The UN Food and Agriculture Organisation (FAO) International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) has three principle aims:

- The conservation and sustainable use of the genetic resources of all the world's food crops,
- The implementation of a multilateral system (MLS) of access to a list of some of the world's most essential food and fodder crops,
- To ensure that benefits from the commercial use of the genetic resources of these crops are returned to farmers in developing countries.
The interesting characteristic of this policy area is that it did not fit neatly into the remit of any international organisation either in environmental or agriculture. Therefore the first part of this story is the push for specific and distinctive governance for PGRFA at the FAO.

Control of knowledge and research in the area of plant genetic resources has, since the early 1980s, been contested between the plant breeding industries, increasingly dominated by global biotechnology corporations, and a growing movement of farmers and their academic/NGO supporters who have been defending the importance and legitimacy of indigenous seed systems. Under the banner of Farmers’ Rights, have been demanding the recognition and compensation for small scale farmers in developing countries for their role as the real custodians of plant and animal genetic resources.

The plant breeding industry is dependent upon the thousands of varieties developed by farmers in their fields over generations, and periodically returns to these fields in search of new strains. The areas where these “unimproved” varieties are found are known as landraces. The realisation that the genetic basis of crops has been eroding, through repeated selection of a few desirable traits, stimulated research into the means to maintain genetic diversity. In the 1980s, NGOs began to champion local and indigenous systems of knowledge as the most fundamental building block of future food security. If the genetic base of the major food crops were to narrow and there were to be no recourse to farmers’ knowledge, these crops could become highly vulnerable to plant pests and diseases. There are vast ex situ collections of plant varieties in gene banks which scientists can use to maintain the productivity and resilience of food crops. Control of these collections was one of the major political controversies in the FAO negotiations, but these are, in the long term, no substitute for the in situ processes of adaptation and innovation by farming communities in developing countries.

The issue of genebanks became one of north-south equity and justice. Through the 1960s and 1970s, International Agricultural Research Centres and National Agricultural Research Centres accumulated the main collections of germplasm. The great proportion of these collections was held in northern industrialised countries. Suspicions and distrust began to emerge in the early 1980s over ownership of this genetic material and the right to determine its use. A vigorous new discourse was developed by NGOs on the injustices of the situation: that the north had stolen the genetic resources of the south and allowed them to be used to advance the interest of agri-business corporations. The scientists at the heart of the green revolution were indignant at this attack, pointing to the contribution of international public plant breeding activities for rising living standards in South and South East Asia.

From these unpromising beginnings, the FAO has steered a policy process and worked to build consensus between these rival camps. Eventually a fragile consensus did emerge, laying the basis for a binding international agreement.
Methods

Analytical Framework.

Isolating a single variable within a social process and attempting to define its impact is a notoriously challenging task for social scientists. In the absence of a clearly definable breakthrough in policy it becomes additionally taxing to assess the impact of research on policy. It is also more difficult to see such impacts in a short timeframe. The study of a single policy process lasting two decades and ending in a breakthrough, in this case a UN treaty, mitigates both factors and may therefore offer the possibility for clearer lessons to be drawn on the role of research.

The framework of Bridging Research and Policy developed by the Overseas Development Institute, ODI, (Crewe and Young, 2002) is used to draw out the importance of research in relation to other factors influencing the policy process, and, looking more closely at the research itself, identifying the different types of research which created momentum in the policy process at different stages. The conclusions of the study focus on different perspectives on the significance of the Treaty and the challenges that lie ahead in international governance of genetic resources for food and agriculture. The ODI framework looks in turn at Context, Evidence and Links

Context:

The links between research and policy are shaped by events and trends in the wider political context. Political agendas, power relations and institutional pressures are all aspects of the policy process. The policy context is also governed by a dominant set of ideas variously referred to as a discourse, a paradigm or a narrative, which exerts a powerful influence over which ideas are considered and which are ignored. Major change in policy usually follow from the establishment of a "counter narrative" which enables previously marginalised views and voices to gain legitimacy.

Evidence:

The degree of attention paid to circulating ideas is to an extent dependent upon the skills, ingenuity and timing of their backers. Whether an idea is able to elicit an engaged response from actors depends upon a range of factors, such as perceived credibility of the source, the way in which it is communicated and the language used.

Links:

The research policy link is played out in an interface between the political context and the actors involved: networks, organisations/institutions and individuals. Actors may interact through official policy working groups or through more informal networks.

Transition Points:

The research could not pretend to provide an exhaustive survey of the ITPGRFA policy process. Instead five “transition points” are identified which shaped and created momentum towards the eventual conclusion of an international agreement. In each of the episodes selected, the PRGFA policy process was affected by
changes in the global political and institutional context, to which its protagonists had to adapt and find a new momentum.

