

GIS FOR CONTROL OF COMMUNICABLE DISEASES

Presented by:

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INTRODUCTION

- The existence of precise disease tracking was highlighted from 1854 when John Snow located cholera cases in London.
- Geospatial information system (GIS) is one of the effective tool to mitigate and control the spread of vector borne, water borne and airborne diseases.



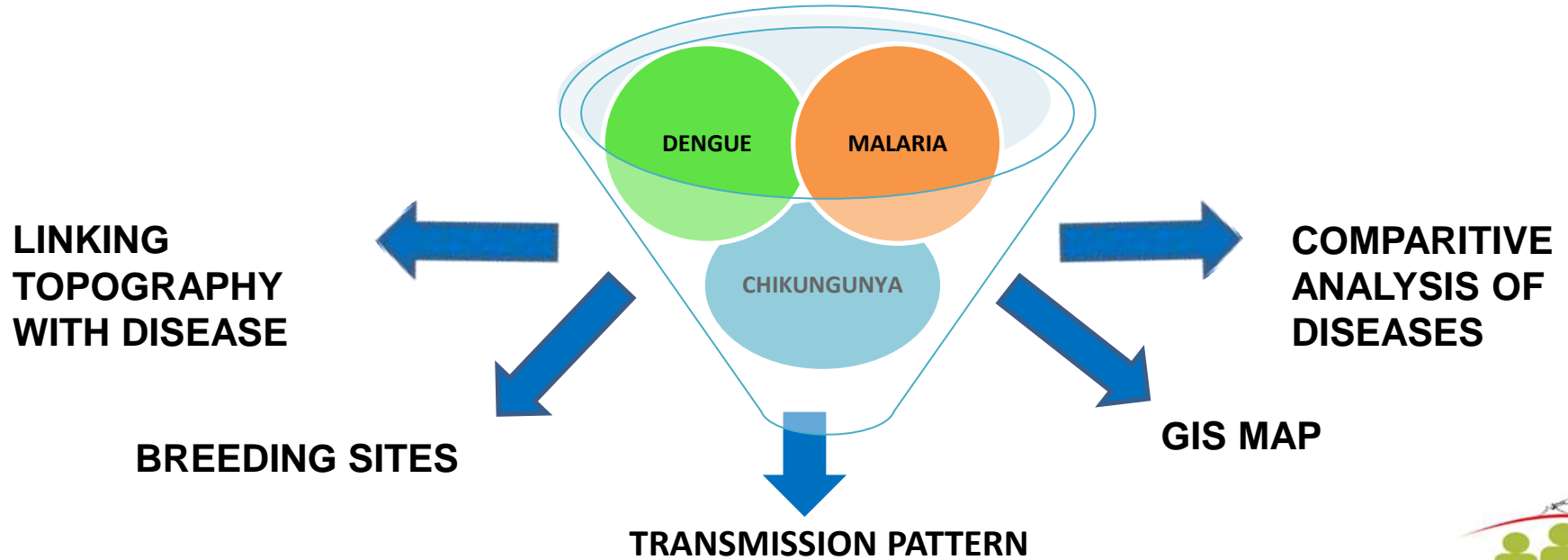
INTRODUCTION...

- It cannot only provide a platform for preparation of geospatial mode but by using other mathematical models, can be used for development of predictive model using various climatic and environmental factors.



- The linelisting of the diseases like Malaria, Chikungunya, Dengue was taken from state Headquarter, NVBDCP.
- GIS Mapping of diseases like Dengue, Malaria, Chikungunya, Hepatitis, Cholera and Seasonal Influenza was made using ARCGIS 10.x software.
- Transmission pattern of disease was mapped.

