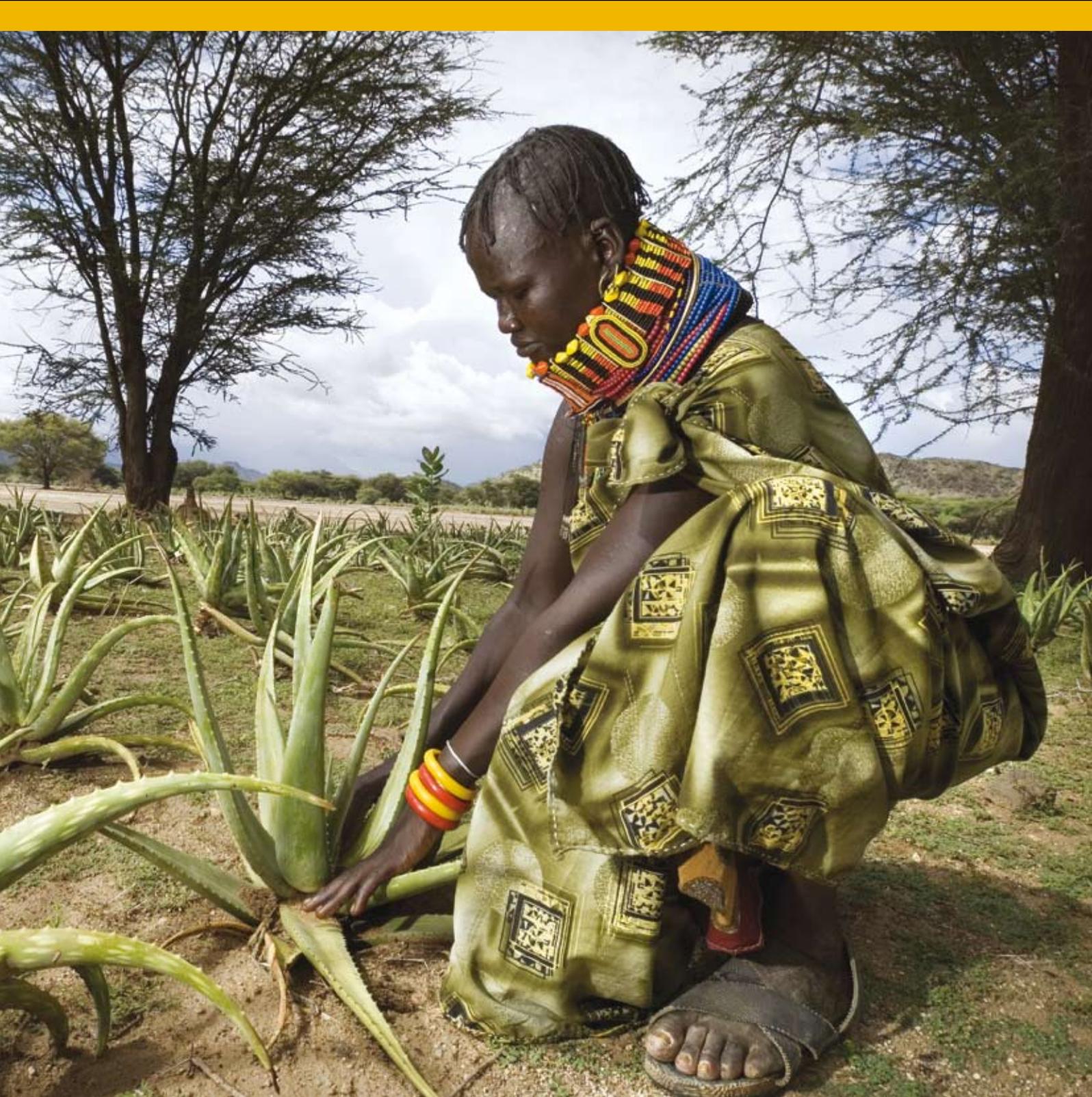


RESEARCH STRATEGY

2008 - 2013



**“DFID will invest up to £1 billion
on development research in the
next five years”**







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Foreword



I am very pleased to introduce our five year Research Strategy. This is the result of a worldwide conversation, which reached out to more than 1000 policymakers, researchers, community leaders, and other creators and users of new knowledge.

The challenges we face in making poverty history are large, complex and changing. Without new knowledge, scientific innovation, rigorous evidence, and new ideas we have no chance of success.

Despite good progress, the burden of disease in developing countries remains unacceptably high, while access to good jobs, education, and essential public services remains too low. Achievement of the Millennium Development Goals is threatened by high food and energy prices, weak governance, conflict and social exclusion.

Our new Research Strategy responds to these urgent global challenges. It places sustainable economic growth at the centre-stage and recognises that the greatest threat to development is climate change. It lays out our plans to scale up research in health and agriculture, and in the development challenges in conflict and fragile states. It shows how DFID will meet its promise to double its investment in research to £220 million a year by 2010. And it sets out DFID's distinct contribution to the global development research effort, building on existing achievements whilst propelling us in new directions at the leading edge of research for development.

Our focus will be to ensure that research makes a much greater impact on policy and practice in our partner countries and internationally. This is why in addition to funding new research, we will also increase our support for building capacity to undertake and use research within our developing country partners.

I would personally like to acknowledge the contributions of those around the world who have provided advice on this strategy, and to express thanks for the excellent research work done by researchers we have funded over the years.

A handwritten signature in black ink, appearing to read 'Douglas Alexander'.

Douglas Alexander
Secretary of State for International Development

Acronyms used in this strategy

CGIAR	Consultative Group on International Agricultural Research
DEFRA	Department for Environment, Food and Rural Affairs
DFID	Department for International Development
ICT	Information and Communication Technology
MGD	Millennium Development Goal
NEPAD	New Partnership for Africa's Development
OECD	Organisation for Economic Co-operation and Development
TB	Tuberculosis
UK	United Kingdom
UNESCO	United Nations Educational, Scientific and Cultural Organization
WIDER	World Institute for Development Economics Research
WHO	World Health Organization



Executive summary

The world is changing rapidly in ways that often affect poor countries most. For example, in coming decades climate change, population movements and higher oil and food prices could challenge the livelihoods and resilience of millions of people in developing countries.

The UK government believes that research is essential for understanding and tackling challenges like these. Through the Department for International Development (DFID) it will invest up to £1 billion on development research in the next five years. Our new Research Strategy explains how we will use these funds to put research at the heart of efforts to reduce poverty in developing countries. It builds on the success of our past work and takes it in new directions.

DFID knows that development research is a good investment, and we already have a reputation for providing the wider development community with cutting edge research and analysis. We want to use research not only to improve the knowledge and choices available to our partners across the world, but also to strengthen our own decisions and to make sure that they are based on sound evidence.

This strategy will help provide solutions to challenges and opportunities for Africa and South Asia. But we will also learn lessons and adopt innovation from other regions.

In the next five years we will:

- Strike a balance between creating new knowledge and technology and getting knowledge and technology – both new and existing – into use;
- Make the most of our ability to influence policy to make sure research makes an impact;
- Use different methods of funding to join up national, regional and global research efforts, so that they are more relevant to what matters most to developing countries and to achieve a bigger impact on poverty reduction;
- Redouble our effort to strengthen developing countries' capability to do and use research; and
- Help our partners predict and respond to development challenges and opportunities beyond the 2015 target date for achieving the MDGs.

To get these results, we will focus research on six areas:

1. GROWTH

We know that growth is even more important in reducing poverty than was previously thought, and we want to put it at the heart of international development. The challenge now is to take knowledge about what influences growth and apply it to the priorities of developing countries. Our new International Growth Centre will introduce a major new research programme to support individual countries with their growth strategies. Our research will also address questions that matter across countries and regions for building an economy that poor people can take part in, as well as growth that can be sustained for future generations.

2. SUSTAINABLE AGRICULTURE

The livelihoods of 75% of the world's poor will continue to depend on agriculture for the foreseeable future. At the same time, rising food prices are likely to make problems of hunger and poverty worse for urban and rural people. Research that produces innovation in agriculture is therefore more important than ever for reducing poverty. DFID has promised to double funding for research on agriculture, fisheries and forestry to £80 million a year by 2010. To meet that promise, we will continue to work on the research priorities in the 2006 Strategy for Research on Sustainable Agriculture. We will also focus on key emerging issues related to agriculture and natural resource management that fit our broader agenda of inclusive growth and climate change.

3. CLIMATE CHANGE

Climate change is likely to have enormous social, political, economic and environmental consequences. We know that it will affect poor countries first and worst, and that the poorest people will be most exposed and vulnerable. We will rapidly expand and diversify our research, as part of a wider effort to tackle climate change across UK government. We will research: climate science, especially in Africa; how to tackle climate change in national and international policy; strategies for adapting to climate change; and mitigation and low carbon growth. We will establish an **International Climate Change Network** to provide in-country research and advisory services.

4. HEALTH

There are still major barriers to achieving the health MDGs. But the burden of ill health is also changing rapidly, and non-communicable diseases are an increasing threat to the majority of the world's population. International funding for health research is growing. We will work with developing countries and other funders to achieve faster results. Our research will focus on three inter-dependent priorities:

- operational research to make health programmes more effective;
- research on health systems; and
- developing drugs and vaccines for HIV and AIDS, TB and malaria and other diseases that most affect poor people.

In future, we will use our knowledge of health systems to make sure that more poor people have more opportunities to use both new and existing medicines and health technologies.