Malcolm Gladwell (2000) has given us the useful concept of the *Tipping Point* to describe major social changes apparently brought about by a very small group of individuals who are particularly astute at interpreting and acting upon social trends. One example is a sudden and dramatic worldwide surge in demand for a particular product. It seems sensible, for a formal and established policy process at the United Nations, to describe important changes and shifts as transition points rather than the more dramatic tipping points. Without rupturing the continuing struggle for agreement between nations and interest groups, these transition points represent clear building blocks towards the policy breakthrough. There is a still a considerable focus on the individuals involved and their coherence over time into a policy network. This study looks at the influence of research on each transition point and thereby builds a picture of the trend over the whole period.

**Procedure**

The research was carried out according to a strategy that reflects the complexity of a multi-dimensional international policy process. It was conducted in five stages:

1) Collection and analysis of primary and secondary written sources on the ITPGFRA process. Official FAO documentation was gathered during a three-week visit to Rome in April 2003. A by-product of this visit to the archive of the Commission on Plant Genetic Resources for Food and Agriculture (CGRFA) was the design of an archiving and web strategy. The Commission has implemented the plan and large numbers of official documents of the policy process are now available online at the FAO website. An inception report was prepared which presented an initial analysis of the policy process and scoped out the potential interviewees and participants in the workshop.

2) A workshop including ITDG and ODI staff was held to develop the framework for analysing research-policy linkages developed by the ODI project - "Bridging Research and Policy in International Development- the UK dimension" to develop the key research questions and most appropriate research methodology.

3) In-depth interviews were conducted with key players to explore the key research questions, prepare a draft Working Paper for further discussion with key informants, and identify participants for the international workshop, as follows:

Le Buanec, Bernard, Secretary General, International Seed Federation, Berlin, May 2004
Cooper, David, CBD, June 2003 (Telephone Interview)
Esquinas Alcazar, Jose (Pepe) FAO, CGFRA, Rome, July 2003
Flores Palacios, Ximena, IFAD, Rome, May 2004
Hawtin, Geoff, former DG, IPGRI, Rome July 2003
Hodgkin, Toby, IPGRI, Rome July 2003
Hoskins, Liz, GAIA Foundation, London September 2003
Lopez Portillo, Jose Ramon, Former Mexican Ambassador to FAO, (telephone interview) April 2004
Martinez Gomez, Francisco, former agriculture attaché, of Mexico, FAO, Rome, July 2003
Mooney, Pat, ETC Group, London October 2003
Mulvany, Patrick, ITDG, Rugby, March and September 2003
Mushita, Andrew, Community Technology Development Trust, Harare, March 2004
Roberts, Tim, Independent intellectual property specialist, Berlin, May 2004
Smith, Martin, UK DEFRA/CRGFA, Rome, May 2004
Sontot, Andree, Charge de mission, Bureau des Ressources Genetiques, Berlin May 2004
Stannard, Clive, FAO, CPRGFA, Rome, May 2004
Toledo, Alvaro, FAO, CPRGFA July 2003

4) The project originally planned an international workshop with a selection of the above individuals involved: officials of the relevant Commissions and Conventions, government negotiators, academic researchers, NGO and civil society representatives. The main purpose of this workshop would have been to review the inception report and hold creative sessions which would identify strengths and weaknesses in the policy formulation process. In practice, it proved impossible to organise this workshop. It was intended to hold the workshop in conjunction with a meeting of the CGRFA, which has been delayed to November 2004. Instead the researchers held a series of small focus group meetings with NGO activists, FAO staff, government negotiators and seed industry representatives in order to review the emerging findings of the research.

5) Final discussions with ODI and ITDG staff are being held to review the outcomes and recommendations from the research for incorporation into the ODI Bridging Research and Policy Programme

Main Findings

Transition Points

The following episodes have been identified as the key transition points in the policy process leading to the successful conclusion of the Treaty:

1981-83 The FAO adopts the International Undertaking on Plant Genetic Resources and establishes a Commission to facilitate its development. This issue of plant genetic resources entered into a North/South political dynamic. The identity of the Commission was peculiar due to the fact that its establishment was not by consensus, but came about as in the result of a contested vote at the 1983 FAO Conference. Many industrialised countries opposed its creation. At this stage, the most successful research outputs were the sensational reports by the Canadian NGO RAFI (Rural Advancement Foundation International). They served to politicise and dramatically raise the profile of the genetic resources policy process.