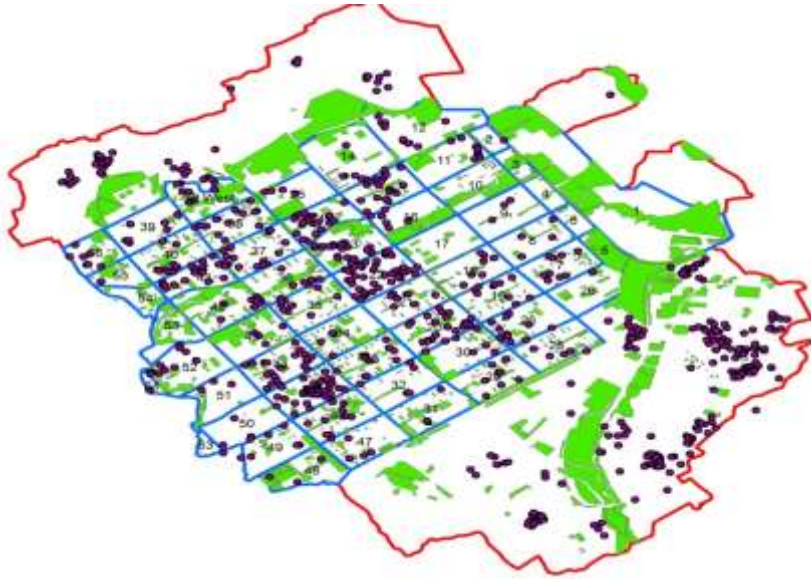




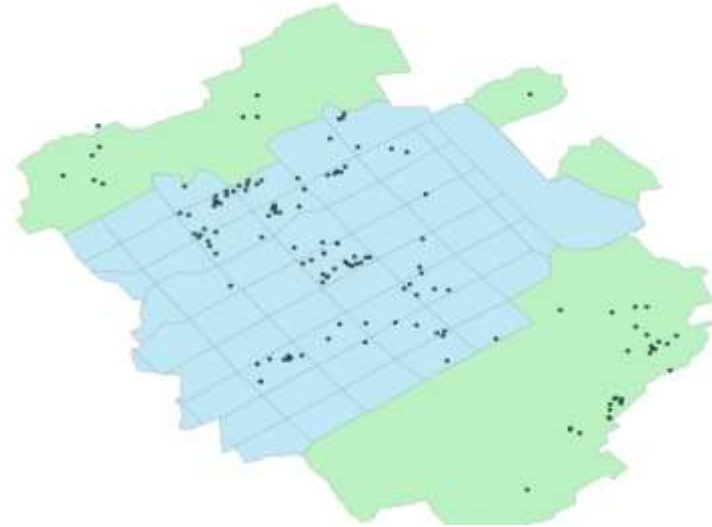
USE OF GIS IN VECTOR BORNE DISEASES



GIS MAP



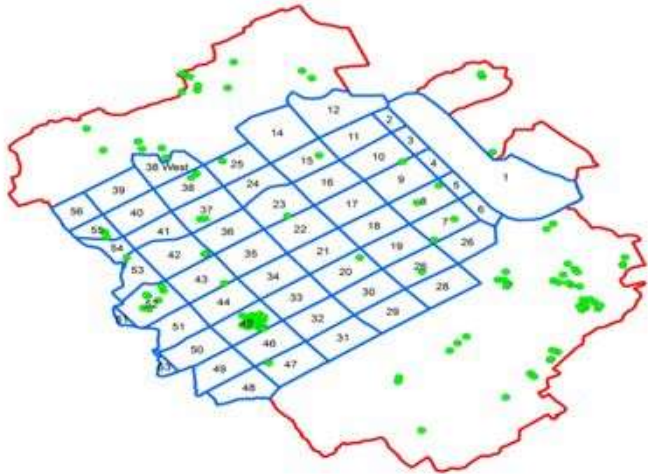
DENGUE



