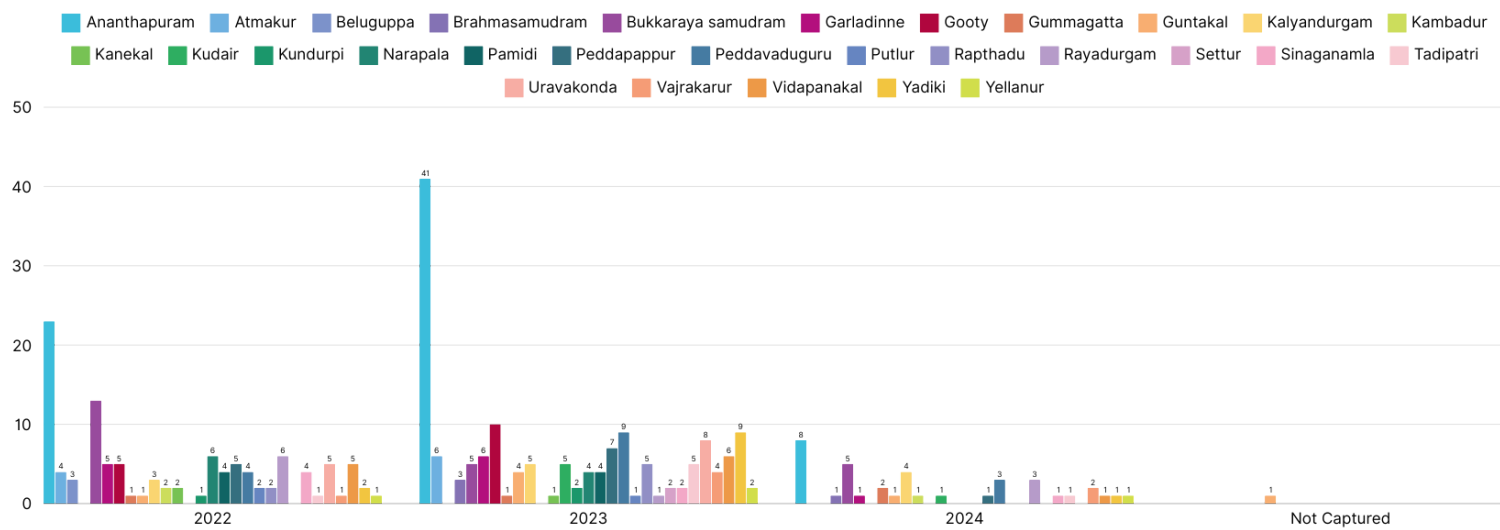


- Total 10 Infant Mortality cases in Kudair out of which 3 Female Child and 7 Male Child have been registered in death line\_list
- Neonatal mortality cases are observed (0-5 years)

- In Kudair, a total of 10 infant mortality cases have been reported, including 3 female and 7 male children, as per the death line list. These cases fall under neonatal mortality, covering the age group of 0-5 years.
- In Ananthapuramu district, 25.5% of infant mortality cases are attributed to low birth weight, including severe cases, alongside other contributing factors.



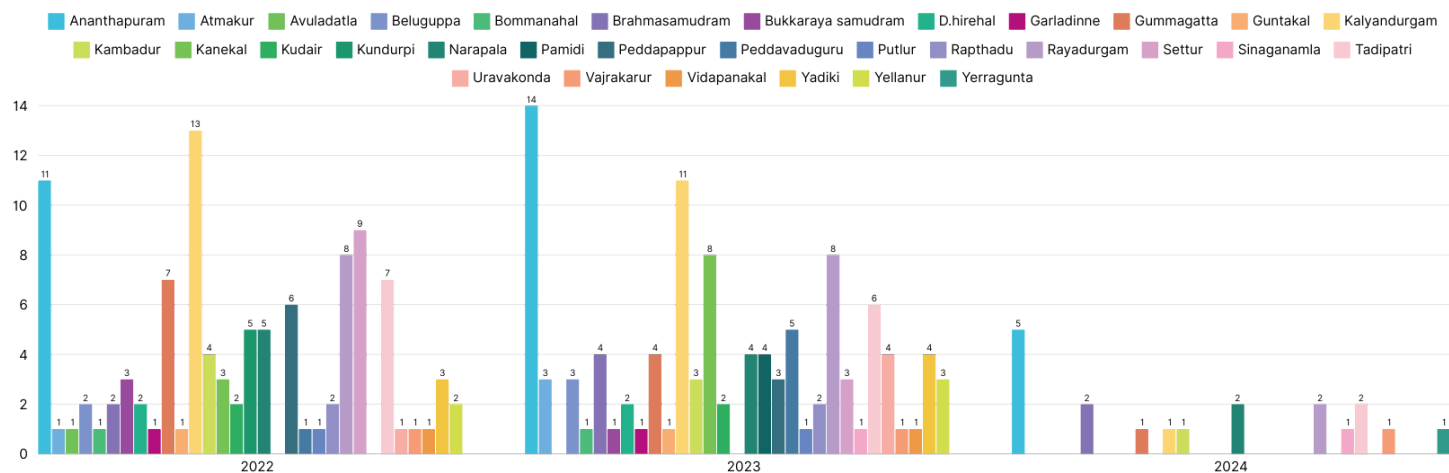
# IN-BORN INFANT MORTALITY



- Between 2022 and 2024, a total of 308 in-born infant mortalities were registered, distributed as follows: 111 cases in 2022, 158 in 2023, and a significantly reduced 38 cases in 2024. This notable decline in 2024 reflects commendable governance efforts and the potential for further improvement
- Among the mandals, Ananthapuramu recorded the highest number of cases (72), followed by Bukkarayasamudram (23) and Peddavaduguru (16) during this period. These areas warrant focused interventions to address the underlying causes effectively.



# OUT-BORN INFANT MORTALITY



- Between 2022 and 2024, a total of 233 out-born infant mortalities were recorded: 106 in 2022, 108 in 2023, and 19 in 2024. While there has been some improvement, further efforts are needed to address this issue.
- The highest number of cases were reported in the following mandals: Ananthapuramu (102), Kalyandurgam (37), Rayadurgam (28), Bukkarayasamudram (27), Peddapappur (22), Peddavaduguru (22), and Narapala (21). These mandals require a detailed analysis to understand the underlying causes and strengthen governance and monitoring of private hospitals in the Ananthapuramu district.
- To reduce out-born infant mortalities, it is crucial to educate pregnant women through ground-level awareness campaigns and encourage them to choose government hospital deliveries. Leveraging existing policies and schemes can provide long-term benefits and improve maternal and infant health outcomes.