1989-1991 A series of dialogues between all stakeholders in the policy process were organised by the Keystone Centre, Colorado, USA. These “Keystone Dialogues” had their desired effect of increased understanding, on the basis of mutual trust and respect, amongst all interested parties in the field of plant genetic resources for food and agriculture, and created the conditions for the United States of America to become a Commission member in 1990. This is a clear example of the explicit building of links between stakeholders in a policy process. It is important to note that many of the protagonists in the Keystone Dialogues remained committed to the
process through to 2001, and brought the spirit of informal dialogue into the tough intergovernmental negotiations that followed.

1992 The “Nairobi Final Act”, in establishing the Convention on Biological Diversity, recognised the specific and distinct nature of agricultural biodiversity and called upon the FAO to renegotiate the International Undertaking on Plant Genetic Resources in harmony with its provisions. This transition point is an example of a major change of context which pushed the policy process in an entirely new direction. However, it was the solidarities created in the Keystone Dialogues that created a coalition strong enough to ensure that agricultural biodiversity could survive and find their place within the rising global environmental agenda.

1993-94 The status of international seed collections, collected from farmers’ fields and held in trust in the CGIAR gene banks, was established in an accord with the FAO. The perceived threat of genebank privatisation receded, building civil society commitment to the IU revision process. This decision was the culmination of fifteen years of activism by NGOs, certain accredited government representatives at the FAO, progressive CGRFA officials and concerned research scientists. A continuous stream of high quality polemical papers from a handful of specialised NGOs, criticising the global governance of germplasm collections, eventually forced through this decision.

1997-2001 This was the intensive phase of intergovernmental negotiations for a binding international agreement. The study examines how the different negotiators were briefed and how commissioned research was fed into the negotiating process. At this point we note the importance of rigorous scientific research to inform the negotiating process. As intergovernmental negotiations intensified, professional diplomats were sent by governments to Rome to replace those existing representatives with a scientific background. This advanced the prospects of a successful outcome to the process, but also greatly increased the need for objective briefing of diplomats who lacked in-depth knowledge of the subject matter. It became increasingly difficult for NGOs to influence the course or outcome of the process.

Main Findings on Context.

In the early 1980s the demands of the G77 group of developing counties in relation to agricultural genetic resources were for free access, no intellectual property rights and political control through a multilateral framework and forum. This was the heyday of collaboration between Southern representatives and the Northern based NGOs. For example, in 1985, when the members of the CGRFA first met, Farmers’ Rights were immediately brought forward, with Mexican support. At one point in the meeting, the Dutch delegate argued that the concept was impractical and utopian. This played into the hands of the NGOs, who could strengthen their credibility by denouncing such statements. During the same meeting, one NGO, RAFI, gained information to the effect that the International Bureau for Plant Genetic Resources was pulling out of Rome in order to escape the control of the FAO. As observers at the FAO, RAFI were deliberately unguarded and revealed the results of a private meeting at which the IPBGR’s plans were discussed, something that official delegate would never have done. This created an atmosphere of scandal, rancour and controversy that raised the profile of the plant genetic resources policy process, but also threatened to derail it altogether.

By the late 1980s change in the broader context served to weaken this alliance. The privatisation of agricultural research in industrialised countries was propelled by neo-
liberal policies and development in technology. The 1980 US Supreme Court decision, *Diamond vs. Chakrabarty* opened the path to patenting of laboratory modifications of living organisms. Fearing an upsurge in patenting of genetic material by US life science corporations, developing countries became concerned about the potential abuses of a policy of open access to genetic resources. They opted for a radical change of strategy – national sovereignty over genetic resources and fair and equitable sharing of benefits from any scientific advances based on those resources. The alliance between NGOs and Southern governments began to fracture as more complex coalitions emerged.

The surge of private sector investment in biotechnology reduced the flow of scientific information between the private and public sectors: the private sector was not interested in having public competitors who develop seed varieties for public welfare. It also created temptations of market orientation of public sector research institutes in times of scarce public funding. This became a source of increasing acrimony between CGIAR scientists/functionaries and NGOs.

Developed countries continued to lay emphasis on full guaranteed access to genetic resources. Developing country emphasis was on the need for guaranteed benefit sharing. Few actors were stressing need for both: Indian researchers and US researchers were professionally close, but Indian scientists advocated farmers rights, and for an international fund, and are vocal critics of the US patent office. Brazil was happy to accept a multilateral system as long as its scope was limited to materials that Brazil lacks, and as long as the benefit sharing agreement does not prejudice or set a bad precedent for non-agricultural genetic resources.

