



THE REPUBLIC OF UGANDA

Evidence Based Policy Making A Guide to Regulatory Impact Assessment

**THE CABINET SECRETARIAT
OFFICE OF THE PRESIDENT**

**With support from the Regulatory Best Practice Programme
Ministry of Finance, Planning and Economic Development**

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FOREWORD

I am pleased to introduce this Guide to Regulatory Impact Assessment (RIA). This guidance is designed to help policy makers carry out impact assessments of proposed policy options so that they can better appreciate how our society is likely to be affected by them. The principles and techniques can also be applied when reviewing existing laws, regulations and policies to see whether these continue to meet governments' goals effectively and efficiently.

A Regulatory Impact Assessment is an analysis of the costs and benefits associated with the introduction of a new policy, law or regulation. As a tool that informs policy decisions, RIA enhances the information brought to bear on the policy making process and is an important contributor to rational, evidence-based policy making.

A Regulatory Impact Assessment is a key component of Regulatory Best Practice (RBP). RBP is an approach to regulation that seeks to reduce regulatory-related costs, risks and barriers to competition facing firms so that they are able to operate in a climate which is positive for investment and of mutual benefit for both the investors and society as a whole.

The main driver of Regulatory Best Practice is poverty eradication. The Government recognises that the creation of an enabling investment climate which is characterised by high quality, low cost laws and policies is key to sustainable progress in attacking poverty and improving living standards. For this reason, the Government of Uganda is committed in its Poverty Eradication Action Plan and to ensuring that the principles of RBP are adopted and it has already taken a number of steps to embed this approach as the basis for its policy and law making.

Regulation includes any laws or government rules which influence the way people behave. While some regulation is necessary and beneficial, there are some cases where it may not necessarily be so, or where it could be better designed. Determining whether regulation meets the dual goals of effectiveness and efficiency requires a structured impact assessment approach - RIA, to policy development.

The introduction of RIA is a significant step in improving the quality of policy making and regulation in Uganda. Indeed, improving the regulatory culture will require some fundamental changes in the way laws are conceived, drafted, implemented and enforced. These are changes worth making if we are to meet our development targets and raise the living standards of all Ugandans. The Government is therefore committed to this course.

His Excellency the President of Uganda has personally endorsed *Thinking about Regulation? A Guide to Good Regulation*, published in June 2004, and has directed that officials apply the lessons and standards described in the guide to policy and law making within their Ministries and Departments. Since Regulatory Impact Assessment standards will be rigorously enforced from now on, I urge all senior Government officials to encourage staff to adhere firmly to them when designing new policy and regulatory proposals and by reviewing existing ones. The Regulatory Best Practice Unit in the Cabinet Secretariat stands ready to assist in this regard. Let us all embrace this positive development for the good of our country.

J. Mitala
Head of Public Service and Secretary to Cabinet

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Who Is this Guide For?

This guidance is designed to help policy makers carry out regulatory impact assessments of proposed new policies. It is designed with policy analysts and other government policy makers in mind. The principles and techniques outlined in this guide can also be applied when reviewing existing regulations and policies to see whether these continue to meet the Government's goals in an efficient and effective manner.

What Is a Regulatory Impact Assessment (RIA)?

An RIA is an analysis of the likely costs and benefits associated with the introduction of a new policy or regulation. It is a tool that informs policy decisions. RIA increases the information brought to bear on the policy-making process and is an important contributor to rational, evidence-based policy-making. It provides politicians with better information on which to base their decisions and therefore can contribute to better governance and a business environment that is conducive to growth and poverty reduction. As Uganda's Poverty Eradication Action Plan makes clear, constraints on private sector competitiveness need to be removed in order to promote economic transformation.¹ By encouraging policy-makers to document the rationale for decisions, RIA can also bring about greater transparency and accountability.

[3] A good RIA will:

- Include the best information available at the time;
- Be clear, concise and specific;
- Be a stand-alone document that explains the problem clearly and how the proposed measure will address it;
- Use plain language that can be easily understood by stakeholders;
- Support the policy proposal by demonstrating why it is appropriate through a series of clear, logical arguments, supported by data.

Why Should an RIA Be Carried Out?

The RIA process helps you to understand the full consequences across society, the economy and the environment of the proposals you are considering within your Ministry. It will help you see more clearly what the potential gains

and losses are from the proposal. An RIA will also bring to light whether particular sectors of society and the economy, such as small businesses, the poor, vulnerable and disadvantaged, are disproportionately affected by the proposal, and therefore help you and Ministers consider issues of equity.

The amount of effort you put into an RIA should be commensurate with the importance of the policy proposal and its likely impact. If the proposal is likely only to have a limited impact, then clearly there is no point in producing a long and sophisticated RIA such as would be appropriate for a policy with a major impact. Use your judgement in determining the effort that the RIA justifies, and consult with the Government's Regulatory Impact Assessment Unit.

One word of warning - the impact of a policy proposal is not always evident. You should always think through, the RIA format and consult with potential affected parties to see whether there will be a sizeable impact that you did not originally foresee. Consultation will also help you avoid unintended effects.

THE TAXING PROBLEM OF ALCOHOL ABUSE - AN UNINTENDED EFFECT

A government might decide to increase the tax on beer with the intention of reducing the incidence of alcohol abuse and its negative effects on society. But increasing the price of beer relative to other strong liquors, or home brews, can have the effect of encouraging people to switch to these more alcoholic alternatives. As a result, the problem of alcohol abuse could get worse, not better. Consultation with the alcohol industry, civil society groups and people affected by alcohol abuse might have brought this unintended effect to light and suggest more effective ways of tackling the problem.

Benefits of the RIA Process

The RIA process helps you to:

- Think through the full impact of your proposals; identify alternative options for achieving the desired policy change;
- Assess options (regulatory and non-regulatory);
- Ensure your consultation exercise is meaningful and reaches the widest possible range of stakeholders;

¹ Uganda Poverty Eradication Action Plan, p 14.

- Determine whether the benefits justify the costs; and
- Determine whether particular sectors are disproportionately affected.

RIA in Context

RIA is a key component of Regulatory Best Practice (RBP). RBP is an approach to regulation that seeks to reduce regulatory-related costs, risks and barriers to competition facing firms so that firms are able to operate in a climate which is positive for investment. A good investment climate drives growth and development by encouraging higher productivity (through reduced compliance costs and increased competition), expansion and new investment. For more information on RBP, see *A Guide to Good Regulation*, published by the Uganda Government's Regulatory Best Practice Programme and available at www.goodregulation.or.ug.

An RIA assists governments in designing modern, precise, targeted regulation that achieves legitimate policy aims with the minimum burden on those affected.

RIAs should be seen within the broader context of improving the standards of policy making in Uganda since they address five broad principles that underpin good policy:

- Accountability - to Cabinet and Parliament, to users and the public.
- Proportionality - regulations should be proportionate to the risk.
- Consistency - laws should be predictable, so that people and businesses know where they stand.
- Transparency - regulation should be open, simple and user-friendly.
- Targeted - regulation should focus on the problem, with minimal side effects.

See Annex 1 for a checklist with advice on better policy making generally.

Another Bureaucratic Hurdle?

The quality of what you get out of an RIA depends on what you put in. If you view the RIA process as a bureaucratic hurdle to overcome and to be used to justify the decision you have already taken, then the process will not contribute much to improve your policy ideas.

If you approach an RIA with an open mind and work through the process diligently, however, then the RIA can lead you towards important insights about how the final policy should be designed. The conclusions you reach will

be based upon sound analysis which will help you explain and, if necessary, defend the proposal you are making, and help to avoid the emergence of unintended negative consequences which can make a situation worse instead of better.

Linking the Social and Environmental Dimensions to RIA

Sensitivity to social and environmental dimensions is important. While the Poverty Eradication Action Plan (PEAP) and other national policy frameworks are clear on poverty, gender, rights and the environment, it is often the case that these dimensions are not always translated into sector and other specific policies and are often seen as peripheral to the pursuit of growth. Ensure that the impact on the poor, on men and on women and on vulnerable groups and environmental concerns are considered throughout the different stages of RIA.

The Different Phases of RIA

You should start an RIA as soon as you begin to consider a policy proposal that is likely to have a significant impact on the economy, society or the environment. RIAs are tools that should be used throughout the policy process. Inevitably, the early versions of an RIA will be incomplete and perhaps based on the little data that is readily available. But the lack of data should not put you off starting an RIA, as an RIA will help identify where there are gaps in your knowledge. The RIA should be improved over time as more research and consultation is carried out and data gathered. The process of carrying out an RIA is an iterative one and you should continue to update all sections of the assessment as your thinking on the shape of the policy proposal develops.

Although an RIA will often be a continual work in progress, it is helpful to think of two distinct phases that RIAs move through.

These are:

Initial or Partial RIA which should start being prepared as soon as a policy idea is generated in order to help you think through how best to address the policy problem and the options available. The initial RIA should inform and ideally accompany your submission to your ministry's top management team, seeking agreement to a proposal. It can consist of "a rough and ready" analysis based on what you already know. It should include your best estimates of the possible risks, benefits and costs, and will help you to identify areas where you need more information. An initial or partial RIA can be improved upon as you engage in consultation and further analysis.

Final RIA, which draws on the information you received during the consultation exercise and presents the full analysis of the regulatory proposal in as final a form as possible for consideration by Cabinet and Parliament.

As your RIA moves towards its final phase, it will change from a document that possibly presents a number of options for further consideration to a document that has narrowed its focus to one particular option that is presented as the final proposal.

Remember some proposals which do not have significant impacts will not justify the effort required to carry out a final RIA. In these cases, only partial RIAs may be needed.

Even after a proposal is passed, the RIA continues to be helpful, because it can help with monitoring and evaluation of whether the expected results were achieved.