# COMMUNICABLE DISEASES

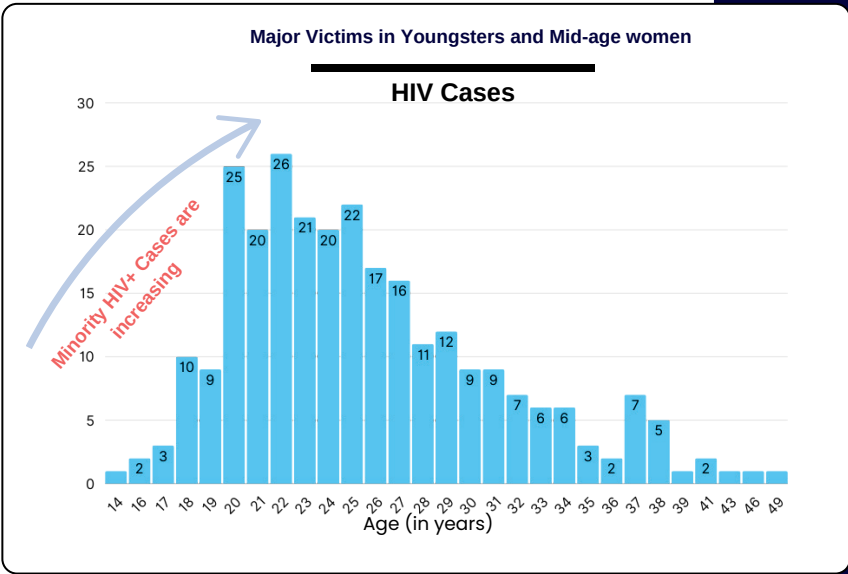
- In 2023, a total of 18 HBsAg-positive cases were reported in the Ananthapuramu district, with 2 cases identified in Kudair Mandal. Using AI/ML models, predictive analytics and personalized health tracking can be developed to design effective vaccination campaigns targeting critical mandals based on historical data
- For VDRL, no positive cases were recorded in Kudair Mandal during the 2022-2024 period, as per cleaned and filtered data. However, there is a need for enhanced real-time tracking and timely interventions to ensure comprehensive monitoring

# COMMUNICABLE DISEASES

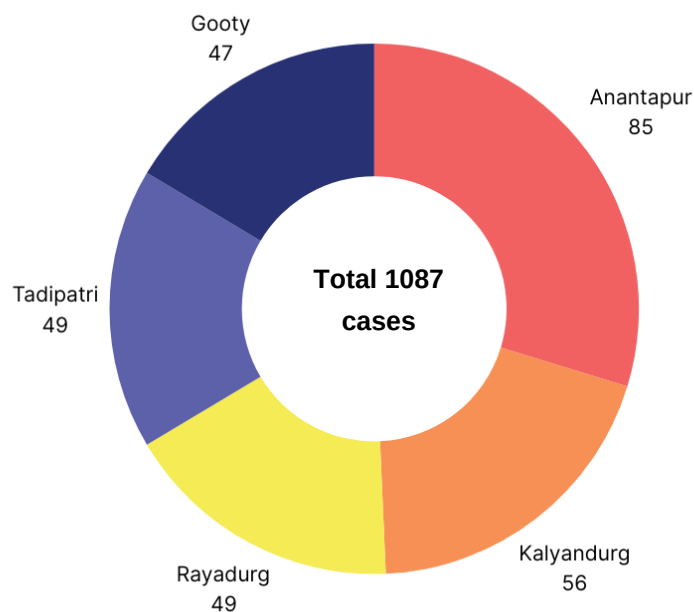
Between 2022 and 2024, a significant rise in HIV cases has been reported among minority groups.

In 2023, the majority of ICTC-referred cases fall within the 20-29 age group. Among districts, Ananthapuramu (ASR) recorded the highest number of such cases at 30, followed by Srikakulam with 26, Eluru with 22, and Prakasam with 19.

These districts are the top contributors to ICTC-referred HIV cases in 2023.



