Participation and collective action

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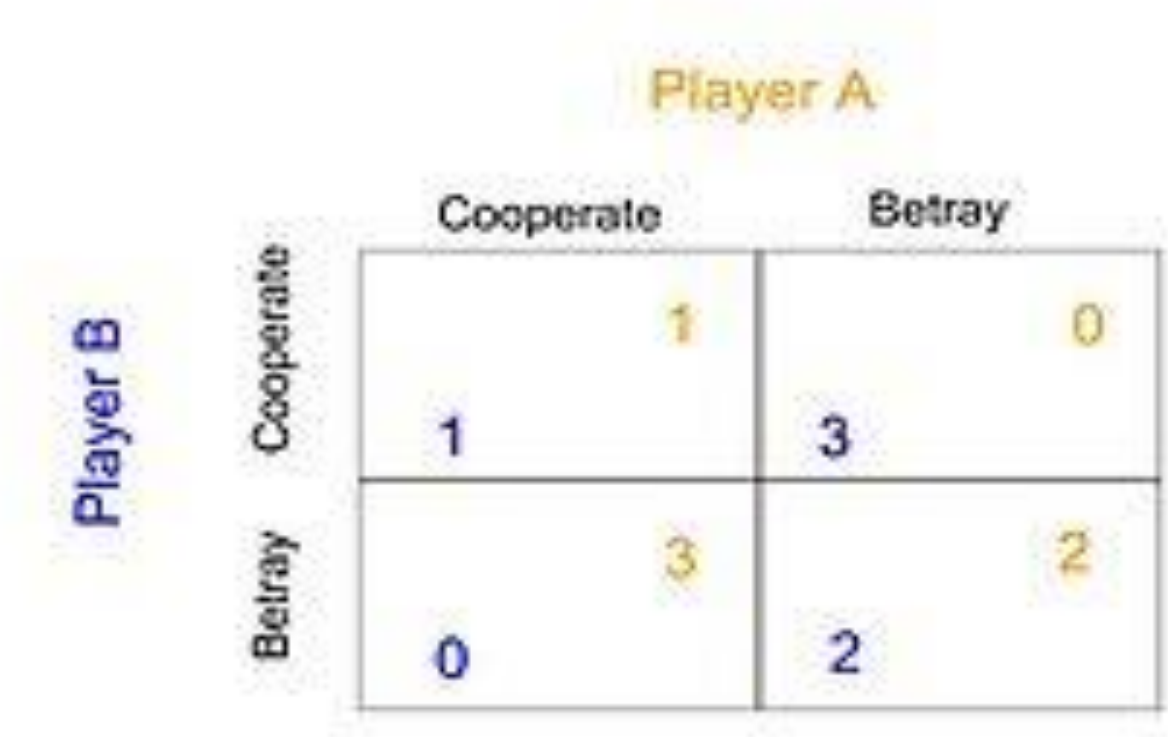
The Prisoners' Dilemma



The Prisoners' Dilemma

- Two criminals have been **arrested on suspicion of a crime and are thrown into prison in two separate cells.** Both prisoners can choose either to cooperate (deny everything) or defect (confess to the crime and implicate the other man). The prison officers cannot arrest either of them without the confession of one or both men so attempt to cut a deal:
  - If only one prisoner confesses, the confessor will be **set free for collaborating and given a full pardon (0 year).** The one who kept quiet will be thrown into jail with the **harshest possible sentence** (3 years) as punishment for both the crime and for withholding evidence.
  - If **both prisoners are silent,** they will both be sent to jail but due to lack of evidence both will get **1 year** imprisonment.
  - If both prisoners defect, then both will **get 2 years** of sentences.
  - Both prisoners know full well that without a confession from either of them, the police will not be able to **impose highest punishment.**

Key Definitions

- **RATIONAL** (in the Economic Sense) = to **Maximize** One's Expected Return (Total Expected Benefits Less Total Expected Costs).
- Social Dilemma 
  - refers to a setting in which individuals choose actions in an interdependent situation. If each individual selects strategies based on a calculus that **maximizes short-term material benefits to self,** individuals will take actions that generate **lower joint outcomes** than could have been achieved. (Ostrom, 2009)
  - Parties/Individuals have asymmetric interests, selfish short term interest vs. long term collective interest, non-credible commitments

