

# 1      **Supplementary information**

## 2      **Supplementary Notes**

3      The time series urban impervious surface mapping results of all cities are provided.

4      Abbreviations and indicators meanings:

5      Africa-AF; Asia-AS; Europe-EU; North America-NA; Oceania-OA; South America-SA

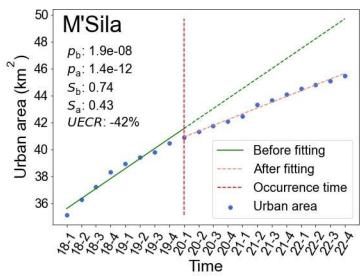
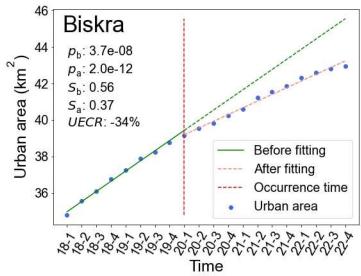
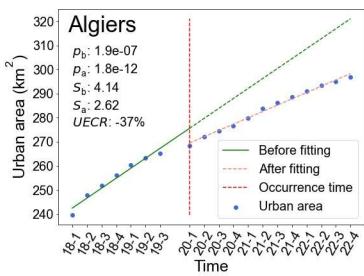
6       $p_b$ : The  $p$  value of the regression between urban area and time before the pandemic (2018-  
7      2019);

8       $p_a$ : The  $p$  value of the regression between urban area and time after the pandemic (2020-2022);

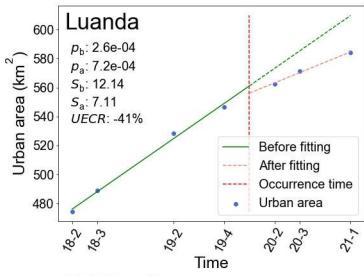
9       $S_b$ : The slope of the regression between urban area and time before the pandemic (2018-2019);

10      $S_a$ : The slope of the regression between urban area and time after the pandemic (2020-2022).

