

Public goods

Public goods are goods that are **non-rivalrous** and **non-excludable**.

Non-excludable means you can't realistically stop people from accessing the goods.

Non-rivalrous means one person benefiting from the good does not reduce what is available for others.

A good example is **fireworks displays** . As anyone around the area benefits, regardless of whether they contributed.

Examples of pure public goods

Street lighting

Street lighting is non-excludable because anyone walking past benefits from the light, whether or not they have paid.

It is also non-rivalrous because one person using the light does not reduce the light available to other people.

Flood defences

Flood defences are non-excludable because residents in the protected area benefit even if they did not contribute to the cost.

They are non-rivalrous because one person "using" the protection does not reduce the protection available to others.

Other commonly used examples include clean air, fireworks displays, and information such as official statistics or news.

Why public goods cause market failure

The free-rider problem

Because public goods are non-excludable, people can consume them without paying. This creates the free-rider problem, where individuals rely on others to pay and thus no one ends up paying .

For private firms, this makes it difficult to earn revenue, because you cannot charge users properly. As a result, the market may under-provide the good, and in the case of pure public goods there may be no provision at all. This explains why government intervention is necessary, as leaving pure public goods to the free market would result in them not being provided at all.

Written by [udoecon.com](https://www.udoecon.com)

A common misconception

Not everything the government provides is a public good. A good is not a public good just because it is supplied by the state.

For example, healthcare and education are not pure public goods because they are usually rivalrous, such as when one patient using a hospital bed reduces availability for someone else.

Quasi-public goods

Some goods only meet one of the conditions, so they are not pure public goods so we call them Quasi-Public goods .

Rivalrous but non-excludable goods include fish stocks and timber, because they can be accessed by many people but can also be used up.

Excludable but non-rivalrous goods include private parks or beaches, because entry can be controlled through charging, but one extra user may not reduce enjoyment until congestion occurs.

In practice, these characteristics can change. Parks and beaches can become overcrowded, making them more rivalrous, and roads that feel like public goods can become excludable if tolls are introduced.