

Cheonggyecheon Stream, Seoul, Kr [HIC]

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Topic: River restoration and conservation in damaged urban catchments with reference to a specific project.



Background Information:

South Korea's capital city, Seoul, experienced a wave of industrial and population growth in the latter half of the 20th Century, with the **urban population growing from 5 million in 1960 to 23.5 million in 2010**. It is also one of the world's densest populated cities, at **over 10,000 people per km²**. This has naturally led to numerous environmental challenges, primarily air pollution related.

"By the 1980s, levels of Sulphur Dioxide and Suspended Particle Matter exceeded safe levels set by the WHO – causing significant problems for the 1988 Olympic games." Since then, the city government has initiated numerous sustainable development schemes, such as improving public transport, fuel quality, low emission vehicles and river restoration and rewilding programs, which had a dramatic improvement.

Cheonggyecheon Stream:

One of the most ambitious schemes enacted in 2002, was the reversal of auto-centric planning from the 1960s, by turning a 5.8km long stretch of 10-lane ailing elevated highway into a mixed use public park by restoring a hundreds of years old river course through the centre of the city; with the goal of creating a **new 'green artery' for the city**, since the highway was not only significantly poor for environmental quality, causing congestion, noise, light and air pollution, but also an obstacle to urban development. Seoul is an exceptionally modern city, and hence little greenery present made it especially **vulnerable to the urban heat island effect and monsoon flooding**, so the stream also served as a way for the authorities to **improve water catchment channels and decrease flooding risk**.

What was done about it:

- **Over a period of 2 years, at a cost of \$250 M, 6 km of highway was removed, and the area was extensively remodelled.**
- **21 multimodal bridges** were constructed to improve North/South accessibility.
- **Car usage was discouraged**, but notably no new roads were constructed nearby (unfounded fears of mass overcrowding on existing roads from the project)
- Water from the nearby Hangang River was pumped into the area to create a **consistent flow of water**. This has been extensively treated to make it completely safe to be in.



Further Information:

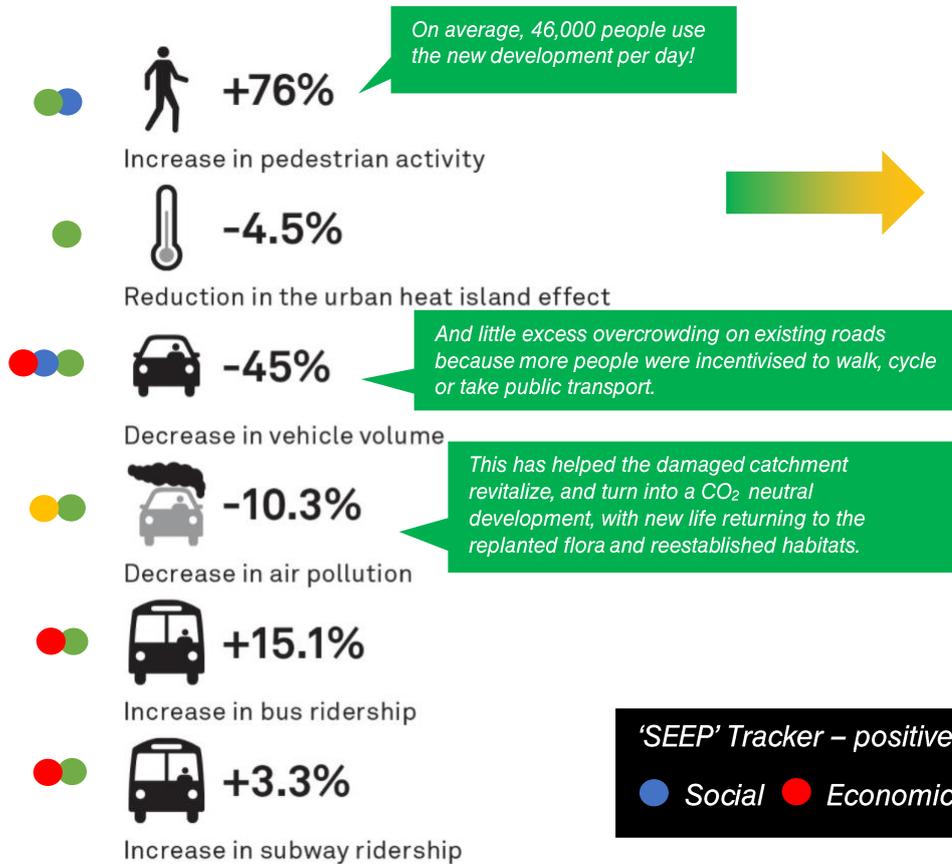


[A*] Select Criticisms:

It's important to be balanced and cover some of the issues or criticism the project has been face with.

Success of the Project:

Below are some great facts to use in an exam question on this:



- Some said the cost of the project given its short length could be best spent elsewhere.
- Some pointed to the hypocrisy of the Seoul government in building Cheonggyecheon but huge road developments elsewhere in the city, as has been torn down here.
- Others argue the layout of the new stream would be better if it were fully rewilded and not turned into a 'tourist attraction'.
- The project exposed some corruption within the city development office.
- Some also argue that at night the light pollution has contributed to the environment not being such a good habitat for fauna as suggested.

'SEEP' Tracker – positive effects:

● Social ● Economic ● Environmental ● Political

Extended Reading:

<https://globaldesigningcities.org/publication/global-street-design-guide/streets/special-conditions/elevated-structure-removal/case-study-cheonggyecheon-seoul-korea/>

https://english.visitseoul.net/attractions/Cheonggyecheon-Stream_/35

<https://www.theguardian.com/cities/2016/may/25/story-cities-reclaimed-stream-heart-seoul-cheonggyecheon> - This is a GRB **recommended reading** series!

Have A Go At A Practice Exam Question:

[20 MARKER \(AO1 & 2\) QUESTION #3](#)

To what extent do you agree with the argument that 'damaged urban catchments of water are impossible to sustainably manage'?



Many questions will have exemplar answers and mark schemes available on the geographyportal.co.uk, feel free to look at them for more information.