RIAs and the Policy Making Process

As noted above, the introduction of a system of RIA into the policy-making process is a significant step in improving the quality of policy-making and regulation in Uganda. Specialists in regulatory impact assessment in the Cabinet Office, Office of the President, have an important role to play in supporting Ministries in their work on RIA and in ensuring the quality of the product that is presented to Cabinet. These specialists will be able to advise you on the use of this Guidance. They will also review the quality of RIAs that are submitted to the Cabinet Office and will raise any concerns they have with the Ministries affected.

Consultation

The need for effective consultation is so important that it deserves a mention towards the beginning of this Guide. Effective consultation is vital to producing a high quality RIA as much of the information you use in the analysis is likely to come from other sources. Consultation should start early in the process and continue throughout. Early consultation with parties potentially affected will help you determine the potential scale of impact and decide on the level of effort you need to put into the RIA.

Effective consultation needs to be preceded by analysis of:

- the individuals or groups that will be affected by the proposed new measure of regulation;
- the individuals or groups that have the ability to impact on the proposed new measure or regulation.

These individuals and groups are sometimes called the 'stakeholders'. The stakeholders include the intended beneficiaries, intermediaries and implementers, winners and losers, people with power and those without. This analysis, sometimes known as a "stakeholder analysis" is important to enable you to plan to consult all key groups likely to be affected by the proposed new regulation and particularly the poor and vulnerable groups. Annex 2 gives guidance on how to carry out a stakeholder analysis.

There is no "right" amount of consultation to undertake this will differ for each RIA. The important thing is to give stakeholders an opportunity to tell you what the impacts are likely to be, and to draw on a wide range of sources for your analysis. Think about what level of consultation you need to undertake with different groups, depending on how much they are likely to be affected.

It is also important that consultation be effectively planned and followed up. Providing guidance to stakeholders on the kinds of inputs expected, and informing them of the results of their participation, are useful steps to ensure consultation adds as much value as possible.

Effective stakeholder analysis will help you determine" whether you need to consult with organisations such as:

- Government Ministries, Agencies, Commissions.
- Local governments.
- Development partners/donor groups.
- International development agencies.
- Business organisations, such as Uganda Manufacturers Association (UMA), Private Sector Foundation Uganda (PSFU) and Uganda National Chamber of Commerce and Industry (UNCC!).
- Civil Society Organisations, Non Governmental Organisations, Community Based Organisations, Faith Based Organisations.
- Trade Unions.
- The National Environment Management Authority (NEMA), for proposals with an impact on the environment.

Consultation gives you an opportunity to question your assumptions about costs and benefits and will help you build that section of the RIA. Consultation also helps those affected by legislation to understand better what government is trying to achieve and gives them a chance to begin to adapt to any intended changes. Consultation might also lead to the identification of policy options that you had not foreseen.

BETTER CLINICS, LESS MATERNITY CARE

In one developing country, considerable investment in mother and child healthcare introduced the benefits of modern medicine into rural communities. In some communities, however, the number of births in the new clinics unexpectedly fell to a level lower than the level of use of the old clinics - pregnant mothers preferred to stay away. Consultation revealed the reason for this was that the new clinics insisted on non-traditional practices, such as giving birth whilst lying down and only having one relative present at the birth. Following more extensive consultation, changes were made to permit traditional practices and additional training was given to doctors and midwives. As a result, the level of use of the clinics increased.

As part of your consultation strategy you should:

- Identify the key groups likely to be affected by the proposed new measure or those that can affect the measure;
- Make a plan of how to consult the key different groups affected, ensuring that you consult poor and vulnerable groups likely to be affected. (You may not be able to consult such groups directly but need to plan how to consult them, e.g. through civil society organisations or membership organisations);
- Share your initial RIA with stakeholders so that they can help you improve it;
- Consider whether you need to form a small working group of experts to help the development of the policy;
- Ask for facts and evidence to support the views expressed by stakeholders. This way you can judge the accuracy of what you are being told;
- Ask specific questions to help stakeholders know what information you want from them;
- Keep it short and simple, so that you do not overburden those who are helping you and dissuade them from helping again;
- Allow sufficient time for responses. Three months is a good length of time to allow for proposals with a significant impact. Remember, organisations you consult may have to go out to their members in order to obtain information which they then need to synthesise before responding;
- Give feedback. You should let those you consulted know the results of the consultation and the reason you have reached the decisions you have.

There are different ways to consult. These include:

- Written consultation documents;
- Meetings or workshops with local community groups and other affected stakeholders;
- Sample surveys;
- Focus groups.

You should think about which methods are most appropriate for the people you are trying to reach so that you make it easy for them to have a say in the policy-making process.

A checklist on good consultation practice is at Annex 2.

A draft format for the RIA is set out in the following pages along with guidance on how to complete it. This template is reproduced at Annex 4. If you have internet access, this template is also available electronically for you to download at www.goodregulation.or.ug.

The sections of an RIA are:

1. Title of Proposal
2. Purpose and Intended Effect of the Proposal
3. The Policy Problem
4. Options
5. Impacts
6. Distribution of Impacts
7. Results of Consultation
8. Enforcement and Sanctions
9. Monitoring and Evaluation

Links to some examples of completed RIAs from other countries are available for information at www.goodregulation.or.ug, and are also at Annex 4.

Title of Proposal

In this section you should simply state the full title of the proposal.

EXAMPLE

A Bill entitled "The Traffic and Road Safety Act."

Purpose and Intended Effect of the Proposal

In this section, you should describe clearly what the proposed measure is intended to do. You should be as specific as possible in describing the objective of the proposal and include any relevant targets. These targets will become clearer as the RIA progresses.

EXAMPLE FROM A FINAL RIA

"This proposal will introduce a licensing and quality control regime for boda bodas. As such, it is expected to reduce fatalities and injuries from accidents involving boda bodas by 15% per annum. It is anticipated that this will save 35 lives a year and USH 3 million in lost productivity and medical costs."

Where appropriate, you should also say how the proposal contributes to any of the Government's major policy initiatives and the overall planning framework as framed in documents, such as the Poverty Eradication Action Plan, Vision 2025, and the Medium Term Competitive Strategy for Private Sector Growth. Say why this policy is important and where it fits into the Government's policy agenda.

AN EXAMPLE

"In his policy speech on 23 July 2004, the Minister of Transport pledged Government action to address the recent increase in accidents involving boda boda drivers. This proposal gives effect to that pledge. It is part of the Government's overarching strategy to improve road safety, as set out in the policy document "Safer Roads for Uganda".

There should be a strong link between this section and the next which is where you discuss the policy problem. It is important that you demonstrate how the intended effect of the proposal directly and demonstrably addresses the policy problem you have identified.

3. THE POLICY PROBLEM

Here you should describe the policy problem or issue that the proposal is expected to address. The aim is to explain the nature and size of the problem and to justify why the Government must do something about it.

Identifying the Problem Accurately

You cannot decide how to tackle an issue or problem until you identify and understand it properly. Understanding and defining problems is not as straightforward as it might seem. It is very easy to think that a problem and its solution are obvious, but thinking more carefully about the causes of policy problems can often reveal that these are different from what you originally thought. Be as specific as you can in focusing on the root of the problem as this will help you target your policy proposal. Remember, in order to identify the problem accurately, you need to think about which different groups are affected by the issue and problem and how you can consult them.

It is particularly easy to confuse symptoms with problems. A checklist giving advice on how to analyse policy problems is at Annex 6.

SOME QUESTIONS TO ASK

- Why is the current situation unsatisfactory?
- Has something changed to cause the problem?
- Who is asking for the change and what are their motives?
- How serious is the problem - how many people are affected and in what ways?
- How frequently is the problem occurring?
- What are the costs of the problem to those affected?

Common Policy Problems

There are a number of types of policy problem or reasons for regulating that occur often. Here are some examples:

When too much of something happens or is produced, because those benefiting from an activity do not pay for the full costs of the activity on society. (In economic terminology these are known as "**negative externalities**").

For example, some countries believe that smoking in public places has a negative externality - smokers only bear the impact of the damage they do to their own health, and not the cost of the damage done to the health of others who breathe in their smoke. Some countries, including Uganda, have banned smoking in public places as a way of reducing this negative externality, or policy problem.

When not enough of something beneficial or useful happens or is produced, because those paying the cost don't get all the benefit. (In economic terminology these are known as "**positive externalities**"). For example, if person A pays to spray his land for mosquitoes, his neighbour will also benefit from the mosquito control without paying for it. So person A may choose not to spray his land. Another example is education - if one person gets educated, the total benefits to society are greater than the benefits to the individual. In such cases, there is a case for government to encourage people to do the things that create positive results for society that go beyond the individual gain. This is one of the reasons that education is often free, or subsidised by the State.

Weak competition - where there is no real competition, prices will be too high and governments often act either to increase competition or to control prices. Utilities, such as electricity and water are often subject to price controls because there is no competitive market.

Lack of accurate information - sometimes consumers do not have sufficient information with which to make informed choices, so the government acts to bring about greater information and awareness. This can include through requiring labelling and public awareness campaigns.

Missing markets - there are some goods that the government has to provide, because they are valuable to society but would not be provided by the private sector. These are known as "public goods" and are things that everyone benefits from. The two characteristics of public goods are that one person's consumption of them does not reduce the amount available for everyone else (i.e. they are "non rivalrous"), and that it is impossible to prevent any

individual from enjoying the goods once they are provided (i.e. they are "non-excludable"). National defence and air traffic control are examples of public goods. One of the policy problems presented by public goods is the "free rider" problem. A free rider is a person who consumes a public good without paying for it. Since it is available to everybody there is no incentive to pay or contribute to its improved quality.

Poor quality legal protections - if people do not feel protected by the law, they might not enter into transactions that would be of benefit to both sides. Putting in place a high quality contract law that protects both parties is an example of how governments can create the right environment for growth.