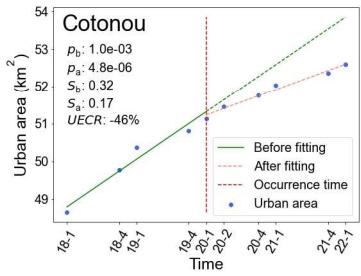
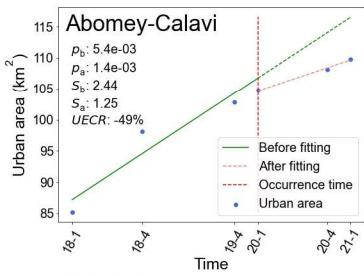
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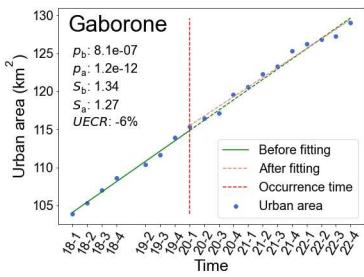
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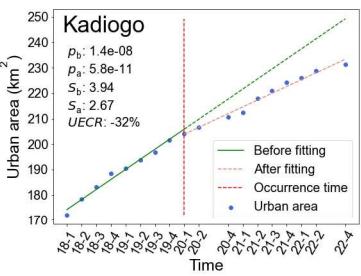
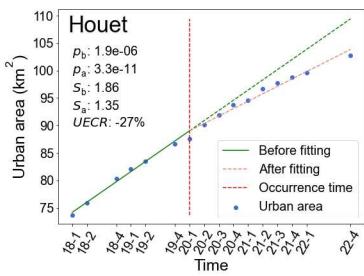
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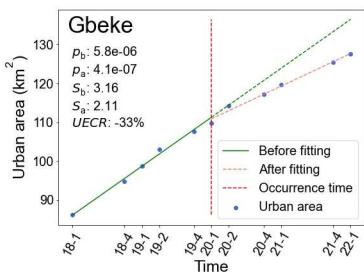
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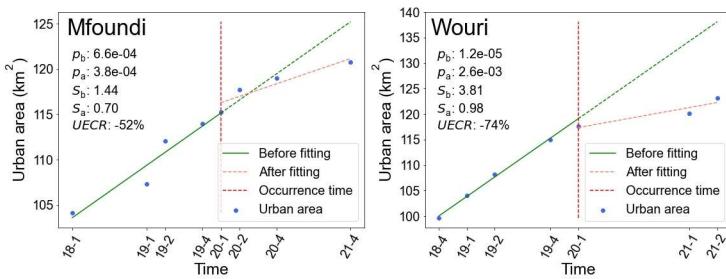
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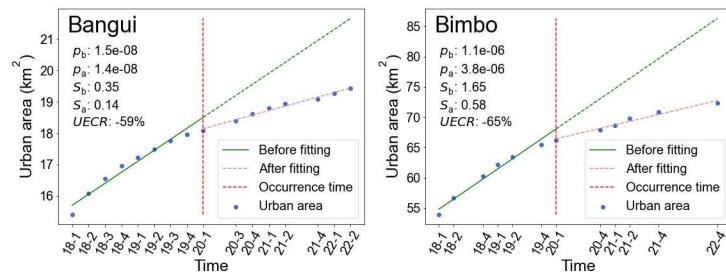
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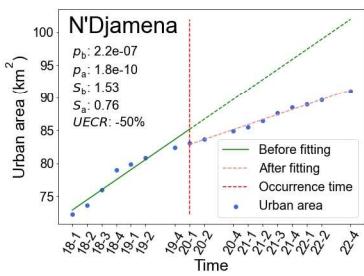
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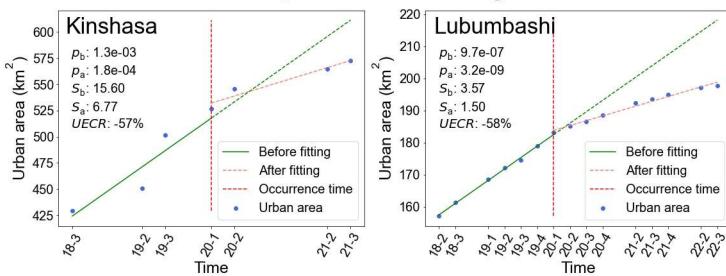
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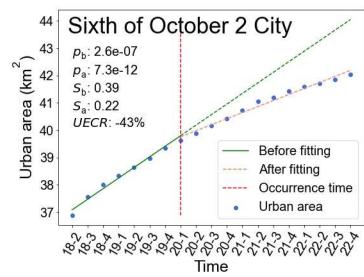
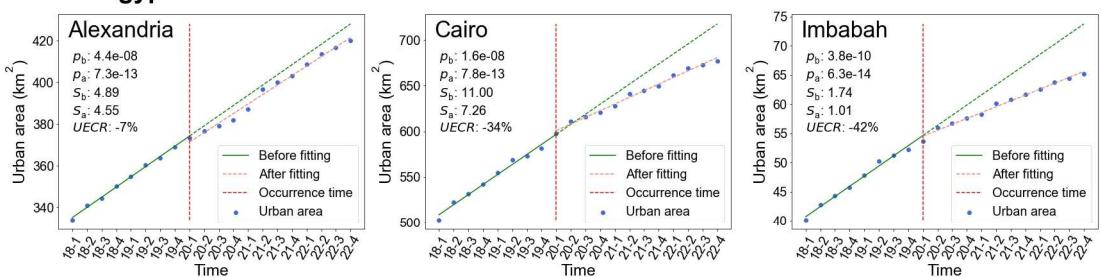
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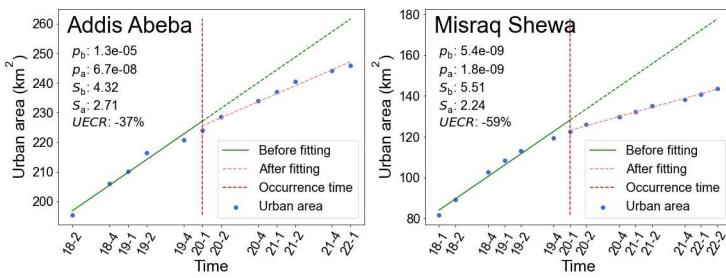
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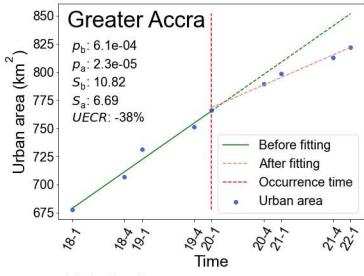
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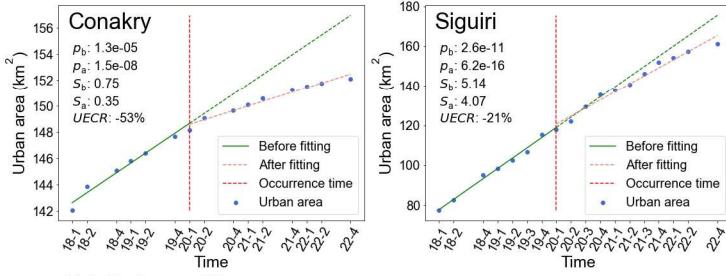
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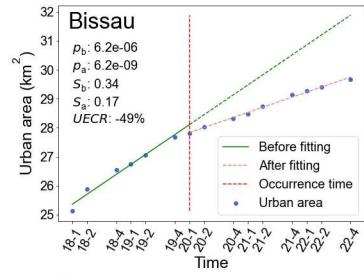
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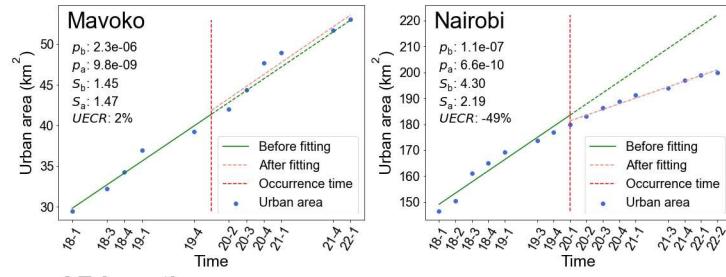
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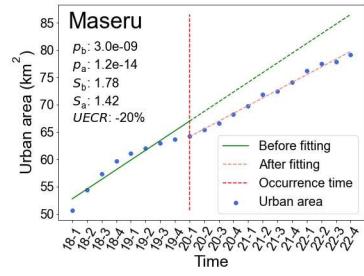
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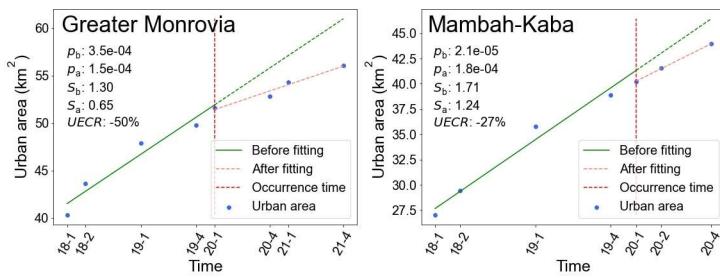
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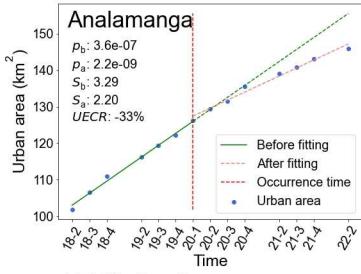
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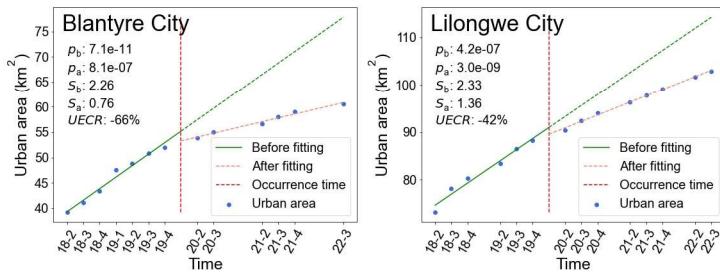
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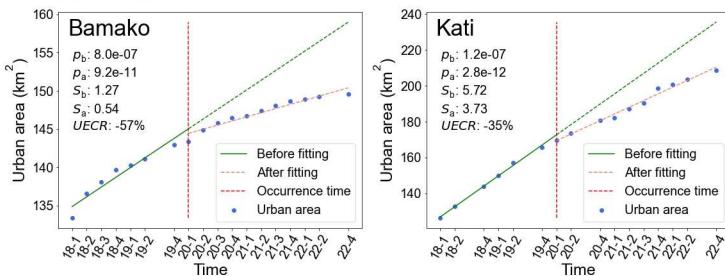
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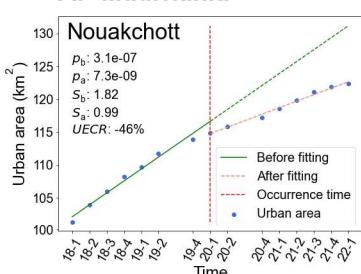
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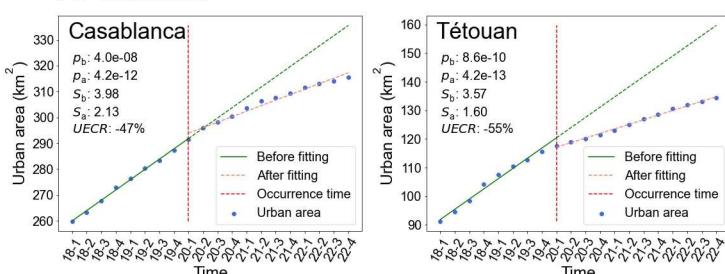
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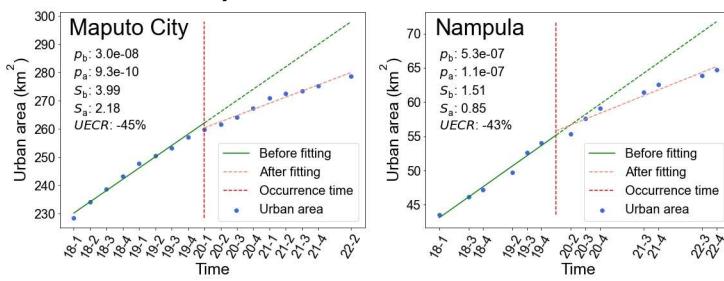
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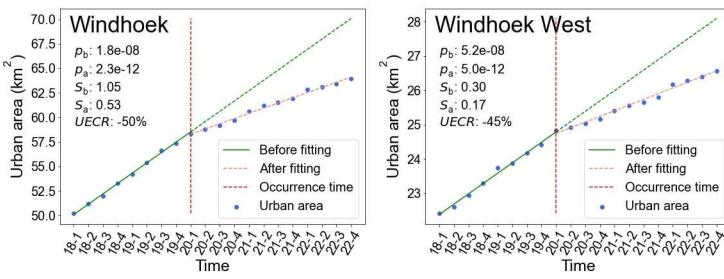
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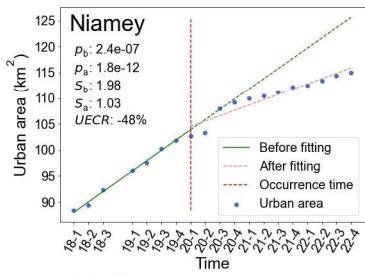
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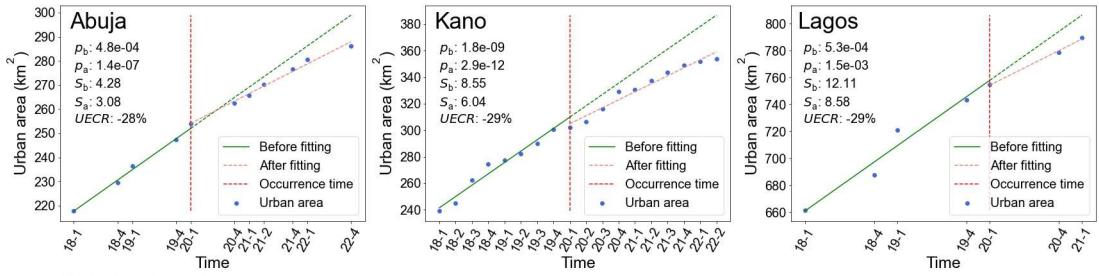
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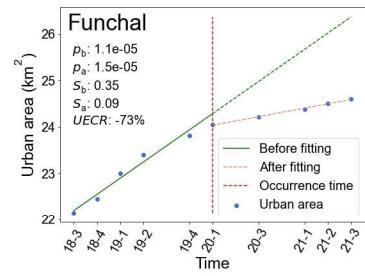
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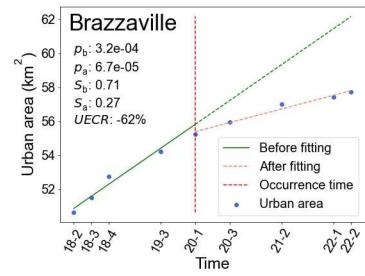
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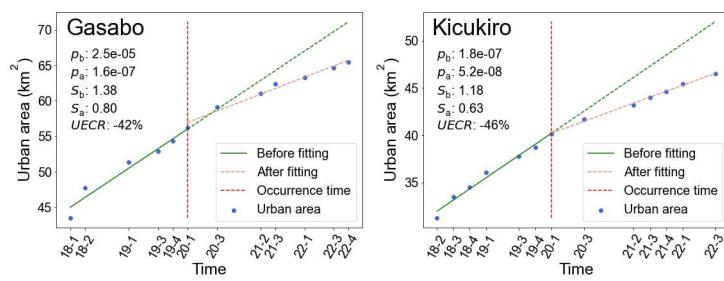
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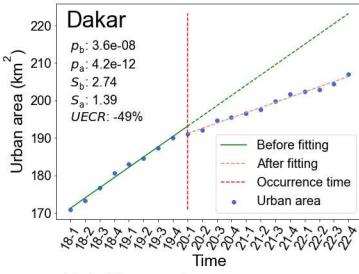
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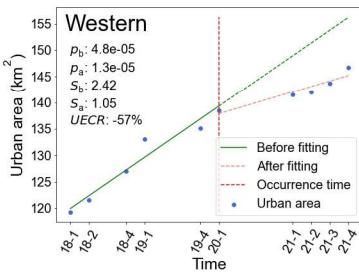
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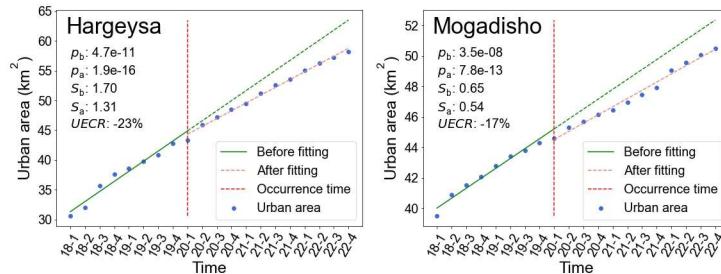
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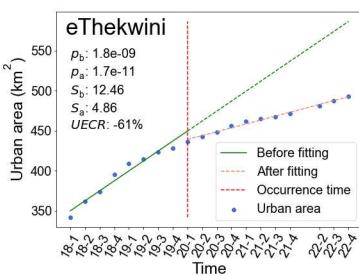
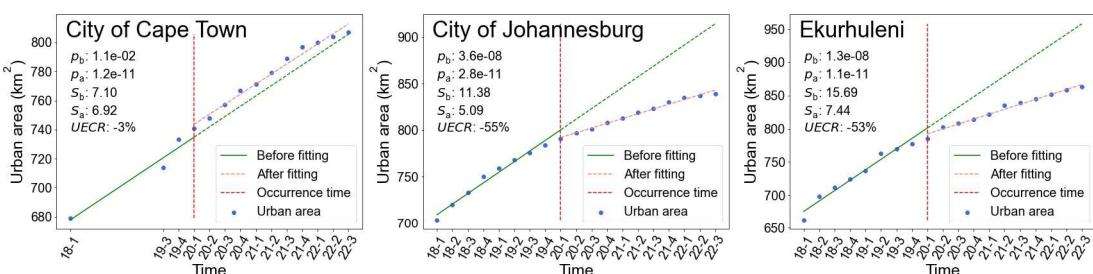
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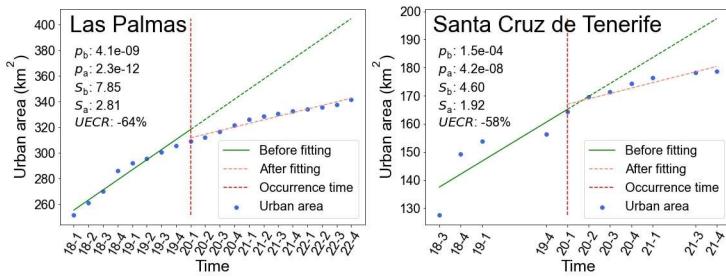
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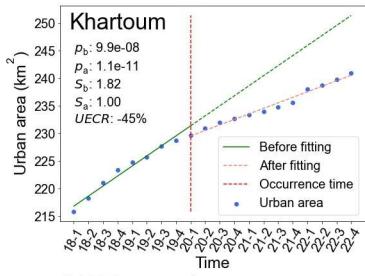
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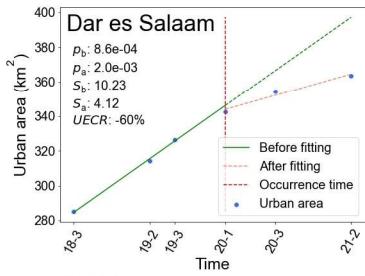
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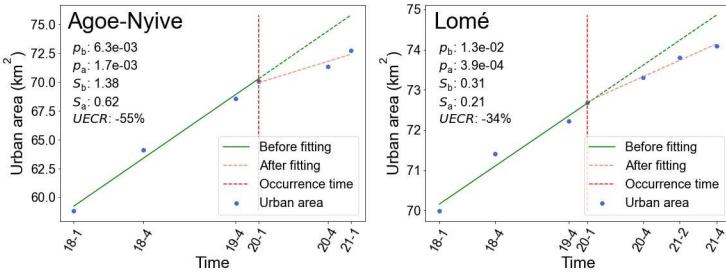
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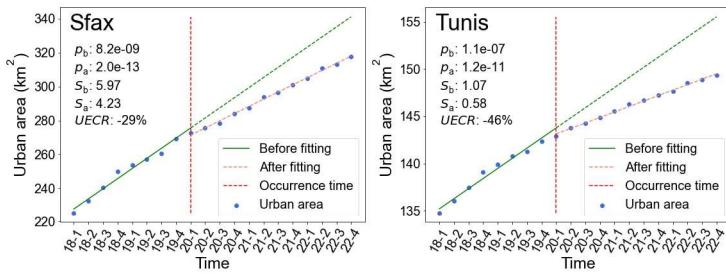
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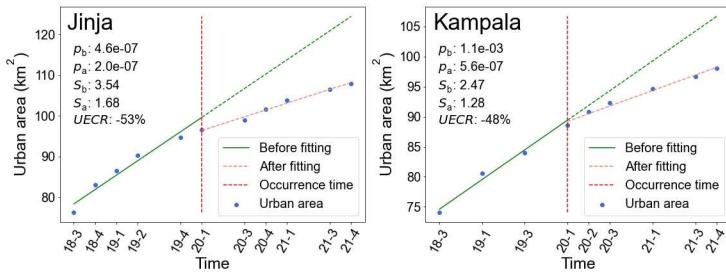
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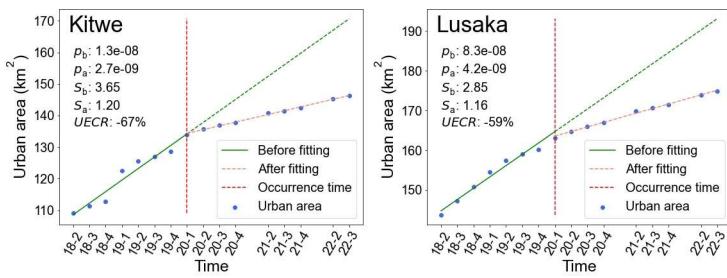
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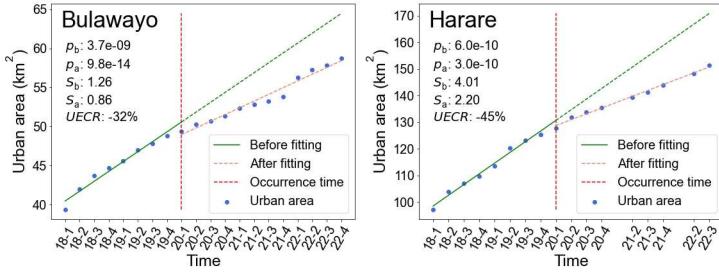
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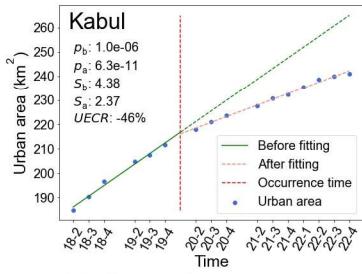
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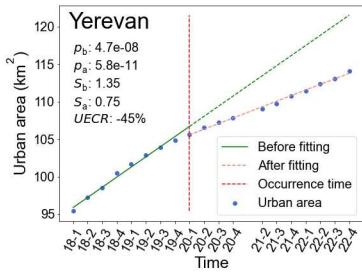
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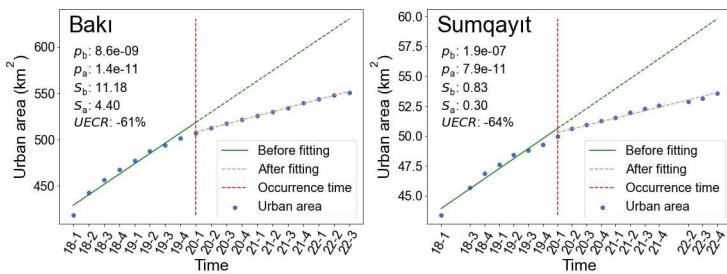
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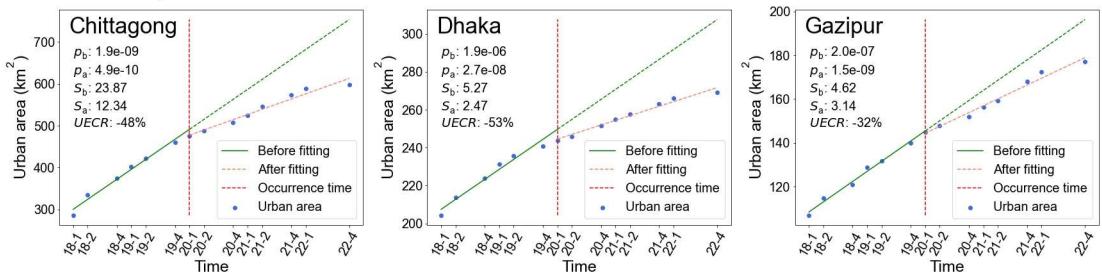
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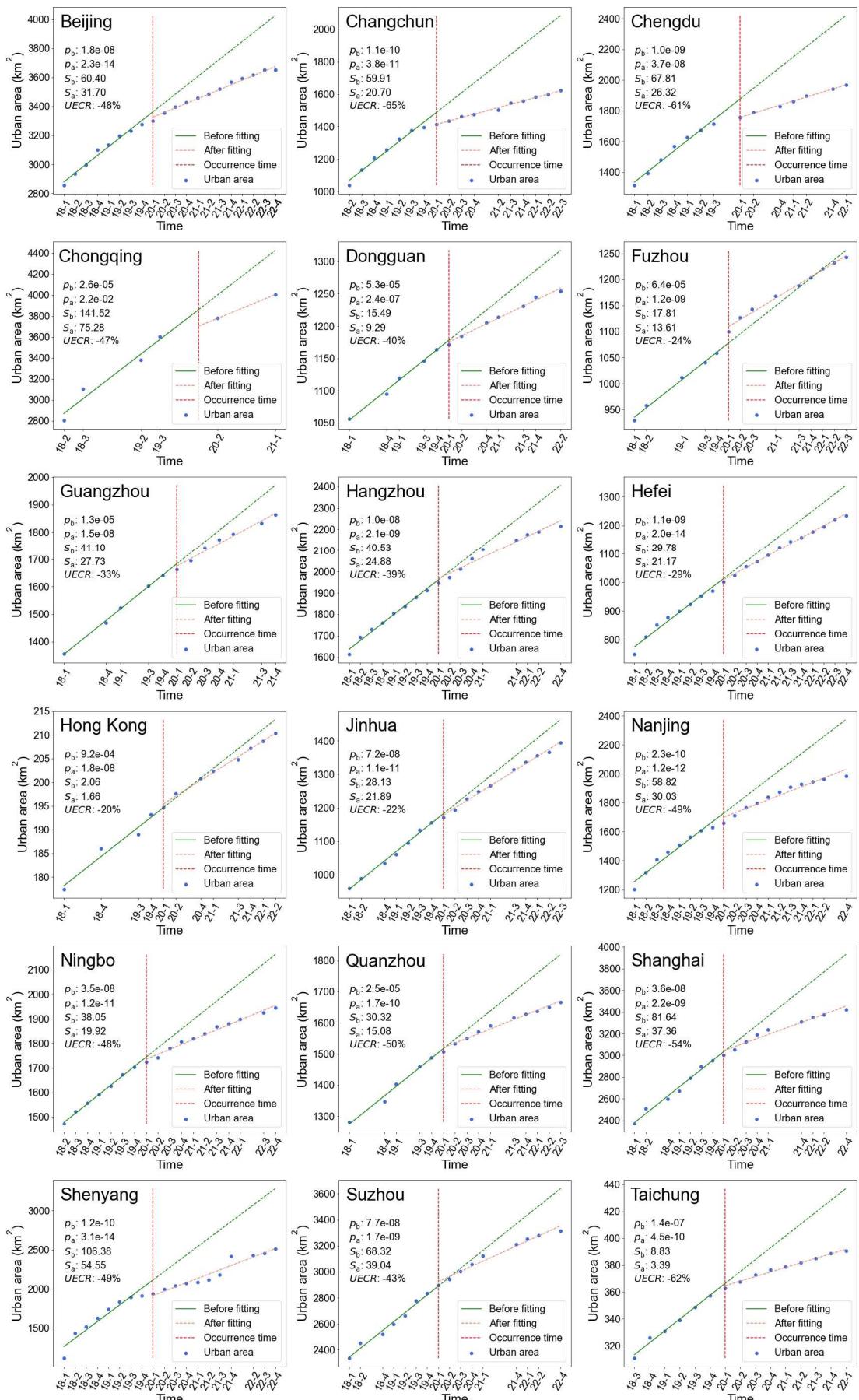
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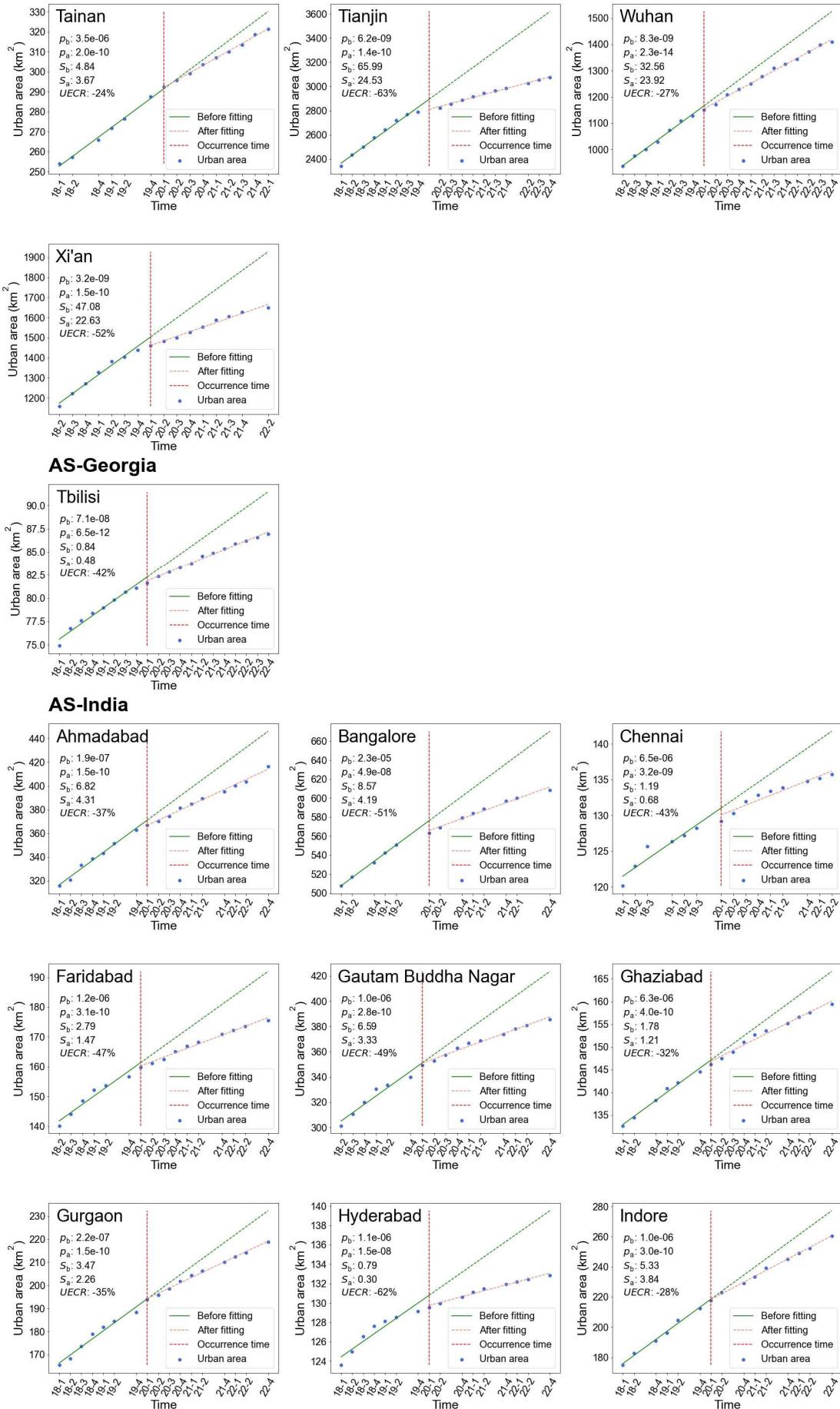