5. GOVERNANCE IN CHALLENGING ENVIRONMENTS

We know that stronger political processes improve living standards and reduce poverty faster. But overall, standards of governance across the world are not improving fast enough. The poorest and most disadvantaged people need more opportunities to take part in economic growth, including growing numbers of young people. We will build on the commitments set out in the 2006 White Paper on International Development to examine the links between power, politics and poverty. We will find new ways of tackling the toughest social and governance problems in the most fragile and challenging environments. Our five research themes will be:

- conflict, state fragility and social cohesion;
- social exclusion, inequality and poverty reduction;
- building strong and effective states;
- tackling the MDGs that are hardest to reach;
- migration.

6. FUTURE CHALLENGES AND OPPORTUNITIES

Research needs to prepare us to deal with future challenges and opportunities. This means setting aside resources to tackle fast emerging issues but also future 'unknowns' – those issues that could take us by surprise in years to come. As this is a new area of work, we will initially examine two themes: looking “beyond aid” to find out what makes development processes more likely to succeed; and how to make sure developing countries can make the most of new and emerging technology (such as biotechnology, ICT and nanotechnology).

Getting results

Getting the desired results means we need to improve the way we manage and learn from our work. We will:

- strengthen our research expertise;
- decentralise some research management functions;
- create a new service to highlight and communicate research results.

We will work in collaboration with others - including developing country partners, Whitehall and the UK Research Councils, international research funders and high-performing multilateral and global research initiatives and the private sector - to ensure global research challenges are tackled effectively.

Initiatives will be directly managed by DFID or delivered through joint or multilateral arrangements depending on which approach will get the best results. Our current research programme consortia model will be strengthened. We will increase our joint programmes with other funders, both internationally and with the UK research councils.

We will continue to contract bespoke programmes, increase opportunities for responsive research and be systematic about learning from our own research and that of our partners. Our strategy will be closely monitored and we will report our findings routinely.



Introduction

About this strategy

- 1.1 The Department for International Development (DFID) will spend up to £1 billion on research over the next five years. This strategy explains how we will use this money to have maximum impact on reducing poverty in developing countries. It builds on the success of our past research but also takes our work in new directions.
- 1.2 This international strategy forms part of our overall approach to science and innovation. It complements the research we fund through our individual Country Assistance Plans¹. And it deals specifically with the global pool of knowledge about development. It asks:
 - how research can add to that knowledge continually;
 - how developing countries can benefit from research and knowledge better; and
 - how they and the international development community can use research to bring about real change.

¹ Examples of research supported by Country Assistance Plans (including joint plans with other organisations) include support for national science and technology plans; censuses and surveys on population levels and health; the measurement of poverty; and work with local research and advocacy organisations.

Consulting research providers and users

- 1.3 We believe our decisions should include the views of the people who do or use research. So we spent six months asking a wide range of people and organisations for their opinions about our research strategy:
 - we asked around 1000 research experts, policy-makers and other research users in developing countries, 'How can DFID's research strategy make a difference to you?'
 - we asked 12 major international research funders, 'How could international research be more effective – and how can DFID help?'

- we asked UK government departments and research councils what they had learned about policy and innovation that is based on research. Then we asked how we could combine our expertise and financial resources to tackle development challenges;
- we carried out an electronic survey to get the opinions of the UK public and academics, as well as relevant organisations internationally with an interest in DFID's research programme;
- we talked with our colleagues about how we could use research better in development policy and our day-to-day work.

Improving on strengths and weaknesses

1.4 The consultation highlighted DFID's strengths. For example, our research has concentrated on filling knowledge gaps that stop progress towards the MDGs. We have a network of resources to call on (including our country offices and the UK research councils), are working closely with more partners and our research is helping to shape the work of multilateral development organisations such as the World Bank.

1.5 At an international level, we are particularly valued for²:

- research on health systems;
- challenging tradition with independent social science research;
- encouraging innovation, especially in agriculture research; and
- promoting research communication and uptake.

² Jones and Young, (2007) Putting DFID research in an international comparative context, Overseas Development Institute.

1.6 This strategy builds on all these areas. But it also allows us to improve in areas that people said were weaknesses, by:

- checking that there is a demand for research and that research questions and processes are relevant to their context;
- making a better contribution to global research through more diverse partnerships with developing countries;
- being more visible and active in developing research capacity in developing countries;
- giving more emphasis to research that prepares for future trends;
- looking out for scientific potential;
- expanding our approach to working with the private sector; and
- making better use of our own research and more general research.

1.7 We also carried out studies to ask how well we funded research, how we should work in the future and how other funders work. We have published the findings of our consultation and studies electronically at www.dfid.gov.uk/research/newresearch.asp³.

1.8 Although this strategy tackles many of the concerns people had about research, there are some important concerns that it does not tackle – either because they do not fit in with our work to reduce poverty or because other organisations are already tackling them.

³ Findings from the consultation have been published in ten papers. Subjects covered include: research on growth including infrastructure; sustainable agriculture; climate change; health; political and social science; gender; DFID's work on research capacity development; research communications; and stimulating demand for research.



The context

Why research matters

- 2.1 The world is changing rapidly in ways that often affect poor countries most. For example, in the future both climate and population changes are likely to have an important influence on poverty levels. They will threaten access to food and water, increase migration pressures and possibly increase the chances of conflict.
- 2.2 Decision-makers across the world need to base their decisions on information from reliable sources. They need to learn from the best knowledge and experience available. And they need to know what kinds of research could help them make the right choices – and where research has already got results.
- 2.3 But there are still areas where knowledge about development is too patchy. For example, why do so many babies still die shortly after birth? And how can individual countries grow their economy to most effectively tackle poverty? To get strong evidence to answer these questions, and to test how well development programmes work, we need to do research at global level, covering different countries and regions.

- 2.4 Local research is an important part of this, as it reveals the different ways in which poor people respond to their difficulties and helps develop local solutions to long-term development problems.
- 2.5 Scientific innovation has gone hand in hand with progress and prosperity in the West. Technologies can in turn make a real difference to the lives of poor people in developing countries. For instance, oral treatment for dehydration has saved the lives of 40 million people – most of them children. Agricultural research – helping to boost crop yields and control pests – is one of the best ways of helping poor farmers out of poverty but also one of the most cost effective⁴. So research is a powerful weapon in the fight against poverty.

⁴ Rates of return for good quality agricultural research are typically 40% but can be as high as 70%.

Our commitment to research

- 2.6 DFID uses research to release the power of knowledge and technology to:
- fight poverty;
 - achieve the Millennium Development Goals (MDGs); and
 - make sure development continues for future generations.

We work with developing countries to identify major research challenges, and then help tackle them with good scientific advice. Most of the research we manage directly looks at South Asia and Africa. But we also draw out research lessons from other regions, particularly other parts of Asia as well as Latin America.

- 2.7 We already have a strong reputation for feeding useful research into the work of the international development community⁵. And our commitment to research is growing. We have promised to increase funding for global research to £220 million by 2010/11⁶. By this time, the UK could be funding more development research than any other member of the Development Assistance Committee of the OECD (Organisation for Economic Co-Operation and Development).

⁵ Survey of international research funders on DFID's new strategy, Da Costa, 2007.

⁶ From £120 million in 2005/06. DFID, 2006 White Paper on International Development.

- 2.8 This is a good time to increase DFID's research budget. In the last few years, we have learned a lot about how research can help reduce poverty and speed up economic growth. And we understand better how our work sits alongside the work of other funders, many of whose research budgets are also growing.
- now we want to make sure that research is at the heart of our work to influence the development community;
 - we want to use it to better shape our own policy and programmes;
 - we want to expand our partnerships with other funders so that we can tackle the biggest and most pressing global research challenges more effectively⁷.

⁷ Such as Canada's International Development Research Centre and the Wellcome Trust.

Our unique position

- 2.9 Feedback in our consultation and review demonstrated that DFID has particular strengths (see paragraphs 1.4–1.6) that make its research unique. These qualities have brought us significant successes in the past, and we will build on these while we implement this strategy.

DFID funded research – Making an Impact Examples of recent research include:

- Product Development Partnerships have significantly increased research work on drugs for tropical diseases. In 2007 a fixed dose artemisinin combination therapy for malaria was launched; over one million treatments have been distributed and it is available in 21 countries.
- Research from Ghana showed that starting to breastfeed within the first hour of birth could save 22% of babies who die in the first 28 days. Four million babies in the developing world die each year in the first month of life. This research has been influential across the world and the finding is being taken forward through UNICEF and other agencies.
- Research showed that giving a commonly available antibiotic to HIV positive children reduced death from all causes by 43%. The World Health Organization now advises giving children the antibiotic.
- Early adoption of new lentil varieties has contributed an additional 28,000 tonnes annually in Bangladesh alone. Lentil has high protein content and is a staple for the poor.
- Farmer participation in rice breeding has resulted in new varieties that are better adapted to farmers' fields and preferences. These fetch a higher market price, and better drought tolerance helps increase grain yields by up to 50%. These new varieties are spreading rapidly from farmer-to-farmer.
- A world migration database has been created which provides unique detail using census and other data sources. This is now in use by organizations such as the World Bank and the UN, and is providing important new insights on numbers, remittances, age and gender issues, which can better inform governments in their policy making.
- Makutano Junction, a TV soap drama for East Africa, communicates research findings on topical social issues such as HIV and AIDS, sexual abuse and land rights. The programme is aired in Kenya, Uganda and Tanzania. In Kenya alone, there are 5 million viewers.

- The use of participatory methods has resulted in a significant reduction in infant mortality in Nepal. A 38% reduction in infant mortality was observed after women's groups were established and basic health care messages communicated.
- Research on conflict has deepened our understanding of the links between public expenditure policy and the rise of ethnic disputes, providing important policy insights.
- The new rice for Africa (NERICA) has high nutritional value and can double yields. In 2007 rice production in Africa rose by 6% to 22 million tonnes, largely due to the widespread adoption of this rice. With rising global food prices, NERICA plays an important role in stabilising food prices and feeding the poor.
- Research showed that insecticide treated bednets are the best intervention to prevent malaria and have been shown to reduce the number of childhood deaths by one-fifth. This has helped shape programmes across Africa.