Promoting health and safety - governments have a duty to protect people's health and safety by ensuring risks in the workplace and the wider environment are properly controlled. The effects of ill health and accidents can have a considerable impact on the society and economy and go far beyond the harm to the individual directly affected.

Protecting the environment - Uganda's Vision 2025 makes clear that economic growth, human development, environmental resources, politics and governance are interlinked. An obvious cost of failing to protect the environment can easily be identified in the potential for loss of tourism revenue from the decline of Uganda's natural habitat. Government will therefore sometimes need to regulate to protect the environment and support sustainable development. Most environmental resources exhibit 'public goods' characteristics and, since they are not bought and sold in the traditional sense, have no conventional prices.

Providing social protection - social protection involves the provision of a series of recognised human rights and the protection of the weak and vulnerable in society.

Encouraging or discouraging behaviours for essentially moral reasons; For example, many countries regulate gambling in the belief that it has a pernicious effect on

society. By contrast, some countries regulate trading hours on days of religious worship in order to enable people to attend services, as this is believed to be the morally right thing to do.

Preventing discrimination - the Constitution of Uganda recognises the right to equality of all citizens of Uganda and makes special provisions for the rights of vulnerable groups in society.² Nonetheless, without legal protection to give effect to the Constitution, there is a risk that the protections will not be realised and that legal remedies will remain out of reach of ordinary people.

Safeguarding security - for example, terrorist attacks have caused many governments to introduce legislation to safeguard national security.

Implementing international treaties - international treaties and agreements usually require signatory countries to implement measures in their national laws. For example, since Uganda joined the WTO in 1995, the Government has introduced a number of measures to streamline and liberalise its trade regime.

You may want to ask your Ministry economists to help you with this section, as economics can provide a useful framework within which to think about policy problems and the most appropriate type of government intervention.

Assessing the Size of the Problem

You should state how significant the problem is. Wherever you can, you should assess the risk of the problem occurring, i.e. what is the likely incidence of the problem happening? This is sometimes called "risk assessment" and will help you understand the size of the problem. For example, many proposals are introduced to deal with things that harm consumers, workers or the environment. In these cases, it is important to calculate how often the harm occurs, or the probability that it will occur, and how serious the impact is when it does occur.

² See the preamble to the Constitution of Uganda and Article III, Section II – <http://www.government.go.ug/constitution/#>

AN EXAMPLE - THE RISKS AND COST OF NEW CASES OF MALARIA IN TERMS OF LOST INCOME

If 10 million poor rural workers have caught malaria in the past five years, then the risk may be estimated at two million new cases of malaria per year.

If each malaria sufferer on average has 2 bouts of the disease a year and takes an average of 12 days off work, then the cost is: 2 million cases x 2 bouts x 12 days = 48 million additional working days lost per year.

If the average annual income in Uganda is \$260, then the average daily income is \$260/260 working days per year = approximately \$1 per day.

The size of the problem in terms of income lost can be expressed as: 48 million x \$1 = \$ 48 million income lost annually. This is a direct cost, and does not include other direct costs such as medical treatment expenses, and less tangible indirect costs, such as time off to attend funerals of community members who succumb to the disease, and time taken to care for sufferers at home.

Of course, there are other very important indirect impacts in terms of quality of life and social impacts on families and communities which it would be difficult, and misguided, to try to calculate.

NB: these calculations are illustrative only, and are not based on official statistics. However, the estimate given here is close to the official estimates of income lost to malaria provided by the World Bank, of \$50 million annually.

It may be difficult, or even impossible, to quantify a problem. But putting a figure to the size of the problem wherever possible will help you make decisions about appropriate levels of cost to incur in addressing it. Your estimate should be for a particular period of time, usually one year.

Calculating risk is important because risks are often not well understood by the public and policy makers. For example, people often feel that flying in an aeroplane is more dangerous than driving, even though all the evidence says that driving is the most dangerous form of transport in terms of fatalities per mile travelled. The reason for this misunderstanding is that people feel less risk when they are in control of their surroundings than when they are not.

Misperceptions of risk can lead to public outcries and pressure on governments to act. But when risk is calculated accurately, it can happen that the actual problem is much less than it appears from the perception of the risk, and no government action is really necessary.

Where the effect of problems cannot be calculated, these should still be described, as these effects form an important part of any problem definition.

You should also demonstrate how the proposed measure will have the desired effect on the policy problem. Set out how what you are proposing will have the effect you want to achieve on the problem you have identified.

The decision about how to address a problem is as important as deciding whether to intervene. In this section, you should describe the options that you have considered as possible ways of tackling the problem. These options will have emerged from your own analysis, from exploring how other countries have dealt with the same or similar issues, and also from discussions with those affected by the problem, or causing it.

AN EXAMPLE

Companies responsible for producing pollution, as well as communities suffering its effects, will have ideas about how levels of pollution could be reduced. Options might include:

- Banning outright the harmful production process.
- Subsidising companies' own investments in cleaner technologies.
- Introducing tradable permits to minimise production by those firms that produce most pollution.
- Enforcing existing standards that are being flouted by some companies.
- Requiring companies to relocate production to a different location.

.A checklist offering advice on option analysis is at Annex 6.

Maintain the Status Quo (Do Nothing)

The first option you should consider is what would happen if the status quo was maintained and Government took no action. This will enable you to determine whether the problem would solve itself in time, or whether those affected would find their own solutions.

Maintaining the status quo is often not seen by governments as an attractive option because governments want to be seen to be taking action. Doing nothing is preferable to making the problem worse, however, and you will not be able to prove that is the case unless you assess the do nothing option. Assessing the 'do nothing' option will also provide a baseline against which other options can be measured to show how they improve on doing nothing. Assessing the 'maintain status quo/do nothing' option can also help justify the need for regulation.

Use Existing Powers

Consider whether the problem could be addressed by using existing powers rather than by creating new ones. Is the problem something that better enforcement of existing laws would solve?

Alternatives to Introducing New Regulation

Among the options you consider should be alternatives to regulation. Alternatives to regulation can sometimes provide a quicker and more flexible way of dealing with a policy problem.

SOME ALTERNATIVES TO INTRODUCING REGULATION

- Self regulation - encouraging trades and professions to regulate their own members' activities to ensure certain standards are met. Standards are often set out in a code of practice. Self regulation requires supporting bodies and processes to make it work, and it is important to guard against self regulation acting as a barrier to entry for new firms.
- Information and education campaigns - informing the public of risks and actions to take to minimise risk. These are often most useful when governments want to influence the behaviour of individuals in the private sphere, for example, education campaigns can encourage people to drink alcohol responsibly, or to wear seatbelts when driving.
- Financial and fiscal incentives - such as tax increases/ reductions, subsidies, concessionary loans with reduced interest rates, etc. For example, tobacco products are often heavily taxed in order to discourage people from smoking. Education is sometimes subsidised in order to encourage people to increase their qualifications and skills.
- Quality assurance marks - a way of signalling the quality of a product to consumers. For example, the Forestry Stewardship Council's quality certification mark assures consumers that wood products have been harvested from sustainably-managed resources. In this way, the quality mark gives consumers more information and choice and harnesses consumer purchasing power to influence markets.
- Service charters - a way of setting minimum service standards that the public can expect to receive.
- Better enforcement of existing regulations - or amending existing regulations to achieve a less costly outcome, i.e. by changing the style of regulation from 'command and control' to 'outcome based' regulation.

AN ALTERNATIVE TO REGULATION IN UGANDA

In a review of the Traditional Medicine Bill, prepared by the Ministry of Finance's Deregulation Project in 2002, it was suggested that alternatives to regulation were more appropriate in this case. In particular, the review pointed out that registering Traditional Medicine Practitioners and levying sanctions against those who do not comply, would be difficult and possibly counterproductive, as well as resource intensive. As an alternative, it was suggested that better dissemination of information and public education campaigns were a more effective way of addressing concerns about traditional medicine.

When you have described the possible options you considered, explain why you rejected other options in favour of the preferred approach. You should be able to demonstrate convincingly that the option selected has clear advantages over the others.

In this section of the RIA you should describe, and where possible, quantify the likely impacts of your proposal. You should make clear what the impacts will be on different groups, i.e. business people, the poor, women, and so on, and also on the environment. You should also do the same for any additional options you may have identified as worthy of deeper analysis as this will also help you show why your proposal is the preferred option.

It cannot be automatically assumed that the benefits of a proposed regulation will outweigh the costs. An assessment of the expected benefits and costs of the proposal is therefore a key part of the RIA. The purpose is to determine whether the benefits caused by the regulation are sufficient to justify the costs that the regulation will impose on the economy, society, and possibly the environment.

When identifying impacts you must be careful to include only those that are additional to what would have been incurred if no action were taken. This can be done by comparing the difference between the expected benefits and costs of the preferred option and the "do nothing option".

Identifying Different Types of Impact

A range of possible economic, environmental and social impacts (positive and negative) should be considered, keeping in mind that the proposed regulation can have both direct and indirect impacts. Taking this broad approach can help to identify any unintended impacts of the proposal.

Direct impacts are directly related to the objectives of the proposal and result from measures taken under the proposal. All other impacts are indirect impacts.

It is sometimes helpful to distinguish between private impacts where individuals bear the costs or enjoy the benefits and social impacts where the impacts are borne by society at large. You should also calculate separately the costs to the public sector of implementing and monitoring the proposed regulation.

A regulation that increases the cost of energy will have a **direct impact** on the energy company and on the price consumers pay for energy. It will also have an **indirect impact** on the costs of goods produced using energy, an indirect cost that is borne by consumers and businesses. It will also have an indirect impact on the environment, for example the high cost of HEP leads to the increased and unsustainable use of biomass energy.