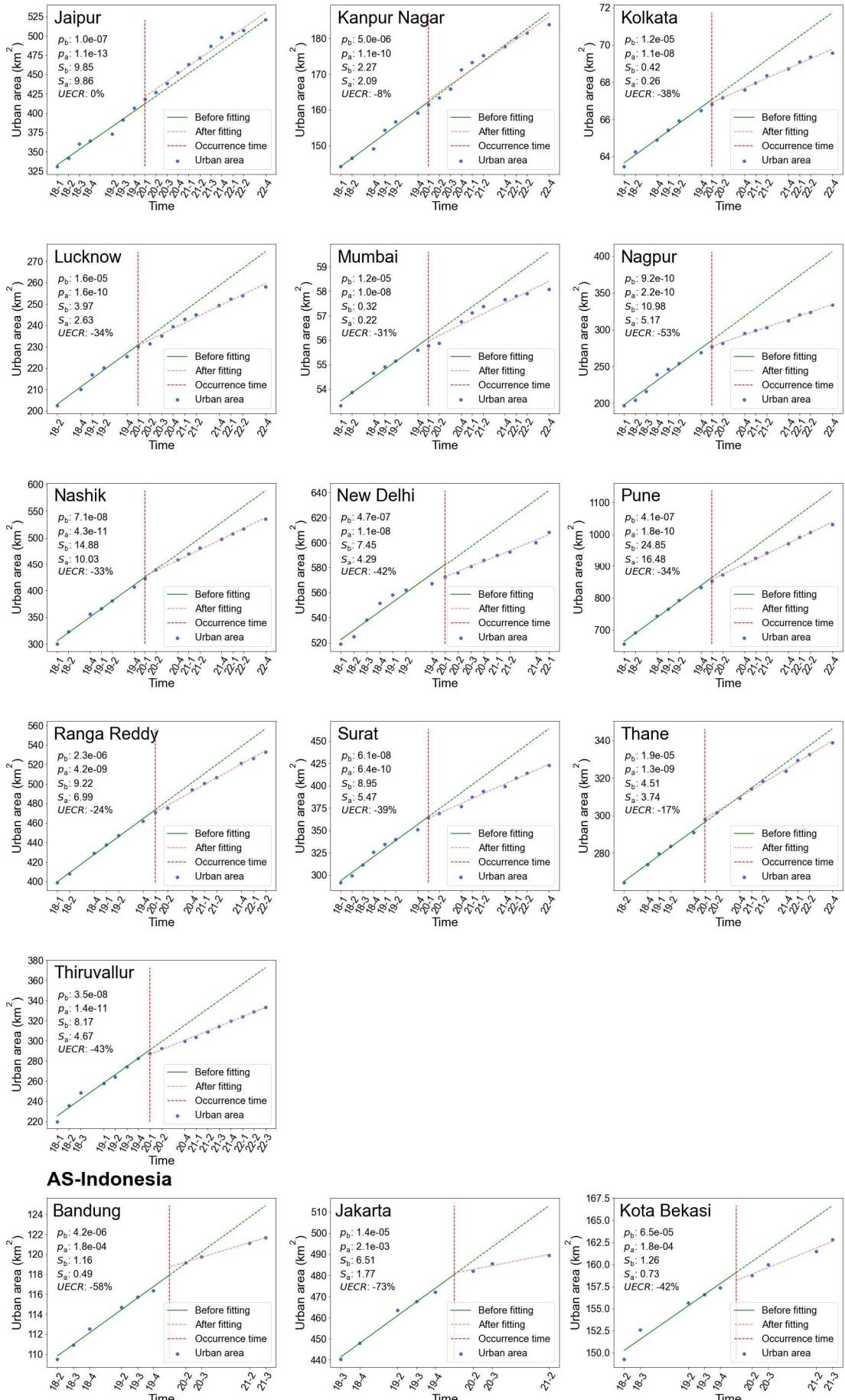
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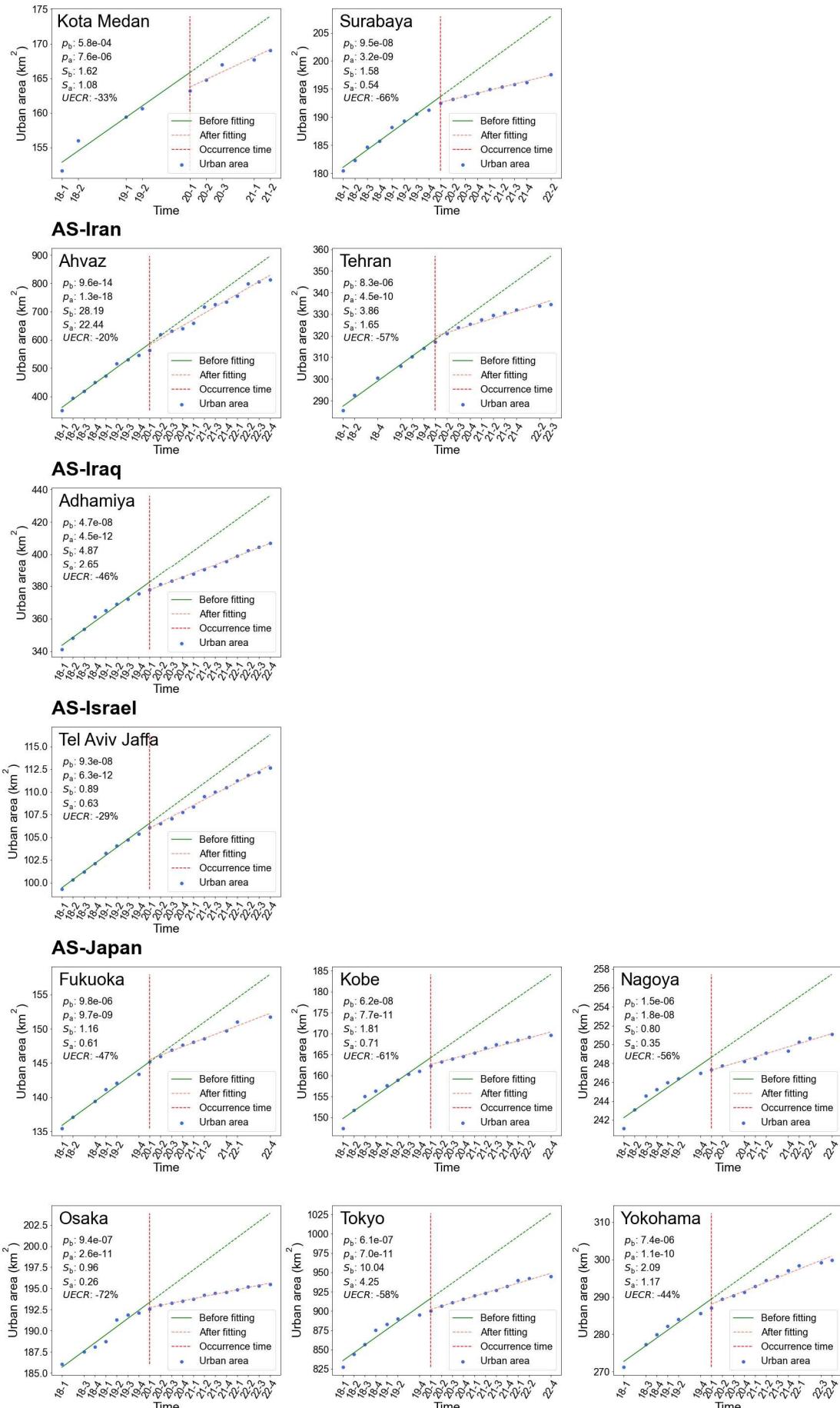