Putting research to use

TECHNOLOGY

2.10 There are vast differences between the rich and poor world's access to modern technology. Poor people in developing countries tell us how much they need simple, low-cost technologies – to harvest rainwater, save their crops from drought and protect their families from ill health. Importantly, if people are to use technology, it must be affordable and relevant to their lives.

2.11 But we need to understand how developing countries use technology and what barriers stand in their way. Without this, technology might not achieve its full potential. For example, India is one of the world's biggest pharmaceutical manufacturers. But fewer than half of its children get basic childhood vaccinations⁸.

⁸ India National Family Survey 2007.

ACCESS TO RESEARCH

2.12 But even when finance and expertise are available, it is not enough to just rely on 'new' knowledge and technology. The development community often ignores 'old' research that could help tackle many of today's problems. There are also practical barriers that stop researchers accessing research (for example, internet access is still poor across much of Africa). To find high-quality research, users often have to already know the organisation that produced it. Databases and services that make research available are costly. And there are not enough signposts showing people where to look for reliable research or for new findings in a wider evidence-base.

RESEARCH CAPABILITY

⁹ Both absolute numbers and the skills base.

- 2.13 There is a close link between a country's capability to use and do research. But the research capabilities of many African countries⁹ are weaker today than at any time since Independence.
- 2.14 According to UNESCO, there are just 48 researchers for every million Africans living south of the Sahara¹⁰ compared with nearly 3,000 for every million people in OECD countries. There is a high turnover of researchers, and many have low salaries. The best researchers are often employed full-time as consultants by funders. Or they leave the country to find work overseas.
- 2.15 Useful, local knowledge is often put to one side. African research results get too little international attention. At the same time, policy-makers in developing country sometimes ignore research evidence, because they do not have much local advice to rely on or haven't been trained to use research properly. These problems are made worse by a lack of underlying data at country level to support research.

¹⁰ UNESCO World Science Report 2005.

PLAYING OUR PART IN THE GLOBAL RESEARCH EFFORT

- 2.16 Traditionally, research has not been a top priority for aid donors. But this is changing. In recent years the G8 (an informal group of eight of the world's richest industrial nations) have promised to fund new drugs and vaccines for the developing world. Private charitable foundations have made substantial commitments to global health and agricultural research, and more recently to climate change. Spending on research is rising faster than for aid as a whole, and private foundations are responsible for most of that increase.
- 2.17 Coordination of research aid is weaker than coordination of other areas of development assistance¹¹, but the situation is improving. There are an increasing number of partnerships between funders and the international private sector for research on health and agriculture. The European Commission and Member States are trying to reduce duplication of work and promote complementary development research in areas like agriculture and water. And bilateral funders (funders who give assistance directly to developing countries) are taking part in a greater number of joint research initiatives.

¹¹ This is because there is no clear definition of development research. Data on who is funding what kind of research is also weak, and there are differences in the way funders allocate budgets at country and international levels. Finally, some funders are concerned that harmonising research could lead to standardisation and less free-thinking.

RESEARCH PARTNERSHIPS

- 2.18. Research partnerships are on the increase. The newly powerful economies (such as India, China and Brazil) are building stronger trade links with the less developed world. Their aid budgets are rising. They are now in a position to export development lessons and transfer technology by helping research. Traditional funders are helping to make this happen and ensure that poor people benefit.
- 2.19 At an international level, the private sector has created stronger links with development research through public/private partnerships and corporate social responsibility initiatives. This brings extra finance and expertise into development research. The private sector is often best placed to develop and distribute innovative solutions to development problems. In addition, research that partners the private sector locally can provide unique insights into the processes that make innovation happen. But there is an opportunity to significantly expand the role of the private sector in research, both internationally and locally.



The strategy

Four results areas

- 3.1 The purpose of DFID's research is to make faster progress in fighting poverty and achieving the MDGs. We do this in two ways. First, we produce new knowledge and technologies to tackle the most important development challenges. Second, we help make sure that developing countries and the wider development community use the knowledge and technologies.
- 3.2 In the next five years we will make sure we put equal effort into both these areas of our work. This means doing more than ever before to strengthen the development environment, so that people are more likely to use knowledge from research – old and new.
- 3.4 We will try to join up national, regional and global research efforts, so that together they strengthen decision-making and produce changes that will quicken poverty reduction. We will also use our position as a government department to influence policy and get the best possible impact from our work. Finally, we will make sure that our research looks beyond the MDGs to predict and prepare for future opportunities and challenges.
- 3.5 We want to get results in four interdependent areas.

1 NEW KNOWLEDGE TO HELP SHAPE POLICY

RESULT New policy knowledge created for developing countries, the international community and DFID

We want research to influence the important policy and planning decisions of partner governments, regional institutions and the international development community. We will produce robust knowledge, get it to the people who need it and help make sure they are able to use it. In addition to shaping policy, our research will monitor policy as it turns into action.

Our research will continue to be cutting-edge, relevant and usable. We will consult with research experts and end-users to get a better understanding of knowledge gaps, policy priorities, processes and timescales. We will help developing countries predict future issues early, so that they can seize opportunity and reduce risk.

In the last few years, we have promoted research as part of international initiatives, such as global action on HIV and AIDS. From now on, we will place the same focus on research that supports key regional policy decisions and initiatives.

Findings from global research need to be put in context. We will offer services directly to partner governments to help them make better use of research findings. We will also help researchers communicate their knowledge to those who need it. This will include working alongside local information intermediaries, knowledge 'brokers'¹² and the media.

¹² Agencies responsible for distributing knowledge.

2 EVIDENCE AND NEW RESEARCH ARE USED FOR BETTER DECISION-MAKING

RESULT Existing and new evidence better informs decision-making about international development

The true test of research is whether people use it – for reference, for influence and, most importantly, for change.

Recently, we have worked harder to encourage people to use research. But there is still more to be done to put people who do research in touch with those who use it. We believe that by expanding our efforts in this area we can increase the impact of research. By 2010 we will invest up to 30% of our research budget in making research available, accessible and useable through a range of means¹³.

We want to give decision-makers, opinion-formers and practitioners¹⁴ access to a wider range of new and existing research, providing an evidence base they can draw on. To do this we will combine our research results with the best of other people's. And we will promote and communicate them to DFID staff, our country partners, the international community and across UK government. We will try to make what the world has already learned about development more accessible and relevant to different contexts. This will also help reduce the risks of redoing research that has already been done by somebody else.

¹³ This will cover stronger systems for research communication and knowledge management within ongoing and new research programmes, as well as increased spending on research communication and synthesis services.

¹⁴ This means research users such as farmers, midwives, district civil servants and the media.

3 CREATING AND USING NEW TECHNOLOGIES

RESULT New technologies developed and used in developing countries

DFID has been a pioneer investor in new technologies for health and agriculture. For example, we were the first funder to support the International AIDS Vaccine Initiative, and our commitment has helped attract other funders. We will continue to support the development of new technology for developing countries. But we will use our knowledge about the places where technology is being adopted and used to refocus our work from time to time. This will help us promote better returns on investment in technology.

We will work harder to encourage better practice and the wider use of technologies. We will increase support for research that helps developing countries adapt technologies to meet the challenges they face. This will include research into safe, effective and affordable use of new and emerging technologies in agriculture, health, energy, sanitation and communication.

We will invest in special initiatives to find out what encourages people to use technology and what stops them using it. As part of this, it will be important to ask what affects access to new and existing products and technologies – for example, innovation, regulation, how markets work and whether pricing is fair and decision-making is transparent.

We will help fund technologies that are developed locally, in particular for clean energy and clean water. We will work with partners such as China, India and Brazil to support the transfer of technology between southern countries.

4 CAPABILITY TO DO AND USE RESEARCH

RESULT Capability to do and use research strengthened

There are two ways DFID has supported research to help improve capability: contributing to joint and international programmes¹⁵ with other funders and strengthening the capacity of its research partnerships. The first has helped us address some large-scale important issues, so we will continue to work closely with other funders to ensure a strong approach. The second has helped make sure that the researchers who are part of our research programmes can do high-quality research.

We know that the abilities to plan, do, access and use research are interrelated. DFID will focus on improving research capability by supporting environments that encourage people to use research. This means improving researchers' skills, as well as their access to research information and resources. It means supporting researchers in playing a more regular and effective role in policy-making. It also means paying special attention where there are skills gaps – for example in social sciences.

¹⁵ This includes joint programmes with other research funders; the research programmes of such multilateral development agencies as the World Bank and UN system as well as other research initiatives set up or supported by international funders (eg public/private product development partnerships in health; the International Foundation for Science etc).

Our own research programmes will pay more attention to helping bring on the research capabilities of developing country researchers. We will also help more in strengthening African research organisations, by supporting regional organisations and research initiatives, including their work to detect future regional development challenges. We will also support southern countries' joint capacity development programmes, through networking and taking part in regional capacity building.

We will base our approach on what has worked in the past and what our research partners say they value most:

- reliable, long-term and appropriate funding;
- strong and more equal North-South partnerships, including more joint decision-making and jointly published research;
- access to global research networks and expertise;
- practical help to guarantee that research is high quality; and
- opportunities for personal and career development within wider organisational support.

We will work harder with southern partners to understand and strengthen their local environments, so that they encourage people to use research. We will help southern researchers access and contribute to top international research publications. At the same time, we will promote southern research internationally.