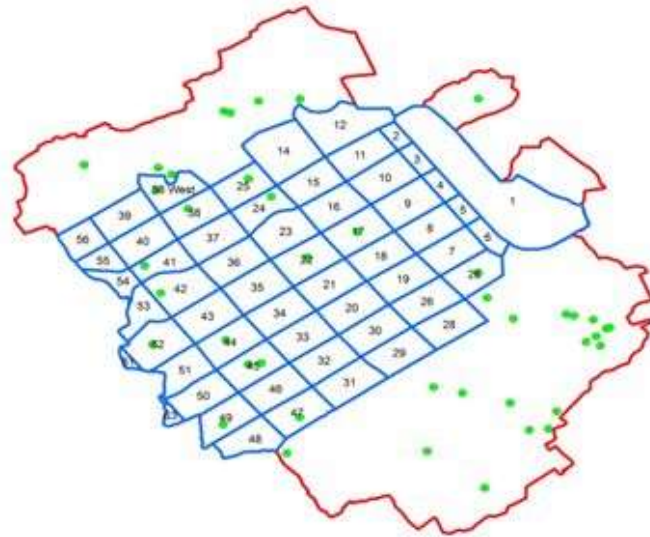
CHIKUNGUNYA



COMPARATIVE ANALYSIS OF DISEASE ACROSS YEARS

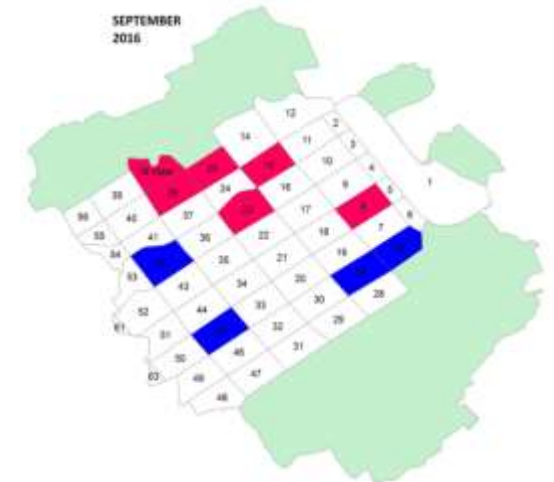
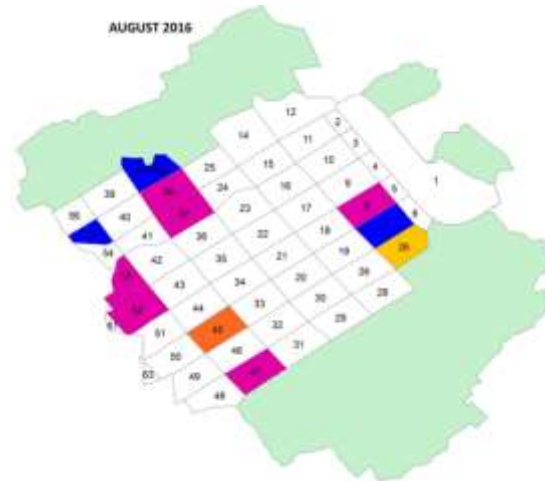
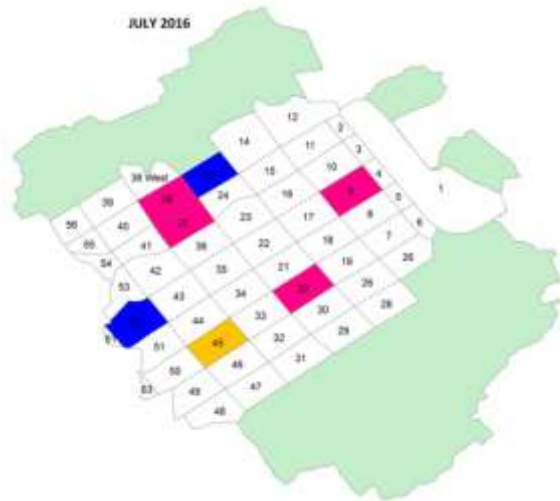