Similarly, a regulation that increases the fee charged for waste collection will have a **direct impact** on people who pay for waste collection, and possibly an **indirect cost** in terms of more illegal dumping of waste by people seeking to avoid the increased charge. In this case, the direct cost is a **private** cost, because it is borne by individuals, and the indirect cost is a **social** cost, because it is borne by society.

The issue of indirect impacts (and indirect costs) highlights the importance of consultation in the RIA process. In the example of a government considering introducing an increased waste collection charge, it might be useful to discuss with local focus groups how much people would be prepared to pay for waste collection, and how much they would expect illegal dumping to increase. It might also be insightful to analyse experience from other countries to see what impacts occurred where they introduced increased charges for waste collection.

UNINTENDED EFFECTS - AN ILLUSTRATIVE EXAMPLE

A community wanted to improve the environment by requiring that drinks should be sold in recyclable glass bottles rather than in plastic bottles which were less easy to recycle. This seemed sensible at first. Further analysis revealed, however, that, since glass was much heavier than plastic, the vehicles delivering the bottled drinks would use more fuel on their deliveries. The environmental damage from the increased fuel consumption would have been more damaging to the environment than the use of plastic bottles, so the proposal was dropped. Without careful analysis, a regulation intended to improve the environment might have had the unintended effect of damaging it.

In considering the possible economic, environmental and social impacts of the proposal it will be helpful to refer back to sections 2 and 3 where you described the purpose and intended effect of the proposal and the problem that the proposal is expected to address. This will help you in thinking about the causal chains which link the proposal to the possible impacts. In thinking about the possible impacts

you may find it useful to do this work in stages, starting with broad categories such as those shown in the box below, and then going on to identify more specific indicators for each of these core categories.

EXAMPLES OF IMPACT

Economic Impacts

Real income
Investment
Employment
Equity

Social Impacts

Gender relations
Poverty
Education
Health

Environmental Impacts

Environmental quality
Natural resource stocks
Biodiversity

In identifying the possible impacts of the regulation proposal, you can draw on the following sources for information:

- Your own knowledge and experience.
- The knowledge and experience of colleagues in your own and other Ministries.
- Consultation with external experts.
- Consultation with those who are likely to be affected.
- Research documents, market reports, internet searches.

The time dimension (short, medium and long-term impacts) will also need to be considered in the assessment of impacts. Where possible, it should be made clear whether the effects are one off, or develop over time. If the impacts are irreversible, this should also be recorded in the assessment. In the case of environmental impacts, it is important to establish how quickly a natural system might deteriorate and how much time is available for its stabilisation or enhancement.

Quantifying the Impacts

Once you have identified the impacts, you should try to quantify them, if at all possible. This allows comparisons to be made and assists in identifying trade-offs. It is particularly important to quantify benefits where your analysis of costs reveals that the costs are significant. Where possible, it is helpful to quantify the impacts in monetary terms. Using monetary values enables comparison to be made between different types of impact.

Quantifying and putting a monetary value on benefits and costs can be difficult. As a general rule you should use quantitative assessments wherever you can, and qualitative assessments wherever you cannot. You may not be able to calculate the impacts precisely and will have to use broad quantitative estimates which give an indication of the magnitude of the benefits and costs. This means that it will often be impossible to give a single figure estimate of the net benefit or cost of the proposal. Since the estimates of benefits and costs are often more educated guesses than accurate predictions, it is important to make this clear by explaining the assumptions and sources of information used in arriving at the estimated benefits and costs.

You should also consider running your calculations using variables that are different from your initial assumptions in order to see how the costs and benefits are changed if the assumptions prove wrong. This is known as "sensitivity analysis" and will help you gauge how small changes could affect the results you expect to achieve.

Impacts that cannot be expressed in quantitative or monetary terms should not, however, be seen as less important as they may contain aspects that are significant for the overall assessment of the regulation proposal.

Putting a Monetary Value to Impacts

Compliance Costs

Many regulations will have a direct impact on the businesses that have to comply with them, for example, by requiring businesses to buy new equipment, alter their labour contracts, or fill in more forms for government. These compliance costs can usually be calculated and given a monetary value because they involve:

- Direct expenditure on equipment or labour.
- Additional time costs in performing administration - this can be calculated by multiplying the time spent in complying with the regulation by the wages/earnings of the personnel involved.
- Cost of getting new licences.
- Cost of extra legal, accountancy and other consultancy advice.

Similarly, benefits for business that result from savings can also be calculated and given a monetary value.

When you consult businesses, you should ask them to calculate the monetary value of the impacts that would result from the regulatory proposal. Naturally, you should consider these values reported by businesses carefully, as businesses have an incentive to over-estimate costs and underestimate savings.

It is crucial that you provide an estimation of either the reasonable level of compliance that can be expected or how long it will take to achieve full compliance. Such a calculation can affect the entire outcome of the RIA and must be taken into consideration (see also section 8 on enforcement and sanctions).

Shadow Prices

Generally, market prices can be used as a measure of economic values of impacts. But how do you put monetary values to impacts that have no obvious price, such as many environmental and social impacts? In addition, available market prices may not be reliable when market failures or price distortions are pervasive. This can occur, for example, where a single or small number of enterprises have a monopoly position in the market.

Techniques have been developed to calculate the monetary value of benefits and costs that do not have a market value. For example:

- Time savings - can be given a monetary value by multiplying the time saved by average wages/earnings of the beneficiaries.
- Improvements in health - can be given a value by looking at the savings in costs of treating the illness; or by estimating the improvement in beneficiaries' productivity.
- Training and education - use market value for similar services; or give a value to education by looking at the differences in wage rates of better- and less well educated employees.
- Environmental benefits - use surveys which show how much people are willing to pay for the improvement, or how much they are willing to accept as compensation for suffering from the environmental pollution; estimate the cost of cleaning up the environmental damage that the proposal is trying to avoid. More on the evaluation of environmental impact is given below.

Remember to weigh up the benefits that new environmental regulations can bring to businesses as well as the costs. For example, the benefits can include:

- Efficiency gains and savings in the use of raw materials, energy and their inputs leading to lower operational costs and higher profitability.
 - Increased market access, especially international markets where consumers demand good environmental conditions in the production processes of the products they consume.
 - Lower industrial accidents, improved safety and working conditions leading to higher morale and labour productivity.
 - Optimum resource use.
-

The valuations that such techniques yield are often referred to as "shadow prices" and setting them involves estimating what the hypothetical market value would have been, if there had been an actual market. Since market prices are a reflection of what individuals are willing to pay to acquire goods and services, the basic approach to calculating the value of impacts which do not have a market value, is similarly to estimate the 'willingness to pay' for (or willingness to accept) a particular outcome.

Two examples of shadow prices are below:

THE VALUE OF A HUMAN LIFE SAVED

Putting a value on a human life seems callous, and in a moral sense of course, a human life cannot be valued. But people and policy-makers around the world make judgements about the value of life every day. For example, if a person works in a dangerous industry that person incurs a higher than average risk of death in work. Hopefully that risk is still small, but the person will want to be rewarded for taking the risk, and wages for dangerous jobs often pay more than other, safer jobs requiring similar levels of skill. By looking at the difference between pay rates for dangerous and non-dangerous jobs and at the incidence of death in the dangerous jobs it is possible to calculate a shadow price for a worker's life.

CALCULATING THE SOCIAL BENEFIT OF AN EASIER JOURNEY TO WORK

Imagine that a survey of 500 commuters in Kampala revealed that 1 in 6 people would pay at least 15% more for their home in order to gain an easier journey to work. These people also gave the approximate value of their homes. Let's say the average value of the homes was USH 60 million and the total number of commuters making the daily journey into Kampala was 60,000. This enables us to put a monetary value to the social benefit of improving transport for commuters:

$60,000 \times 1/6 = 10,000$ people who would pay more.

$60,000,000 \times 15\% = \text{USH } 900,000$ that they would each be willing to pay extra for an easier journey.

$\text{USH } 900,000 \times 10,000 \text{ people} = \text{USH } 9,000,000,000$ as a measure of the social benefit of improving the transportation system. This sum can then be weighed against the costs of the improvement in order to see whether the benefits justify the costs.

Environmental Impact

As noted, shadow pricing is particularly useful in assessing environmental impact. This is worth a special mention given the importance of environmental resources and their sustainable use to Uganda's development. The tools used in deriving shadow prices for environmental impact can be divided into two approaches; the Objective Valuation Approach (OVA) and the Subjective Valuation Approach (SVA). The OVA estimates the values of environmental impacts by using directly observable costs, for example:

- Cost of illness - measures all costs related to being treated for an environmentally-induced illness.
- Replacement cost/restoration costs - the economic value can sometimes be inferred from the cost of restoring an asset to its original state (e.g. reforestation).

- Human capital cost - values the impact of environmental hazards on human health, which in turn lower the economy's productive capacity.
- Change in productivity - estimates the physical changes in output caused by the regulatory change, and then estimates the economic value of the change. Water pollution can reduce fishing catches, and air pollution can affect the growth of crops. In both instances, the environmental impact reduced market output, which can be valued using market prices.

SVA is based on the subjective assessments of possible damage expressed or revealed in real or hypothetical market behaviour, for example:

- Preventive/mitigative expenditure - the economic value can sometimes be inferred from the cost of preventing unwanted impacts (e.g. terracing to prevent soil erosion, or measures to protect a source of clean water);
- Relocation and resettlement costs - where the cost of environmental damage is reflected in the cost of relocating or resettling people affected by the damage.
- Travel costs - values a natural asset such as a lake or forest based on expenditures made by people to visit the site.
- Wage differentials - where the risk of working in a specific industry or sector is reflected in a higher wage paid to workers in that sector.
- Property and other land values approach - in which differences in property values reflect the value attached to environmental services associated with the property (e.g. proximity to landfill site, noise, local air quality).
- Contingent Valuation Method (CVM) - based on direct questioning of people to determine their willingness to pay, either for an improvement or to prevent deterioration.