# ABORTIONS - STDs

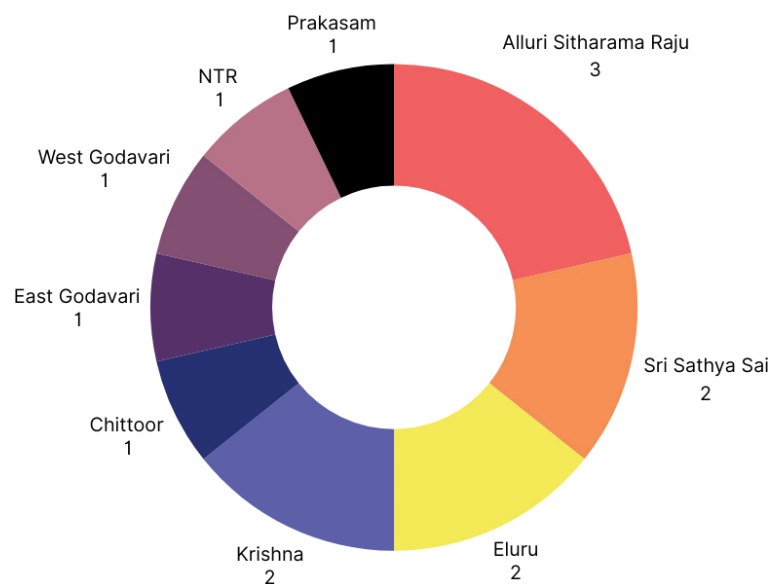


## Ananthapuramu - Abortion cases

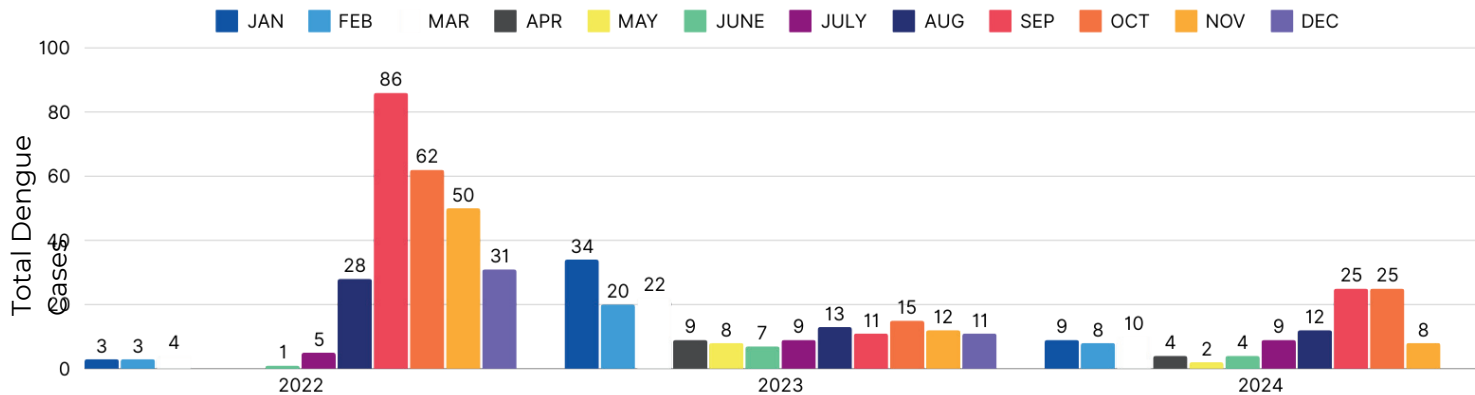
- Total 21 abortion cases in Kudair and total of 1087 cases of abortion in Ananthapuramu

## Abortion because of HIV in State

- Abortion cases because of HIV in other districts in Andhra Pradesh

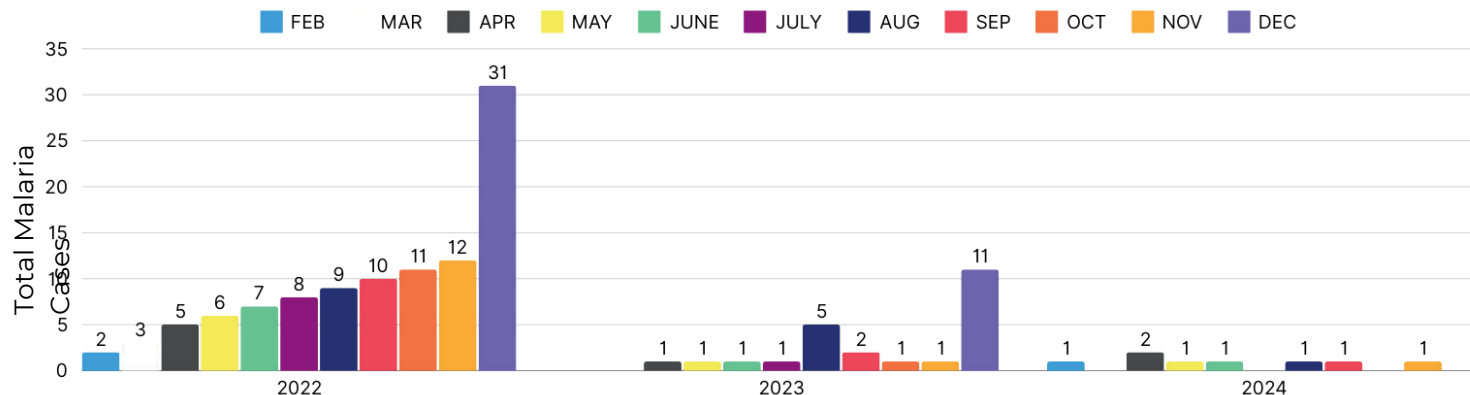


# COMMUNICABLE DISEASES



- Between 2022 and 2024, a seasonal pattern of dengue cases has been observed in the Ananthapuramu district, with cases peaking annually from August to December. Ananthapuramu Urban and Tadipatri consistently recorded the highest number of cases during this period, while Kudair reported a total of 20 cases over the three years.
- Notably, there has been a 31% decline in dengue cases in 2024 compared to 2022, reflecting effective governance and commendable performance by the health teams in controlling the spread of the disease.

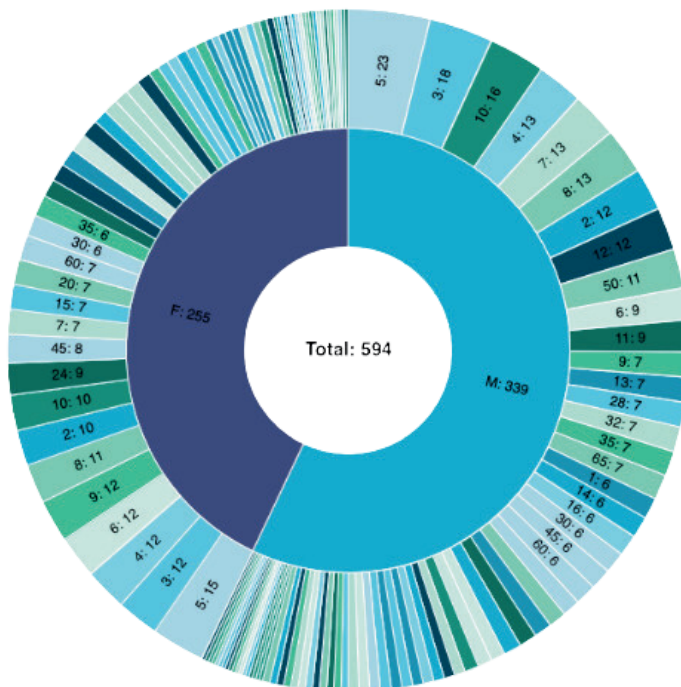
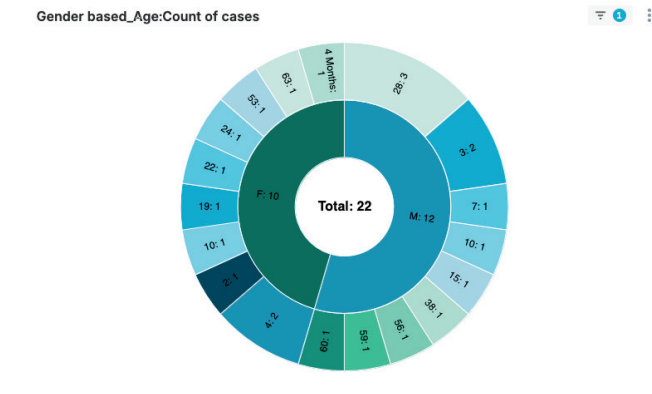
# COMMUNICABLE DISEASES



- The data on malaria cases registered in Ananthapuramu district between 2022 and 2024 reveals a clear seasonal pattern, with cases peaking consistently during the months of August to December each year.
- Among the mandals, Atmakur has recorded the highest number of malaria cases, while Kudair reported only 2 cases during this period. Notably, there has been a significant downward trend of 30.7% in the number of malaria cases compared to 2022, reflecting the effectiveness of governance and the commendable performance of the health teams in controlling the disease.