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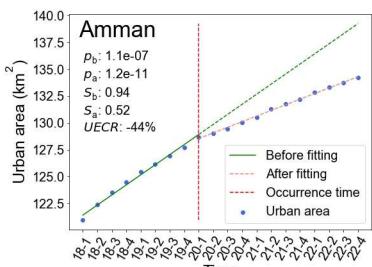




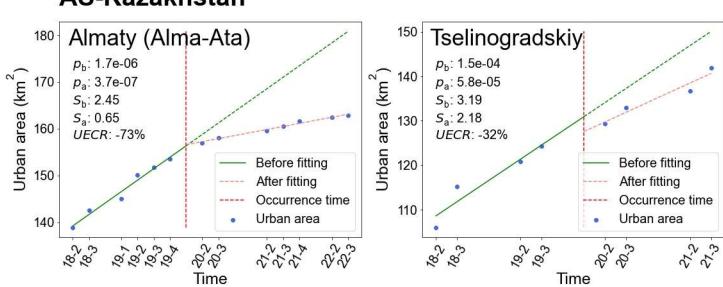




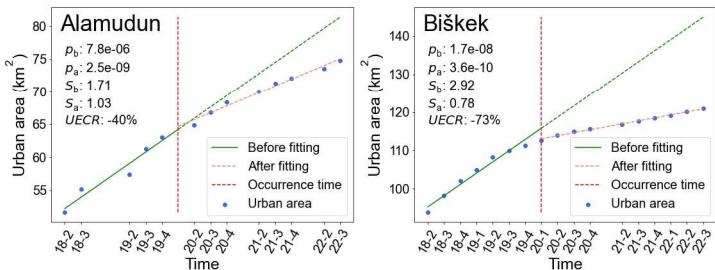
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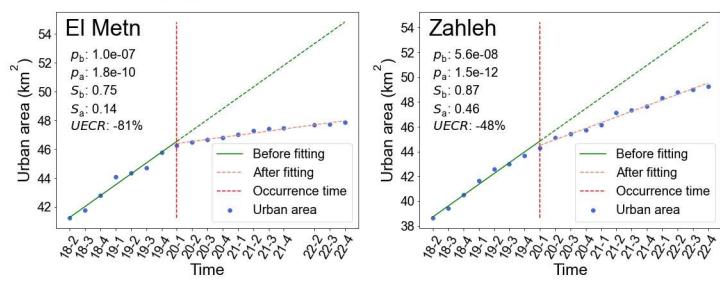
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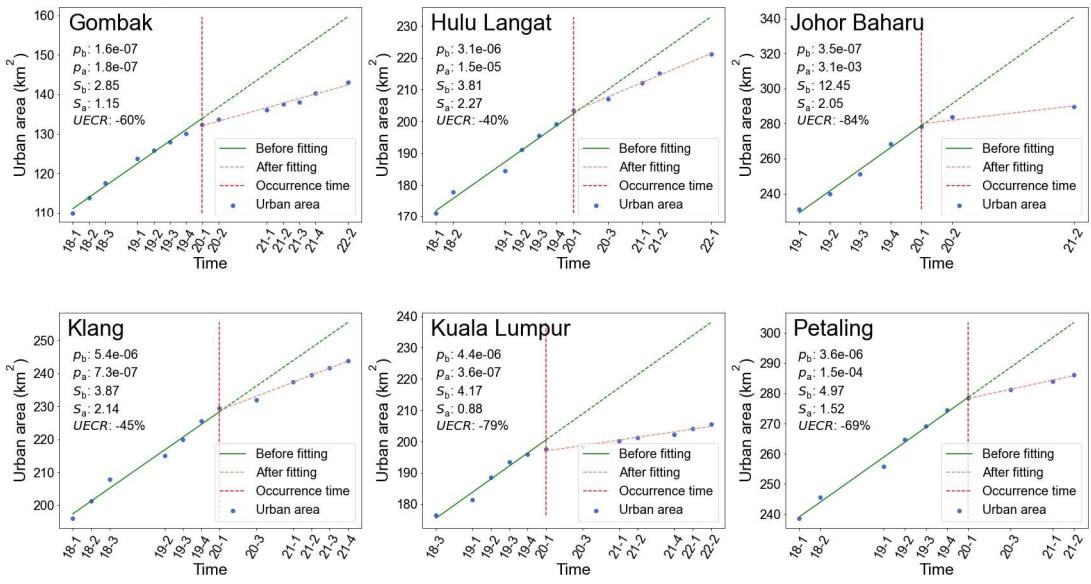
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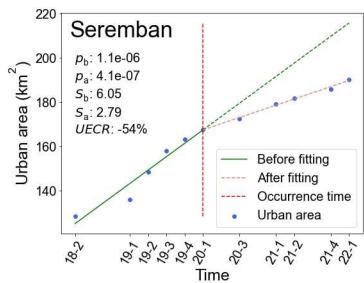


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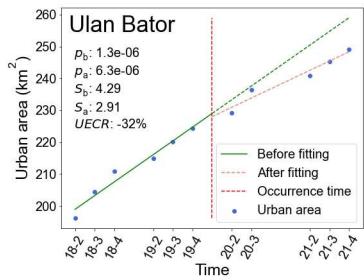


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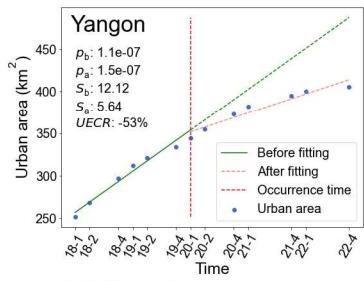