MALARIA CASES 2016



MALARIA CASES 2015

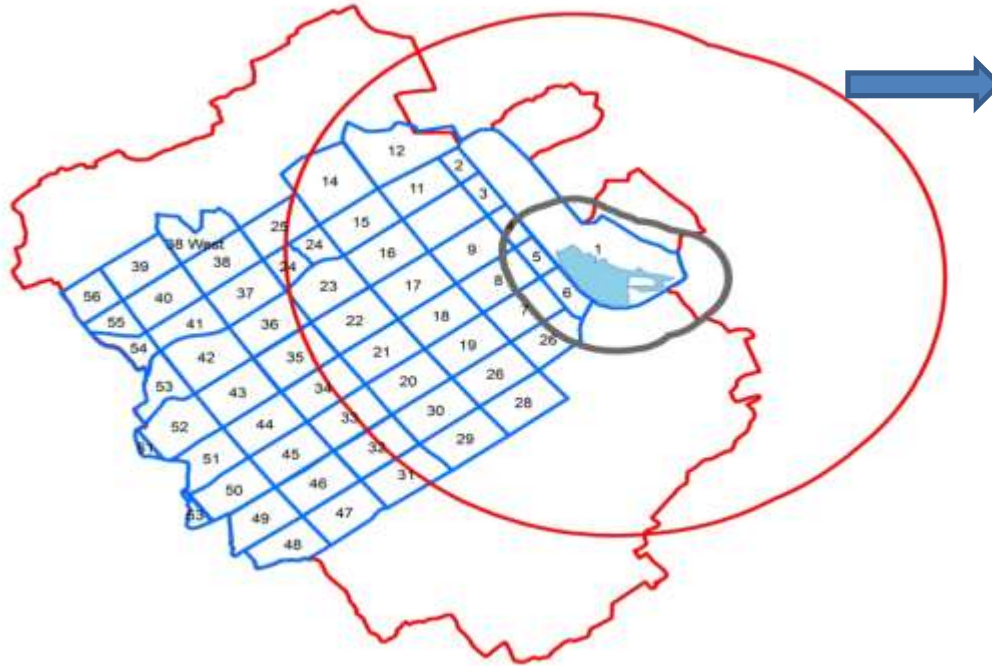
DISEASE TRANSMISSION



MALARIA TRANSMISSION IN 2016

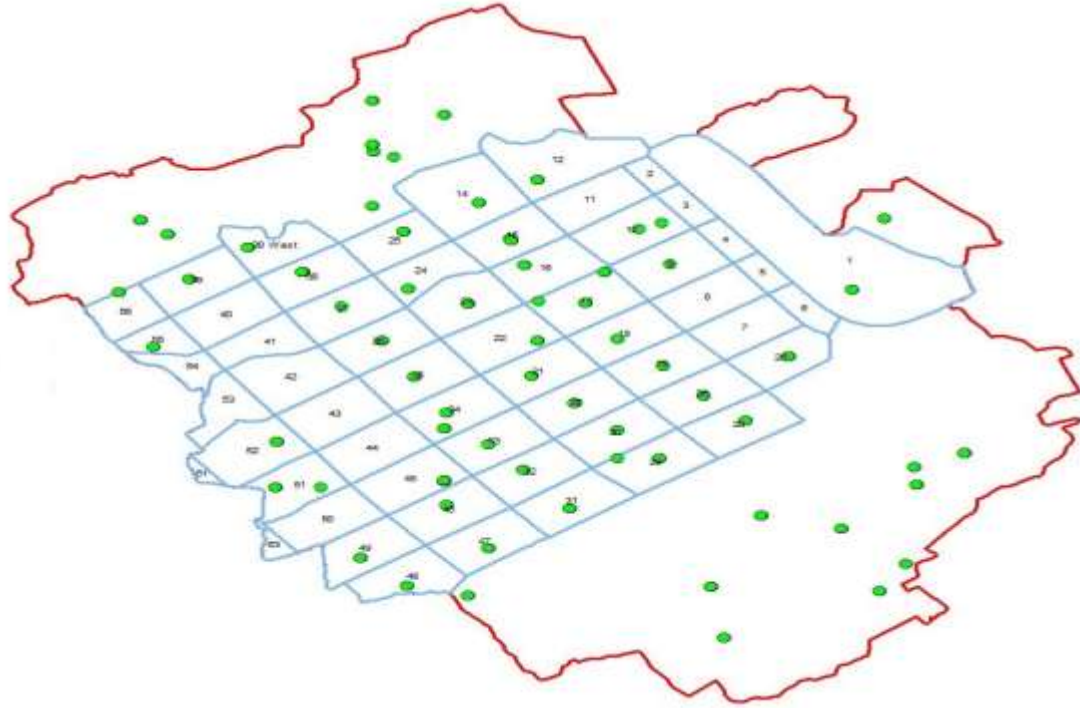


IDENTIFICATION OF BUFFER ZONE

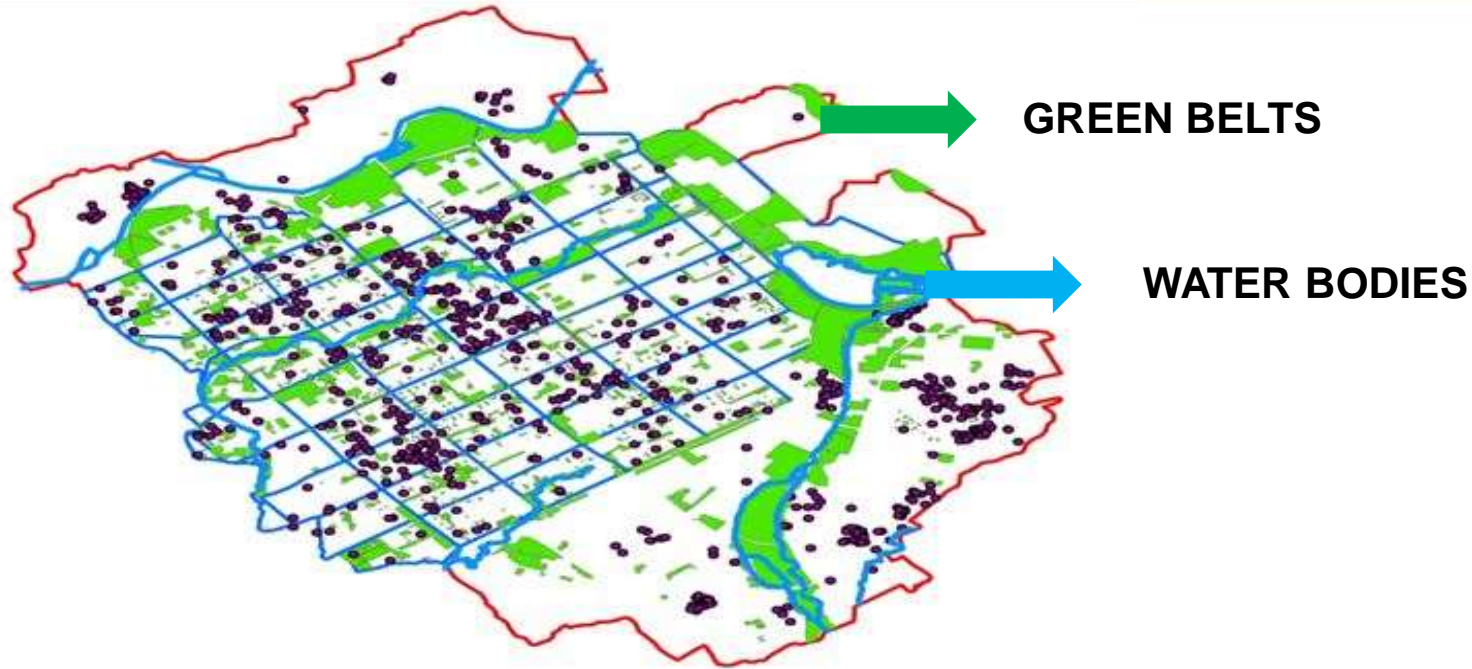


Buffer zone for
Avian influenza

