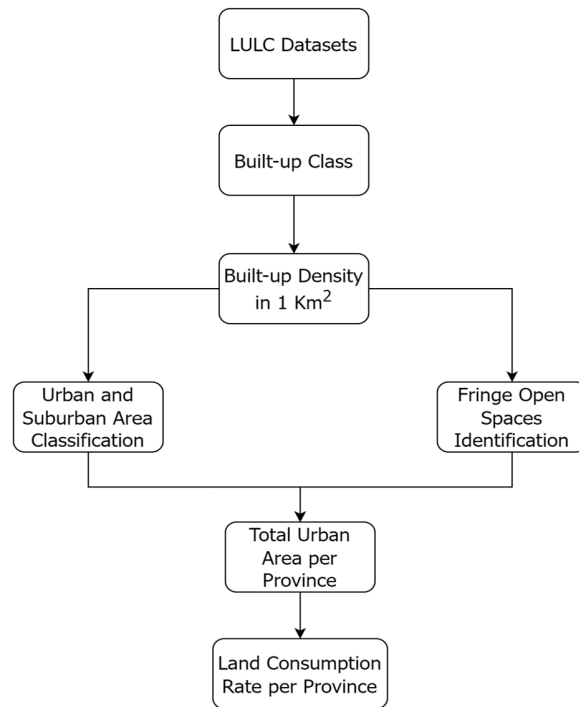
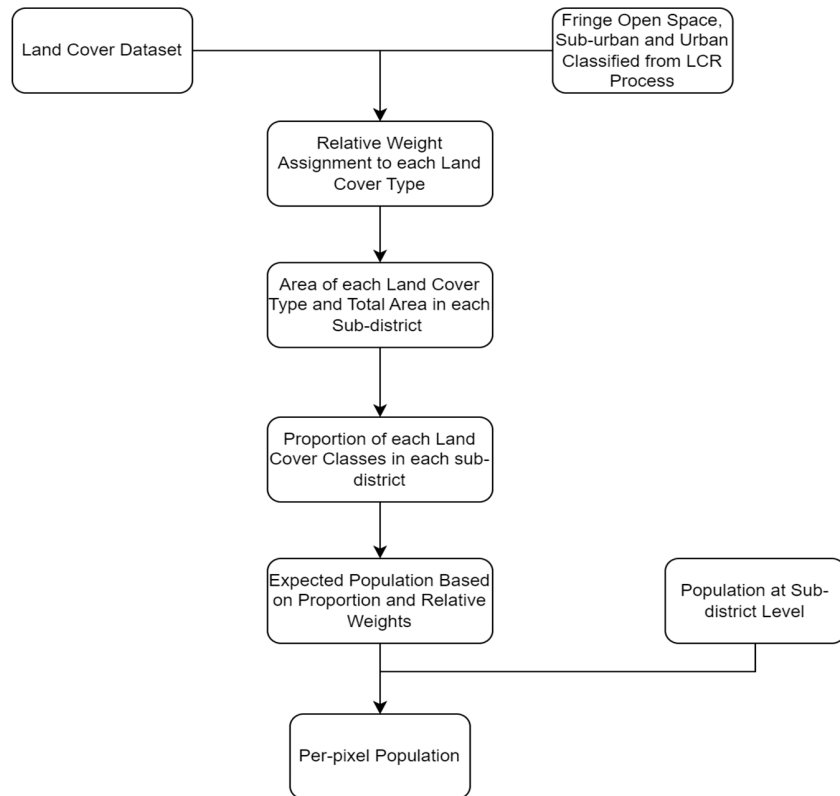


