

Public Goods, International Public Goods and how they relate to International Development.

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A. What do we mean by 'Public Goods'

1. Everybody needs access to goods and services. At their simplest, these are goods and services (such as food, or a repair to your house) that you buy on the open market for personal consumption. At their most complex, these are the benefits that accrue to individuals and to society at large from, for example, international agreements on trade and the global environment. These, and all types of goods and services in between, are all "goods" in the context of this discussion.

2. Economic theory suggests that, all things being equal, goods will be supplied and consumed optimally, at the right quantity and quality, where there is an effective and undistorted **market** for their provision, stimulating supply amongst competing service providers, with the laws of supply and demand determining a market price which reflects the true value of the goods for both the supplier and the consumer.

3. But private-sector operators are not going to supply goods and services where market **incentives** (profit in crude terms) to do so are not there. In those circumstances there is '**market failure**' and we need to come up with some other way of ensuring the optimal supply of those goods and services.

4. The alternative to the market is some form of collective action, perhaps brought about through powers of legislation and funded by public taxation. This forms the basis of the provision of public services through government and civil society – and by the international development community.

5. An economic theory has been developed that characterises the kind of goods and services that the market is likely to supply optimally ("private goods"), and those that will probably require some form of collective action to ensure their optimal supply ("public goods").

6. *Appendix 1* outlines the defining characteristics of 'public goods' and 'private goods'. Appendix 1 also introduces some variations on the theme: 'pool goods', which are relevant to our interests in common property resources, and 'toll goods'.

One of the issues in the restructuring of DFID's Policy Division relates to how DFID manages its work on international¹ public goods². There are varying perspectives on what this means. This paper aims to do three things:

A. Clarify what we mean by "Public Goods";

B. Examine how public goods can take on different dimensions at local, national and international levels;

C. Outline some of the ways in which DFID policy work interfaces with international public goods.

Appendices 1 & 2 summarise the economic theory (and jargon) underpinning the analysis of public and private goods: it may be useful to read these first.

Footnote(s)

1 The word 'global' is often used although a 'global public good' it is not, in fact, synonymous with an 'international public good' – see Section B.

2 Strictly speaking, 'public goods' comprise a set of goods and services with specific characteristics defined by economic theory (see Appendix 1). The current discussion within DFID about "Global Public Goods" is really, though, about 'goods and services supplied through international collective action' – which is a wider and looser definition of global public goods than that which would be derived from the classical economic theory on public and private goods.

7. “Public goods” are not synonymous with “public services”. Public goods are a particular set of goods and services defined by economic principles of “**excludability**” and “**rivalry**” (Appendix 1). But some goods that economic theory would unambiguously define as ‘private goods’ may still need to be provided through collective (e.g. public) action in certain circumstances. **Appendix 2** goes further into the economic basis for these ‘exceptions to the rule’, but in summary we may need to treat some private goods as though they were public goods (for the purposes of ensuring their optimal supply) when:

- The supply or consumption of a good by one unit of society inadvertently affects other parts of society (**‘externalities’** or **‘spill-over effects’**);
- One side of a transaction is unable to assess its true value, resulting in sub-optimal supply or consumption by society as a whole (**‘asymmetries of information’**, including **‘moral hazards’**);
- Operating at the kind of scale only possible through collective action would bring benefits to consumers (**‘economies of scale’**); and
- Society as a whole will benefit from the universal supply and consumption of that good, as opposed to only the segment of society that can afford it enjoying that benefit – e.g. primary education and health care. (**‘Merit goods’**.)

8. *So ... where are we?*

- People need access to goods and services in order to derive a livelihood. It is in society’s interest that those goods and services are provided in an optimal manner.
- Many of those goods and services can and should best be supplied through market mechanisms. Robust economic theory (Appendix 1) dictates which goods and services are likely to be supplied optimally through market mechanisms (these are classified as ‘private goods’), and those that probably are not.
- For those goods and services which society really³ needs, but which are unlikely to be supplied through market mechanisms, some form of collective action, perhaps brought about by the powers of legislation and funded through taxation, may be necessary. These goods and services include ‘public goods’ (the polar-opposite of private goods – see Appendix 1), and also some other types of goods whose supply or consumption through market mechanisms would result in less than optimal outcomes for society as a whole. (Appendix 2.)
- This set of ‘goods and services requiring collective action for their optimal supply’, **including the delivery of sound public policy**, defines the boundaries of civil society and public sector interventions in international development.
- We rather loosely, and strictly speaking incorrectly, tend to refer to all these sort of things as ‘public goods’, although public goods are actually just a sub-set of what we are talking about, which is the goods and services that require collective action to ensure their optimal delivery.