Research coverage

3.6 To get these results, we will focus research on **six areas** where we have a strong reputation or can make a special contribution – either alone or with partners:

- **GROWTH;**
- **SUSTAINABLE AGRICULTURE, PARTICULARLY IN AFRICA;**
- **CLIMATE CHANGE;**
- **HEALTH;**
- **GOVERNANCE IN CHALLENGING ENVIRONMENTS; AND**
- **FUTURE CHALLENGES AND OPPORTUNITIES.**

The six research areas are broad, and other research funders work on similar themes. But our research will have a specific focus, and we will regularly review where that focus should be.

3.7 We describe each area below. In practice, we will research issues that link these six themes. For example, our research in agriculture and health shares an interest with food security and nutrition. We will also use a range of research techniques, as required. All our research will tackle the causes and impacts of gender inequality, because it has such an influence on poverty. It will also balance the need for new knowledge and technology with using what already exists.

3.8 The relationship between our new research agenda and current commitments is set out in the table at the end of this chapter.

GROWTH

- 3.9 Internationally, poverty has decreased tremendously over the last 20 years. But progress has been uneven. Between 1990 and 2003, strong growth in East Asia halved the number of people living on less than one dollar a day. Africa's economic performance has also improved significantly in recent years. But it needs a steady economic growth of 7% to achieve the MDG relating to income. It also faces the challenge of making sure that continued growth creates work opportunities. This last challenge is even greater for South Asia.
- 3.10 Past international growth research has taught us two important lessons. First, growth is more important to poverty reduction than previously thought. It is perhaps responsible for as much as 80% of poverty reduction.
- 3.11 Second, the international community is reaching the limits of growth theory. We now have a good understanding of what influences growth (for example productivity and saving, markets and institutions, education and the political economy). So we now have enough knowledge to categorise developing countries based on their growth prospects.
- 3.12 The major challenge now is to take what we have learned and to apply it to issues that matter locally in developing countries, linked closely to regional and international factors that affect growth.
- 3.13 We want to put a debate about economic growth at the heart of international development policy and action. Our past research on growth has focused on agriculture, the institutional and political context for growth, and infrastructure – specifically transport. We have also supported research that involves partnership between various organisations. We believe that a much greater effort is needed. Our work will now focus on making sure that country growth strategies benefit from the resources of the international research community in the long term.
- 3.14 We will create an **International Growth Centre**. Its first task will be to provide careful, practical research that is relevant to our partner countries and contributes to their policy decisions. It will use world-class experts and the best knowledge from past research. The Centre will help local research institutes improve their capability. It will bring together international experts and organisations to share knowledge and encourage debate about growth.
- 3.15 The International Growth Centre will be at the heart of DFID's research strategy on growth. It will focus on research supporting growth in specific countries and give access to new ideas about growth challenges. It will also be equipped to assess important, emerging research issues. These may include:
- how to promote growth through regional economic integration and trade;
 - models for urban development that promote growth; and
 - low-carbon economic futures (see also our plans on climate change research at paragraph 3.25).

3.16 In addition to this work, DFID will contribute to four further areas of growth research globally and regionally:

1 INFRASTRUCTURE AND GROWTH

One of the biggest barriers to growth in DFID's priority countries is poor infrastructure. This is particularly true of African countries. A strong transport system can increase trade and social and economic co-operation within regions, so transport is high on the agenda of The African Union and the New Partnership for African Development. Development banks, Infrastructure Consortium for Africa and commercial lenders are investing in transport networks.

Developing countries could improve economic growth by prioritising, sequencing and combining investments in infrastructure. But programmes must fit in with national interests and regional initiatives.

We will offer research support to transport initiatives that are led regionally. These will include initiatives by the New Partnership for Africa's Development (NEPAD), the African Development Bank, the Regional Economic Commissions and governments. We will encourage decision-makers to base transport investments on research findings, for instance about maintenance, sustainability and value for money. Our partners will include the business community and organisations dealing with transport networks.

2 POLITICAL PROCESSES AND GROWTH

Through our work on institutions and growth that benefits poor people, we have shown that political processes and institutions have a central role in growth processes. But we are less certain about those aspects of political process that matter most and how to produce the right processes. The development community needs more knowledge about creating effective political institutions and the incentives that make them work.

We will fund further research to help get a better understanding of the link between political processes and economic growth, who influences this link and how they do it.

3 SOCIAL PROCESSES AND GROWTH

Growth is a necessary but not a sufficient means for tackling poverty. A growing economy alone is not enough to tackle poverty. There must be opportunities for poor and socially disadvantaged people to take part in the economy. But there has been little research to show how best to stop people being excluded from economic growth.

Our past social and political research has helped us understand the economic impact of social exclusion. We will now focus on tackling the barriers to involving poor people – both men and women – in the economy and politics. We will examine how we can encourage equal and fair opportunities for poor people (for example in access to finance, work and public services).

As part of this it will be important to research the costs and benefits of having systems to protect vulnerable people, such as children, the elderly, ethnic minorities and people living with HIV and AIDS. We will ask whether protection schemes linked to agriculture, health and education can break cycles of chronic poverty.

We will help governments find out if initiatives like these are affordable and worthwhile compared with other investments.

4 EDUCATION AND GROWTH

DFID manages three major education research programmes. They focus on the key priorities for achieving the MDGs as well as long-term economic growth: quality of education, access to education and results. We will strengthen our work in these areas. In particular, we will aim to do research in states where progress towards the MDGs for education is slowest. We will also focus on opportunities and barriers in education quality. And we will create new partnerships with other organisations that fund education research.

More and more, developing countries are investing in post-primary education to promote economic growth. We will fund research that supports plans to link education to the world of work, skills and economic growth. In particular, new research will ask how developing countries can best develop the nation's skills in cost effective ways. This will include getting a better understanding of the potential role of the private sector.

SUSTAINABLE AGRICULTURE

3.17 Sustainable agriculture is agriculture that can be maintained in the long term to provide for future generations. DFID has carried out a large amount of research into how developing countries can use agriculture and renewable natural resources (such as land, water, forests and fisheries). We fund 'basic' science (for example understanding the pests that infect crops), programmes to adapt agricultural techniques and technologies to the needs of developing countries and initiatives to get research results to those who need them. We are a lead investor in the Consultative Group on International Agricultural Research (CGIAR), to which we provide over £20 million a year. We are also increasing our support to regional research organisations. So we work to help the international agricultural research system make a greater impact overall.

3.18 In 2006 DFID said it would double funding for research on agriculture, fisheries and forestry to £80 million a year by 2010¹⁶. This commitment was based on the success of past programmes and the proven ability of agricultural research projects to reduce poverty¹⁷.

3.19 Research to promote sustainable agriculture has an important role in our inclusive growth agenda. No country has ever reduced poverty significantly without raising productivity and growth in agriculture. Agriculture is how the vast majority of Africans make their living. It is the sector most capable of growing the continent's economy in the medium term. Research and innovation in agriculture are vital to achieving poverty reduction and sustainable growth in the twenty-first century¹⁸.

3.20 Over 50% of the world's population now live in cities. But over 75% of the world's poor live in rural areas (this figure rises to 95% in some African countries). The livelihoods of most poor people will be linked to agriculture for the foreseeable future'. This is true for poor people in both rural and urban areas, but it is particularly true for women.

¹⁶ Announcement by Hilary Benn in the context of DFID Strategy for Research on Sustainable Agriculture.

¹⁷ Rates of return of 40%–80% are typical for high-quality agricultural research. A ten-year evaluation of the Consultative Group on International Development research showed that for every \$1 invested \$9 were returned in benefits to poor communities.

¹⁸ 2008 World Development Report.

¹⁹ For example, a two-degree rise in temperature in Uganda could completely undermine land use for Arabica coffee production, which the economy relies on heavily. Other forecasts predict 30% reductions in cereal yields in Southern Africa in the next 30 years.

- 3.21 The world will need to increase agricultural production by 40% by 2015 to achieve the MDG targets on tackling hunger. But the rural population is getting relatively smaller, due to population growth and migration to towns. So a relatively smaller rural population will have to meet the food needs of a steadily growing urban one. At the same time, climate change presents huge challenges to agriculture. Changes in temperature and rainfall will have dramatic effects on agricultural production in Africa¹⁹. Research is needed more and more – not only to help tackle existing food insecurity, but also to stop the situation getting worse.
- 3.22 Prices of cereal, food and oil are higher than ever before. And grain stocks are at their lowest levels ever. There are major changes in the way land is being used, due to increased demand for bio-fuels. This creates opportunities and threats to agriculture as a tool for poverty reduction. While poor consumers face real hardship, farmers have the chance to benefit from growing domestic and export markets.
- 3.23 We will meet our promise to double funding for agricultural research by 2010. But in response to the consultation for this strategy, we will change our approach in some areas to create a better link between agricultural research and our broader research on growth and climate change (see 3.25).
- 3.24 In the next five years we will work with our partners to strengthen research in six areas within agriculture and renewable natural resources. These six areas are relevant to our programmes that support science, the CGIAR, regional research organisations and programmes to encourage people to use research.

1 NEW AGRICULTURAL TECHNOLOGIES TO MAINTAIN AND IMPROVE AGRICULTURAL PRODUCTIVITY

²⁰ That is, using parts of living organisms to create products.

We will invest in research to develop food that is more nutritious, produces larger crop yields and is resistant to climate variations and pests. We will invest in such research whether it uses traditional breeding approaches or newer approaches such as biotechnology²⁰. We will also explore agricultural practices that are more sustainable, including better farming of land, soil management, integrated pest management and improved forestry, fisheries and livestock management.

2 HIGH-VALUE AGRICULTURE IN AREAS OF MEDIUM TO HIGH AGRICULTURAL POTENTIAL

New research will explore how to improve labour productivity. It will also explore how to create agricultural jobs that provide good-quality, affordable produce for people living on the outskirts of towns. This will include research on high-value horticulture, fruit and intensive livestock farming at a small scale – particularly in urban and semi-urban areas.