Key Definitions

- **COLLECTIVE** ACTION PROBLEM = A situation in which **everyone (in a given group) has a choice between two alternatives** and where, if everyone **involved acts RATIONALLY** (in the economic sense), the outcome will be **worse for everyone involved, in their own estimation,** than it would be if they were all to choose the other alternative (i.e., than it would be if they were all to "irrationally" (in the economic sense)).
- Collective Actions
  - It indicates about how actors in the society (individuals, government, firms) cooperate to **achieve mutually beneficial outcomes or collective objective**

Key Definitions

- *Two Defining Characteristics* of Goods or Services
  - ***Subtractability/Rivalry***: Does A's consumption of a unit of that resource lower B's potential enjoyment? Ex: food vs. air
  - ***Exclusion***: How costly is it for A to exclude B from access to that resource? Ex: fish stock vs. food.
- *Four Types of Goods or Services* and the dilemmas most commonly experienced in their production or consumption:
  - ***Private*** *Goods*: Subtractability and low costs of exclusion. Ex: food
  - ***Public*** *Goods*: Nonsubtractability and high costs of exclusion. Ex: air
  - ***Toll/Club*** *Goods*: Nonsubtractability and low costs of exclusion. Ex: cinema
  - ***Common Pool Resources*** *(CPRs)*: Subtractability and high costs of exclusion. Ex: fish stock