Mapping of breeding points

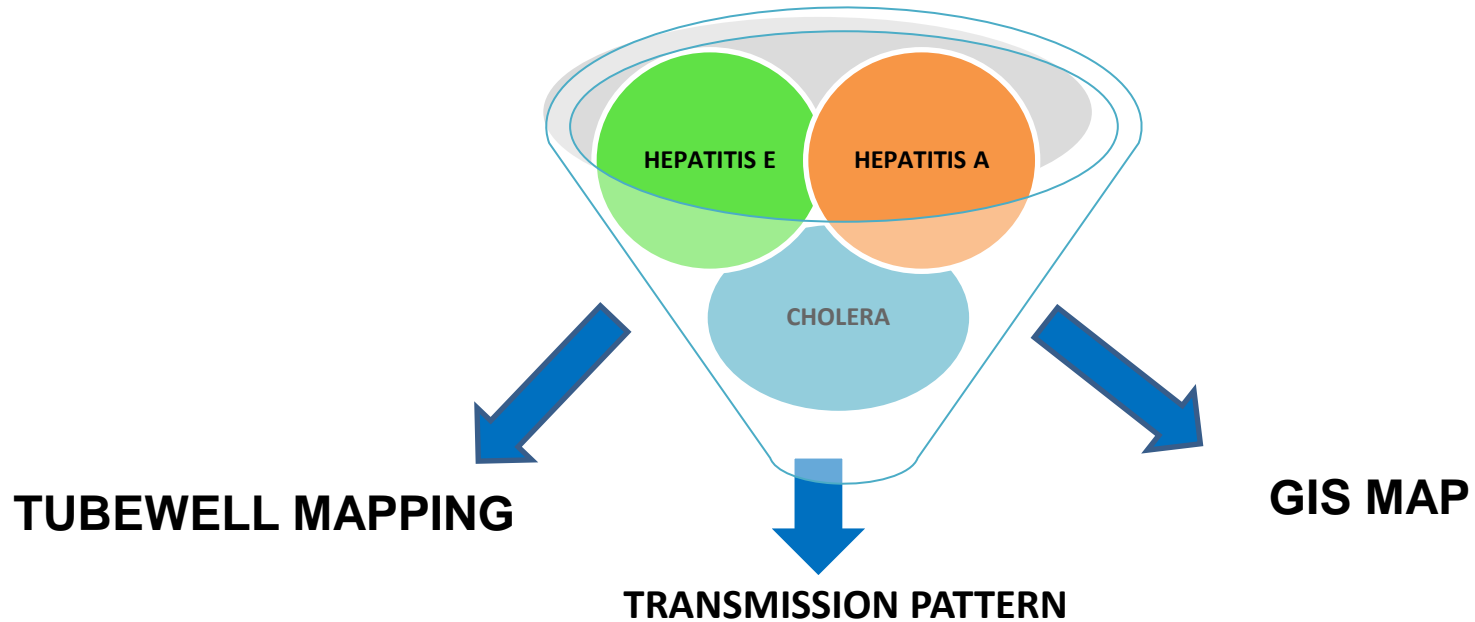


LINKAGES OF DISEASES WITH TOPOGRAPHY



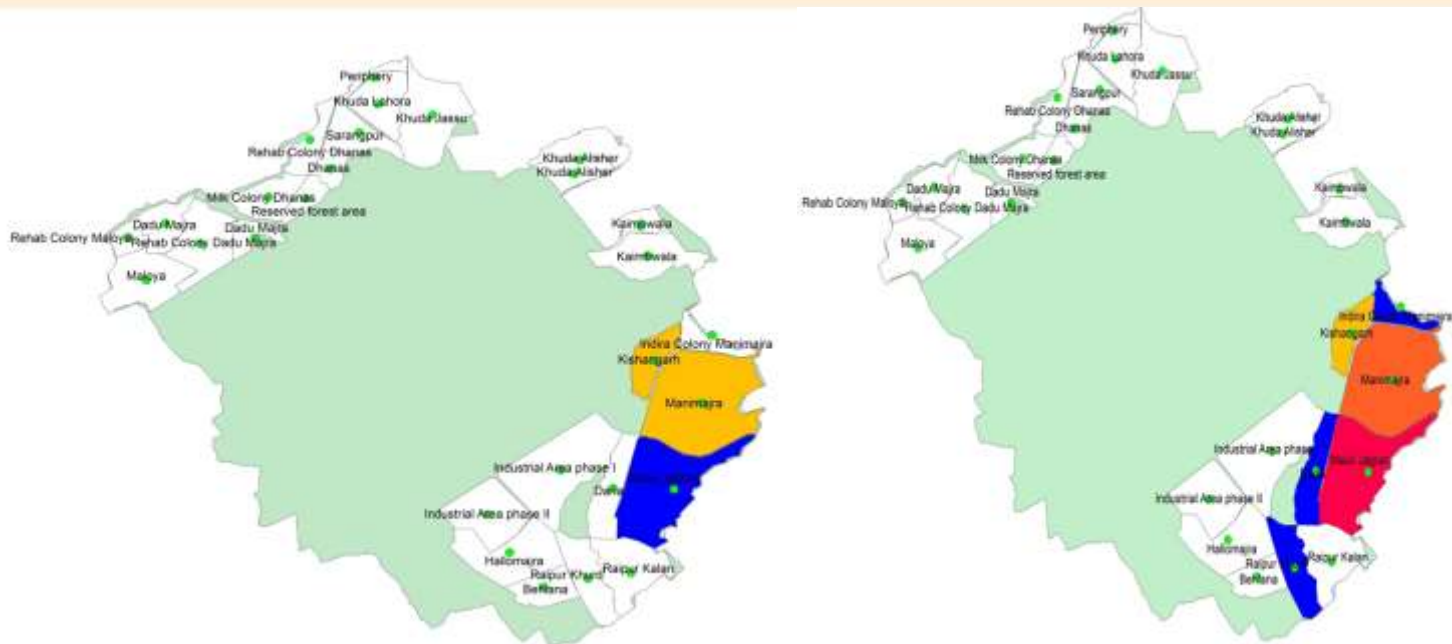
DENGUE CASES IN 2016

RESULTS....



USE OF GIS IN WATER BORNE DISEASES

TRANSMISSION



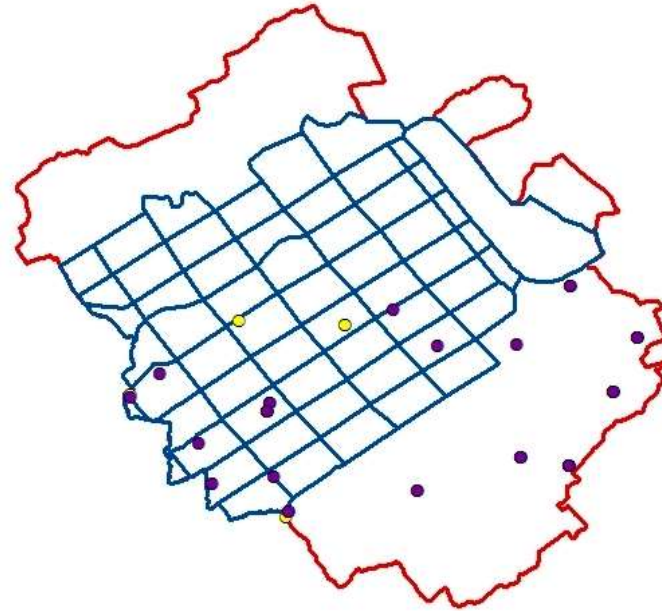
TRANSMISSION PATTERN OF CHOLERA



CHOLERA



HEPATITIS



IMPLICATIONS

- Various airborne, water borne and vector borne diseases can be predicted in advance which can help policy makers to effectively plan out strategies for control of spread of diseases especially in case of Vector borne diseases.
- Geospatial modelling of diseases can led to robust application of analytics to track the geographical distribution and transmission pattern of disease.



IMPLICATIONS....

- More precise disease tracking can also illuminate causes and spark opportunities for prevention and control strategies.





 **THANKYOU**