B. Public Goods at Local, National and International Levels

9. We’ve discussed the need for the optimal supply and consumption of certain goods and services to be ensured through collective action (rather than being left to the market), such that the interests of society as a whole are not compromised.

10. We see such collective action being organised at all levels, from local community initiatives, through national legislation and public service to regional institutions and international bodies.

- **“Local Public Goods”** are goods and services requiring local collective action for their optimal supply, but whose supply or consumption has no significant impact on wider society beyond the locality. For example street lighting in the area surrounding our homes. Decentralisation is predicated on the assumption that public goods will be delivered ‘most optimally’ if the collective action necessary to support their supply is taken at the lowest possible level. (“Subsidiarity”)

Footnote(s)

³ Assessing demand for indirectly-financed goods is difficult: consumers will often overstate demand when they don’t ‘feel’ their payment for it.

~ “**National Public Goods**” are ‘one level up’: i.e. goods and services requiring collective action at national level, because there would be sub-optimal supply if they were left to lower levels of collective action (there would probably be sub-optimal defence of a nation if it was left to District Councils to organise their own defence), but which are not of particular significance to the wider international community. (For example it is of no [immediate] concern to the wider world what a country’s domestic taxation policy is.)

- So “**International Public Goods**” are simply public goods whose supply and consumption will be optimised through collective action at an international, or **supra-national**, level - as opposed to national or subnational action. Paras 11+, below, discuss the distinguishing features of ‘international public goods’.
- “**Global Public Goods**” are a sub-set of international public goods whose characteristics are such that their supply or consumption affects the whole planet, and that therefore require global collective action to ensure their optimal supply and consumption. (There are actually very few of them: climate change is the obvious one. Some would say that ‘human knowledge’ is a global public good, and that trade is becoming a global public good as the world moves towards a single market for goods and services.)

11. What, in particular, distinguishes the public goods whose supply is best optimised by **supra-national** collective action?

13. Some public goods and services, definable by the economic characteristics outlined in Appendix 1, clearly, by their **international nature**, require *supra-national* collective action to ensure their optimal supply. Obvious examples are common property resources that transcend national boundaries such as offshore fisheries, continental or global biodiversity, protection of the ozone layer, etc.

15. Many of the **norms and standards** that define societal behaviour are also determined at the supra-national level. For example:

- International trade agreements;
- International norms about human rights – the International Declaration of Human Rights, the International Covenants, etc.;
- International conventions on public goods – fisheries, biodiversity, illegal logging, etc.;
- [Informally at least] international professional norms and standards relating to service delivery.

14. But there are other, less obvious examples. Just as we said certain private goods may need to be treated as public goods where their sub-optimal supply or consumption would adversely affect society at large, we may also say that the sub-optimal supply and consumption of certain goods and services at one level may affect society more widely / at a higher level. That is to say, at one level certain goods and services may not constitute a valid public good, but at a higher level they do.

16. The need for such higher-level collective action can be predicted by looking at the same ‘exceptions to the rule’ that predict when private goods may need to be treated as public goods (*Appendix 2*), because we see the same concepts of *externalities*, *economies of scale*, and *merit goods* at play.

i.) Externalities

We will use a sub-national/national issue to illustrate this initially. When Ghana decentralised the funding and delivery of its state veterinary services, the decision as to what services were to be provided at District level became the responsibility of local, rather than central, government. One local government, conscious that pigs were not a big feature of the local economy, rationally decided to stop financing, in their District, a government vaccination programme against Swine Fever. This led to the breakdown of a ‘*cordon sanitaire*’ along the border with Togo, and Swine Fever consequently swept into, and across, Ghana - compromising people’s livelihoods across the whole country.

We see similar compromises to wider societal interests when trans-boundary pests and diseases are not contained nationally and become a supra-national, regional, issue – for example breakdown of FMD control in Zimbabwe resulted in trade losses for the whole region. In that example, supra-national collective action was not taken, and there were consequent ‘spill-over effects’.

Similarly, one country's possibly rational decision not to prioritise (e.g.) sound environmental management within its MTEF or PRSP⁴ could result in 'externalities' or 'spill-over effects' on other countries in the region, or even globally. Collective action may be desirable at a supra-national level in order to ensure that wider (international) societal interests are best served.

So *externalities* associated with the sub-optimal supply or consumption of goods and services at one [e.g. national] level may warrant collective action at a higher [e.g. international] level.

ii.) *Economies of scale*

Many goods that are required by one nation are identical to the goods required by other nations. Knowledge, the lessons of best practice in public policy, 'rules of the game' to support open, safe and fair trade, etc.