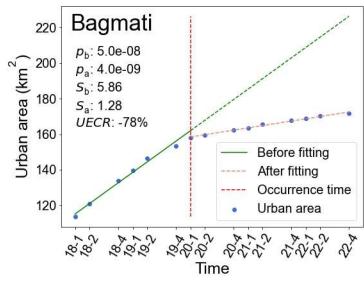
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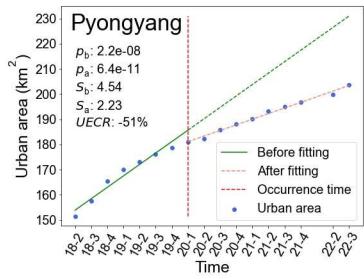
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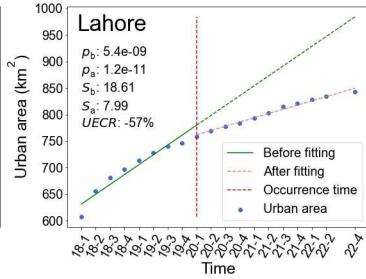
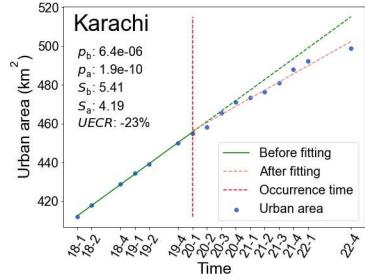
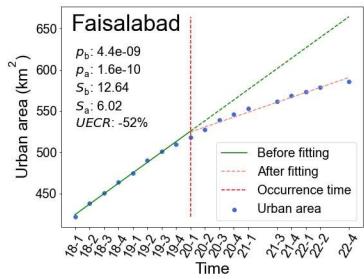
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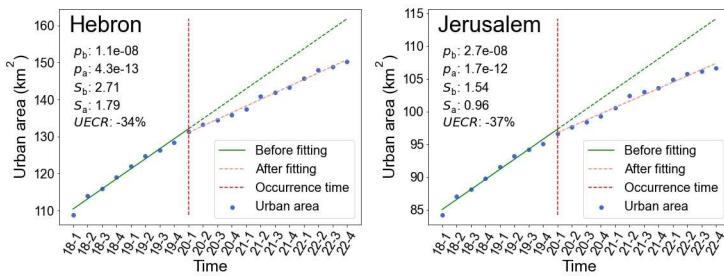
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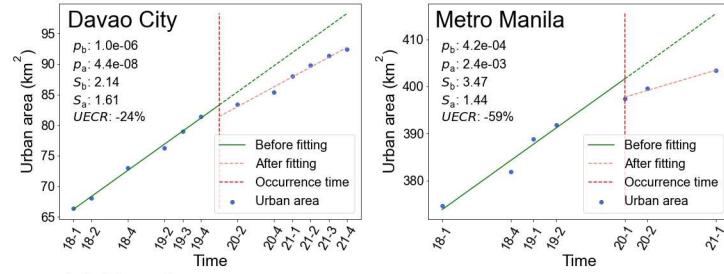
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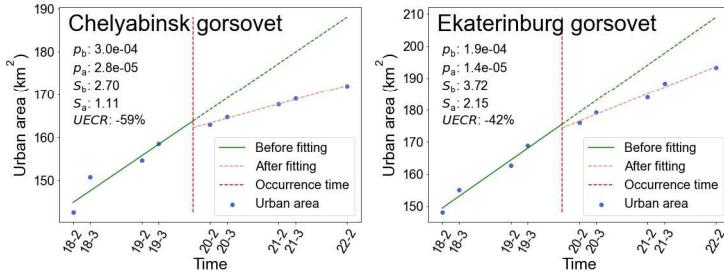
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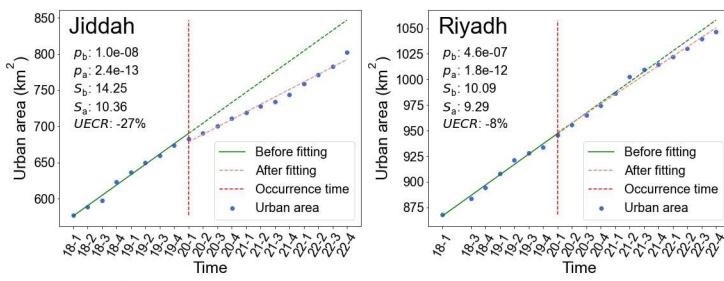
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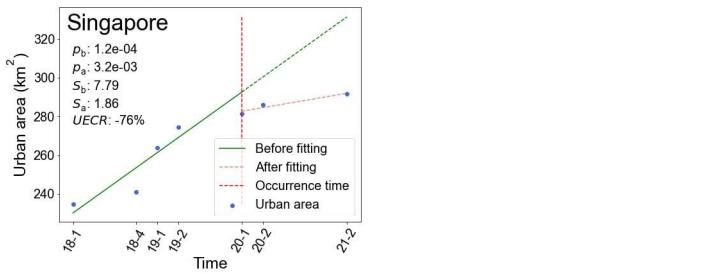
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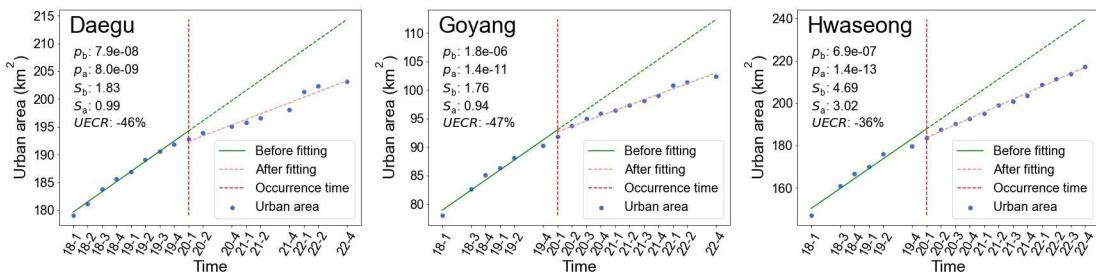
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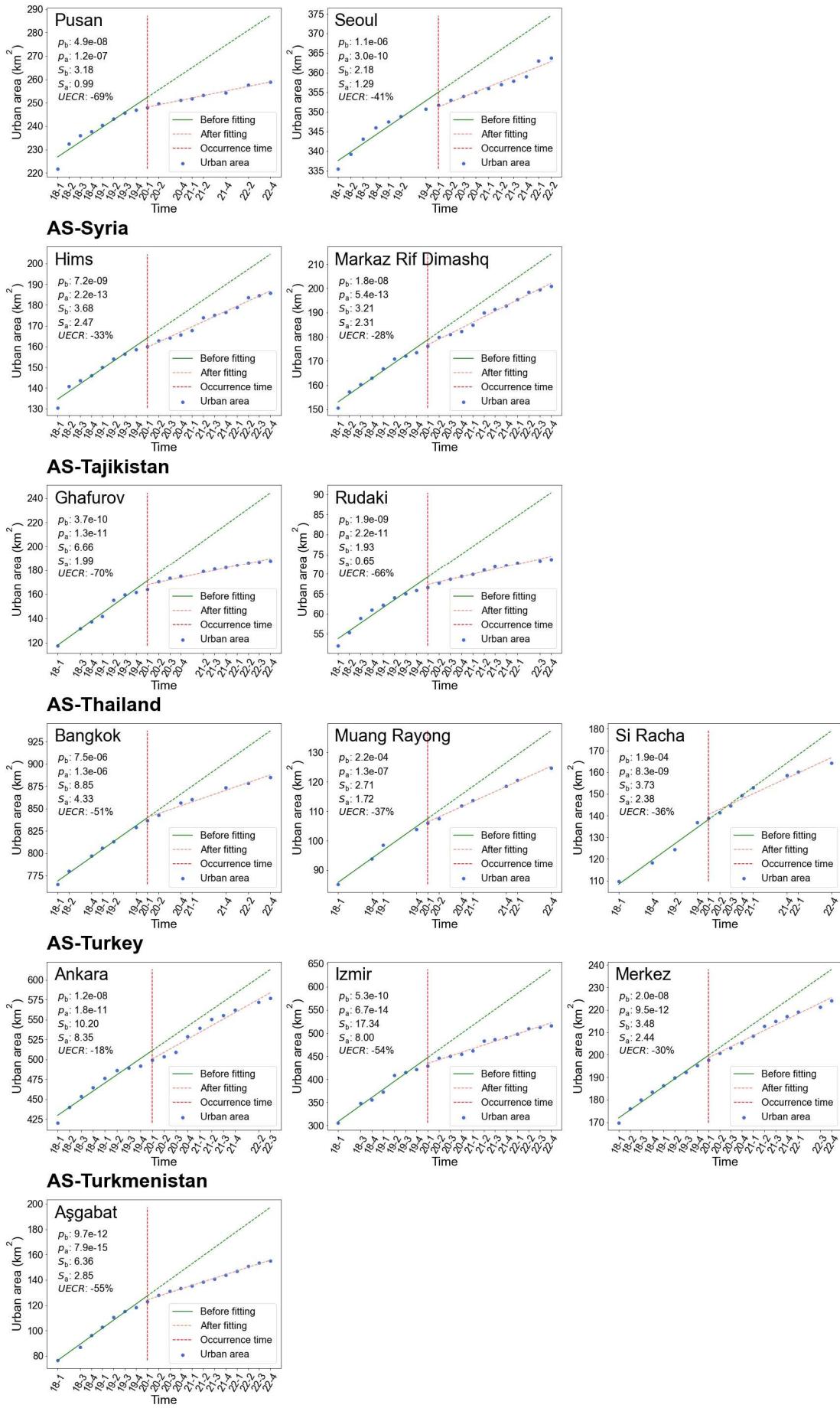


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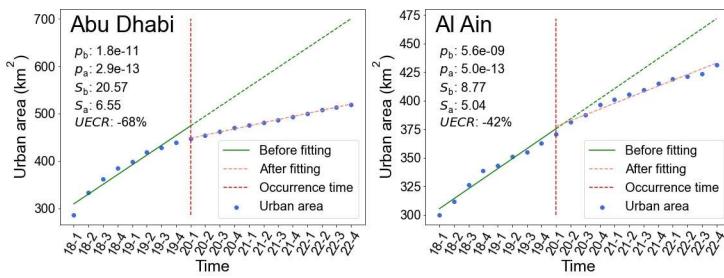


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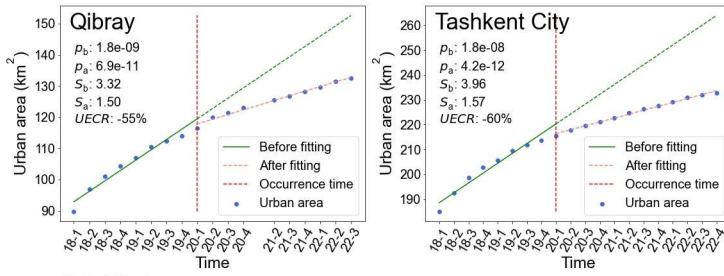




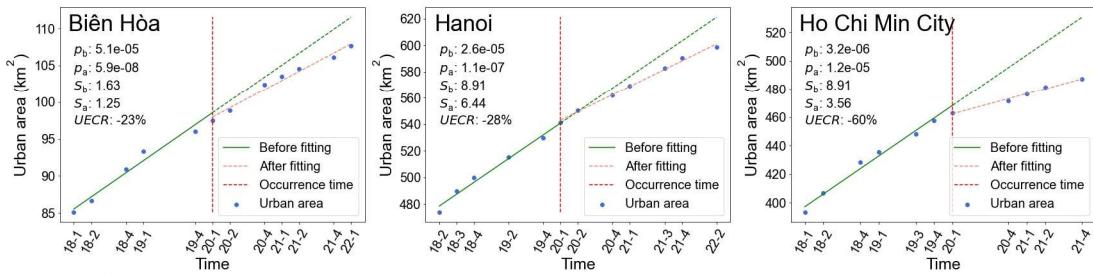
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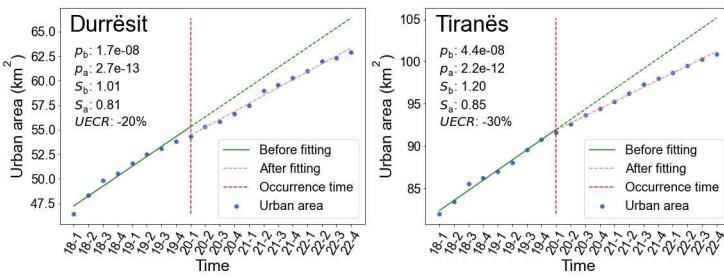
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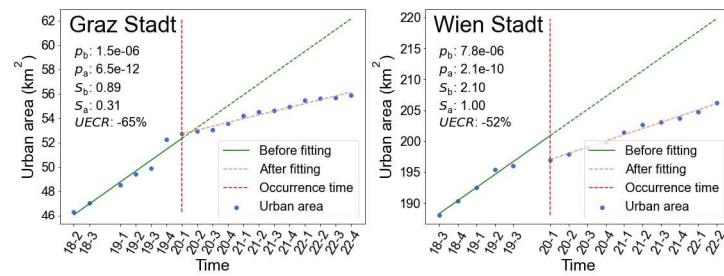
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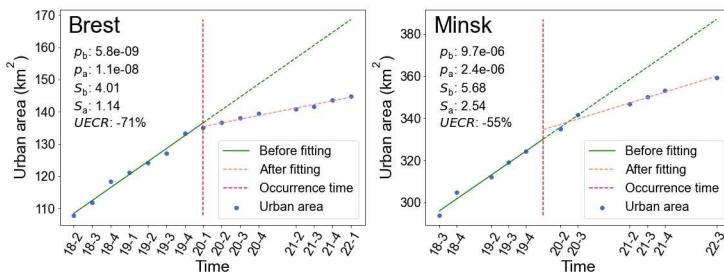
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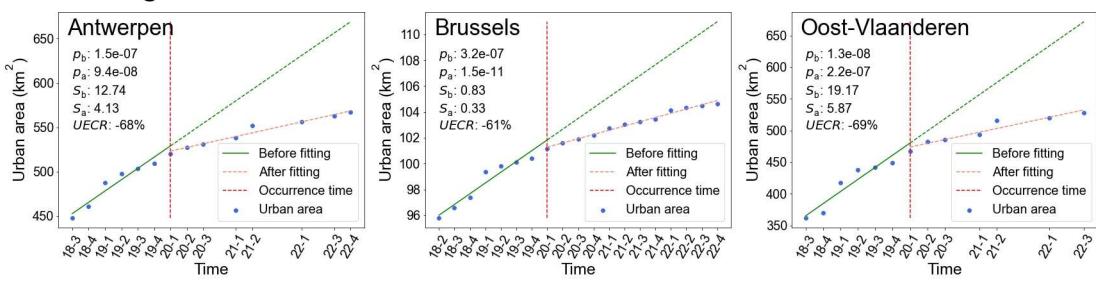
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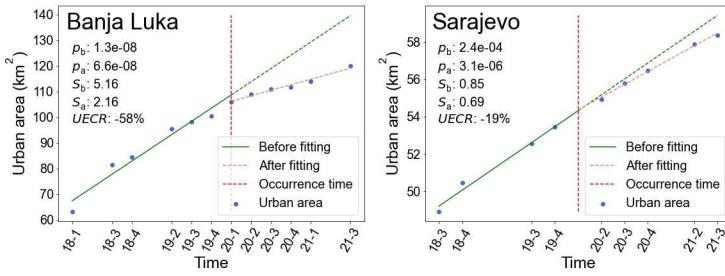
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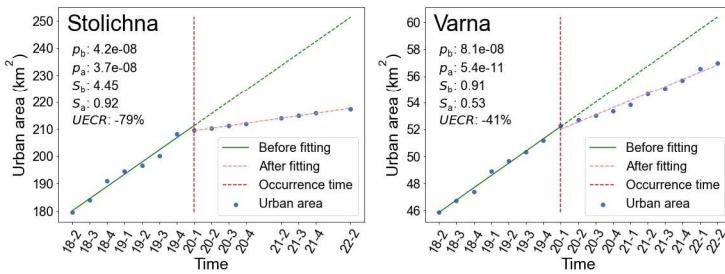
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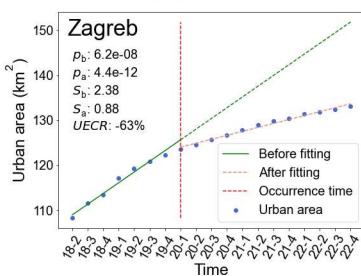
### EU-Bosnia and Herzegovina