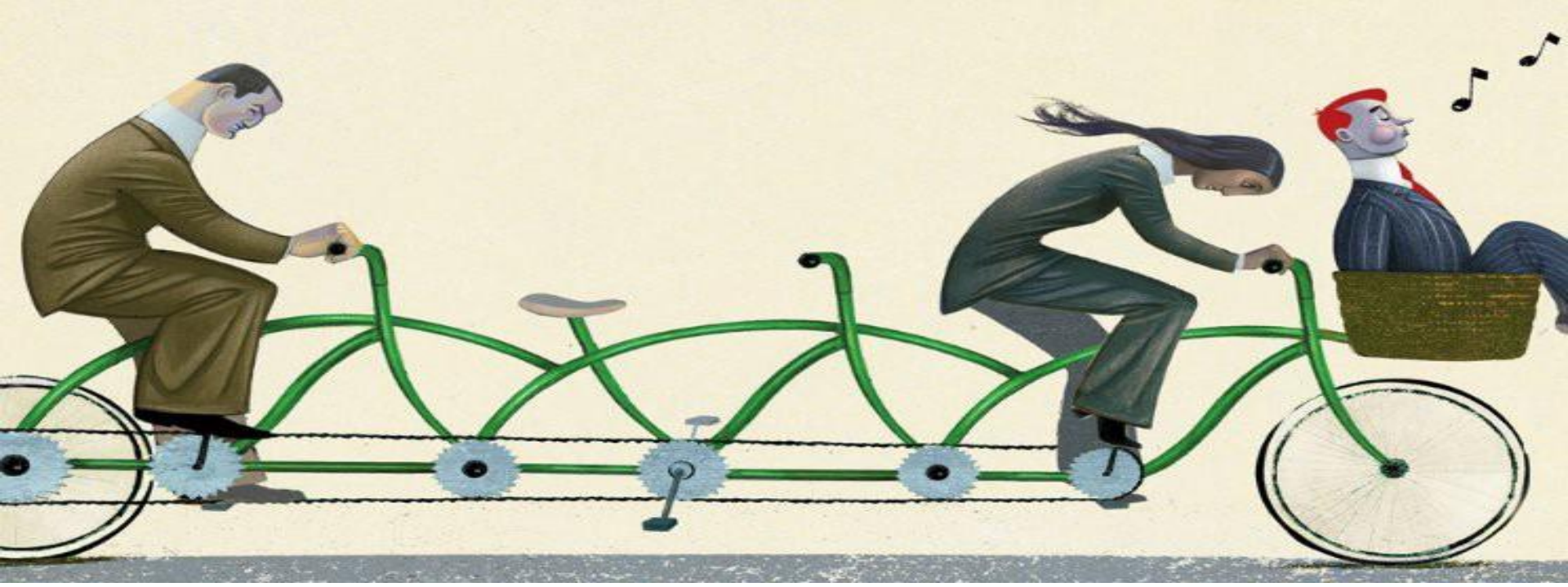
Types of Goods or Services

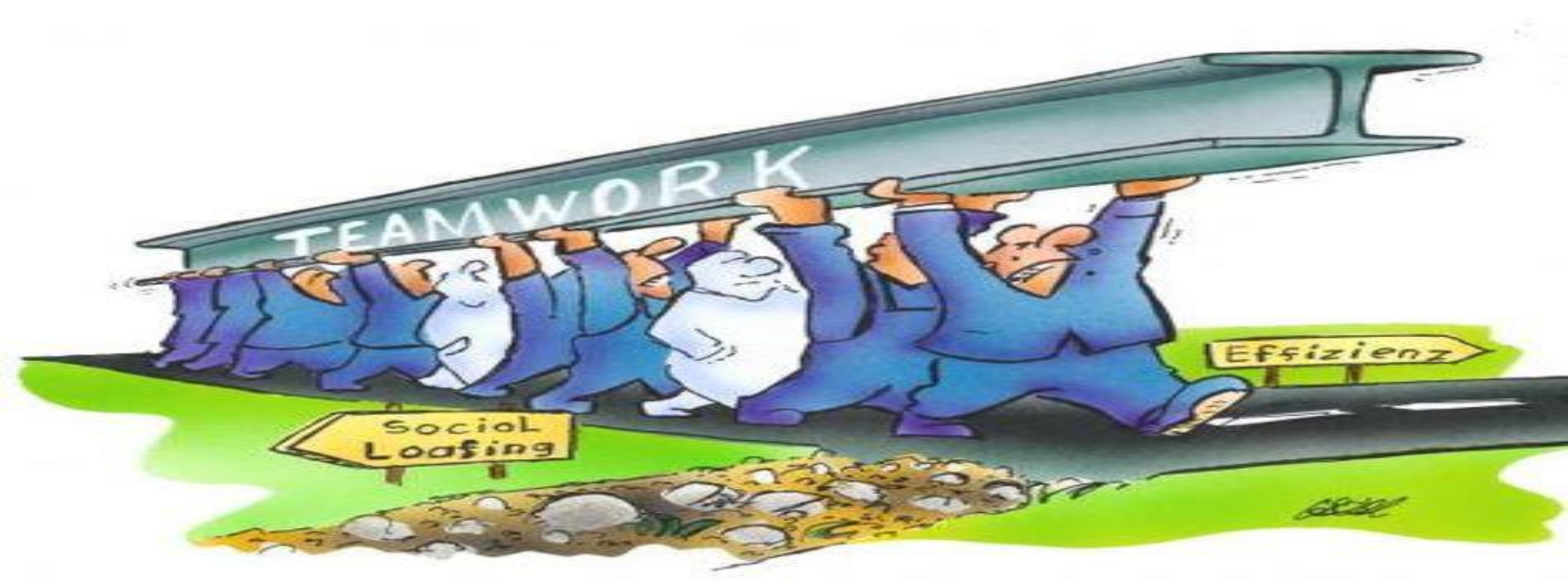
	Excludable	Non-excludable
Rivalrous	**Private goods** food, clothing, cars, parking spaces	**Common-pool resources** fish stocks, timber, coal
Non-rivalrous	**Club goods** cinemas, private parks, satellite television	**Public goods** free-to-air television, air, national defense

The Free Rider

- Arises from the exclusion problem.

A free-rider is a person who receives the benefit of a good but avoids paying for it. Each person hopes other will pay for it.