There are therefore obvious economies of scale in those goods being determined by collective action amongst nations. In addition, the non-excludability and non-rivalry of many such goods (*see Appendix 1*) reduces the incentives for one nation to invest in supplying those goods when others could free-ride on their efforts.

International membership organisations, such as FAO, OIE, WHO, and WTO, provide a forum for the [potentially equitable and optimal] information, negotiation and determination of public goods that [potentially] affect the entire constituency of member states.

ii.) *Merit goods*

The 'man in the street' who says "*What's it got to do with me if people are poor in Africa?*" has a point, in terms of strict economic theory of public and private goods⁵. However society as a whole wishes to do better than that. The reduction of global poverty, including the establishment of basic human rights, universal primary education and health care and a fair trade environment constitute goods that transcend national boundaries and policies, with the international community using its powers of influence and finance to promote the optimal supply of such goods. These are 'merit goods' which we aspire to organise through international collective action.

16. Using these economic criteria for the classification of public goods we can see that it is also inherent in the process of **globalisation** that more and more public goods will ascend to become 'international' ones: in the construction of a global market for goods and services, the policies and institutions and norms and standards that ultimately determine poor people's livelihoods are increasingly ones that are informed, negotiated and determined at a supra-national level, through international collective action.

17. Development agencies have an interest in ensuring that that supply of international public goods is configured optimally for poverty reduction. The following section discusses the interface with international public goods through the international 'institutional architecture'.

C. The Donor Interface with International Public Goods and International Collective Action

18. *So ... where are we now?*

- Many of the goods and services necessary for poor people to survive and thrive require some form of collective action to ensure their optimum supply;
- In many cases collective action is required at a *supra-national* level, because the goods and services constitute 'international public goods', whose optimal supply cannot be achieved through national or sub-national action;
- An increased demand for supra-national collective action is inherent in processes of regionalisation and globalisation;
- International membership organisations are responsible for delivering on this requirement for supranational collective action, so if we accept that 'international public goods' are critical to the livelihoods of poor people, then we necessarily have an interest in the effectiveness of these international organisations.

Footnote(s)

4 This is an interesting area, and one that is likely to become more significant as we move towards budgetary support. National governments may rationally exclude lower priority goods and services from their PRSPs, but if every country in a region removes such goods and services from their PRSPs might there be sub-optimal supply of a wider public good? Example: biodiversity.

5 However, the 'man in the street' may nowadays be conscious of the externalities being attributed to persistent global poverty and discontent.

19. So we are now talking about the interface with, and influence on the pro-poor qualities of, international public goods being largely dependent on donor engagement with international membership organisations such as FAO, OIE, WHO, WTO, etc. and, potentially, regional economic organisations such as SADEC, the OAU/AU, ASEAN, etc.⁶.

20. Two models of interaction with such organisations have emerged:

A 'supply-side' model

21. The logic goes something like this:

- We accept that key international membership organisations are vital components of the 'institutional architecture' providing for the optimal supply of international public goods, and opt to support them.
- We pay our dues and become voting members of the organisation. We influence organisational processes, and to a lesser extent the substance of its work, by voting (along with all other members) on key resolutions.
- We may also get involved with the organisation's governing bodies, yielding some influence on the organisation's governance.

22. The assumption in this model is that the organisation is essentially doing a useful job, is responsive to its members' needs, and that by funding it, and maybe by promoting and supporting its effective governance, it will do an even more useful job.

23. Official dialogue with the organisation through its governing bodies may sometimes be *indirect*, as other government departments (with potentially different agendas) may represent national interests. (For example, in the UK, the Department of Health leads on the WHO, DEFRA leads on the OIE, etc.)

A 'demand-side' model

24. The route we take here is that:

- Through an analysis of the determinants of poor people's livelihoods we assess where and how collective action at an international level needs to be further supported, for the purposes of ensuring the optimal [pro-poor] provision of specific international public goods.
- We identify the appropriate part of the appropriate international organisation that is best placed to respond to that demand for international collective action.
- We provide extra-budgetary financial and other support (if called for and legitimised by the organisation's governing mandates) to address these critical areas of the organisation's work.
- In so doing, we enter into a partnership with the organisation that may complement our interests in the organisation as voting members (for example a greater sensitivity to our poverty agenda and the adoption of improved ways of working). However, the partnership does not necessarily depend on our being a voting member of the organisation.

25. The assumption in this model is that the organisation is essentially not performing optimally in the delivery of international public goods, and that we need to support and finance reforms, possibly, to both the substance and process of the organisation's work, and/or augment its programmes with additional funds.