# COMMUNICABLE DISEASES

- Between 2022 and 2024, a total of 22 cases were registered in Kudair, showing a highly diverse pattern based on gender and age group. Male children, particularly those aged 3 to 10 years, were found to be the most affected. The male-to-female parity ratio stands at 1.33.
- The age bracket of 5–6 years emerges as a common group for diseases like Dengue, Malaria, and other reported cases. For instance, the notation "5:23" indicates 23 cases recorded in the age category of 5 years.



# COMMUNICABLE DISEASES

Leprosy trends in the region require immediate attention:

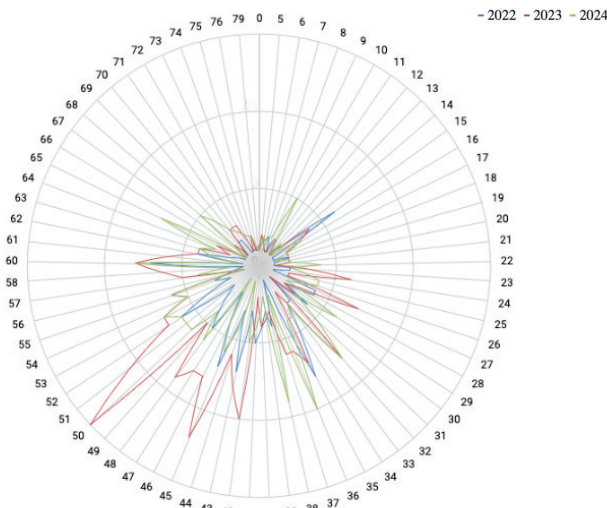
**Mandal-wise High Cases in 2024:**  
Kudair has 7 registered cases (5 MB and 2 PB). The highest number of cases are reported in Kanekal (19), P. Vadugur (15), and Ananthapuramu (21), with an upward trend observed since 2022.

**Gender and Age Distribution (2022-2024):**

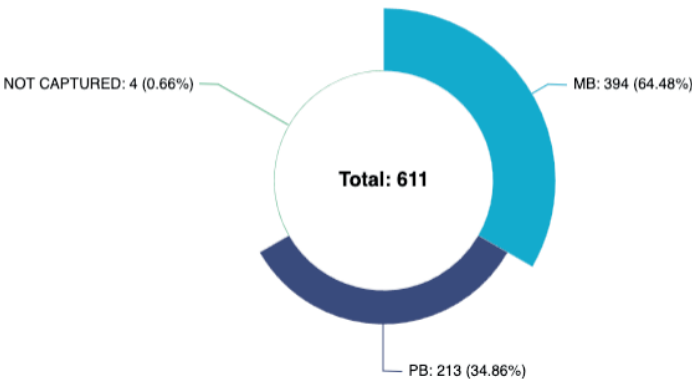
- Gender: Registered cases include 335 males, 240 females, 16 female children, 19 male children, and 1 transgender adult.
- Age Group: Most cases are found among mid-age and senior adults (35–66 years).

**Leprosy Types (2022-2024):**

- Multibacillary (MB): 65% of cases involve MB leprosy (patients with more than five skin lesions).
- Paucibacillary (PB): 35% of cases involve PB leprosy (patients with up to five pale, reddish, or hypopigmented lesions).
- Uncategorized: Four cases in 2024 lack MB/PB categorization.
- The increasing trend in leprosy cases, particularly in specific mandals and among middle-aged and senior adults, calls for targeted interventions and improved tracking mechanisms.



Total Leprosy Cases





# One Family

# One Entrepreneur

The One Family, One Entrepreneur initiative envisions empowering families to achieve economic self-reliance by fostering entrepreneurship.

The following can be piloted based on the data analyzed for Kudair Mandal archetypes obtained using AI/ML:

- Rural Artisans (Basic Education/Primary Education and Low- Income households)
- Agri Business Solopreneurs (10th)
- Hospitality/Hotels/Retail Vendors (High-School/Intermediate)
- Tech Freelancers (Unemployed Degree or Post Graduates)
- Educational Tutor/(Graduate)
- Homemaker Entrepreneur (High School)
- Social Service Provider

# One Family

# One Entrepreneur

## Approach

Weightage based Archetype creation

- 1.DEMOGRAPHY
- 2.QUALIFICATION
- 3.OCCUPATION
- 4.OCCUPATION SECTOR
- 5.AGE
- 6.HEAD OF FAMILY
- 7.GAS CONNECTION
- 8.HOUSEHOLD TYPE
- 9.WATER RESOURCE
- 10.DEFACATION STATUS
- 11.URBAN PROPERTY
- 12.DRY/WET LAND
- 13.FOUR WHEELER etc.

# One Family

# One Entrepreneur

# Challenges

- Lack of Entrepreneurship activities
- Highly fragmented self-employment and small businesses based individuals
- Need for Women Entrepreneurs
- Highly uncaptured data points in Occupation Activity, Sub Activity
- Data Silos causing lack of end-to-end monitoring for each individual/family
- Lack of basic education and up-skilling opportunities
- **Lack of robust, self-sustaining economic units across households**

# KUDAIR MSME

**One Family, One Entrepreneur.**



# KUDAIR - One Family One Entrepreneur

## OBJECTIVE

One Family,  
One Entrepreneur:  
Fostering  
entrepreneurship and  
self-reliance.





## Cluster 1

14,701  
Individuals

### Diverse Elites & Pensioners (Pucca House, Pucca - Daba & Duplex)

Family Profile: Married couples, predominantly with stable income, likely with multiple dependents and limited access to resources

Max. common criteria representation of cluster:

- Age Range: 35 - 52 years (max. concentration)
- Gas connection: LPG Gas (90.97%) and Firewood (6.72%)
- Common Qualification: Intermediate
- Common Occupation: Self Employed; Pensioners & Others (20%)
- Gender: Male: 65.4% and Female: 34.6%; Water Source: Municipal Panchayat Tap
- Defecation: Individual Sanitary Latrine: 73.22%; Rice Card: Yes
- Livelihood: Manufacturing, Architecture & Plumbing
- Note: Suitable for Entrepreneurship for Self-employed individuals



## Cluster 2

8,790  
Individuals

### Uneducated Established Homemakers (Pucca-Daba, RCC)

Family Profile: Youngsters and Unmarried individuals from underprivileged communities, often young adults with minimal familial support

Max. common criteria representation of cluster:

- Age Range: 23 - 49 years (max. concentration)
- Rice Card: No
- Common Qualification: Not educated
- Defecation: Individual Sanitary Latrine: 59.38%
- Water Source: Municipal Panchayat Tap
- Gas Connection: LPG Gas (89.84%) and Firewood (1.56%); Rice Card: Yes
- Livelihood: Govt. Job (Sarpanch - 1%); Manufacturing & Others
- Needs: Skill development, job opportunities, housing support, nutrition, toiletry & sanitization, training on well-being and social security.



