the built environment has a severe impact on the natural ecosystems due to the amount of energy and materials needed to sustain the sector. It is also important to note that, human activities in the built environment do contribute to loss of biodiversity affecting the ability of the ecosystem to support living organism(Pedersen Zari, 2012)

由于维持该部门所需的能源和材料的数量，建筑环境对自然生态系统产生了严重影响。同样重要的是要注意，人类在建筑环境中的活动确实导致了生物多样性的丧失，影响了生态系统支持生物体的能力。

the United Nations Environment Program (UNEP) states that 40% of all energy and material resources are used to build and operate buildings globally (UNEP – Sustainable Buildings and Construction Initiative, [2007](https://www.tandfonline.com/doi/full/10.1080/09613218.2011.628547?casa_token=8fw9xF3P4EYAAAAA%3AF4QmB5GIvX5FkOARyM5gGbKnHhPElGijLtk6eGIls9um3QhNS0qjGFzBgGBOF7r-eUBYprxjdYwdBw)).(Pedersen Zari, 2012)

联合国环境规划署（UNEP）指出，全球40%的能源和材料资源被用于建造和运营建筑（UNEP-可持续建筑和建设倡议，2007）。

Panel on Climate Change (IPCC) estimated that between 1970 and 2004, global greenhouse gas emissions due to human activities rose by 70 percent (IPCC, 2007).(Programme, 2009)

it is a causal factor in rising sea levels, increased occurrence of severe weather events, food shortages, changing patterns of disease, severe water shortages and the loss of tropical forests. Most experts agree that over the next few decades, the world will undergo potentially dangerous changes in climate, which will have a significant impact on almost every aspect of our environment, economies and societies.

它是海平面上升、恶劣天气事件发生率增加、粮食短缺、疾病模式改变、严重缺水和热带森林消失的一个因果因素。大多数专家同意，在未来几十年里，世界将经历潜在的危险的气候变化，这将对我们的环境、经济和社会的几乎每个方面产生重大影响。

It is commonly known that the built environment has a large negative effect on ecosystem services (Graham, 2009)

The built environment varies greatly according to different climatic, economic, political and cultural contexts, and systemic approaches that are appropriate to specific places will also vary greatly. (Pedersen Zari, 2012)

建筑环境因气候、经济、政治和文化背景的不同而有很大差异，适用于特定场所的系统方法

也会有很大差异。

The built environment is described as a major contributor to biodiversity loss and climate change due to the large volume of resources consumed by the construction industry.

由于建筑业消耗了大量的资源，建筑环境被描述为生物多样性丧失和气候变化的主要促成者。

The universal adoption of the 2030 agenda for [Sustainable Development](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/environmental-impact-assessment) which set out 17 [Sustainable Development Goals](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/sustainable-development-goals) and 169 targets, underpinned by 232 indicators is one major initiative towards the protection of the planet for current and future generations

Sustainable Development Goal 15 (SDG15) aims at “protecting, restoring and promoting sustainable use of [terrestrial ecosystems](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/terrestrial-ecosystem), sustainably manage forests, combat [desertification](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/desertification), and halt and reverse [land degradation](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/land-degradation) and biodiversity loss” (UN, 2015)

2030年可持续发展议程的普遍通过，提出了17个可持续发展目标和169个具体目标，并以232个指标为基础，是为今世和后代保护地球的一项重大举措。

可持续发展目标15（SDG15）旨在 "保护、恢复和促进陆地生态系统的可持续利用，可持续地管理森林，防治荒漠化，阻止和扭转土地退化和生物多样性的丧失"

Urban systems are expanding at very fast rates all over the world. Forecasts suggest that expansion rates will dramatically increase the size of cities – threefold by the middle of the century – with expansion rates of 2.4% and expanding speeds over 300 ml per year (Angel et al., 2011; [Seto et al., 2012](https://www.sciencedirect.com/science/article/pii/S1470160X18308379?casa_token=UX6_auZioX8AAAAA:UqGwnOxFFUwbSlqntVJ-JN28UPrUSz6kmq8xyMTfareFo7AcgyF_qlwKVpkLgCPEKmyuufgcH0U" \l "bib37); [Inostroza et al., 2013](https://www.sciencedirect.com/science/article/pii/S1470160X18308379?casa_token=UX6_auZioX8AAAAA:UqGwnOxFFUwbSlqntVJ-JN28UPrUSz6kmq8xyMTfareFo7AcgyF_qlwKVpkLgCPEKmyuufgcH0U" \l "bib21)).(Artmann et al., 2019)

世界各地的城市系统正在以非常快的速度扩张。预测表明，扩张速度将极大地增加城市的规模--到本世纪中叶是三倍--扩张率为2.4%，扩张速度超过每年300毫升

关注生态转变和气候变化是近年来公众的一大热门话题。

Panel on Climate Change (IPCC)指出，在气候变化相关话题上，between 1970 and 2004, global greenhouse gas emissions due to human activities rose by 70 percent (Programme, 2009). Most experts agree that over the next few decades, the world will undergo potentially dangerous changes in climate, which will have a significant impact on almost every aspect of our environment, economies and societies. 大多数专家同意，在未来几十年里，世界将经历潜在的危险的气候变化，这将对我们的环境、经济和社会的几乎每个方面产生重大影响。

而在生态环境问题上

与此同时，城市蔓延的现象时有发生

the built environment has a severe impact on the natural ecosystems

It is also important to note that, human activities in the built environment do contribute to loss of biodiversity affecting the ability of the ecosystem to support living organism(Pedersen Zari, 2012)

人类在建筑环境中的活动确实导致了生物多样性的丧失，影响了生态系统支持生物体的能力

it is a causal factor in rising sea levels, increased occurrence of severe weather events, food shortages, changing patterns of disease, severe water shortages and the loss of tropical forests.