3 RURAL ECONOMIES

We will get a better understanding of how the rural farm and non-farm economies interact. We will also research how urban markets influence the livelihoods of the poor, including seasonal workers and those who migrate between rural and urban areas. We will examine how women and men are affected differently. We will research how different public policies affect rural growth, benefit different community members and promote sound environmental management.

4 RISK, VULNERABILITY AND ADAPTATION

We will keep our focus on protecting farming communities against short-term shocks such as drought, pests and diseases. We realise that climate change will make their situation more unpredictable than in the past, and that communities will need a greater capacity to return quickly to their productive function following disruption. So our research will have a strong social science focus.

We will make sure that national and international research keeps up with the need to feed a growing population with the quantity, quality and variety of produce demanded as incomes rise. Technology and policy must allow poor farmers to take advantage of this 'consumer revolution', and poor consumers must not to be left behind in a world where grain is scarce.

5 MARKETS

We will fund research that will help give farmers (both men and women) a bigger share in food markets where marketing chains and supermarkets are demanding greater efficiency at wholesale and retail levels. We will help make sure that changes in agriculture do not leave poorer farmers behind. We will do this by researching changing land and labour markets, the role of farmer organisations and the increased competitiveness of small farms. To reduce the negative impacts of agricultural growth, we will carry out policy analyses, including asking how agriculture can be used to protect vulnerable people.

6 MANAGING RENEWABLE NATURAL RESOURCES

Renewable natural resources are undervalued and overused. But they are also vital to rural livelihoods at community, national and international levels. Climate change will put more pressure on natural resources (for example by affecting ecosystems or increasing carbon emissions through increased deforestation). But it will also create opportunities – for instance through global carbon markets and schemes to offset carbon emissions.

We will expand our research in this area. We will look at how political processes, policy reform and institutional issues affect the management of natural resources. And we will ask how we can use renewable natural resources in the long term to encourage inclusive growth. We will also research the value and long-term impacts of losing natural resources, so that decision-makers can use our findings in the future.

CLIMATE CHANGE

3.25 Climate change is potentially one of the greatest threats to development. It has enormous social, political, economic and environmental consequences.

3.26 We are one of only a few international funders who focus on research into climate change. Now we will significantly increase our research on climate change.

- 3.27 Helping improve Africa's capability to do research into how to adapt to climate change has been our focus until now. We have 16 research programmes in 20 countries. We are also working with the World Bank to help developing countries work out what it will cost to adapt to climate change and to use research to shape policies and national budgets.
- 3.28 Tackling climate change is a top priority for the UK Government. DFID's research is closely coordinated with that of other government funders, such as DEFRA. It also supports the UK commitments under international agreements.
- 3.29 There are still important gaps in our understanding about the regional impacts of climate change. But we know that poor countries will be affected first and worst, and that the poorest people will be most exposed and vulnerable. In the coming decades, developing countries will need to adapt to worsening droughts, crop failures, water shortages, rising sea levels, more frequent and intense storms, the extinction of habitats and species, and greater potential for conflict over natural resources. DFID is designing a major research programme with the Natural Environment Research Council and the Economic and Social Research Council. This programme will examine the relationship between ecosystems and poverty reduction.
- 3.30 Over the next 20 years, world demand for energy will grow by up to 50%, and it will increase levels of greenhouse gases. All governments will need to take measures to reduce carbon emissions by using energy and land more responsibly. The challenge in developing countries will be to do this without restricting economic growth or threatening livelihoods. Research needs to show how to improve access to energy and how to grow economies while keeping carbon emissions low in the long term. Developing countries also urgently need research to help them create strategies to cope with the climate change that is already unavoidable.
- 3.31 We will expand and broaden our research in this area. This will include tackling climate change under the five other priority areas in this strategy. We will still focus on practical research that protects the livelihoods and rights of the most vulnerable people. But our research will now have a sharper focus on helping individual country use climate change research in policy and practice. To do this we will set up an International Climate Change Network to help developing countries access high-quality research and advisory services quickly and easily. We will make sure international agreements on climate change take account of national and regional research findings. We will continue to work in ways that create additional resources and use expertise from key partners.
- 3.32 Our research will target four priorities.

1 CLIMATE SCIENCE, ESPECIALLY IN AFRICA

There is still only poor understanding of the impact of climate change on developing countries. There are gaps in climate data, and knowledge about how weather systems interact is incomplete. There has been very little modelling of impact at country and sub-regional level, especially in Africa.

It is impossible to plan to tackle climate change without research knowledge. We need data about likely scenarios, impacts and vulnerabilities.

We will support research and programmes to increase capability that use climate scenario modelling and impact assessment. But they must increase knowledge of the science of climate change nationally and regionally, especially in Africa. This will include using international expertise (including UK expertise) in global climate modelling.

2 INCLUDING CLIMATE CHANGE IN NATIONAL AND INTERNATIONAL POLICY

There are already solutions for reducing carbon emissions and adapting to climate change. Developing countries will continue to produce their own solutions, and many of these will be used for the long term. But tackling climate change effectively on a global scale requires a global response. Strategies to adapt to climate change and reduce environmental damage must shape national policies and budgets. And there must be a new global deal that considers the benefits and costs of different options.

We will support research to inform plans, policies and budgets in our partner countries that address the risks of climate change and help governments weigh the costs and benefits of different options. We will use research to identify the right institutions, capacities and policies to create regional and international agreements on climate change and measure their progress. We will research what policy and regulatory frameworks are needed for a global deal on climate change.

We will use research results to help governments begin to set out how policy should protect those who will suffer most from climate change. We will also ask what arrangements we can make to help local communities hold authorities responsible for policy decisions at national and international level.

3 ADAPTATION STRATEGIES

We will continue to prioritise research and programmes that help countries adapt to climate change. We will do this by extending and expanding our work with African partners that is jointly financed by Canada's International Development Research Centre. We will also have major new regional programmes in Asia and Latin America. They will:

- develop and test options for adapting to climate change across sectors;
- investigate how climate change will affect vulnerable people; and
- research the link between adaptation, mitigation and poverty and equality.

We will expand our research into finding different ways of adapting to climate change. We will test appropriate incentives for adaptation and the best way to pay for them. We will continue to strengthen the capability of poor communities to adapt to the serious economic and social impacts of climate change. This will not only deal with assets and livelihoods. It will also promote social cohesion, human rights and minimise inequalities and conflict.

We will also help countries and regions improve how they predict and plan for 'extreme events' caused by changes in the world's weather.

4 REDUCING THE IMPACT OF CLIMATE CHANGE AND PROMOTING LOW CARBON GROWTH

Strategies to reduce the impact of climate change (mitigation strategies) will be more cost effective if countries adopt them sooner rather than later.

We will support research that helps give governments options for reducing the harm of climate change and promoting low carbon growth. There is a close link between this and our agenda for country diagnostic growth research. Future research will provide better information for shaping policy. We will promote better understanding about technologies that reduce the impact of climate change. We will also consider the social and environmental impacts of new ways of using land – such as biofuel production. Research will include asking how such strategies fit within the wider political and economic situation. New research will explore mitigation strategies that have benefits for both developing and developed countries. It will also consider the links between trade, climate change and responsible development that can be maintained in the long term.

Technology that produces lower levels of carbon is very important in tackling climate change, and developing countries need to avoid paying over the odds to benefit from technological advances. Research will consider whether intellectual property rights are a barrier to the spread of low-carbon technology, as well as explore options for low-carbon special economic zones. In addition, we will help develop low-carbon technology, demonstrate its efficiency and encourage people to use it. This will include helping our partner countries to create new clean energy technologies. It will also mean researching whether low-carbon electricity can be practical and feasible, and yet be decentralised, affordable, manageable and maintainable. We will also support the sharing of technology between southern countries.

HEALTH

3.33 DFID is a top investor in international health research. In the past, over 10% of our direct investment in health has been spent on creating and using new knowledge and technologies. We have focused on knowledge for better and more cost-effective health services and scientific discoveries that provide new medicines and vaccines for tropical diseases and HIV and AIDS. We fund research directly, and we support international initiatives and organisations that work in partnership with developing countries. We also work with partners such as the UK Medical Research Council and the Wellcome Trust.

3.34 There are still major barriers to achieving the three health MDGs. South Asia has seen some improvement, but it has the highest rates of chronic under-nutrition in the world. And although Africa has had better economic growth than ever before, it has not had the same success with improving the health of mothers and children. And an increase in resources has not yet reduced the impact of HIV/AIDS, TB and malaria. These diseases are still a major cause of death and sickness²¹.

3.35 In the next five years we will continue to target health research investments to speed up progress towards the health MDGs. Progress on malaria will mean progress for maternal and child health. Reducing hunger and malnutrition will keep more children alive and healthy. Progress on HIV and AIDS and gender equality will advance all the MDGs. Our future research will attempt to take advantage of these links, and will look at gender equality and other social issues.

²¹ Each year there are: - 2.5 million new infections and 2.1 million deaths from HIV; 1.6 million deaths from TB which includes 195,000 people who were also infected with HIV and over 1 million deaths from malaria.

3.36 But we also know that the burden of ill health is changing fast. Developing countries increasingly face a problem with non-communicable disease. In all regions except sub-Saharan Africa, non-infectious and lifestyle diseases now account for over 50% of adult deaths. So with this strategy we are now putting a new focus on non-communicable disease.

3.37 Finally, we want to help partner countries benefit more from the many resources reaching global health innovation. We will coordinate more closely with others to finance, develop and help deliver new drugs, vaccines and health technologies that poor people need most. We will use DFID's knowledge and expertise about the environments where health technologies and interventions are used to ensure that the greatest number of poor people benefit from technology – old and new.