26. Such an approach is dependent on a credible professional analysis of the international public goods that require collective action at an international level, and a capacity for professional dialogue with the organisation.

Footnote(s)

⁶ We will not consider the role of the multi-lateral development agencies in this discussion, although concepts of economies of scale (q.v.) in the optimal supply of goods and services clearly relate to this interface.

27. *So ... where does all that leave us?*

- Solid economic theory suggests that collective action will be required to ensure the optimal supply and consumption of many goods and services essential to society.
- That same theory explains why collective action needs to be taken at different levels of society, and that in many cases the appropriate level is supra-national.
- Processes of regionalisation and globalisation are **substantially increasing the demand for collective action at the supra-national level** in order to ensure optimal supply and consumption of the goods and services necessary (amongst other things) for pro-poor growth.
- International membership organisations constitute the established, mandated, fora for the information, negotiation and determination of such international public goods.
- We can work to support the delivery of international public goods both from a 'supply side' perspective (subscribing to the international institutional architecture on the assumption that it is essentially performing the right functions) and from a 'demand-side' perspective (identifying the specific areas where more needs to be done to ensure the optimal supply of international public goods in support of poverty reduction and supporting the international institutions to deliver on those specific areas).
- Work on the 'supply side' essentially relates to fiscal and governance issues; work on the 'demand side' essentially relates to the technical analysis of public policy in support poor people's livelihoods.

Appendix 1:

The Economic Definition of Public and Private Goods

What characterises the goods and services that can be optimally provided through market mechanisms ('private goods'), and under what circumstances might we expect to see 'market failure'? Here comes the jargon.

The established theory on this is that for the market to respond effectively to a demand for goods and services two important criteria must be met:

- i. For a market-based supply to occur at all there must be "*excludability*" – that is to say that there has to be a mechanism for denying the consumer the benefit of the goods if he or she doesn't pay for them. (Nobody is going to carry on supplying goods if they never get paid.) There must be a 'point of sale' where a 'contract' for the supply and transfer of ownership or benefit can be established, with supply depending on satisfactory payment and payment depending on satisfactory supply.
- ii. So that the laws of supply and demand can determine a fair market price for the goods, (where the value of the goods is the same to both supplier and consumer) there has to be "*rivalry*" – that is to say, the consumption of specific goods by one person effectively takes those goods off the market. People will then adjust their offers and bids until the appropriate market price for the goods is established.

Examples of goods with *high excludability*

- Food for sale in a shop
- Access to a toll bridge
- Supply of consultancy advice to DFID
- Education and health care

Examples of goods with *low excludability*:

- The societal benefits of a favourable trade policy
- An unpolluted environment
- Fishing in the ocean

Examples of goods with *high rivalry*

- Food for sale in a shop
- Supply of consultancy advice to DFID
- Fishing in the ocean
- Education and health care

Examples of goods with *low rivalry*

- The societal benefits of a favourable trade policy
- An unpolluted environment
- Access to a toll bridge
- Road signage

The market, left to its own devices, will probably supply goods with **high "excludability"** and **high "rivalry"** in an optimal manner. (Although there are some exceptions – see Appendix 2.) Both of these criteria work to eliminate so-called "*free riders*" – that is to say the supply only goes to those that pay, and those that have paid don't unwittingly subsidise other people getting the same benefit for nothing. The term for goods and services which exhibit these characteristics is **private goods**. (With some exceptions, there is little justification for the state involving itself in the supply of private goods: the market will do it better.)

Conversely, we can **expect the market to deliver sub-optimally** (or not at all) where these criteria score badly – i.e. where there is **low excludability and low rivalry**. Here some form of collective action on behalf of society, funded outwith the market, is going to have to be organised in order to provide for the effective supply of those goods. These goods and services are referred to as public goods, and these form the stock-in-trade of public services.

	Low Rivalry	High Rivalry
Low Excludability	Public Goods	
High Excludability		Private Goods

Note that ‘public goods’ are not necessarily synonymous with ‘public services’. Public service institutions may quite properly, under certain circumstances - see below, be the appropriate vehicle for supplying some private goods. The distinction between public and private goods has, however, been central to debate on reconfiguring the role of the state vs. the private sector and is at the heart of the ESAPs and institutional reform programmes in developing countries.

What if there is high excludability and low rivalry, or the other way around?