## Cluster 3

1,533  
Individuals

### Privileged Youngsters (Pucca & Duplex)

Family Profile: Unmarried individuals & youngsters, predominantly with access to various resources  
Max. common criteria representation of cluster:

- Age Range: 15-25 years (max. concentration)
- Gas connection: LPG Gas (97.59%), Firewood (1.30%), Gobar (1.11%)
- Common Qualification: Intermediate, Degree in Other Subjects & Engineers
- Common Occupation: Students
- Gender: Male: 53.42% and Female: 46.58%; Water Source: Municipal Panchayat Tap
- Defecation: Individual Sanitary Latrine: 81.08%; Rice Card: Yes
- Livelihood: Not Captured & Shop Keepers (5%)
- Needs: Up-skilling and job opportunities based on qualification and field of knowledge



## Cluster 4

1,069  
Individuals

### Underserved Unemployed Dwellers (RCC, Kuccha, Foil & Shells)

Family Profile: Youngsters and Unmarried individuals from underprivileged communities, often young adults with minimal familial support  
Max. common criteria representation of cluster:

- Age Range: 28-38 years (max. concentration)
- Rice Card: Yes
- Common Qualification: Not educated; Common Occupation: Unemployed
- Defecation: Individual Sanitary Latrine: 76.61%
- Water Source: Municipal Panchayat Tap
- Gas Connection: LPG (95.97%); Rice Card: No
- Livelihood: Not Captured
- Needs: Skill development, job opportunities, housing support, nutrition, toiletry & sanitization, training on well-being and social security.



## Cluster 5

3,837  
Individuals

### Privileged Unmarried Novice

Family Profile: Unmarried individuals (mostly) and can be dependents predominantly with access to various resources

Max. common criteria representation of cluster:

- Age Range: 19-24 years (max. concentration)
- Gas connection: LPG (99.10%)
- Common Qualification: 1-9th class
- Common Occupation: Students
- Gender: Male: 55.04% and Female: 44.06%; Water Source: Municipal Panchayat Tap
- Defecation: Individual Sanitary Latrine: 100%; Rice Card: Yes
- Livelihood: Not Captured (83.7%) and Manufacturing (16.3%)
- Needs: Entrepreneurship for Artisans, House Keeping, Textile or other skills (assuming individuals have exposure to such crafts or activities)



## Cluster 6

3,208  
Individuals

### Novice Reluctant (Kuccha, Pukka & Duplex)

Family Profile: Youngsters and Unmarried individuals from underprivileged communities, often young adults with minimal familial support

Max. common criteria representation of cluster:

- Age Range: 25-40 years (max. concentration)
- Common Qualification: Not educated; Common Occupation: Unemployed (Not Willing to take any activity)
- Defecation: Individual Sanitary Latrine: 75%; Open Defecation: 17%
- Water Source: Municipal Panchayat Tap
- Gas Connection: LPG (91%); Rice Card: Yes
- Livelihood: Not Captured
- Needs: Benefit Plan to be designed accordingly considering willingness of the individuals to take up any activity





## Cluster 7

### Striving Farming Solopreneurs (RCC, Kuccha & Foil)

Family Profile: Married couples, predominantly with self-employed, likely with multiple dependents and limited access to resources

Max. common criteria representation of cluster:

- Age Range: 32 - 57 years (max. concentration)
- Gas connection: LPG Gas (82.00%)
- Common Qualification: Not Educated
- Common Occupation: Self Employed
- Gender: Male: 54% and Female: 45%; Water Source: Municipal Panchayat Tap
- Defecation: Individual Sanitary Latrine (73.22%)
- Rice Card: Yes
- Livelihood: Agriculture
- Needs: Crop Yield benefits, Subsidies for each season as applicable

2,484  
Individuals



## Cluster 8

### Privileged Widows

Family Profile: Widows from underprivileged communities, with family support

Max. common criteria representation of cluster:

- Age Range: 36 - 62 years (max. concentration)
- Common Qualification: Not educated; Common Occupation: Self Employed
- Defecation: Individual Sanitary Latrine: 59.38%
- Water Source: Municipal Panchayat Tap; Defecation: Individual Sanitary Latrine (73.22%), 11% (Public Toilets) and 15% (Open Defecation)
- Gas Connection: LPG Gas (94%)
- Rice Card: Yes
- Livelihood: Manufacturing, Services & Others
- Needs: Skill development, job opportunities, healthcare, well-being and social security.

1,531  
Individuals



## Cluster 9

3,837  
Individuals

### Underprivileged Novice Dependents (RCC, Kuccha & Foil)

**Family Profile:** Unmarried dependents with limited access to resources

#### Max. common criteria representation of cluster:

- Age Range: 24-51 years (max. concentration)
- Gas connection: LPG Gas (90.10%)
- Common Qualification: 1-9th Class
- Common Occupation: Others
- Gender: Male: 52.3% and Female: 47.51%; Water Source: Municipal Panchayat Tap
- Defecation: Open Defecation (38%)
- Rice Card: Yes
- Livelihood: Manufacturing
- Needs: Up-skilling Opportunities & Entrepreneurship to reduce socio-economic burden



## Cluster 10

109  
Individuals

### Underprivileged Widows

**Family Profile:** Widows and mostly dependents from underprivileged communities, with minimal familial & Financial support

#### Max. common criteria representation of cluster:

- Age Range: 42 - 81 years (max. concentration)
- Common Qualification: Not educated; Common Occupation: Others
- Defecation: Open Defecation (>50%)
- Water Source: Municipal Panchayat Tap
- Gas Connection: LPG Gas (94%)
- Rice Card: Yes
- Livelihood: Not captured & Farmers (13%)
- Needs: Up-skilling, healthcare, well-being and social security.