TEAMWORK
Social Loafing
Effizienz

Tragedy of the Commons

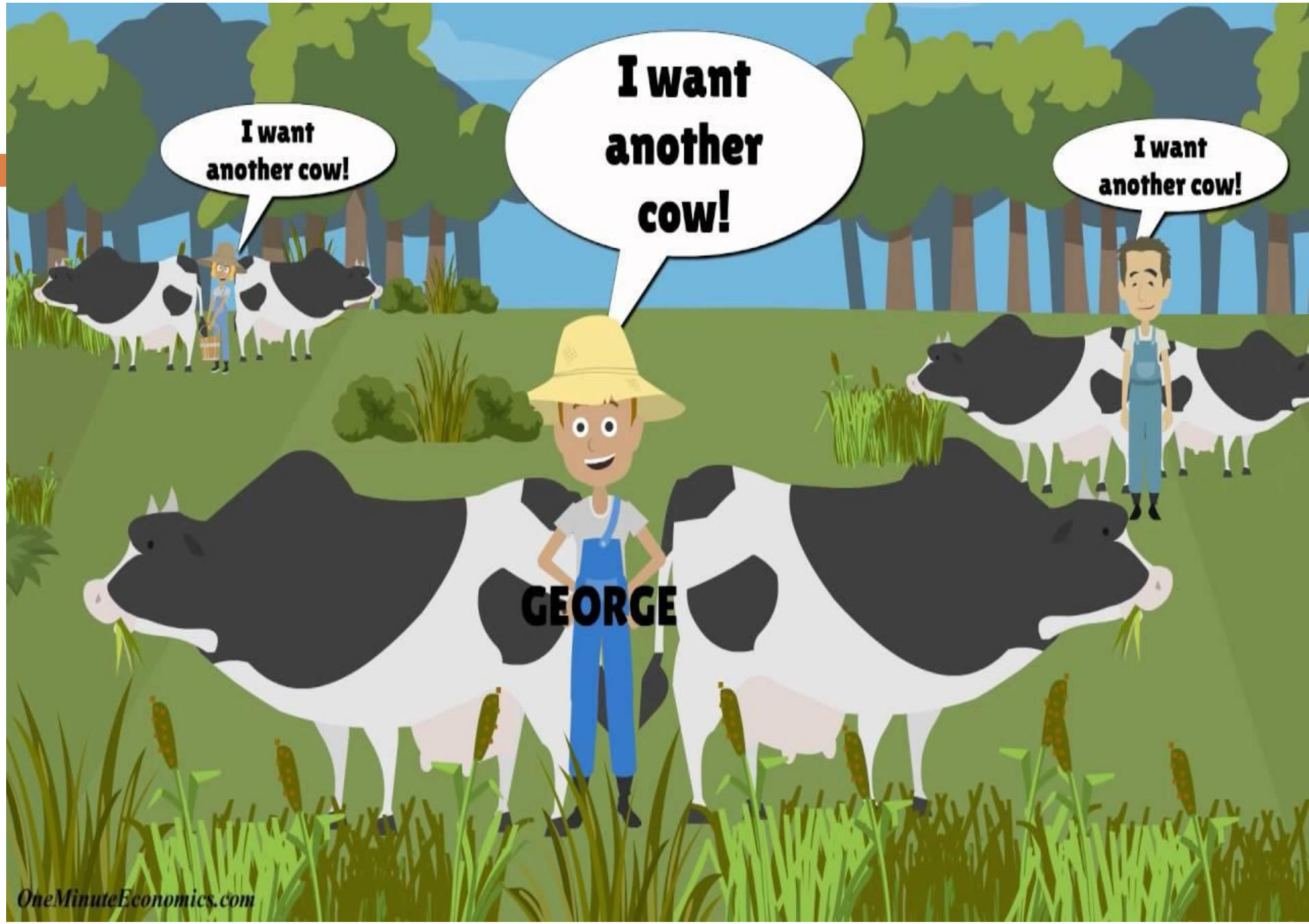
The free rider problem with common resources

Common resources tend to be used excessively when individuals are not charged for their usage.

Tragedy of the Commons

The parable (Hardin 1968):

- A **herdsman** puts his animals on the pasture he uses in **common** with other herdsmen. Even though signs exist of pasture degradation with overstocking, it is "**rational" for each herdsman to add more animals** because he gains full benefits of each extra animal while sharing costs of overgrazing with other herdsmen. ….. "**Freedom in the commons brings ruin to all.**"


I want another cow!
I want another cow!
I want another cow!
GEORGE
OneMinuteEconomics.com

Free Rider Problem and Common Pool Resources

Will anyone have ade**quate incentive or situation to restrain themselves in the appropriation and provision** of common pool resources?

Cooperation

- Cooperation is defined as **a group of individuals acting together to a common end.**
- **Club** goods- **mutual benefits** to participants from sharing costs and consumption (sharing cost for playing badminton/tennis).
- **Public** goods- when coerced into it (Restriction on fishing Hilsha fish).
- **Common** goods- trust, common understanding, feasible improvement.

The Evolution of Cooperation

- Theories in the evolution of cooperation:
  - Kin Selection
  - Group Selection/Reciprocity

Kin Selection

- **Why should we cooperate?**
  - We should cooperate and behave **altruistically for the good of our offspring.**
- **When do we cooperate?**
  - According to kin selection, we only cooperate when interacting with those who have a high degree of **relatedness to us**-honeybee.

Group/ Reciprocity Selection

- **Why should we cooperate?**
  - Because the benefits to creating **competitive advantage at the group level** may outweigh the individual benefits to being **'selfish'.**
- **When do we cooperate?**
  - We cooperate with others when they demonstrate that they are **cooperators, or altruistic**

Suggested readings

- Gillinson, S. (2004). *Why Cooperate?: A Multi-disciplinary Study of Collective Action*. London: Overseas Development Institute. Link: https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/2472.pdf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