In the examples in text boxes above “fishing in the ocean” appeared in the low excludability and high rivalry boxes. This is because it is very hard to exclude people from fishing the oceans, but their doing so depletes the stocks available for other fisher folk. These goods are termed pool goods. Access to grazing in pastoral areas is a similar example. In a development context, they are typically the things we refer to as common property resources, the sustainable utilisation of which requires some form of collective action

Similarly but conversely “access to a toll bridge” appeared in both the high excludability and low rivalry boxes. This is because the supplier can certainly exclude people from the benefit of the bridge, by keeping the barrier down unless they pay, but the consumption of that benefit (crossing the bridge) doesn’t really take it off the market and reduce its availability to others. These goods are called toll goods. They are often the characteristic of goods and services supplied (or consumed) under monopoly (or monopsony) conditions. The danger there is that the value is determined solely on the basis of exclusion and ‘ransom’, and not on the true value of the good – suggesting that public intervention or regulation might be necessary if societal interests would otherwise be compromised.

	Low Rivalry	High Rivalry
Low Excludability	Public Goods	Pool Goods
High Excludability	Toll Goods	Private Goods

Appendix 2:

Exceptions to the Rules

The state may be justified in maintaining an involvement in the provision of private goods in situations where there would be market failure and/or compromise to societal interests. These are principally where there are:

1. 'Externalities'.
2. 'Asymmetries of Information', and 'Moral Hazards'.
3. 'Economies of Scale'.
4. 'Merit Goods'.

1. Externalities.

When one person's action, or inaction, simultaneously affects someone else we say that their action or inaction has 'spill-over' effects or 'externalities'. If the supply or consumption, or lack of supply or consumption, of a private good or service exhibits externalities, then the state may need to intervene to control the 'external' effects.

For example:

The benefit of vaccinating livestock against Foot and Mouth Disease (FMD) will in the first instance accrue to the owner of those cattle - it is his or her cattle that will not catch the disease if they are so protected. Supplying and administering the vaccine exhibits both high rivalry and high excludability; it is *in the first instance* a private good whose supply could in theory be left to the market. The owner of those cattle would then make a rational commercial decision as to whether the benefits of vaccination outweigh the costs. In fact, in many situations, farmers do choose *not* to vaccinate their cattle against FMD. In countries where FMD is endemic, vaccination or lack of it has relatively little effect on other farmers or the community at large.

However, in a meat exporting country the uncontrolled presence of FMD jeopardises the whole country's exports and therefore the profitability of the agricultural community at large. The individual farmer's decision not to vaccinate his or her own animals against FMD exhibits a major *externality*. The state must step in, with its powers of regulation and public finance, to ensure that vaccination is carried out.

2. Asymmetries of Information.

If the supplier and the consumer have different amounts of information on which to value a transaction, there may be sub-optimal supply or consumption. The 'knowledgeable' dealer can outwit the 'ignorant' consumer such that the value placed on the goods and services by the consumer is higher than it should be. (*Example:* being sold fake or substandard medicine.) Conversely a 'knowledgeable' consumer can outwit the 'ignorant' supplier such that the value placed on the goods and services by the supplier is lower than it should be. (*Example:* Settlers buying land for a string of beads and two mirrors.) The sub-optimal supply or consumption may constitute a '*moral hazard*' (jargon for a rip-off) that is so far beyond society's tolerance that public intervention (regulation, labelling, enforcement of standards) becomes necessary. Even in the absence of a societal 'moral hazard', asymmetry of information can simply cause such distrust that people fail either to supply or to consume for fear of making the wrong 'valuation' of the goods and services. (*Example:* the poor uptake of Measles, Mumps & Rubella vaccination in the UK.)

3. Economies of Scale.

State organisations, by their very nature, tend to be run on a large scale and tend to be present throughout much of the populated part of a country. It may be that the costs of providing a particular good or service would be marginal to the existing overhead costs of maintaining that large organisation. Thus, even if the service is a private good, it may be that the state can deliver it much more cost-effectively than the inevitably smaller-scale private sector operator can.

However, this 'exception to the rule' needs careful monitoring: all too often the only thing preventing the private sector from establishing itself on a viable footing is the continued presence of a subsidised state operation in the market place. This is a well-recognised situation in the reform of state institutions and is termed 'crowding out'.

4. Merit Goods.

In the text-box examples of excludability and rivalry, in the main text, “*education and health care*” appeared in the both the high excludability and high rivalry boxes. That makes them a private good that should, according to the economic theory, be left to the market to provide. (You can exclude a child from attending school, or a health clinic, if his or her parents don’t pay a fee, and one kid’s consumption of school books or doctor’s time reduces their availability to others.) But there is a benefit to society at large of providing education and health care to everyone, not just those that can afford to pay for it, and so the equitable supply of such services may be taken on as a public responsibility. These are called ‘merit goods’.

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