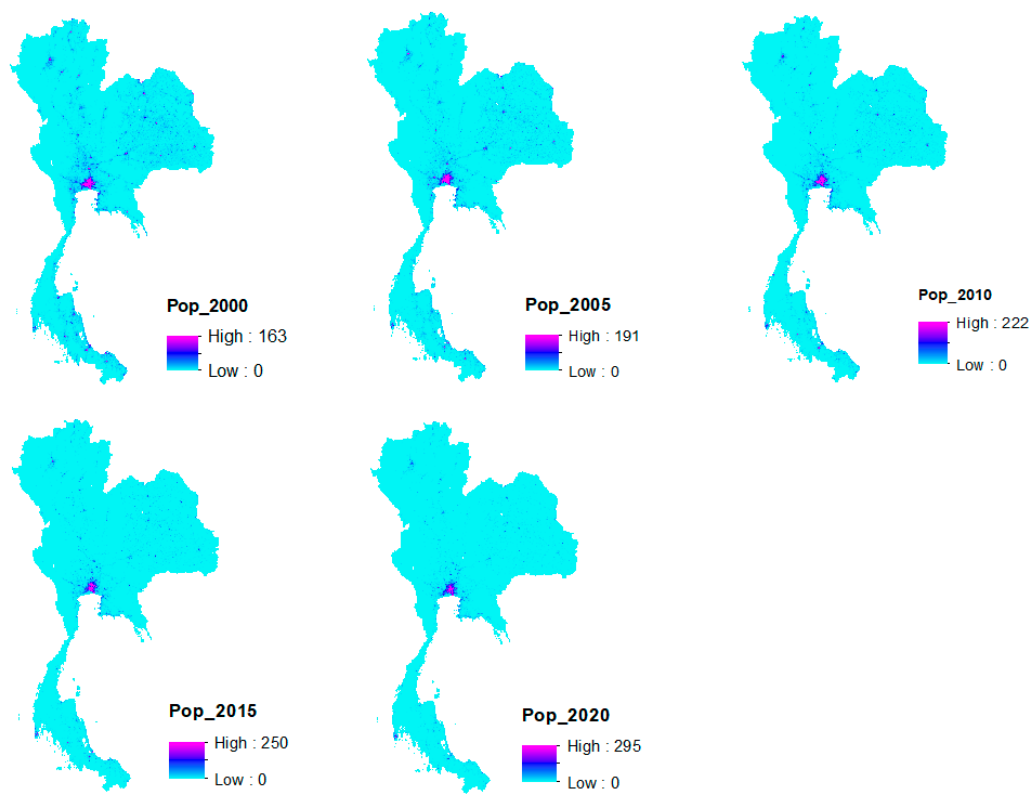
## Supplementary Information



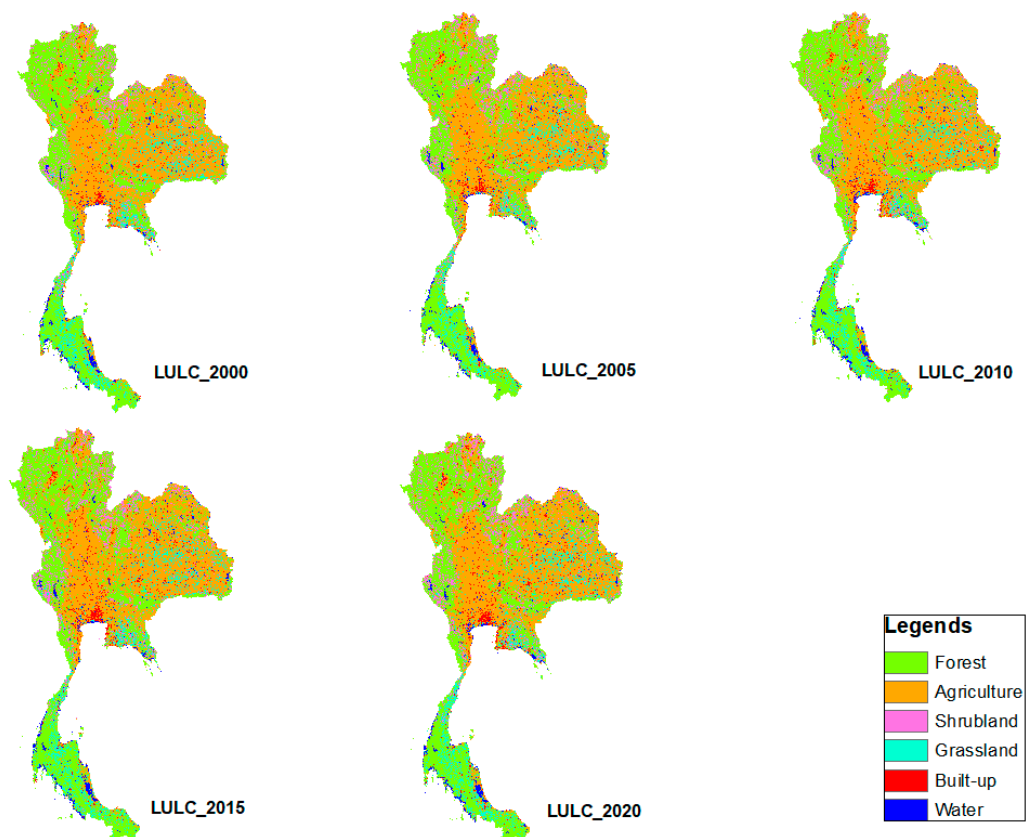
**Figure S1** Workflow of LCR calculation



**Figure S2** Workflow of PGR calculation of the study



**Figure S3.** Population distribution of Thailand at pixel level using relative weights



**Figure S4.** LULC maps of Thailand for the years 2000, 2005, 2010, 2015 and 2020.

**Table S1** Details on data sets used in the study

Dataset	Source	Data Type	Spatial Resolution
Global Land Cover Fine Classification System	Aerospace Information Research Institute, Chinese Academy of Sciences <a href="https://data.casearth.cn/thematic/glc_fcs30">https://data.casearth.cn/thematic/glc_fcs30</a> (accessed on 22 April 2023).	Raster	30 meters
Thailand administrative Boundary	Survey Department of Thailand	Vector	Whole kingdom
Population	<a href="http://statbbi.nso.go.th/staticreport/page/sector/en/01.aspx">http://statbbi.nso.go.th/staticreport/page/sector/en/01.aspx</a> (accessed on 22 April 2023)	.Xlx	Provincial and sub-districts

**Table S2.** Assignments of relative weights in different land classes

S.N.	Land Cover Class	Relative Weight ( <i>R<sub>w</sub></i> )
1	Rural Area	5
2	Fringe open space	10
3	Sub-urban	15
4	Urban	60
5	Agricultural land	5
6	Natural (Forest, bare, herbaceous etc.)	5
7	Water bodies	0

**Table S3** Significance test for the correlation between LCR and PGR

<b>Studied Years (LCR vs PGR)</b>	<b>Pearson's <math>r</math></b>
2000 ~ 2005	0.38
2005 ~ 2010	0.56
2010 ~ 2015	0.33
2015 ~ 2020	0.15