3.38 Our three health research priorities are interlinked.

1 RESEARCH TO MAKE HEALTH PROGRAMMES MORE EFFECTIVE

Research has already shown us *what* essential health programmes developing countries need. But we need more research across countries to show *how* more people can have access to and use programmes.

We will fund research to help make HIV and AIDS prevention programmes more effective. In particular, we will research how to tackle the social, cultural, economic factors that influence people's behaviour and choices. It is important to understand these factors, because they make some prevention programmes more effective and some people more vulnerable to disease. We will shape our research to help fill gaps in our knowledge about HIV stigma and discrimination, and gender and inequality.

We will research ways of fighting TB that is resistant to drugs and to help people who have both HIV and TB. We will support research that will help increase the impact of programmes that tackle malaria – Such as insecticide treated nets, spraying insecticide indoors and more effective drugs.

We will fund more research to tackle the growing threat of non-communicable diseases in developing countries (including mental health, trauma, cardiovascular diseases and cancer). This work will include sharing the experience of regions that are already tackling non-communicable disease (particularly newly powerful economies where population change is more advanced).

We will continue to help find more effective ways of reducing maternal and child deaths, and to research what works best in different social and cultural settings. We will fund research on how to expand effective programmes to tackle child malnutrition. We will continue to support research that tackles important health issues that could be overlooked (such as pneumonia and diarrhoea) or sensitive issues such as teenage pregnancy. We will also make sure that research into reproductive and sexual health, family planning and unsafe abortion is not held back by a lack of international funding.

Our work in this area will include evaluating innovative health interventions, so that the lessons learned can help shape global and regional health policy.

2 HEALTH SYSTEMS

Research into health systems has been a neglected area. Four main knowledge gaps²² are stopping progress towards the MDGs:

- financial and human resources;
- the ways health services are delivered and organised;
- managing political processes and knowledge; and
- global influences.

We will continue to invest in research on health systems, where organisations recognise DFID's strengths. We will collect and share information about the best ways to fund health systems. More and more, we will work in international partnerships to carry out our health research. For example, we will work with partners to get good-quality, affordable medicines to poor people transparently and accountably, using responsible business practices and more efficient supply systems. Finally, we will research global influences on health systems, such as the effects of trade (see also Future Challenges and Opportunities at paragraph 3.46).

3 DEVELOPING DRUGS AND VACCINES FOR PRIORITY DISEASES AND GETTING THEM TO POOR PEOPLE

In the past, we have focused support to public/private Product Development Partnerships (PDPs) on vaccines and microbicides²³ for HIV and AIDS and drugs for malaria and TB.

In the next five years, we will increase our funding to PDPs and fund more diverse research projects. We will work closely with other funders to provide a well prioritised and coordinated approach. Where appropriate, we will commit to funding vaccine development for ten years. We will also make sure that our PDP investment is part of an overall financing strategy for improving poor people's access to medicines. This will include making Advanced Market Commitments, a funding method that has much potential.

We will carry out new research into how new health technology is introduced and used and how long it takes to become widely used. We will also research how social issues and political processes can act as barriers to progress. This research will help maximise our investment in new products and release the potential of health technologies that are currently not widely used. We will base our work on lessons and experience from ongoing research into how people adopt agricultural technologies.

GOVERNANCE IN CHALLENGING ENVIRONMENTS

3.39 DFID has supported political and social science research that is challenging and independent²⁴. In the past, we have focused on understanding poverty and the effects of institutional and social change on development. We have researched what we can do when states do not work in the interests of the poor. We have also tried to fill gaps in knowledge about rights and inequality across different countries and cultures and have improved understanding in the development community about social trends such as migration and its impact on poverty.

²² WHO Task Force on Health Systems Research, *Lancet* 2004; 364: 997–1003.

²³ Gels or creams women can apply to stop HIV infection.

²⁴ Jones and Young (2007), *Putting DFID research in an international comparative context*, Overseas Development Institute.

3.40 We know that improving political processes also improves living standards and reduces poverty faster. In the last 20 years, the quality of political processes has improved in African countries. For example, emerging civil society voices enjoy more political 'space', economic management has improved and the number of armed conflicts has declined²⁵. The British government, working closely with other development partners, has been supporting various countries and some international institutions to improve the overall governance standards across the world.

3.41 The link between political processes and social development can be seen in the failure to progress towards achieving the MDGs. In sub-Saharan Africa, the number of people living in poverty today is greater than in 1990. The rate of child death has increased and levels of maternal death have remained unchanged. It is hardest to tackle poverty where levels of social exclusion are highest. For example, in South Asia, gender inequality and other forms of social exclusion are among the most severe in the world, and this prevents progress toward all the MDGs.

3.42 Even though the population of the developed world has never been older, the developing world has the largest generation of young people ever. This creates major challenges for delivering social services, but also for promoting growing employment opportunities and social cohesion.

3.43 The key questions are:

- why has there not been faster progress on political processes and social inclusion?
- how can developing countries quicken progress?
- if countries have improved quickly, what have they done well?
- what lessons can others learn?
- how have international factors such as globalisation affected political processes and social inclusion?

3.44 Our future research in this area will look at the links between power, politics and poverty. It will also look at how poor people can be included in political processes. We will focus on the most challenging governance environments we work in and the most difficult social development problems that poor countries face.

3.45 In the next five years, our political and social science research will tackle five themes.

1 CONFLICT, STATE FRAGILITY AND SOCIAL COHESION

DFID has carried out research into conflict, recovery from conflict, inequality, human security and ethnicity. And we now have some knowledge about why some states are fragile, why they fall into conflict and what can be done about it. But we still need to know more about why high levels of social exclusion and inequality lead to conflict in some contexts but not others.

We will support research into how to improve the accountability of governments and states in fragile and post-conflict environments.

Our research will identify the long-term factors and responses that help to stabilise and rebuild fragile states. It will research:

- how to strengthen public services and make them more accountable for their actions;
- how social exclusion can increase fragility or cause conflict;
- what improves or unsettles the rule of law and people's access to justice;
- the role of the media and other civil society organisations;
- how legal economic activity can be promoted;
- whether post-conflict policies help prevent conflict as well as recover from it; and
- how disaster risk reduction can prevent conflict, especially conflict over natural resources.

2 SOCIAL EXCLUSION, INEQUALITY AND POVERTY REDUCTION

The relationship between social exclusion, inequality and growth has an important effect on development, and needs special attention. We still do not know enough about how to give disadvantaged and marginalised people a voice in decision-making. Nor do we know enough about how social exclusion affects potential for economic growth.

We will support research into the economic impact of social exclusion and inequality and its role in the relationship between growth, employment and poverty. We will ask:

- why growth is not creating enough work opportunities and how to tackle this;
- how policies to tackle exclusion and inequality can lead to growth that benefits everybody;
- what economic empowerment means and how it can be achieved;
- what influences access to rights, social development opportunities and social exclusion; and
- how trends such as urbanisation affect social cohesion, state-building and service delivery and how urban growth and social inclusion can happen together.

Research will try to create a better definition of poverty, beyond its financial aspects. For example, we will look at levels of empowerment and wellbeing in different socio-economic and cultural contexts. An important question in all of this will be how we can plan for and meet the economic ambitions of young people in developing countries.

We will base our research on the experiences of poor men and women, looking at the different kinds of exclusion faced by different groups of people in different parts of the world.

We will also develop research on disability. We will fund new research to explore in detail the link between disability and poverty, and we will look at how development programmes can better support disabled people. We will work with disabled people's organisations in developing countries to increase their capacity to do research.

3 BUILDING STRONG AND EFFECTIVE STATES

Our political and social science research will focus on particularly challenging environments. But there is still a need to build on our current research into political processes, and to link it in practical and timely ways to the policy questions our partner countries most frequently ask, especially governments.

So our policy research across countries will examine different forms of state responsibility, particularly relating to the budget. We will also help our partners explore constitutional issues such as the role of electoral systems, parliaments, the funding of political parties and media freedom. We will look at roles for new and traditional media in promoting the voice of civil society.

Other, technical research will relate to our other research themes, such as decentralisation and the role of local organisations and the private sector in delivering services. We will also examine the importance of a government's financial management in the relationship between the state and the people. We will continue to examine the link between power, politics and the relationship between society and the state. We will ask how these shape development as well as contribute to holding the state to account for its actions. We will also consider alternative, non-Western ways of managing political processes.

4 TACKLING THE MDGs THAT ARE HARDEST TO REACH

Slow progress in the MDGs for water, sanitation, education, health and hunger is closely related to a failure to recognise and address challenges with political processes and social development.

We will have a new programme of multi-country research which will focus on those MDGs that are hardest to reach. It will add to research from more stable environments. We will use social and political sciences to come up with new solutions, and we will research how we can:

- achieve the water and sanitation MDGs;
- provide education in difficult environments (for example, how do we reach the most excluded children – in particular girls); and
- achieve better food security and nutrition.

5 MIGRATION

Developed countries tend to be concerned about illegal or irregular migration. Developing countries worry about the loss of highly skilled professionals from their own countries and the effects of this on growth, social and political processes and communities.

Migration can be an important route out of poverty, as DFID's past research demonstrates. But we need more research into the costs and benefits of internal and international migration, so that it can help shape policies and inform debate in all countries.

We have already examined migration flows and how they influence poverty reduction, the livelihoods of different social groups and growth in different countries. We will now try to understand what drives poor people to migrate, both internationally and regionally. We will consider climate change, access to natural resources and socio-economic differences. We will also explore the economic and social impacts of migration on receiving and exporting communities.

We will deepen our research into how communities from developing countries living overseas affect development, examining political and economic life. We will ask whether the Diaspora can explain differences in economic performance, stability and poverty reduction between developing countries. And we will ask whether having trans-national social identities will affect future development.

