International Growth Centre

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The International Growth Centre (IGC) aims to promote sustainable growth in developing countries by providing demand-led policy advice based on frontier research.

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Executive Summary

The International Growth Centre (IGC) has created an innovative demand-led model for linking research and policy, using frontier research to generate new ideas and to support independent policy advice to promote sustainable growth in developing countries. During 2013/14, the IGC has continued to develop this model, bringing together the best minds in academia with key policymakers and stakeholders in its partner countries to address important growth challenges.

In this first year of Phase II, the IGC has influenced policy debates across its 15 country programmes in 14 partner countries through the successful commissioning of research that matches demand in crucial growth policy areas. The research programme has been refocused to four main research themes: state effectiveness, firm capabilities, cities and energy. These themes were identified as areas of high demand from IGC partner countries and of demonstrated IGC comparative advantage in conducting innovative and influential research. In addition, a new system for commissioning research has been introduced, based on a unified open call for proposals. This new global call, replacing the individual country calls and separate research calls in Phase I, enables the research and country programmes to draw on the largest possible pool of researchers. The new commissioning boards include representatives of research and country programmes to ensure that commissioning decisions are fully informed by country and research priorities.

The IGC has continued to deepen its engagement with policymakers and researchers through networking and knowledge-sharing events and an expanded online presence. A combination of international, regional and in-country events in 2013/14 have provided opportunities to share findings of IGC research and to foster interaction and collaboration between IGC researchers and key government stakeholders in its partner countries. In addition, the IGC has continued to influence the public and global debate on growth policy through public lectures, publications and an expanding online presence with the launch of its first regional website, Ideas for Africa (I4A) in December 2013.

This report showcases 36 examples of high impact IGC work across its partner countries and research areas. These examples illustrate how the IGC has continued to succeed in responding to policy demands and in influencing policy in its partner countries by providing independent advice based on high quality research.

The recruitment of key posts in 2013/14 has contributed to increased capacity in the hub and the country teams. Moving further into Phase II, the IGC's operating model will see further developments aimed at achieving greater impact. A new Monitoring and Evaluation strategy will better inform the IGC of 'success factors', allowing the IGC to further improve its ability to achieve policy impact. The revised IGC Communications strategy will enable the IGC to strengthen the links between research and policy and will identify new pathways for influencing global debates on growth policy. Going forward, the IGC will continue to provide world-class research-based policy advice to support the growth process in developing countries and, most importantly, to improve the lives of the poor.

Introduction

The mission of the International Growth Centre (IGC) is to promote sustainable growth in developing countries by providing demand-led policy advice based on frontier research. The IGC seeks to generate new ideas for growth, whilst working to improve the ability of developing countries to formulate their own policies to accelerate and sustain economic growth. This purpose has guided the IGC's research focus in four primary growth policy areas: (1) state effectiveness; (2) firm capabilities; (3) cities; and (4) energy.

The IGC has developed an innovative model that links the best academic minds to the growth policy demands of developing countries. The line from research-based policy ideas to policy change and growth impact is, however, non-linear and complex. The IGC model brings research and policy closer together in three key ways. It maximises the policy relevance of ideas generated by research through demand-driven country engagement, where government, private sector and civil society interact with IGC country teams and researchers to define the research agenda. It ensures that research-based ideas are locally owned and directly support domestic policymaking through the presence of permanent country offices, which facilitate close collaboration with policy stakeholders and local researchers throughout the research process. Finally, the IGC guarantees the quality, independence, and credibility of the research it produces and the policy advice it delivers through its world-class network of researchers.

With this unique model, the IGC has made significant progress in bringing together two largely separate worlds: top academics in the world's leading universities and policy stakeholders in low-income countries. IGC's permanent presence in partner counties is crucial to bringing and holding together these two communities by enabling deeper engagement and facilitating researchers' access to local data. By linking policy makers and researchers the IGC has profoundly influenced growth policy debates at the country and global levels.