Some examples of when different valuation techniques can be applied are given below:

Environmental effects	Economic impact (Human and Business Costs)	Valuation technique/Approach
Water contamination	Loss in water quality, high water treatment costs, loss in aquatic life and reduced fish catch	Change in productivity, cost of illness, preventive expenditure
Air pollution	Respiratory diseases, reduced visibility, airborne contaminants, death (lung cancer, silicosis)	Cost of illness, preventive expenditure, human cost, wage differential
Involuntary resettlement	Cost of new infrastructure, social costs	Relocation cost, social cost, replacement costs
Land degradation	Lower crop yields, damage to vegetation and soils, food insecurity, loss of income	Change in productivity
Noise pollution	Lowered property value	Relocation cost, property and land value
Recreational, social cultural impacts	Lost tourism, loss of historical/cultural sites	Opportunity cost, tourism values lost, travel cost, property and land values
Wildlife and Biodiversity losses	Loss of habitat and genetic resources	Opportunity cost, tourism values lost, replacement costs
Aesthetic impacts	High depreciation costs	Property/land values, replacement costs
Gaping mining pits/excavation sites	Loss of lives, sicknesses	Cost of illness, replacement costs

DISCOUNTING - AN EXAMPLE

Let's say that a particular health intervention would bring benefits valued at USH 5bn in each of the next 5 years by reducing suffering and the need for costly surgery. The intervention would cost USH 15 billion now. You might be tempted to think that this was an easy decision because the savings of USH 25 billion appear to be greater than the up-front costs. However, when you calculate the present values of the benefits, the picture changes.

The formula for calculating the present value (PV) of future values (FV) is:

$$PV = FV / (1 + r)^n$$

Where r is the "discount rate" and n is the number of years from the present. Governments often establish a "discount rate" that they use for these calculations. In Uganda it is 20%, i.e. 0.20.

	Year 1	Year 2	Year 3	Year 4	Year 5
Future Value	5,000,000,000	5,000,000,000	5,000,000,000	5,000,000,000	5,000,000,000
Present Value	4,166,666,667	3,472,222,222	2,893,518,519	2,411,265,432	2,009,387,860
Total Present Value	14,953,060,700				

So, in this example, the costs now, USH 15 billion, are in fact marginally greater than the benefits, USH 14.9 billion, when these are expressed as present values.

Further information on these techniques is at Annex 8 with examples of how they have been used in developing countries to calculate benefits as diverse as slum improvement in India and the conservation of elephants in Kenyan safari parks. As this Annex will demonstrate, the calculation of shadow process requires imagination and creativity on the part of the policy analyst. Your Ministry economists will be able to offer advice.

Discounting

The costs and benefits flowing from a policy decision are spread over time. Costs are often borne up front, while benefits may be realised in the future. Even in the absence of inflation, money received now is worth more than money received at some time in the future. Conversely, spending money now is more onerous than spending money at some future time. This reflects the concept of "time preference" which can be seen in the fact that people normally prefer to receive cash sooner rather than later and pay bills later rather than sooner.

In order to compare the costs and benefits flowing from a regulation that has an impact over time, it can some-times be helpful to bring the costs and benefits back to a common point in time. This is done by discounting the value of future costs and benefits in order to determine their present value. The process of discounting is simply compound interest worked backwards.

Discounting is not always necessary if it is clear that costs will be outweighed by benefits, but it can be a useful way of comparing these when they seem more finely balanced.

Non-Monetary Quantification of Impact

For some impacts it is not possible, or sensible, to try to ascribe a monetary value, even a shadow one. In such cases, it will be enough to present Ministers with the different types of impact so that they can weigh up the evidence themselves. It will nonetheless be helpful to quantify the impacts so that their significance can be gauged. There are other ways of expressing the magnitude of such impacts. Multi-criteria analysis (MCA) covers a range of techniques that share the common aim of combining a range of positive and negative impacts into a single framework. The technique is used where it is not possible to attach an economic value to all the expected benefits and costs.

Multi-criteria analysis is useful, therefore, where there is a large amount of information on a number of different types of impacts (economic, environmental and social), and where the information on the impacts is presented as a mixture of qualitative, quantitative and monetary data. In applying multi-criteria analysis it will often be helpful to present a summary of the possible benefits and costs in the form of a table or 'impact matrix'. Remember to show both negative (costs) and positive (benefits) impacts in the table. An example of an impact matrix is shown below:

EXAMPLE OF IMPACT MATRIX

Option	Timeframe	Economic	Social	Environmental
Do Nothing Option	Short Term	△		▽
	Medium Term	△		▽
	Long Term	?		▼
Preferred Option	Short Term	▼	?	
	Medium Term	▽	?	△
	Long Term	?	?	▲
Ant Other Options?	Short Term			
	Medium Term			
	Long Term			

Blank	impact has been evaluated as non-significant compared with the base situation
△	positive lesser significant impact
▽	negative lesser significant impact
▲	positive greater significant impact
▼	negative greater significant impact
△▽	positive and negative impacts likely to be experienced according to context (may be lesser or greater as above)
?	effects are uncertain

The Impact Matrix summarises the information on expected impacts in a simple way; but for decision-making purposes, it will be necessary to establish significance criteria which can be used to compare the impacts associated with the preferred option. A scoring system may also be needed to show how the preferred option complies with the significance criteria. An example of a MCA format for reporting the expected benefits and costs is shown below:

FORMAT OF IMPACT SUMMARY TABLE

Impact	Timeframe	Casual Factors	Significance *
Economic	Short Term		3
	Medium Term		3
	Long Term		
Social	Short Term		
	Medium Term		
	Long Term		
Environmental	Short Term		1
	Medium Term		3
	Long Term		4

*1-5; 1=not significant; 5=very significant

In the table, a distinction is made between greater and lesser significance based on the importance of an impact for the particular economic, social or environmental factor concerned. They give no indication of the relative importance of the economic, environmental and social impacts compared with each other.

This section has offered some guidance on how to go about estimating the possible impacts of a regulatory proposal. Quantifying benefits and costs is difficult; and putting a monetary value on impacts is even more difficult. In attempting to quantify potential benefits and costs associated with a new proposal, it is important to draw on a wide range of sources for information, data, opinions and advice. If the impact is likely to be substantial, and where resources permit, you may want to consider employing external consultants to work on the impact estimates.

Governments have an interest in ensuring that regulation is as equitable as possible, but the costs and benefits of regulation seldom fall equally across all segments of society and the economy. This section of the RIA is where you build on your analysis under section 5, of who gains and who loses from the proposal. This will assist with transparency and help politicians decide whether the overall costs or benefits to society and the economy outweigh the burden or benefit given disproportionately to the one sector. The fact that costs and benefits are not equally shared does not necessarily mean that the proposal is a bad one, but it is an important consideration in the policy debate.

You should try to calculate the degree to which the proposal would impact some groups more than others. In particular, you should consider the impact of your proposal on the following groups which are particularly susceptible to disproportionate regulatory impact:

- Micro and Small and Medium-sized Enterprises
- Vulnerable Groups (the poor, women, children, elderly, disabled, people living with HIV/AIDS, etc.)
- Different Districts, Tribes and Religions
- Civil Society and Non Governmental Organisations

Micro and Small and Medium-sized Enterprises

Small businesses are less able than large firms to absorb the costs of regulation as they cannot take advantage of economies of scale. Yet small businesses are vital to the economic growth and development of the Ugandan economy. Micro-businesses are also particularly important in Uganda's efforts to help lift people out of poverty. Establishing a micro-business, perhaps simply as a sole trader, offers an escape route from poverty for some people and it is important that as few barriers as possible are put in the way of that process.

You should therefore specify separately whether your proposal will entail additional costs to small businesses. Where there are additional costs, you should say what they are and how much the typical small business in the sector is likely to have to pay. Consider in particular whether there will be any impact in terms of employment.

If the impact on small firms is likely to be significant, you should consider whether it is appropriate to offer small firms an exemption from the new regulations, or to make them subject to less onerous requirements than large firms.

Vulnerable Groups

Gender

Government is committed to addressing gender imbalances. It is possible that your regulation will impact differently on men and women. If so, this should be brought to light in this section. For example, many market traders are women. Any legislation that relates to market traders is therefore likely to have a disproportionate impact on women's incomes and livelihoods.

The Poor

As noted above, regulation that increases burdens on micro and small businesses is likely to harm the interests of the poor because it reduces the prospects for growth, wealth creation and jobs.

Since poverty means many things, there are other ways in which regulations can impact on the poor in addition to income. You will discover these in the consultation process, and you should find ways to consult the poor on their views if the proposal has significant social or economic impacts. This guide does not attempt to provide detailed advice on pro-poor regulation, but some issues you should consider when assessing whether there is a specific impact on the poor are:

Assets. Assets mean more than financial capital such as income and savings. Regulation's impact must also be assessed with respect to human capital (e.g. education, health, skills), physical capital (e.g. housing, roads), natural capital (e.g. land, water), and social capital (e.g. networks, relationships). Policy changes can directly or indirectly impact any of these assets. For example, energy price changes may impact on natural and human capital through people resorting to alternative energy sources with possible negative health impacts. As another example, women are often constrained in the extent to which they own and control land.

Prices. The poor are particularly vulnerable to changes in prices which can significantly diminish or increase real incomes.

Adjustment is more expensive for the poor. Adjustment for the poor is relatively more expensive than for people who are not poor. Regulation and changes in regulation should take this into consideration. The poor do not have savings that would help them to retrain or change their livelihood strategies; hence change is expensive and often impossible. Support measures, long transition periods and exemptions may be appropriate.

Social ties are very important. Social ties are particularly important for the poor as they constitute a line of defence against risk. Regulation must try to support and build on these bonds. Anything that interferes with traditional social support mechanisms, or breaks up communities, can increase the vulnerability of the poor.