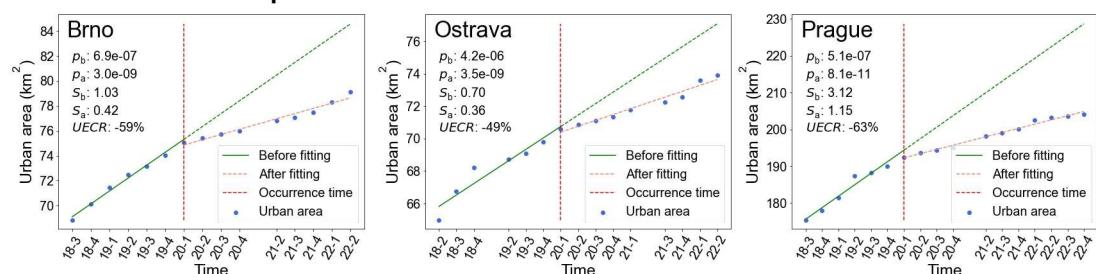
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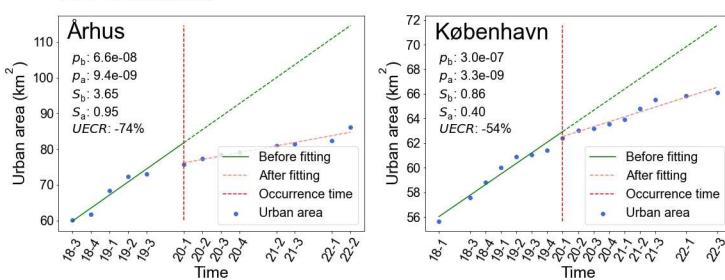
### EU-Croatia



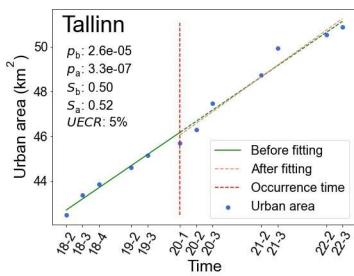
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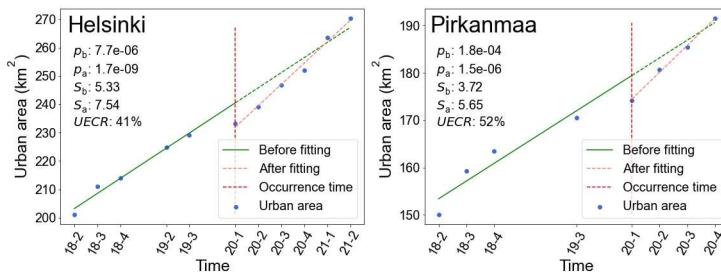
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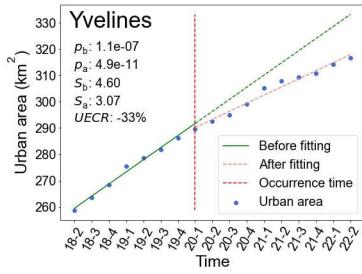
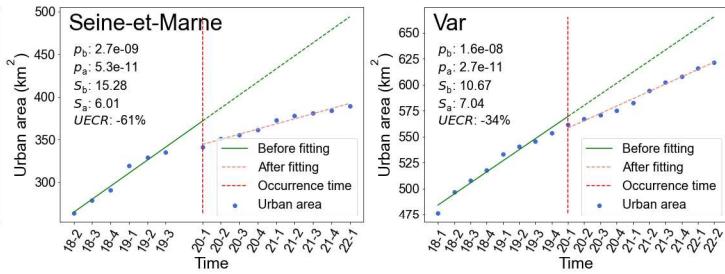
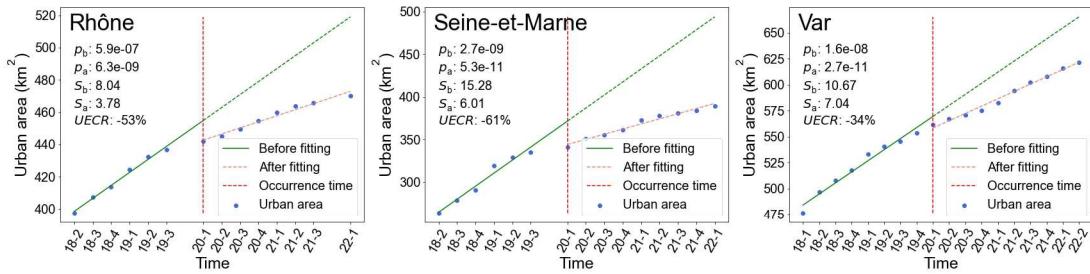
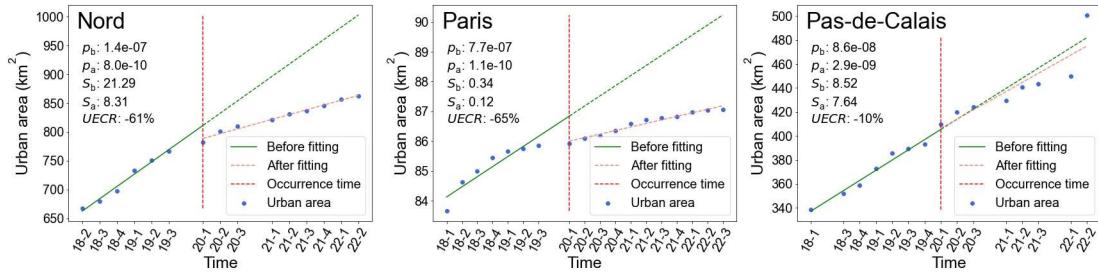
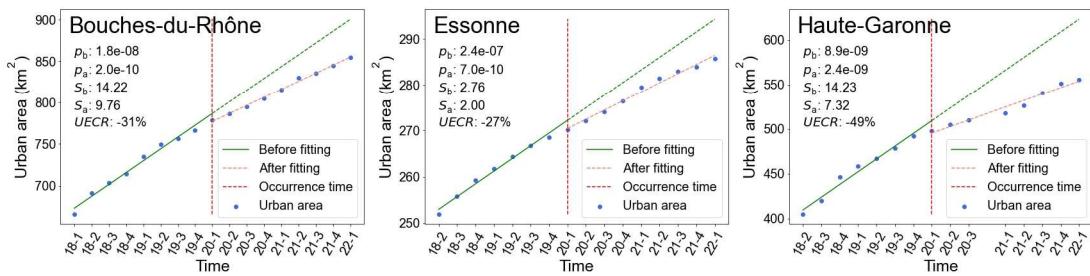
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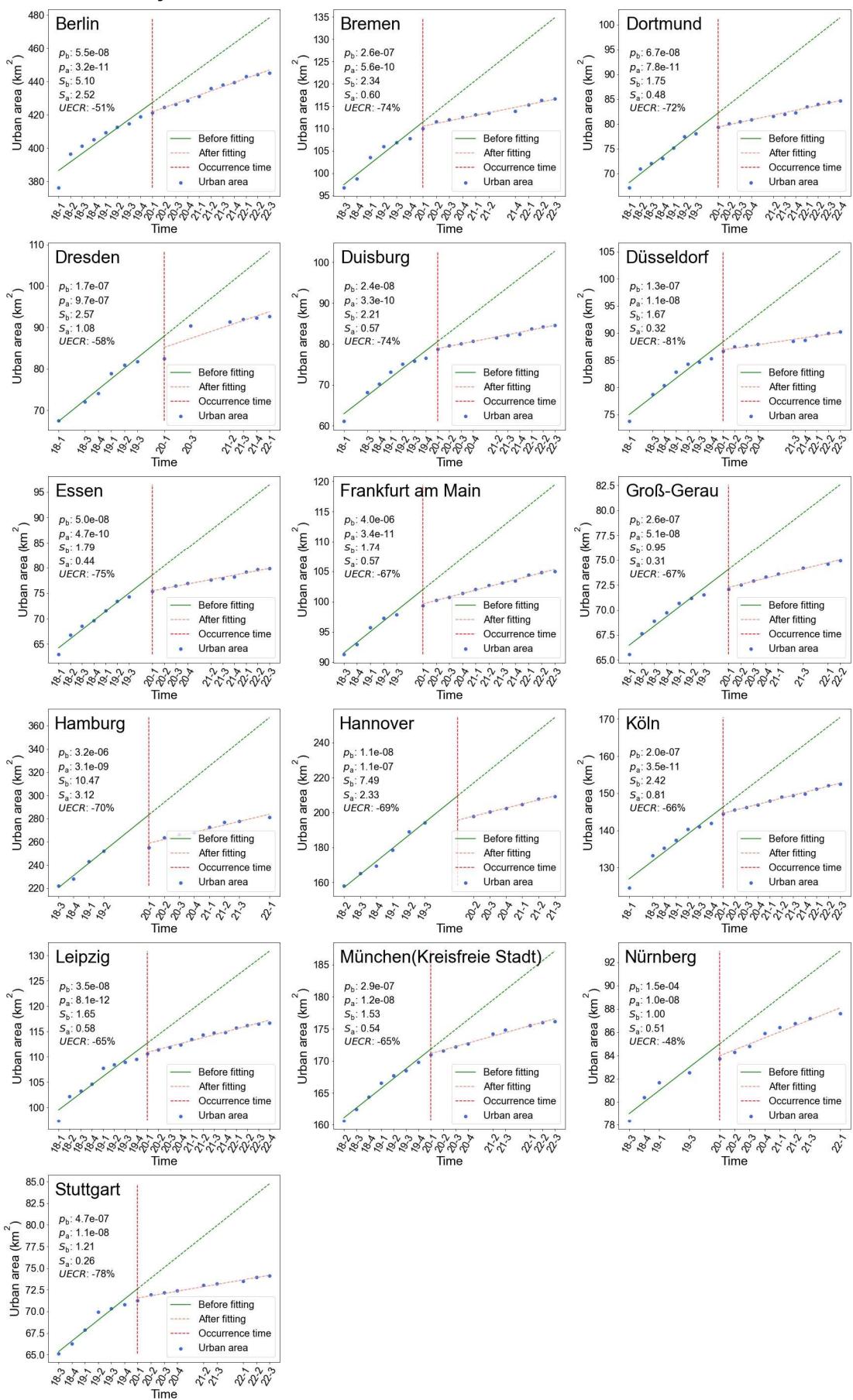
### EU-Finland