From the late 1990s the context changed further, as trade issues gained primacy in the sphere of international relations. At the World Summit for Sustainable Development in 2002, only a late intervention by Ethiopia prevented the agreement of a text which would subordinate all environmental treaties to trade considerations. Many developing countries were prepared to countenance this downgrading of environmental agreements. One factor in this was increasing suspicions of the civil society environmental movement in the north. The perception by governments in the South is that that measures proposed by such organisations would lead to restriction of opportunities for economic development. Another factor was heavy bilateral pressures on developing countries from the US and EU to respect the free market model as the basis of the international order. This created a much more complex and difficult terrain for NGOs, and northern based NGOs in particular.

Trade has become a more attractive issue for developing country governments, as they can deploy a pro-active, offensive strategy against northern subsidies. In the case of conservation of genetic resources, the main avenue for resources for the South will be donor aid. This provides little potential to challenge the global status quo. Moreover, the aid would target poor/remote farming regions rather than prestige engineering projects which governments are often looking for to enhance their standing with the electorate of major cities.

**Main Findings on Evidence and Links**

Northern based NGOs and think tanks were highly influential with their papers and books in the early stages of the process. A few key individuals from these NGOs maintained an insider role from start to finish, although even their opportunities to influence the course of events narrowed over time. Due to changes in context, it is
unlikely that such organisations could play a similar role in future, as southern civil society organisations and movements of indigenous peoples would now fill the political space they occupied. NGOs also played a supportive role in raising funds and creating capacity building opportunities for African government and non-government representatives. It is this role, in such processes as the push for regulation of animal genetic resources, which international NGOs such as ITDG will continue to play.

From 1994 onwards, ITPGRFA policy process was increasingly demanding of detailed, high quality rigorous research. Fourteen official background papers were commissioned by the CGRFA to enhance understanding of the issues at stake in the negotiations. In the latter and decisive stages of the negotiations most influential research was therefore produced by, or in conjunction with, actors inside the process. Any research produced independently was unlikely to be effective, as unresolved and pressing issues within the policy process itself set the themes of research.

Rather than simply being annexed to negotiating papers, the research papers were shared and discussed in a series of informal inter-sessional meetings, supported by a range of northern countries and donors, which built understanding between the main protagonists in the process: northern governments, southern governments, the private seed sector and civil society organisations. The UK government was involved in this process, playing a leading role in the EU as a member of the Contact Group of forty countries which developed the Treaty text, and hosting a dialogue on “commercial benefit sharing” at Kew in 1999. These informal meetings built upon the successful precedent of the 1989-91 Keystone Dialogues which saved the policy process from disintegration.

**Future Outlook for the Treaty**

Farmers’ movements in the south, disillusioned with the rising influence of corporations in international governance processes at the FAO, CBD, WTO and WIPO are tending to disengage from international governance processes, concentrating instead upon grassroots capacity building. This threatens a lack of vigorous monitoring of future processes that was hitherto a feature of the ITPGRFA policy process.

The ITPGRFA represents a step forward in agreeing the multi-lateral system (MLS) for access to and benefit sharing of plant genetic resources for food and agriculture and keeping them in the public domain. This is very significant in an era of increasing pressure to privatise genetic resources. But the details of implementation of the Treaty and the MLS have not been fully worked out and will be the subject of the agenda of the Governing Body of the Treaty at its first meeting. Unresolved issues of the Treaty require the same careful consensus building and development of policy options that took place during the negotiations. Without this, the delicate compromises of the Treaty will fall apart and its implementation will be compromised or stalled altogether. In those circumstances, since the field of plant genetic resources no longer attracts the attention, controversy and interest that it once did, and with global attention focussing heavily on the outcome of WTO negotiations, it is difficult to see where the momentum might come from to prevent the Treaty becoming a moribund policy instrument.

Both the UK government and UK civil society organisations must continue to play a constructive, progressive role. It is a cause of concern to UK civil society
organisations monitoring the process, that if the new DFID policy agenda becomes focussed on a limited number of international policy processes that does not include agricultural biodiversity, then DFID will contribute to the weakening of the Treaty implementation and lose its previous policy capacity and reputation in FAO processes.

**Dissemination.**

A draft Working Paper is currently circulating with informants, for comments, observations and permission to cite.

It will then be posted on the ITDG website. The paper has been widely trailed in FAO and CBD forums.

This working paper will be published by ODI.

Presentation at DSA Conference, Bridging Research and Policy, 6 November 2004.

Briefings and newspaper articles at the time of the FAO Commission on Plant Genetic Resources, November 2004.

**List of Publications.**

ODI Working Paper (forthcoming)