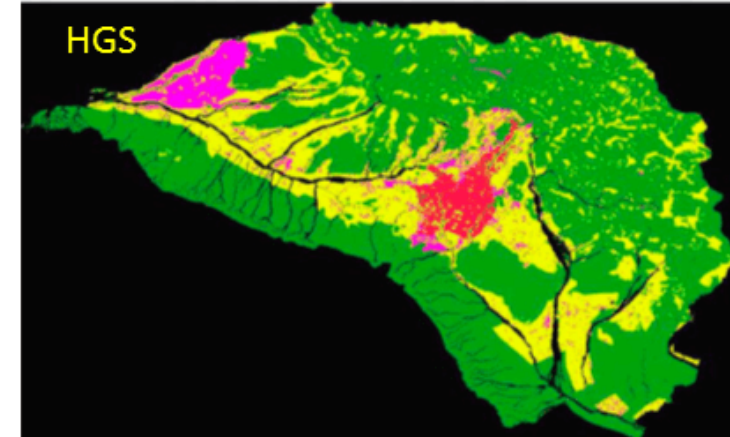
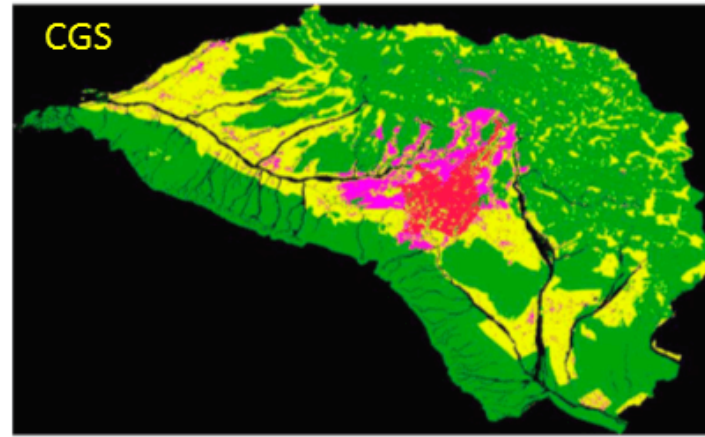
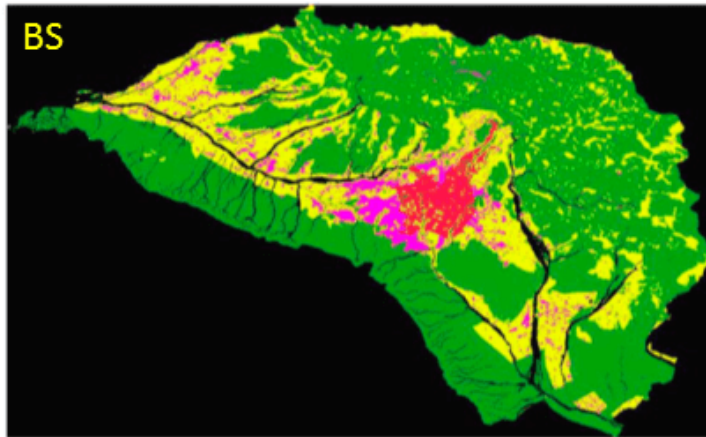
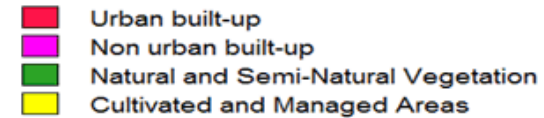


MODELING TEMPORAL & SPATIAL GROWTH OF CITIES



Simulated land cover for 2021 under BS, CGS and HGS using ANN based predictive model

	Cultivated and managed vegetation class PCM	Urban built-up class PCM	Non urban built-up class	Overall PCM
Model calibration for year 2005	98%	95.52%	93.07%	98%
Model validation for year 2009	85.43%	81.3 %	62.85 %.	81%



Model validation and calibration results in terms of Percent Correct Match (PCM)

Conclusions

- **Base line scenario (BS)** predicts urban growth under “business as usual” scenario. **No development is allowed within a user defined buffer zone of river channels.**
- **Compact growth scenario (CGS)** simulates urban growth if a policy of high density nucleated growth is pursued. **Future development will occur in the west and south direction of existing development.**
- **Hierarchical growth scenario (HGS)** simulates urban growth process if a multi-nucleated growth is promoted, this will **result in a hierarchy of urban settlements with the most prominent urban centre coming up in west of the study area.**