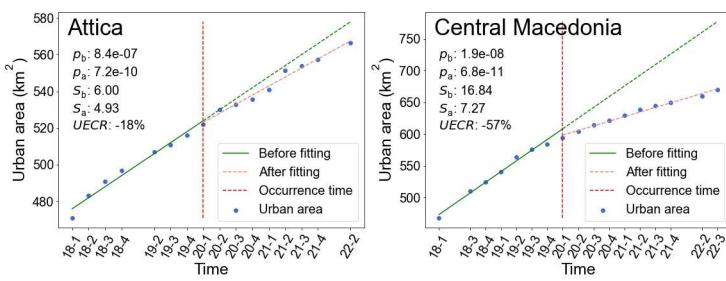
### EU-France



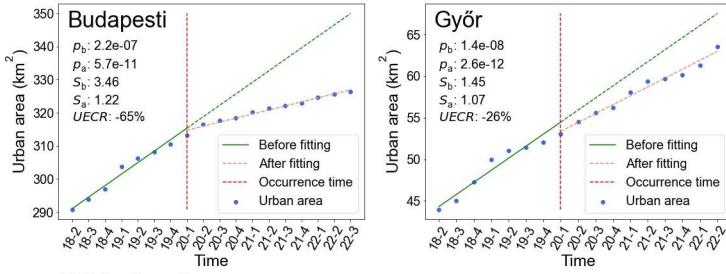
## EU-Germany



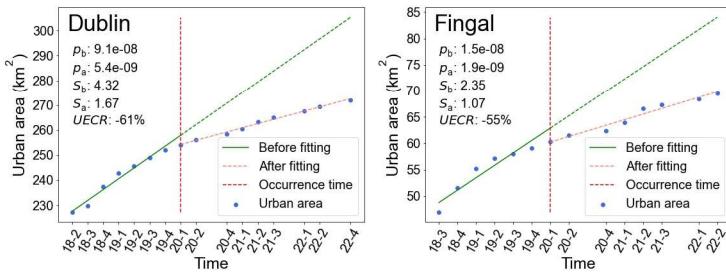
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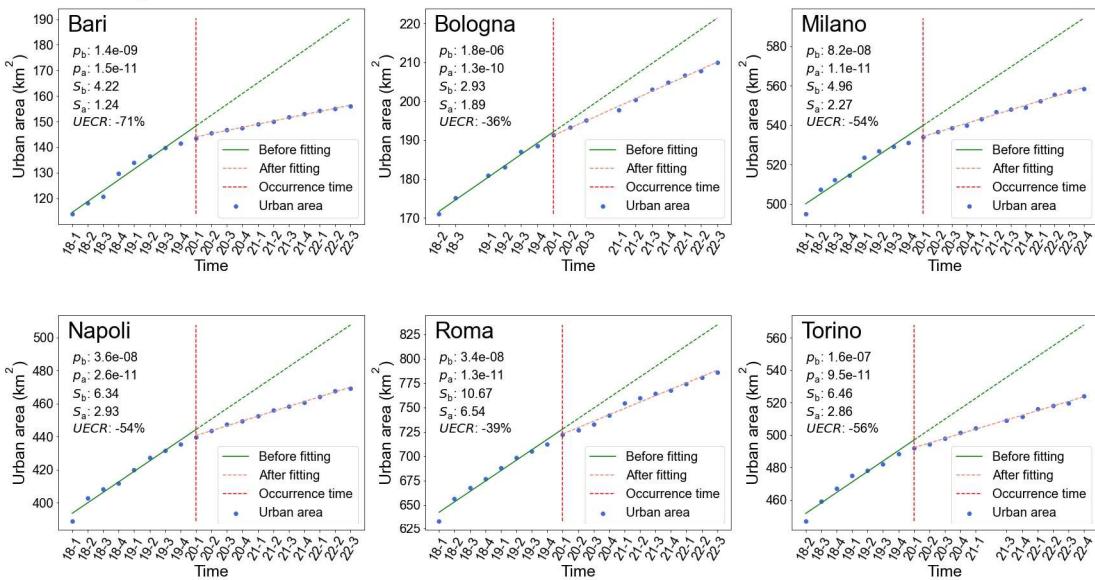
### EU-Hungary



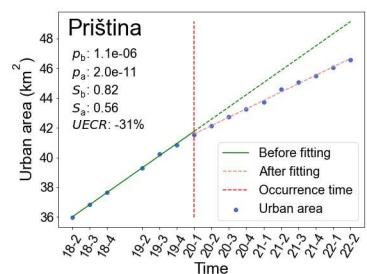
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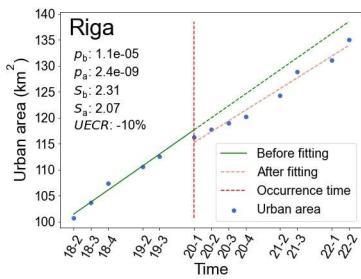
### EU-Italy



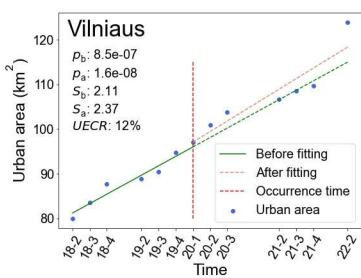
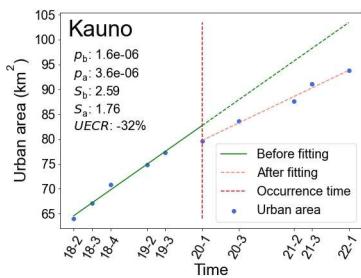
### EU-Kosovo



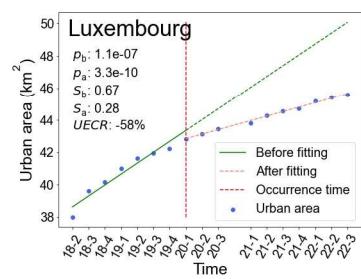
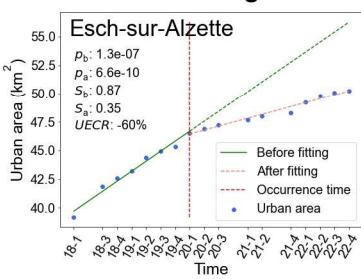
### EU-Latvia



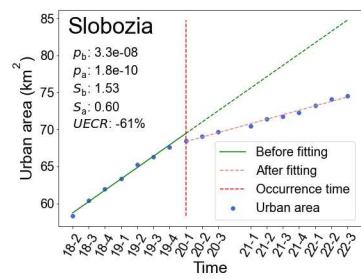
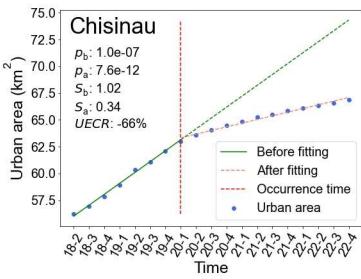
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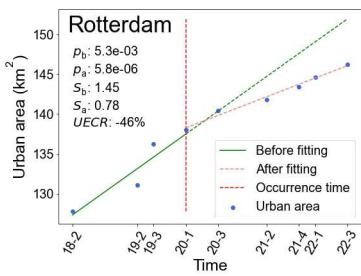
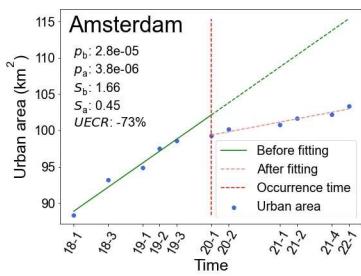
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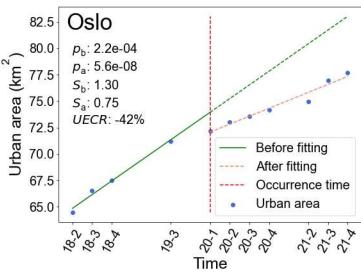
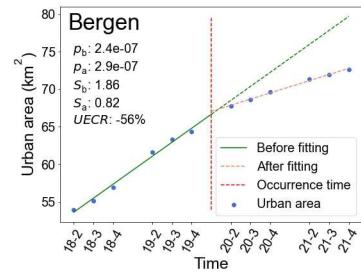
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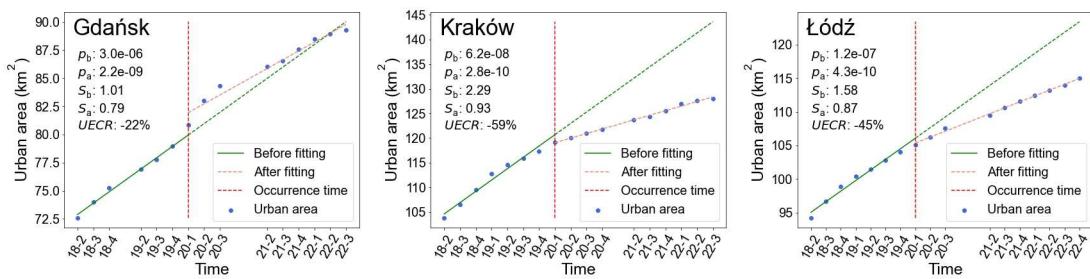
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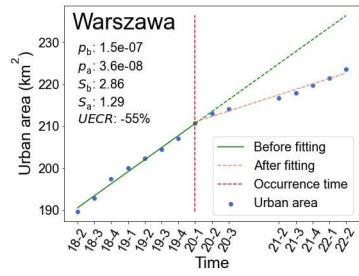
### EU-Norway



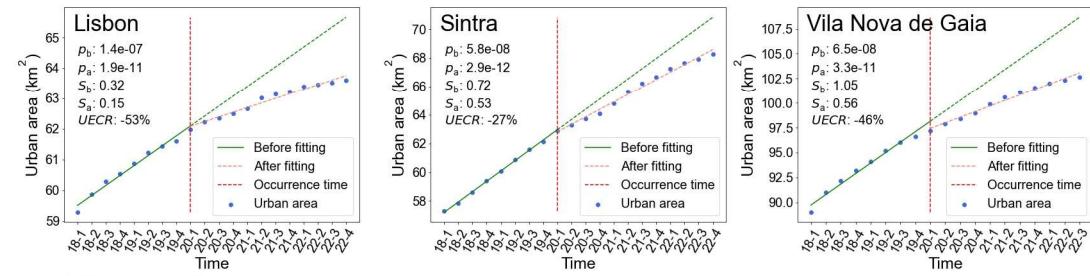
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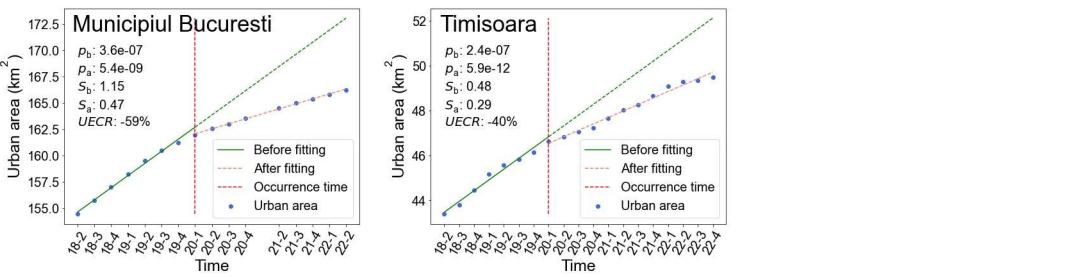
### Warszawa



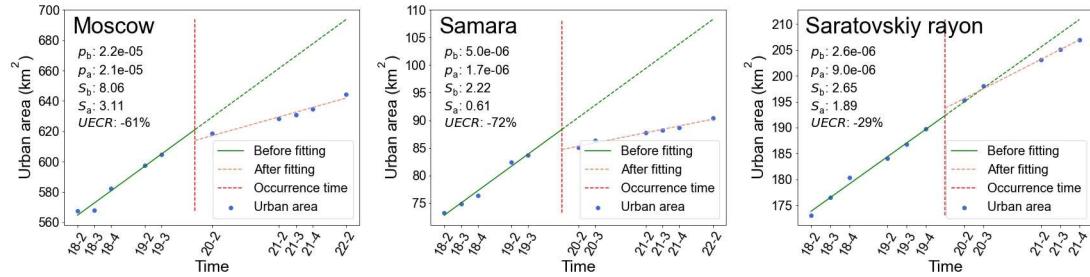
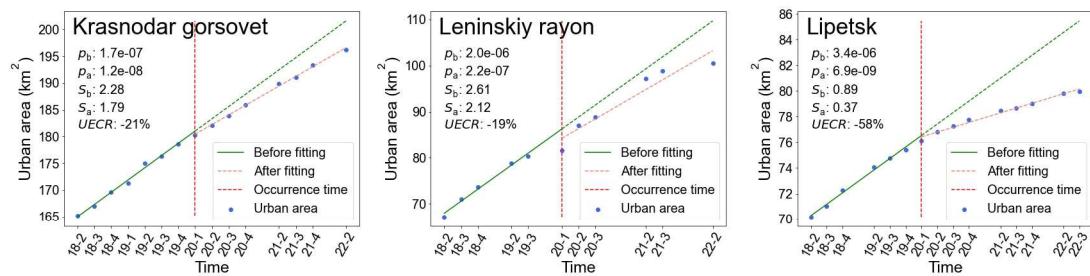
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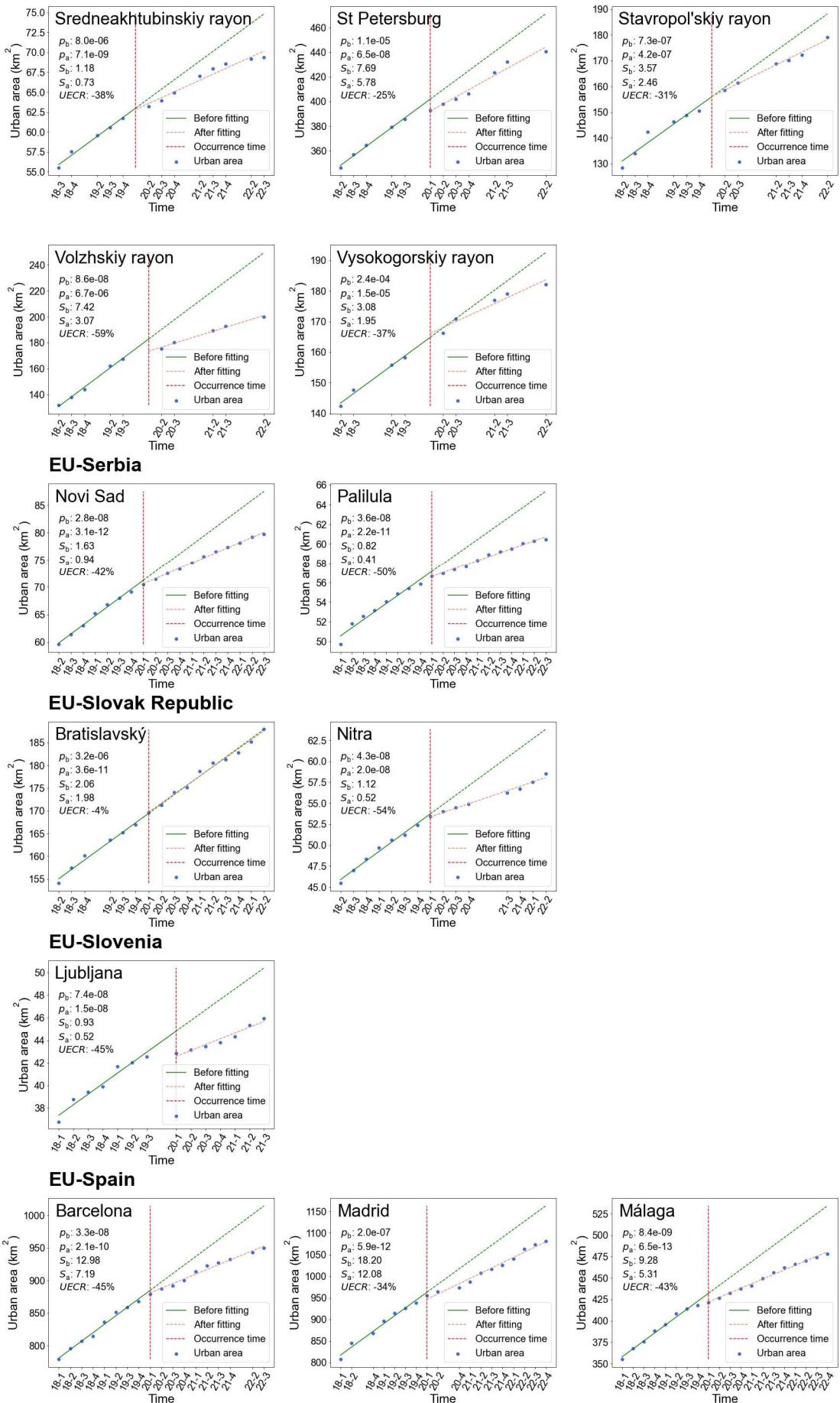