# ARCHETYPES



7,043  
Individuals

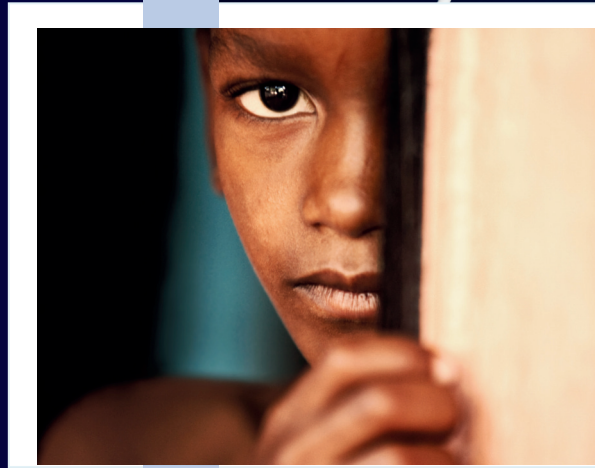
## NOMAD Anomalies

**Family Profile:** Individuals with improper data capture in various aspects

### Max. common criteria representation of cluster:

- Age Range: 35-71 years (max. concentration), Irrelevant age captured with other aspects, for example - Age mentioned as (-2) Years, 2018, 0 years (Qualification - 1 to 9th Class), 3 years (10th Class)
- Gas connection: Not Captured; Common
- Qualification: Not Captured
- Common Occupation: Not Captured
- Gender: Male: 50.49% and Female: 49.51%; Water Source: Not Captured
- Defecation: Not Captured; Rice Card: No (65%)
- Livelihood: Not Captured, Outsourced Employee, Daily Wage Employee
- Needs: Re-capture of relevant data can categorize this cluster into proper archetype

# Zero Poverty

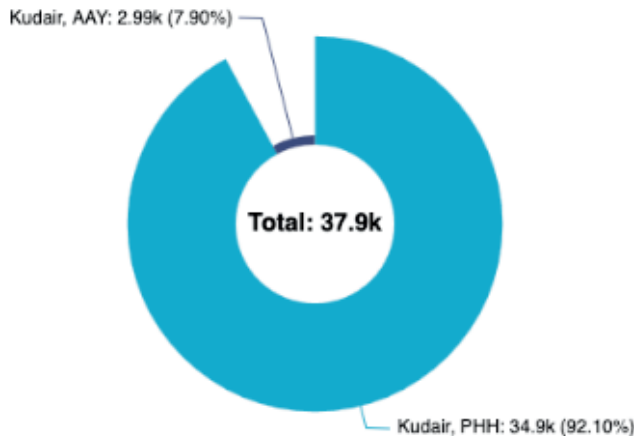


# Ration Card - Total 2990 Poor (AAY)

**Tool based data analysis for better decision-making and support system**

**Ration cards recorded for**

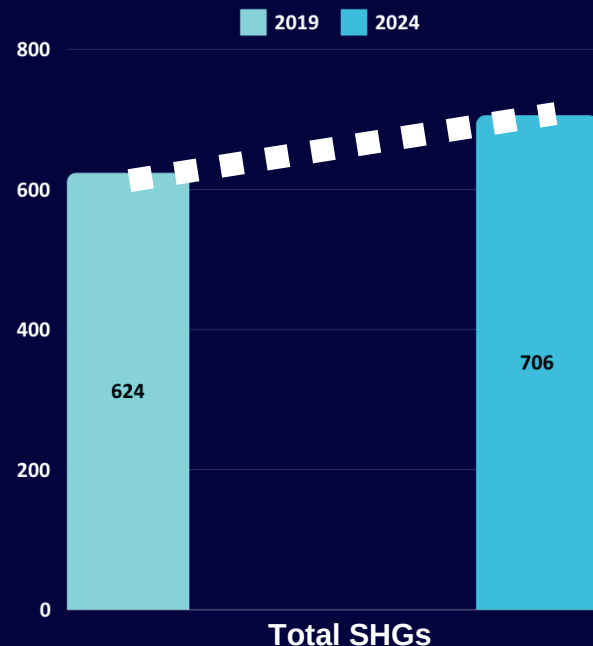
- **PHH (Priority House Hold)**  
**Ration cards are of approx. 34900 individuals**
- **Antyodaya Anna Yojana (AAY) ration cards is of approx. 2990 individuals**



# SHG DATA

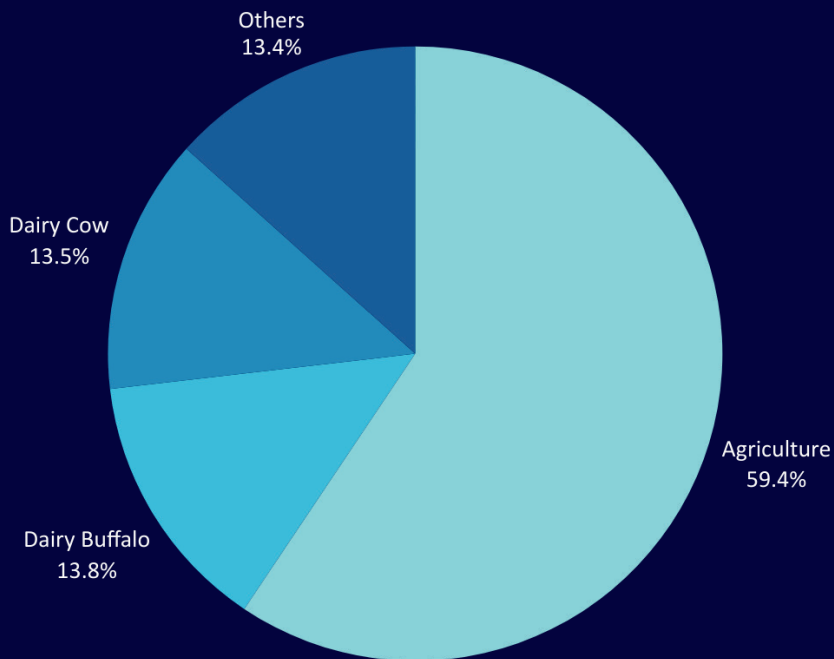
## Total 13.15% increase in SHGs from 2019 to 2024

- Total 13.15% increase of recorded SHGs as per 2019 and 2024 data provided
- **Total 258 pensioners are recorded in Kudair (2019)**