FUTURE CHALLENGES AND OPPORTUNITIES

3.46 One important function for research is to help predict and respond to future trends. Over the next five years we will try to identify opportunities and challenges for development both up to and after 2015. We will set aside resources for research that will help us tackle fast-emerging issues, such as the rise of newly powerful economies but also future 'unknowns' – those issues that could take us by surprise in years to come, for example new disease threats. We will also support our country partners as they look for new trends and interpret their importance for development.

3.47 This work is new and our research themes will evolve in response to new trends. Calls for research proposals will initially address two key issues. The first will cover strategic questions affecting international development and aid in future. As part of this, we will ask what international factors influence national development most. The second theme will explore the potential of new and emerging technologies.

1 THE FUTURE OF AID AND BEYOND

Research must now look beyond the MDGs. It needs to identify and tackle future issues and challenges, which go beyond aid-giving and that are important to making development processes coherent, targeted and likely to succeed.

Future questions under this theme could include:

- What will the international consensus on development look like after 2015, and how can we measure its success?
- Can we measure the impact of changing international and geo-political influences on aid, such as the impact of the newly powerful economies and multi-national companies?

- What impact will worldwide shocks have on development?
- What international factors increasingly influence national development? For instance, how does trade affect a country's health system or international organised crime undermine social cohesion?
- What is the importance to the future 'aid architecture' of aid funders, international agencies, regional bodies and regulatory environments?
- How can we create new tools that help with aid financing and provision?

2 NEW AND EMERGING TECHNOLOGIES

New and emerging cutting-edge technologies are being developed for industrialised markets. Many of these could have real relevance to the needs of poor people. Three important technologies receiving significant investment are: biotechnology, information and communication technology (ICT), and nanotechnology (working with molecules at a tiny scale). Researchers are looking for new uses for these technologies. For example, new drugs based on nanotechnology are coming onto the market.

Many developing countries watch with interest how industrialised nations will use the technologies. But there are situations where developing countries have found uses before industrialised ones. For example, some developing countries have found new ways of using mobile phones.

DFID's challenge is not to develop these new technologies. It is to help take advantage of what they have to offer – for example, in:

- purifying drinking water and improving sanitation;
- diagnosing and reducing the risk of disease;
- storing, producing and converting energy storage; and
- improving food processing and storage.

The newly emerging economies are in a good position to bring new technologies to the developing world as a whole. We will support innovative partnerships and approaches to help them to do this.

Future research areas could include discovering:

- which are the most effective, safe and affordable approaches to new technology that benefit poor people, and what research is needed to turn these benefits into reality;
- how the blend of new and traditional ICTs can improve education and distance learning or the way research is communicated?
- what regulatory and trade frameworks are needed to ensure new technologies are affordable and freely available to developing countries?

Current and indicative future funding commitments against research themes (£million/year)

Theme	07/08	2008-2013
Growth	10	Significant increase
Sustainable agriculture	40	Increase
Climate change	7	Significant increase
Health	50	Increase
Governance in challenging Environments	12	Increase
Future challenges and opportunities	1	New theme – increase
Research communication, synthesis and impact	8	Significant increase



How we will deliver

- 4.1 Our research must be high quality, and it must have impact. So we need to have strong research systems and processes, solid and diverse partnerships and strong delivery mechanisms.

Our structures and systems

- 4.2 DFID must take the lead intellectually in delivering high-quality research that shapes ideas, policy and practice. At the same time we need to be practical when judging how science can improve development. We must continue to earn our reputation as a leader in research communication. And we need to be more responsive to the demand for research in our partner countries. Finally, we must be a more visible partner in helping developing countries to improve their capability to carry out research.
- 4.3 These are ambitious aims. To get the results set out in this strategy, we need to change the way we lead, organise and manage our research. In particular, we will put more emphasis on systems and services that increase impact and the number of people using our research.

We will strengthen our research expertise in physical, natural, economic and social sciences. This will help us make sure that a far larger research budget delivers high-quality research, and this will include stronger monitoring and evaluation of research results. It will help us to make sure research results influence the decisions of international policy-makers and to promote better use of research as the basis for all of our work.

We will decentralise some research resources so that we can play more of a role in shaping national and regional policy. We will also be able to help partners apply research results locally and make sure that research from developing countries forms part of international debate. This in turn will allow us to stimulate demand for research more effectively. Other benefits of decentralisation will include being better able to help regions predict future development trends and find new ways of using technology. It will also help strengthen links with the private sector, non-governmental organisations, intermediaries and local communities. And all our research will aim to help partners increase their capacity to do research themselves.

We will create a service to draw attention to and communicate research results, supporting the research communication function of our programmes. This service will bring together DFID's research results and the best of other organisations'. We will develop a range of products that highlight research and increase the amount of people using it. This will include research-based overviews; research syntheses (that is, bringing together all knowledge in on a specific research theme) and policy briefings. We will work to get these resources to the right people at the right time. We will build on the success of DFID's research portal www.research4development.info. We will organise conferences and events to bring research to users in developing countries and the UK.

Our partners

- 4.4 We will deepen our existing partnerships and develop new ones to help us meet the aims set out in this strategy.
- 4.5 We will strengthen our partnerships with **developing countries**. This includes regional bodies, national governments, research institutes, civil society organisations, knowledge intermediaries, the media and the private sector. This will:
 - give them more of an influence in setting research agendas;
 - help developing countries make a bigger contribution to international research about development;
 - encourage greater ownership of research results;
 - improve developing countries' capacity to do, access and use research;
 - give them better access to international research networks;
 - help make sure research plays a part in national and regional political processes and in the work of local development programmes; and
 - allow southern countries to share lessons from research and create partnerships with the newly powerful economies.

- 4.6 We will work with the UK Collaborative on Development Science to make sure the UK government makes a solid contribution to international development research. In particular, we will combine DFID's work with that of **UK government departments** and the **UK research councils**. This will:
- provide a strong research response in areas of shared interest, particularly climate change, global health and the global environment;
 - provide more financial resources and technical expertise to tackle important international challenges, especially in areas where UK science can offer a specific advantage;
 - help make sure that DFID research prepares for future challenges and makes use of cutting-edge science; and
 - support southern research capacity through joint ventures, such as the Medical Research Council's Africa capacity programme.
- 4.7 We will build on our partnerships with all kinds of **international research funders** to:
- provide a stronger response when more than one funder is needed to tackle a research challenge;
 - coordinate support to strengthen developing countries' ability to do research, especially in Africa;
 - make sure funding fits with regional priorities and initiatives;
 - make the most of joint working without stopping innovation or diversity;
 - work with our European partners and the European Commission to make sure our research has maximum impact where we have shared agendas;
 - learn from partners about successful research approaches and be a role model on research communications;
 - use findings from joint research to influence the decisions of DFID and partners; and
 - work with the OECD Development Assistance Committee to improve how we monitor to the funding of international development research.
- 4.8 We will strengthen our partnerships with **multilateral institutions and international research initiatives** to:
- make sure they are focused on getting results;
 - fit in with the priorities of developing countries;
 - promote a continuous research process that runs from discovering an issue to using research results;
 - put into practice well defined strategies for research communication;
 - bring the right blend of physical and social sciences to their work; and
 - make sure gender issues are considered in their work.

4.9 We will strengthen our collaboration with the **private sector to:**

- support innovative ways of funding international research, including advanced market commitments, challenge funds and public private partnerships;
- encourage entrepreneurs to invest in the creation and use of technology in developing countries;
- find ways in which it can do research and make the most of opportunities to support national poverty reduction; and
- at a national level, promote wider use of systems that encourage innovation (this will include joint research with other funders).

Research delivery mechanisms

4.10 We will continue to support a range of research approaches, depending on what we want to achieve. These will include research managed directly by DFID, joint research and research as part of international initiatives. In the next five years we will fund research in six ways.

1 RESEARCH PROGRAMME CONSORTIA

4.11 We will develop a third-generation of our research programme consortia model. This will build on the strengths of previous models, but introduce changes to support the aims of this strategy. Our research programme consortia will:

- provide substantial funding for large, inter-disciplinary bodies of knowledge, with enough flexibility to respond to new research priorities and high demand areas;
- manage the resources of a broad group of research stakeholders (including civil society groups and knowledge intermediaries), while remaining focused on getting results;
- include developing capability to do research as a key objective of their work. We will support individual researchers to build their skills and progress their careers, but also help their institutions plan for the long-term;
- continue to invest at least 10% of research programme consortia budgets in research communication and encouraging people to use research findings;
- identify research 'ambassadors' from our programmes to work closely with DFID regionally and internationally to make sure research influences policy and practice;
- provide a regular flow of research information to DFID and the services we fund to highlight our research results and the best of other people's;
- coordinate their activities closely with similar research programmes, within countries, across regions and internationally where appropriate;
- engage directly with DFID research experts and staff; and
- make sure that gender analysis and the use of disaggregated data²⁶ is part of everyday research practice.

²⁶ This means data that is made more detailed and specific by breaking it down by sex, ethnicity, age, etc.

You can read more about gender issues, research capacity development, research communication and stimulating demand for research in our Working Papers at <http://www.dfid.gov.uk/research/backgrd-docs.asp>

2 INTERNATIONAL NETWORKS FOR GROWTH AND CLIMATE CHANGE

4.12 We will create new international networks for research and advisory services on Growth and Climate Change. See paragraph 3.14 and 3.31 respectively for more information.

3 OTHER CONTRACTED PROGRAMMES

4.13 Building on our Research into Use programme in agriculture, we will continue to contract specific research projects in key areas – especially to trial new and innovative approaches. We will also increase our support to knowledge brokers, intermediaries and media organisations that repackage, bring together and promote research.