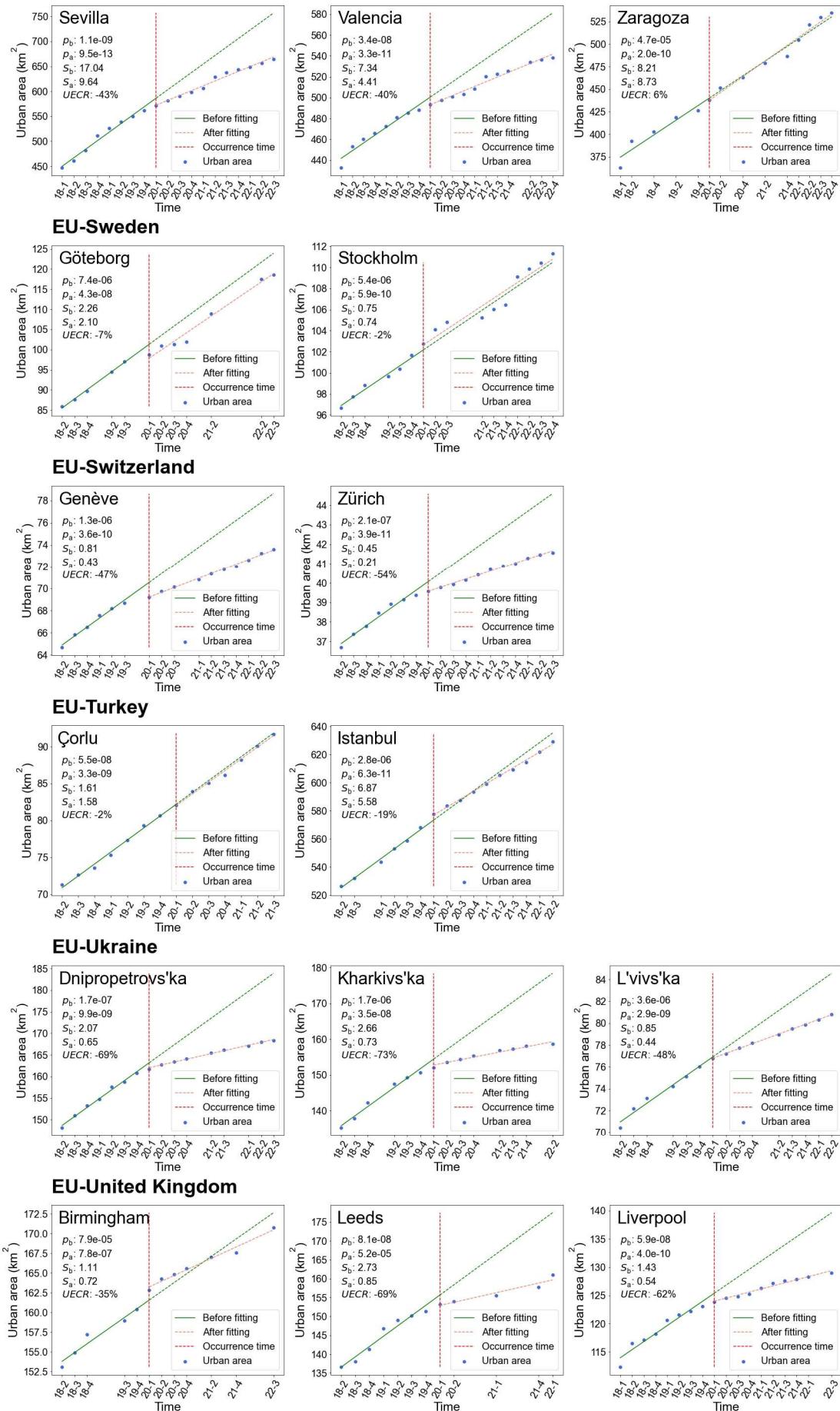
### EU-Romania

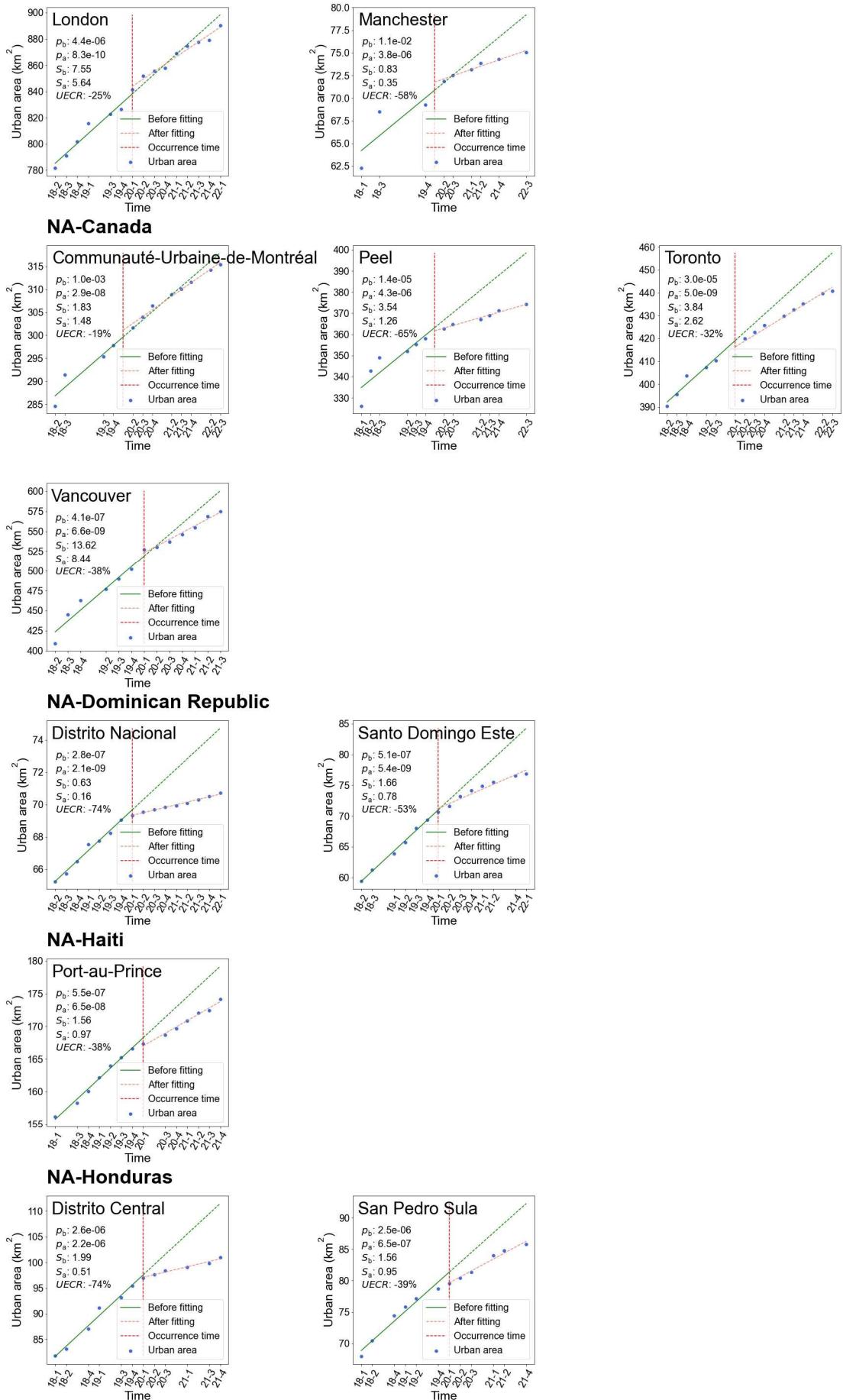


### EU-Russia

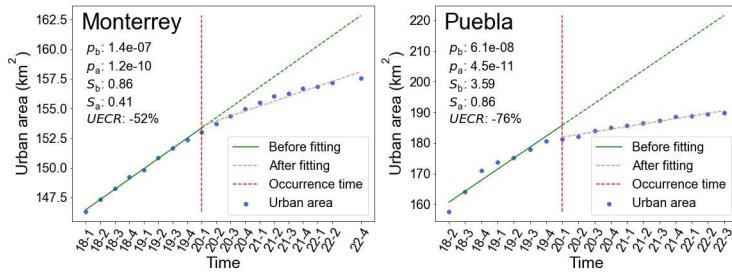
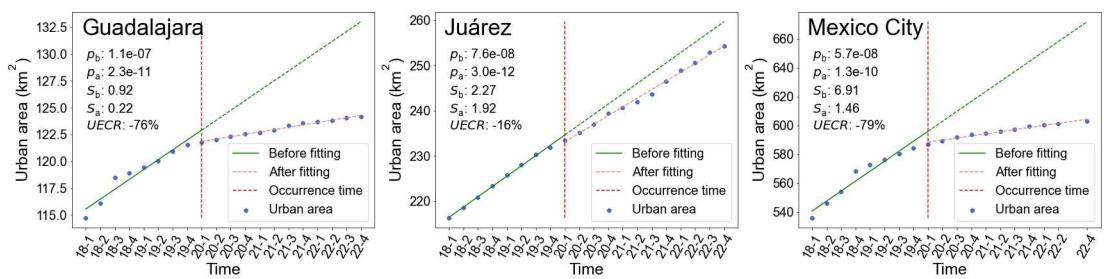




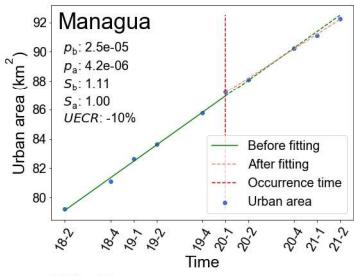




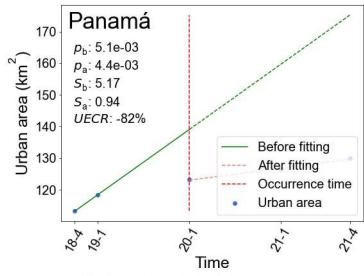
### NA-Mexico



### NA-Nicaragua



### NA-Panama



### NA-United States