# LIVELIHOOD & INCOME - ACTIVITY DATA

Total 3000 people are willing to take up any activity for livelihood in 2024

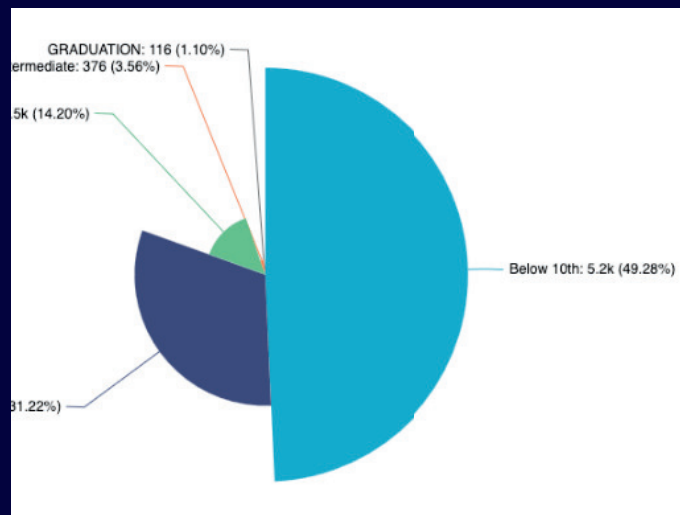


- Agriculture is top activity in Kudair Mandal
- **Petty Business** is one focus area to be considered

# LIVELIHOOD & INCOME - ACTIVITY DATA

Total 10555 records in 2024

- Total 481 people are not willing to take up any livelihood activity despite having education from 10th to PG

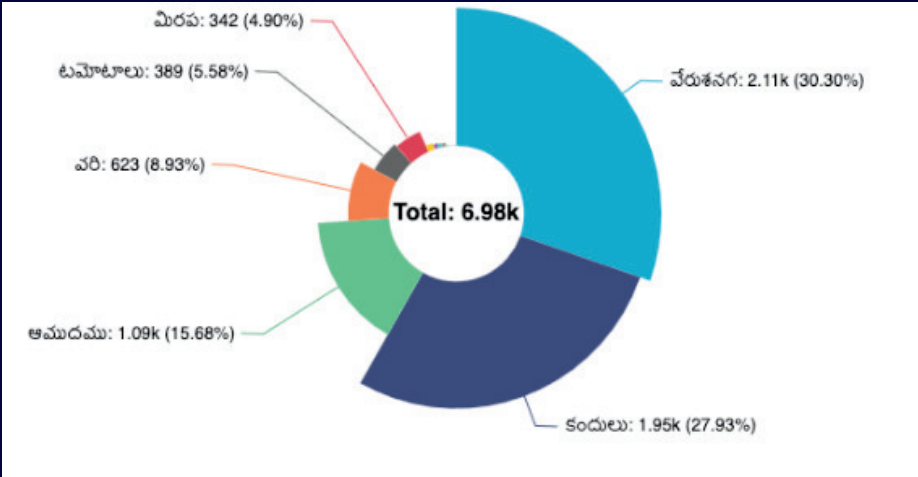
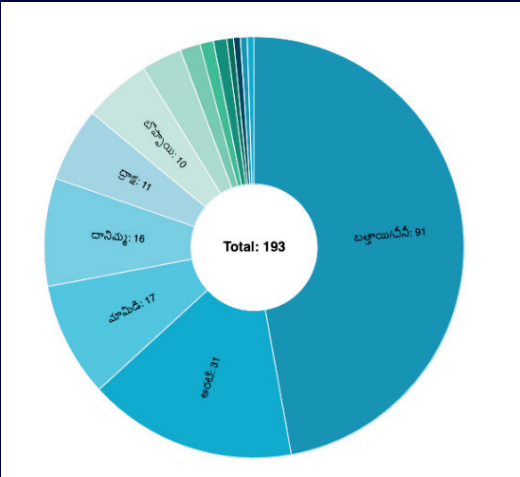


**Total 3295 are uneducated**



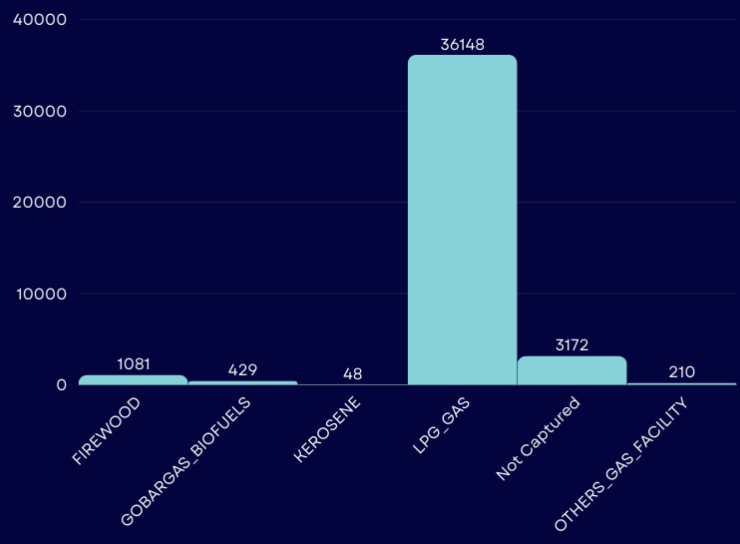
# AGRICULTURE DATA

Battayani Cheeni is most common sowed crop in 2023 and Groundnut in 2024



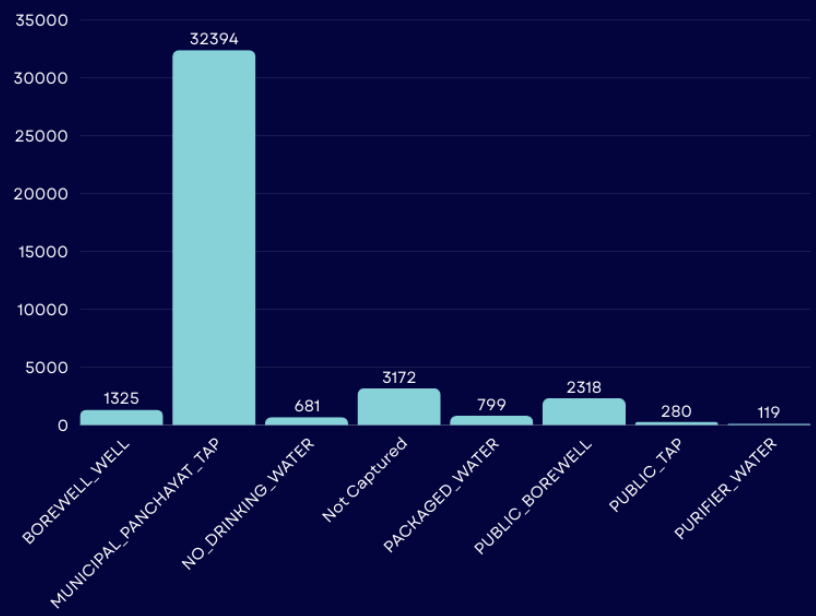
No.of Mandal's with Rainfall Status			Large Excess : 7		Excess : 14		Normal : 8		Deficient : 2		Large Deficient : 0		No Rain : 0	
Sno	Mandal		Actual(mm)		Normal(mm)				Deviation in %				Status	
11	Peddapappur		320.0		431.9				-25.9				Deficient	
12	Pamidi		639.5		410.4				55.8				Excess	
13	Vajrakarur		722.1		452.1				59.7				Large Excess	
14	Uravakonda		673.1		451.8				49.0				Excess	
15	Beluguppa		712.7		427.8				66.6				Large Excess	
16	Gummagatta		612.1		390.5				56.7				Excess	
17	Brahmasamudram		680.5		443.7				53.4				Excess	
12	Pamidi		639.5		410.4				55.8				Excess	
13	Vajrakarur		722.1		452.1				59.7				Large Excess	
14	Uravakonda		673.1		451.8				49.0				Excess	