Access to services. The poor often find it difficult to access services and markets. Will the regulation make this easier or harder for them?

Informal mechanisms. The poor often find inventive ways of providing for their needs through informal mechanisms such as barter and mutual social protection. Will the regulation prevent these informal mechanisms from functioning?

People living with HIV/AIDS

People living with HIV/AIDS also have special needs that may be affected by new regulations. When a member of a household suffers from HIV/AIDS, costs can increase and incomes can be reduced. There are also additional responsibilities for care-givers. Describe where appropriate, how people living with HIV/AIDS will be disproportionately impacted by the regulation. Consider, for example, the following factors:

- **Limited mobility.** Many AIDS patients are homebound and need to receive care and services at home.
- **Orphans.** Children are becoming the heads of households in areas heavily affected by HIV/AIDS. Will these children be affected by the law?

- **Stigma.** For people living with HIV/AIDS, stigma is a strong barrier to accessing services, markets and rights. Do you need to consider how to provide for inclusiveness?

Uganda's Districts and Tribes

In any country, national cohesion can suffer if one district or group is seen to gain or lose more than others from a policy. If the proposal is likely to impact some districts or tribes more than others, you should say so in this section.

Followers of different religions

Sensitivity to religious differences is also important in a society where people follow different faiths. You should consider whether your proposal will impact on religious practices and therefore on any particular religious group.

Civil Society and Non-government Organisations (NGOs)

Non-governmental organisations, charities, trades unions, business representative organisations, independent educational establishments and other civil society organisations all have an important part to play in society, whether it is delivering services, helping the disadvantaged, protecting the environment or representing their members' interests. You should consider whether your regulation will have an impact on the functioning of these groups. Will it help them work better in the furtherance of their goals, or will it put obstacles in their way? For example, tax policies, registration procedures, access to information and protection of civil liberties directly impact the development and effectiveness of civil society organisations. A regulation that reduces the information available publicly may reduce the ability of civil society to hold government to account.

In this section, describe who was consulted, for how long you allowed them to comment and what the main findings were from the consultative process. Make sure you describe how you identified who is likely to win and lose from the proposed new measures, how you consulted poor and vulnerable groups, and whether and how men and women will gain/lose differently from the proposed new measure. List the organisations you received views from and include a summary of these views. This will help you and politicians anticipate likely reactions to the proposal. If you were not persuaded by the arguments you heard, explain why this was so.

Enforcement

There is little point in bringing in a new regulation if it will not be enforced. This wastes the valuable cabinet and parliamentary time, and an accumulation of laws that are not properly enforced only serves to bring government into disrepute. In this section you should describe how you intend to see your proposal enforced and any associated costs. Costs of enforcement can include:

- Inspection visits. If the costs of these visits are to be borne by municipalities, have additional funds been made available for this purpose?
- Licensing regimes.
- Administration costs.
- Police time.
- Prosecution costs.

You should say what level of compliance you expect and how this will be achieved. The level of compliance should also be used in the calculations of costs and benefits you set out in section 5.

You should consult with the authorities that will be responsible for enforcing the regulation to test the assumptions you make about levels of compliance and the effort and cost required to enforce.

Sanctions

Sanctions are the penalties that are applied when people do not comply with the regulation. Establishing the right sanction is not always easy. Sanctions need to act as a deterrent to non-compliance, but they must not be so disproportionately severe that they cause people to adopt an overly cautious approach and have the effect of making the regulation more restrictive than you intended.

Sanctions should be proportionate to the seriousness of the "offence" and wherever possible, they ought to be compatible with what is already in place for offences of a similar seriousness.

All RIAs should describe how the proposed measures will be monitored and evaluated once they are in place, to see how they are working in practice and whether they are achieving the desired result.

A review gives the opportunity to consult stakeholders on how the implementation of the regulation has gone and whether there have been unintended consequences. It should include consideration of whether the costs and benefits in the original RIA were correct, and the extent to which the regulation did actually solve the problem. Not only does this benefit the particular policy area, but it also allows lessons to be carried through to other areas.

As much detail as possible regarding the review mechanism should be included in the RIA. For instance, when is the review going to take place? This may be a certain length of time after the regulation is implemented or it may be in response to events. What kind of review will it be? A statutory review (put on the face of the legislation) or a political commitment for a review to be carried out.

Monitoring and Evaluation

Even if formal reviews are not considered appropriate, you will need to make arrangements for monitoring and evaluating the implementation methods you identify, including the effectiveness of the proposed enforcement regime, and for collecting reliable data on compliance levels. This process and its timing should be recorded in the RIA.

In the longer term this information should feed back into the policy making process. Consider setting up a feedback mechanism for recording any ongoing complaints from those affected by the proposals, e.g. businesses and members of the public.

ANNEX 1: BETTER POLICY MAKING: POLICY-MAKER'S CHECKLIST

This matrix illustrates the elements of the five Principles that underpin good policy and that policy makers should reflect on when formulating, implementing, enforcing and reviewing policies and regulations. These Principles are a useful toolkit for measuring and improving the quality of

regulation and its enforcement, setting the context for dialogue between stakeholders and government. They should be applied to the full range of alternatives for achieving policy objectives, when dealing with both domestic and regional legislation.

Proportionality	<p>Regulators should only intervene when necessary. Remedies should be appropriate to the risk posed and costs identified and minimised.</p> <ul style="list-style-type: none"> ▪ Policy solutions must be proportionate to the perceived problem or risk and justify the compliance costs imposed - don't use a sledgehammer to crack a nut! ▪ All the options for achieving policy objectives must be considered - not just prescriptive regulation. Alternatives may be more effective and cheaper to apply. ▪ Enforcement regimes should be proportionate to the risk posed. ▪ Enforcers should consider an educational rather than a punitive approach where possible.
Accountability	<p>Regulators must be able to justify decisions and be subject to public scrutiny.</p> <ul style="list-style-type: none"> ▪ Proposals should be published and all those affected consulted before decisions are taken. ▪ Regulators should clearly explain how and why final decisions have been reached. ▪ Regulators and enforcers should establish clear standards and criteria against which they can be judged. ▪ There should be well-publicised, accessible, fair and effective complaints and appeals procedures. ▪ Regulators and enforcers should have clear lines of accountability to Ministers; Parliaments and the public.
Consistency	<p>Government rules and standards must be joined up and implemented fairly.</p> <ul style="list-style-type: none"> ▪ Regulators should be consistent with each other and work together in a joined-up way. ▪ New regulations should take account of other existing or proposed regulations, whether of domestic, regional or international origin. ▪ Regulation should be predictable in order to give stability and certainty to those being regulated. ▪ Enforcement agencies should apply regulations consistently across the country.
Transparency	<p>Regulators should be open and keep regulations simple and user-friendly.</p> <ul style="list-style-type: none"> ▪ Policy objectives, including the need for regulation, should be clearly defined and effectively communicated to all interested parties. ▪ Effective consultation must take place before proposals are developed, to ensure that stakeholders' views and expertise are taken into account. ▪ Stakeholders should be given adequate time, and sufficient information, to respond to consultation documents. ▪ Regulations should be clear and simple, and guidance, in plain language, should be issued in good time before the regulations take effect. ▪ Those being regulated should be made aware of their obligations, with law and best practice clearly distinguished. ▪ Those being regulated should be given the time and support to comply. It may be helpful to supply examples of methods of compliance. ▪ The consequences of non-compliance should be made clear.
Targeting	<p>Regulations should focus on the problem, and avoid a scattergun approach.</p> <ul style="list-style-type: none"> ▪ Where appropriate, regulators should adopt a "goals-based" approach, with enforcers and those being regulated given flexibility in deciding how to meet clear, unambiguous targets. ▪ Guidance and support should be adapted to the needs of different groups. ▪ Enforcers should focus primarily on those whose activities give rise to the most serious risks. ▪ Regulations should be systematically reviewed to test whether they are still necessary and effective. If not, they should be modified or eliminated.

The foundation tool for all social analysis is Stakeholder Analysis. It is a systematic methodology that uses qualitative data to determine the interests and influence of different groups in relation to a reform. It is the most widely used social tool across disciplines. It contributes not just an understanding of who will be affected by any reform but also facilitates the development of a strategy for involvement and participation of stakeholders in the process of assessing and shaping the reform. It is usually conducted in a workshop or as an iterative process from review of secondary data and over a series of meetings or consultations. It should be kept under review as interests can change.

Stakeholders can both influence and be influenced by regulations and policy reform. This includes intended beneficiaries that are a focus of the reform (primary stakeholders), intermediaries and implementers (secondary stakeholders), winners and losers, people with power and others without. Other primary stakeholders will include those who are at risk of being adversely affected.

It is important that stakeholders are disaggregated in a manner that has meaning for the reform context. This could, for example, be by livelihood group, by enterprise size or by location. Be sure to also differentiate by important variables such as income class, age or gender. Regulators should not take short cuts or make assumptions about stakeholders. It is those who are most likely to be overlooked or adversely affected who should be the primary focus in order to impact on poverty and inequality. And if we leave out the hard to reach, then the likelihood of increasing inequality is considerable.

A comprehensive stakeholder analysis helps to ensure that the diagnosis takes account of local knowledge and understanding, to make the interests of key stakeholders transparent and to build ownership of the reform process. It should help to gauge opposition and see if there are ways of mitigating this, or if it is so powerful that achievement of the desired outcomes are highly unlikely. It should also help to assess levels of confidence that the proposed reforms will solve real problems. The analysis will help to identify potential winners and losers and establish the

relative power and influence that different groups can exert. On its own it does not analyse impact but provides essential information about the policy environment.

Remember that the analysis can only be as good as the information it is based on. Several opinions are necessary to avoid bias and give confirmation.