4 JOINT PROGRAMMES WITH INTERNATIONAL FUNDERS AND UK RESEARCH COUNCILS

4.14 We will strengthen the progress of our joint programmes with international partners such as Canada's International Development Research Centre, the Wellcome Trust and the World Bank. We will fund more joint programmes where there are major opportunities for combining technology, geographical reach and shared learning. As in other areas, we will prioritise programmes that strengthen research capabilities or get more people to use research results.

4.15 We will build on the important work we have already done with UK research councils and other government departments to fund further joint ventures, including competitive research programmes.

5 MULTILATERAL PROGRAMMES AND INTERNATIONAL INITIATIVES

4.16 We will continue to provide strong support to high-performing multilateral research programmes. These include: the CGIAR, the co-sponsored UN research programmes led by WHO and the UN Research Institute on Social Development and the World Institute for Development Economics Research. We will also involve these organisations in our work to combine research results, and will draw on their expertise in setting standards.

6 RESPONSIVE RESEARCH PROGRAMMES

4.17 DFID research will focus on strategies for achieving change. However, we will continue to fund smaller, competitive and highly innovative programmes that have benefits for developing countries. In particular, we will try to predict future development trends. UK research councils will run some of these initiatives on our behalf. The remaining initiatives will be independently managed.



Measuring progress

- 5.1 It is not easy to measure the impact that research results have on development. In fact, it is even difficult to separate out those factors that actually result in change over time. This strategy accepts that individual research programmes rarely bring about change on their own. It is more likely that people will act on evidence that is built up over many years, in different contexts, once this has been communicated effectively. Even when research helps shape policy and practice, it can sometimes take years to see the benefits to poor people.

- 5.2 But DFID is in a strong position to learn powerful lessons from its research and to make a real difference to people's lives in the long term. We will now work to create innovative ways of measuring the impact of research, to show what an important contribution research can make to achieving the MDGs and supporting development for future generations.
- 5.3 We will develop systems that allow us to learn from our own research and from other people's. And we will also encourage and help the research partners we fund to monitor and evaluate their work and to learn important lessons from it. To do this we will develop a Knowledge Management strategy. It will build on best practice in research monitoring and evaluation, and share the wisdom of more than two decades of DFID research with a range of development stakeholders.

On the following page we set out an indication of the results we expect to get from this strategy.

Results Areas for DFID Research Strategy 2008-2013

RESULTS AREA 1	RESULTS AREA 2
<p>New policy knowledge created for developing countries, the international community and DFID</p>	<p>Existing and new evidence better informs decision-making about international development</p>
<p>Global research partnerships strengthened to better respond to developing country and regional research needs</p> <p>e.g. DFID's joint programmes with UK research councils develop partnerships between northern and southern organisations</p>	<p>International development policy actors are better informed by research evidence</p> <p>e.g. Timely synthesis of research evidence influences landmark international development events of the next five years</p>
<p>DFID partner countries better able to predict and respond to emerging global development opportunities and threats</p> <p>e.g. Deeper scientific understanding about climate change impacts on weather patterns in Africa</p>	<p>High quality research from developing countries is better known about and more effectively used</p> <p>e.g. Approaches to scaling-up effective HIV and AIDS interventions based on southern experience</p>
<p>Priority policy knowledge gaps are identified and filled</p> <p>e.g. New knowledge about the links between social exclusion, inequality and growth inform economic policies in Africa and South Asia</p>	<p>DFID's development action is strengthened through more effective use of research evidence</p> <p>e.g. DFID draws on the latest research evidence to work more effectively in fragile and conflict states</p>

PURPOSE 2013 and beyond

Faster progress towards the Millennium Development Goals and poverty reduction as a result of knowledge and innovation

RESULTS AREA 3

New technologies developed and used in developing countries

New technologies increase poor and excluded people's resilience to climate change, poverty and ill-health and create new opportunities for growth

e.g. New crop varieties in widespread use that are higher yielding, more nutritious and more tolerant to drought and pests

Long-term investment partnerships address the most pressing needs for technologies for poor people

e.g. Affected countries have access to new, safe and effective TB and malaria drug treatments

Global technology transfer and uptake supported as a result of improved knowledge, policies and institutions

e.g. Common understanding of regulatory barriers affecting technological innovation for poor people

RESULTS AREA 4

Capability to do and use research strengthened

Southern institutions better able to set the research agenda and to lead development research

e.g. Increased number of southern researchers with the skills to demand, analyse and use disaggregated data

Developing country users' needs for relevant research are supported and effectively met by research organisations

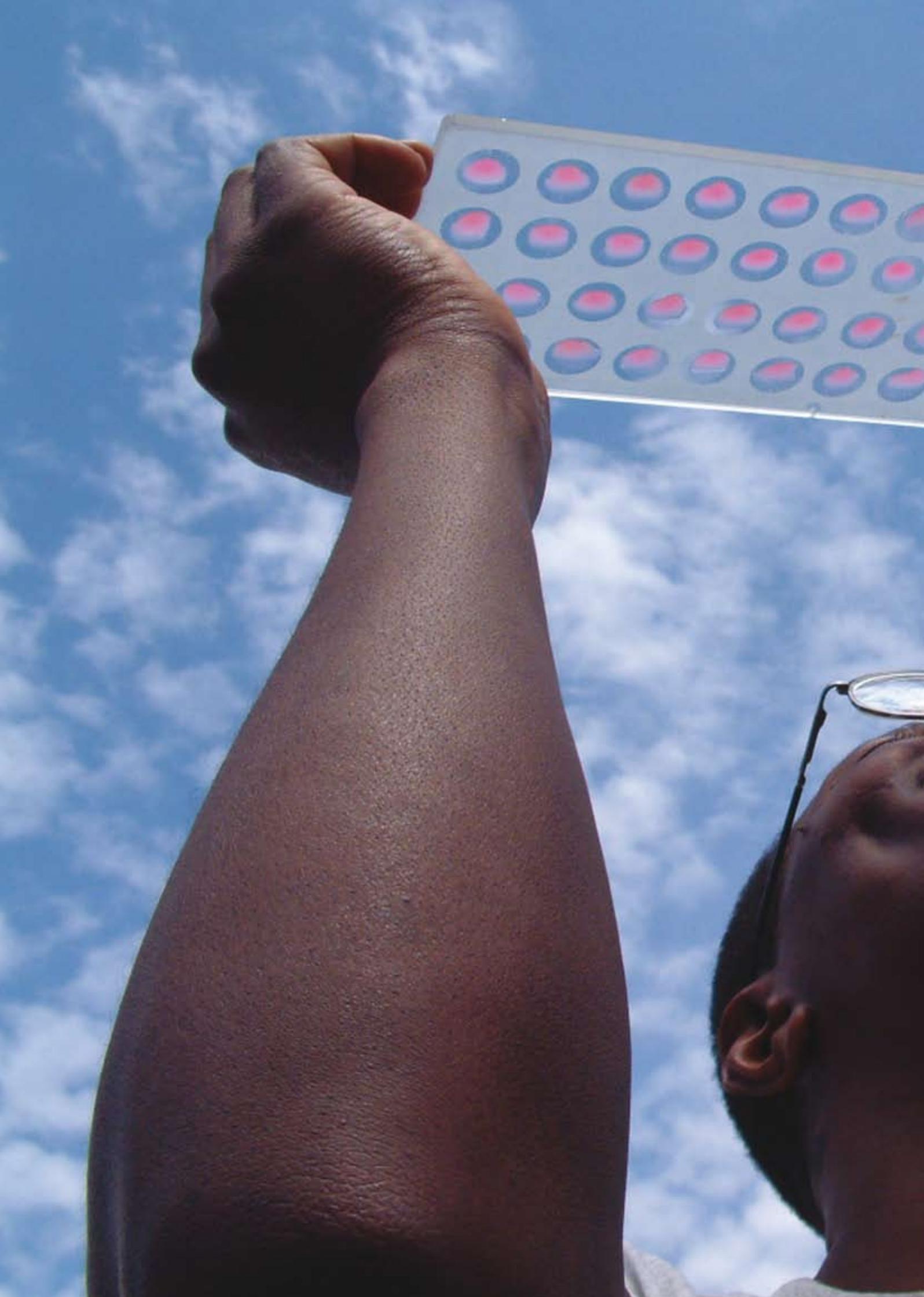
e.g. Skills among policy makers to use research effectively are enhanced as a result of multi-donor action

Low-cost access to research knowledge enhanced for developing country researchers and policy makers

e.g. Appropriate research products more available to end users through electronic media

South-south and north-south lesson learning strengthened

e.g. African countries benefit from relevant lessons from the newly powerful economies about tackling a rising non-communicable disease burden





Department for International Development Leading the British government's fight against world poverty.

One in six people in the world today, over 1 billion people, live in poverty on less than one dollar a day. In an increasingly interdependent world, many problems – like conflict, crime, pollution and diseases such as HIV and AIDS – are caused or made worse by poverty. DFID supports long term programmes to help tackle the underlying causes of poverty. DFID also responds to emergencies, both natural and man made.

DFID's work forms part of a global promise to:

- halve the number of people living in extreme poverty and hunger
- ensure that all children receive primary education
- promote sexual equality and give women a stronger voice
- reduce child death rates
- improve the health of mothers
- combat HIV and AIDS, malaria and other diseases
- make sure the environment is protected
- build a global partnership for those working in development.

Together, these form the United Nations' eight 'Millennium Development Goals', with a 2015 deadline. Each of these Goals has its own, measurable, targets. DFID works in partnership with governments, civil society, the private sector and others. It also works with multilateral institutions, including the World Bank, United Nations agencies and the European Commission. DFID works directly in over 150 countries worldwide, with a budget of £5.3 billion in 2007/08.

Details of more than 5,000 DFID funded research programmes and their results, can be found on the research portal <http://www.research4development.info>

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