# GSWS HOUSEHOLD DATA

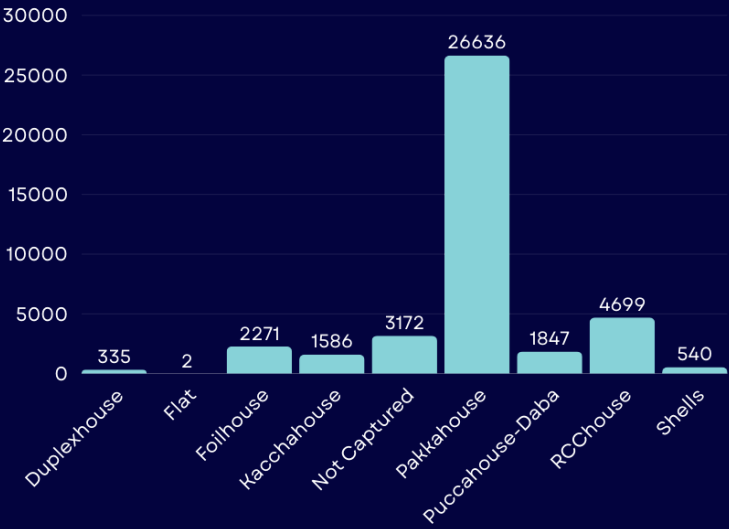


- Approx 3172 Household cooking fuel data is not captured
- Approx 1130 Household still use conventional cooking fuel like firewood, kerosene

◦ Total 681 Households still lack access to drinking water

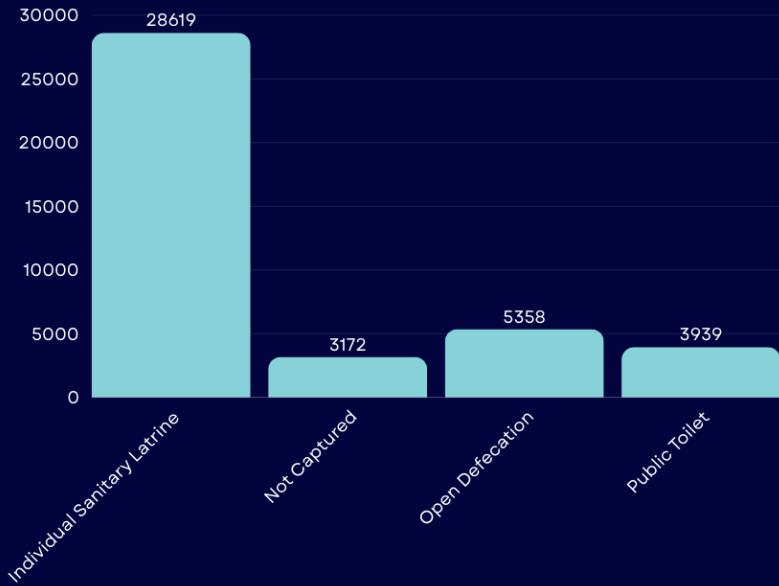


# GSWS HOUSEHOLD DATA



- Approx 26,636 Individuals live in Pakka house
- 540 individuals in Shell House

○ 5358 Individuals still do Open defecation



# SUMMARY

- More than 7+ datasets are stacked together
- Disease & Socio-Economic burden calculated by providing weightages in view of SDGs & beyond for obtaining Happiness Index

- a. **Anemia & STDs/CDs**
- b. **Vaccination - Immunization**
- c. **Test Date & Facility**
- d. **Symptoms & Vitals**
- e. **Demographics**
- f. **Head of Family**
- g. **Household Type**
- h. **Livelihood**
- i. **Ration**
- j. **Pension**
- k. **Agriculture & Crop Yield**
- l. **Occupation & Work Activity**
- m. **Income & Other columns\***



# Conclusion

To utilize a comprehensive database and dashboard system for efficient outcomes management and to implement a Logframe approach for structured short, medium, and long-term planning.

## **Identify. Outline. Develop. Implement**

- Real-Time Governance (RTGS) Dashboard
- Structured Planning & LogFrame
- Continuous Monitoring & Short-term agility
- Mid-Term Enhancement
- Long-Term Sustainability in Governance & development



Mr. Anand Sharma  
Associate Director

GovTech & AI Operations  
(GFST)

**Because, we're here to help!**

# Our DeepTech Roadmap



## Understanding

Identify key prospect target audience with high disease socio-economic burden, severe anemic, STI/VDRL/Minor or other KPIs defined in various datasets



## Analysis

Identify key areas of improvement and design wellness and care plans for latest data collected for fine-tuning models



## Planning

Create a comprehensive list of trend analysis, disease outbreak on various categories applicable for health & other departments to design/formulate benefits/schemes using AI/ML



## Mapping KRAs

Map updated data of RCH and extend to all family members (including spouse, children) in each group with custom model



## Training

Train model for identification & classification of cohorts and clusters on top of the processed data for future individual recommendations in long-term

- o RCH
- o NCD & other disease outbreaks for Malaria, Dengue, TB etc.
- o Agriculture
- o Ration/Pension etc.



## Digital AI Stack

Recommend departments by mapping on centralized digital tech stack as a step towards SDG

Example:

- o Abortion Prevention (specifically for female feticide)
- o Schemes to prevent Minor delivery & severe underweight cases
- o Anemic percentage shift
- o Crop Yield
- o Livelihood and other aspects



## Global Forum for Sustainable Transformation

Thought leader in Blueprint for Equitable Sustainable Economy

[www.gfst.in](http://www.gfst.in)

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