Steps in Stakeholder Analysis

There are many different techniques that can be used for Stakeholder Analysis. The important thing is that, whatever technique is used, the process and the end product should be useful. A possible approach is outlined here:

1. Identify the main stakeholders, using a stakeholder table:
 - a. List all stakeholders
 - b. List their interests in this intervention
2. Assess the influence and importance of stakeholders. *Importance* is the priority given to satisfying the needs and interests of each stakeholder/group. *Influence* is the power a stakeholder has to facilitate or impede the achievement of objectives. A five-point scale is often used for this, with 1 being very little and 5 a lot. Once scores have been agreed these can be plotted onto a Matrix (see below).
3. Indicate the relative priority to be given to meeting or challenging the interests of each stakeholder.

High Importance/ Low Influence	High Importance/ High Influence
A priority and will require special attention to protect their interests	Gaining and maintaining their support will be crucial
Low Importance/ Low Influence	Low Importance/ High Influence
Not a direct focus of this activity, but might need some limited monitoring	Not a focus but their interests cannot be ignored (a possible killer risk)

4. Identify appropriate stakeholder participation
 - a. Discuss with individual stakeholders the role they should play
 - b. Summarise key stakeholders' roles at different stages of the project cycle, in a participation matrix

Action Stage	Inform	Consult	Partnership	Control
Identification				
Planning				
Implementation				
Monitoring & Evaluation				

Checklist on Consultation

- Consult widely throughout the process, allowing adequate time for consultation during the development of the policy.
- Be clear about what your proposals are, who may be affected, what questions are being asked and the timescale for responses.
- Ensure that your consultation is clear, concise and widely accessible.
- Give feedback regarding the responses received and how the consultation process influenced the policy.
- Monitor your Ministry's effectiveness at consultation to facilitate improvement.
- These criteria must be reproduced within all consultation documents.

1. Title of Proposal
2. Purpose and intended effect of measure
 - (i) The objective
 - (ii) The background
3. The Policy Problem
4. Options
5. Impacts

Benefits

- Economic
- Environmental
- Social

Costs

- Economic
- Environmental
- Social

6. Distribution of Impacts
7. Results of Consultation
8. Enforcement and Sanctions
9. Monitoring and Review
10. Summary and Recommendation

Option	Total cost per annum Economic, environmental, social	Total benefit per annum Economic, environmental, social
1.		
2.		
3.		
4.		

11. Declaration

I have read the regulatory impact assessment and I am satisfied that the benefits justify the costs.

Signed _____

Date _____

Minister's name, Portfolio, Ministry

Contact point

Follow the links below to some examples of Regulatory Impact Assessments from the UK.

When looking at these examples, think about the information contained within this guide. You may find it useful to use the checklists and template available to think about how, if at all, you may have improved on the analysis presented.

- Is the purpose and intended effect of the RIA in question clearly articulated?
- Has the policy problem been identified sufficiently?
- Have alternatives to regulation been carefully analysed and presented?
- Do you consider the process of consultation to have been sufficient? Was the level of consultation proportionate to the task in hand?
- What are your thoughts on the impact analysis contained within the RIA? Has sufficient attention been paid to the distribution of impacts?
- Above all are the five principles of good policy described in Annex 1 clearly articulated in these examples?

http://www.dti.gov.uk/access/ria/pdf/ria-dispute_resolution.pdf

http://www.dti.gov.uk/er/equality/agediscrim_RIA.pdf

<http://www.defra.gov.uk/corporate/consult/euetsnapstagethree/ria.pdf>

<http://www.defra.gov.uk/environment/consult/airqual01/12.htm>

<http://www.defra.gov.uk/environment/consult/watersup/pdf/watersup.pdf>

ANNEX 5: CHECKLIST ON PROBLEM ANALYSIS (ISSUE DEFINITION)

- Issue Definition is the most important and fundamental step in developing good quality analysis and is frequently overlooked.
- Do not confuse a quick solution with issue identification; look for the problem within the problem.
- Carry out a situational scan/analysis.
- Challenge assumptions:
 - Get a variety of perspectives inside and (if possible) outside government. Remember to consult with less influential stakeholders such as the poor, particular groups of workers, and to get views from men and women separately.
 - Ask the right people the right questions; think beyond asking the people you usually consult. Verify what consultants tell you.
- Clarify the political context; place the issue in relation to the policy priorities of government.
- Document the case for change:
 - Confirm the need for government action now. Could someone else solve the problem? Why is this the right time?
 - Measures: data, opinion, public/stakeholder views.
- Identify desired outcomes.

WHAT DOES SUCCESS LOOK LIKE?

The issue can be communicated in a concise statement which describes the problem and the desired outcomes.

Communication Issues:

- Fundamental but not always in place: clear communication from the decision maker about the nature of the policy proposal.
- Understand the difference between policy issues and communications issues.
- Include media positions and public opinion in situational analysis.

ANNEX 6: CHECKLIST ON OPTION ANALYSIS

- Create a conceptual framework. Locate a range of options within the framework and within the context of government policy priorities.
- Explore all possibilities. Brainstorm, do not evaluate at this stage. Try to think about issues differently.
- Question assumptions. Build on your research.
- Articulate the full range of interventions available to government:
 - What is the least action that government could take?
 - What would the highest degree of intervention look like?
 - Always consider the "do nothing option" - this may give unexpected insight into the issue.
 - What would be needed to ensure that change happens?
 - Build options around key decision points. Try to have three distinct and distinguishable options.
 - Not every issue requires a "programme" as a solution. Not every issue requires government action.
- Move from linear thinking to creative thinking. Create -- dynamic models across time. Develop scenarios.
- Design a range of options which can be compared in a consistent way and which can be assessed in a consistent way against desired outcomes.
- Out of the wide range of preliminary options, focus on selected "most viable" ones for detailed analysis of Options.
- Consider a wide range of external perspectives and impacts. How do the options address the problem?
- Carry out an opportunities/risk analysis.
 - Who is likely to resist this option? How would you address this?
 - Try to anticipate unintended consequences and perverse effects.
 - Is any option too problematic to present to the decision-maker?
- Propose performance measures which could be applied to all options.

- Rank the options and determine recommendations. Clearly organise the recommendations around key decision points (e.g. whether to proceed? vs. How to proceed?).

What does success look like?

A range of options can be analysed in a consistent way against desired outcomes. All options:

- Will provide a way to resolve (or mitigate) the issue.
- Place the issue in relation to the policy priorities of government.

Decision-makers will:

- Be able to compare options and understand what changes and what stays the same between options.

Understand potential risks and key decision points for each option and are able to rank the options against desired outcomes.

Communication Issues:

- Chart and graph complex information.
- Communicate your conceptual framework in a graphic way if possible.
- What are the communications opportunities and risks for each option - internally and externally?
- Think carefully about how to communicate complex options to decision-makers.

There is a range of valuation techniques that can be used to estimate total economic value of impacts. The choice of techniques will depend on the particular impact under consideration and on the availability of data. In some instances, it may be possible to apply several techniques to the same impact, which can provide a useful cross-check on the reliability of the estimate of economic value.

In all cases, the underlying approach is the same - to estimate what an individual would be willing to pay (or willing to accept in compensation) in order to have a specified change in a good or service. There are three main ways of calculating willingness-to-pay values:

- i. Using market prices
- ii. Using information on individuals' preferences
- iii. Benefit transfer

Using Market Prices

Changes in productivity method

This method estimates the physical changes in output caused by the regulatory change and then estimates the economic value of the change in terms of marketed goods and services. Water pollution can reduce fishing catches, and air pollution can affect the growth of crops. In both instances, the environmental impact reduces markets output, which can be valued using market prices. Box 3 provides an example of the change in productivity method.

BOX 3: CHANGE IN PRODUCTIVITY VALUATION METHOD:

Coastal Forest Protection Project, Croatia

Reforestation activities were estimated to result in increased wood production, which would be harvested at various intervals in the future. Using estimates of increased output (in terms of quantity and quality) and expected prices at the time of harvest, it was possible to calculate the economic value of the increased wood production.

Source: World Bank, 1998

Human capital cost method

This method is often used to value the impact of environmental hazards on human health. Environmental 'bads' such as air and water pollution or the use of

pesticides reduce the quality of the human capital stock, and therefore lower the economy's productive capacity.

To apply the human cost method it is first necessary to determine the relation between the hazard and human health, by expressing the health impact in terms of premature death, sickness or absenteeism. Sickness can then be valued using medical and health care costs. Absenteeism is valued in terms of lost earnings (this assumes that earnings measure the contribution that the absent worker would have made to output). Box 4 provides an example of the human capital cost method.

BOX 4: HUMAN CAPITAL COST VALUATION METHOD: AIR POLLUTION COSTS IN MEXICO CITY

A World Bank study used the cost-of-illness approach to estimate air pollution costs. The study used a three step procedure:

Determining the ambient concentrations of various pollutants

Determining the incremental incidence of disease including both morbidity and mortality in the population

Estimating the costs of the increase in morbidity and mortality, as measured by treatment costs; loss of wages and loss of lifetime earnings.

Source: Dixon et al., 1994

Using Information on Individuals' Preferences

Often it will not be possible to link the impact to a change in marketable output. In these cases, the willingness to pay has to be estimated indirectly, using a range of techniques. The following techniques can be used:

Replacement cost or preventive expenditure method

The economic value that individuals attach to the non marketed good or service can sometimes be inferred from the cost of preventing unwanted negative impacts, or of restoring an asset to its original state after it has been damaged. For example, the costs of air pollution-related acid depositions could be estimated using the costs of restoring damaged physical infrastructure, or the costs of soil erosion could be estimated using the costs of providing preventive terracing. Box 5 provides an example of the use of the replacement cost valuation.

BOX 5: PREVENTIVE EXPENDITURE AND REPLACEMENT COST VALUATION: METHOD: FLOOD CONTROL AND SOIL CONSERVATION PROJECT, YELLOW RIVER BASIN, CHINA

This project was intended to reduce flooding and deposition of sediment in the lower reaches of the Yellow River. This was to be achieved by a number of measures undertaken in the upstream area: construction of structures to trap sediment; modification of land form; and modification of land use.

The flood prevention benefits were valued indirectly in terms of avoided expenditures - preventive expenditure on raising dikes, restoration costs of distilling irrigation systems and opportunity cost of water used for flushing sediment.

Contingent valuation method

The contingent valuation (CV) technique relies on direct questioning of people to determine their willingness-to-pay valuation of an impact. A detailed description of the impact is provided, and people are then asked what they would be willing to pay for a hypothetical improvement, or to prevent deterioration, or what they would be willing to accept in compensation.

The CV method has a number of shortcomings and it is important that the questions be carefully designed and pre-tested to avoid various potential sources of bias. In particular, the responses will often show willingness to pay to be lower than willingness to accept, as respondents give a tactical, self-interest response which under- or over-states their true preferences. Box 6 provides an example of the contingent valuation technique.

BOX 6: CONTINGENT VALUATION METHOD: NATIONAL PARK PROJECT, MADAGASCAR

Contingent valuation was used to value the cost to local communities of refraining from using the area of the Mantadia National Park, established under World Bank Forest Management and Protection Project. Local residents were asked whether they would be willing to accept specified levels of compensation to forego access to the forest. These estimates were then used as a measure of the costs imposed on the local community by the Park. Contingent valuation was also used to estimate the benefits, by asking international tourists how much they would be willing to pay to visit the Park.

Source: World Bank, 1998

Surrogate market price valuation method

While the good or service that we want to value may not be traded directly, it is possible sometimes to find a good or service that is sold in markets and is related to the non-market environmental item. In this situation, the individual will reveal his or her preference for both the

market and non-market good or service when making a purchase. It may then be possible to separate-out the environmental component of value from the observed pattern of market prices, and in this way use market prices as a 'surrogate' for environmental values.

There are three main techniques for applying the surrogate market method: travel cost method, property value method and wage difference method. We will describe each of these methods in turn and give examples of their application in developing countries:

• ***Travel cost method***

Many natural resources are used for recreational purposes. The travel cost method makes use of the fact that in visiting a recreational site, for example, a lake or a forest, the visitor will incur costs in terms of travel and time. Information on expenditure to visit a site can be used to derive a demand curve for the site's services, and from this demand curve the economic value which visitors attach to the site can be estimated. The travel cost method does rely on a number of assumptions about the underlying behaviour and preferences, and the results obtained need to be interpreted carefully. Box 7 gives an example of how the travel cost method was used to estimate the value of wildlife safari tourism.

BOX 7: TRAVEL COST VALUATION METHOD: ELEPHANT VIEWING SAFARIS IN KENYA

The travel cost method was used to estimate a demand breakdown for safari tourism, and contribution that elephants make to the value of a safari. The costs of travel were estimated using data on land travel costs, air fares and travel time. To identify the contribution that elephants make to the value of a safari, tourists were asked to allocate the enjoyment of their trip over various categories of experience, including viewing the elephants. The proportion attributed to elephant viewing was applied to the total travel costs valuation to give a viewing value for elephants.

Source: Munasinghe, 1993.

• ***Property value (or hedonic price) method***

The property value method is based on the idea that differences in property prices can be used to infer the value which individuals attach to the environmental services associated with the properties. For example, the difference in the price of two properties which differ only in, say, the local air quality, will provide a measure of the value which people give to difference in air quality. Even when properties differ in other ways, it may still be possible to uncover the implicit prices of environmental quality using statistical techniques to separate out the contribution of

each factor to the total market price. Box 8 gives an example of how the property value method was applied in a slum improvement project in India.

BOX 8: PROPERTY VALUE METHOD: SLUM IMPROVEMENT PROJECT, VISAKHA PATNAM, INDIA

In 1988, the UK Overseas Development Administration started a major programme to improve 170 designed slum areas. The programme included physical infrastructure improvements, improved water supply, public toilets, community centres and primary health care services. There is an active housing market in slum areas. The average change in property prices over a three year period was calculated for slum areas that were included in the improvement programme and for areas that were not included. The difference in values was taken as a measure of the benefits from the slum improvement scheme.

• *Wage differences*

The wage difference method is based on the idea that the price of labour reflects the value society places on labour skills and particular services. For example, a job that requires a particular skill may pay a higher salary than a job identical in every respect, except for the particular skill need. This would allow an analyst to get a shadow price for the value of training in the particular skill. Wage differences can also help analysts derive a measure of risk –

for example, people will usually demand higher wages for doing dangerous jobs.

Using Benefit Transfer

Benefit transfer is used to describe the procedure of applying estimates of economic value derived in one context

to value in a different context. For example, the value of health damage from air pollution in one city might be used to estimate costs in a different city or, more controversially, the values derived in one country might be transferred for use in a different country. The main reason for considering the use of the benefit transfer method of valuation is that it can provide a quick and low-cost way of calculating values when time or resources do not allow for a new study. There are obvious risks in using this method, however, and it can only provide reliable estimates under the restrictive conditions that both the commodity or service being considered and the population being affected are very similar in both locations.

Table 1 summarises the main valuation techniques and lists some of the advantages and disadvantages of each method. Table 2 identifies the economic impacts and appropriate valuation techniques for some selected environmental effects.

TABLE 1 ECONOMIC VALUATION METHODS

Valuation Method	Advantages	Disadvantages
Production effect	<ul style="list-style-type: none"> ▪ easily understood and applicable, provided dose-response relation is known ▪ market values 	<ul style="list-style-type: none"> ▪ difficult to isolate the effect of given impact on observed change in production ▪ market prices may be poor indicator of willingness to pay ▪ only relates to use value
Replacement cost or preventive expenditure	<ul style="list-style-type: none"> ▪ ease of application, if engineering and cost data are available 	<ul style="list-style-type: none"> ▪ preventive expenditure may understate environmental value ▪ replacement cost may understate full reinstatement of environment quality ▪ does not include non-use value
Human capital cost	<ul style="list-style-type: none"> ▪ epidemiological dose-response data available ▪ health expenditure data available ▪ earnings data available 	<ul style="list-style-type: none"> ▪ likely to understate full value of health ▪ difficult to isolate separate causal factors in ill health ▪ moral and ethical objections
Contingent valuation	<ul style="list-style-type: none"> ▪ includes option and existence of total value 	<ul style="list-style-type: none"> ▪ time intensive and expensive to implement ▪ biases in questionnaire responses
Travel cost	<ul style="list-style-type: none"> ▪ well developed and tested methodology 	<ul style="list-style-type: none"> ▪ large data requirements and problems of interpretation of results ▪ measures use value only
Property prices	<ul style="list-style-type: none"> ▪ availability of property price data 	<ul style="list-style-type: none"> ▪ assumes market values capture the environmental good's value ▪ measures use value only
Wage differences	<ul style="list-style-type: none"> ▪ availability of wage data 	<ul style="list-style-type: none"> ▪ many factors affect relative wage rates ▪ wages in some important areas are set by the public sector not the market
Benefits transfer	<ul style="list-style-type: none"> ▪ availability of value estimates from other studies ▪ time savings and inexpensive 	<ul style="list-style-type: none"> ▪ inappropriate transfer of values from site where primary analysis was conducted to different conditions at site under consideration

Appraisal The process of defining objectives, examining options and weighing up the costs benefits, risks and uncertainties of those options before a decision is made.

Assessment(s) Either an appraisal or an evaluation (or both).

Cost Benefit Analysis Quantifies in monetary terms as many of the costs and benefits of a proposal as feasible, including items for which the market does not provide a satisfactory measure of economic value.

Discounting A method used to convert future costs or benefits to present values using a discount rate.

Discount rate The annual percentage rate at which the present value of a future unit of account is assumed to fall away through time.

Do nothing (maintain status quo) option A description of what would happen if the Government took no action.

Effectiveness A measure of the extent to which a project, programme or policy achieves its objectives.

Evaluation Retrospective analysis of a project, programme or policy to assess how successful or otherwise it has been, and what lessons can be learnt for the future. The terms 'policy evaluation' and 'post-project evaluation' are often used to describe evaluation in those two areas.

Externality costs or benefits The non-market impacts of an intervention or- activity which are not borne by those who generate them.

Implementation The activities required during the period after appraisal to put in place a policy, or complete a programme or project, at which point 'normal' service is achieved.

Market failure An imperfection in the market mechanism that prevents the achievement of economic efficiency.

Net Present Value (NPV) The discounted value of a stream of either future costs or benefits. The term Net Present Value (NPV) is used to describe the difference between the present value of a stream of costs and a stream of benefits.

Option appraisal The appraisal of various options chosen to achieve specific objectives.

Present Value The future value expressed in present terms by means of discounting

Proposal An idea for a policy, programme or project that is under appraisal.

Regulation Widely be defined as any government measure or intervention that seeks to change the behaviour of individuals or groups.

Risk The likelihood, measured by its probability that a particular event will occur.

Shadow price A monetary value ascribed to the opportunity cost to society of participating in some form of economic activity. It is applied in circumstances where actual market prices cannot be charged, or where such prices do not reflect the true scarcity value of a good.

Social Benefit The total increase in the welfare of society from an economic action - the sum of the benefit to the agent performing the action plus the benefit accruing to society as a result of the action.

Social Cost The total cost to society of an economic activity - the sum of the opportunity costs of the resources used by the agent carrying out the activity, plus any additional costs imposed on society from the activity.

Uncertainty The condition in which the number of possible outcomes is greater than the number of actual outcomes and it is impossible to attach probabilities to each possible outcome.

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