The insistence that IGC work is based on frontier research – either drawing from the existing stock of knowledge or by creating new knowledge – is a key factor that sets it apart from other actors in the development field. This evidence-based model of policymaking is still somewhat rare in low income countries, in part due to the limited technical and analytical capacity in developing country governments to incorporate sophisticated research into economic decision-making. By engaging top academics to meet growth policy demands, the IGC has been able to produce policy advice that, in terms of quality and independence, is very distinctive from what is on offer from international donor and consultancy organisations.

This first year of Phase II has seen a refocusing of the research programme to four main research themes: state effectiveness, firm capabilities, cities and energy. Identification of these areas was based on high demand from IGC partner countries and demonstrated IGC comparative advantage in conducting innovative and influential research.

The IGC has been at the forefront of rethinking the role of the state in economic development and this has been a central part of IGC work across all IGC partner countries. This encompasses issues such as public finance, public sector organisation, macroeconomic stability, governance and accountability. This work recognises that without a strong, accountable state with a buoyant revenue base and stable macroeconomic climate economic growth is unlikely to take off. This message is getting through with a growing number of states realising that they need to pay for their own development and be accountable to their citizens.

Enhancing firm capabilities represents another key strand of IGC work. This recognises that it is improvements in firm productivity that drive private sector development and underpin economic growth. Understanding the forces that determine productivity of firms is hence a key policy question for the IGC. Part of this has to do with understanding how trade both within and across countries can be facilitated as this is a key driver of firm productivity growth. Connected to this the IGC has a focus on examining how large manufacturing and service sector firms can develop in Africa and Asia. Examining the drivers of entrepreneurship and of productivity growth in small firms (including farms) is also critical in these economies given that the bulk of the citizenry in typically employed in these firms. Looking at institutional constraints and infrastructural constraints, as well as the role of skills and training, and credit market frictions is critical in this respect. Development of data on firms and markets and new measurement methodologies (such as John Sutton's enterprise maps) is also important in furthering the IGC's understanding of what policy factors affect firm growth in these countries.

The IGC is also taking a lead on developing new work on cities and development. As structural change proceeds and countries become more urbanised there is a need to think about how this process of agglomeration can be harnessed to generate economic growth in the countries of Africa and Asia. This requires thinking about what policy actions needed to be taken to make cities places where firms can function effectively thus drawing in workers and increasing their productivity. This requires new thinking on the economics of agglomeration which help policy makers see cities as centres of opportunity for the creation of economic growth rather than problems of overcrowding and congestion. Research on infrastructure, finance, housing, zoning and planning as well on industrial policy can all help engineer this shift in thinking. Taking countries as a whole, the IGC is also interested in re-examining the role of regional development policies in creating new city-based growth poles within countries as a means of advancing economic growth and tackling backward areas.

Energy has also become a major focus of IGC work during Phase II. Per capita energy consumption in the developing economies of Africa and Asia is a tiny fraction of that in the developed nations and this severely the set of production activities that firms and individuals can engage in. Lack of access to reliable sources of energy thus constitutes a major break on economic growth. Part of the problem stems from users of energy not paying for the energy they use or paying prices that do not cover the cost of supply which in turn means that distribution companies do not generate the revenue needed to improve quality and expand access. The IGC is developing innovative lines of research which look at how existing industrial and residential customers can be incentivised to pay for the energy they use. It is looking at means of increasing access to energy for rural citizens both through expansion of electricity grids and development of alternative sources of energy. Engineering mass improvements in energy efficiency also represents a way in which growing demands for energy can be matched with constrained supplies. And finally work is ongoing on how the external costs of growing energy use in the developing world (for example in the form of air and water pollution and global warming) can be minimised.

A wide range of events to foster knowledge exchange share as well as a growing online presence have continued to play an essential role in facilitating the transmission of ideas at national and global levels, and integrating the IGC policy and research networks. IGC conferences and workshops at international, regional and national levels have provided opportunities to share findings of IGC research and to discuss emerging policy challenges, whilst also facilitating interaction and collaboration between IGC researchers and key government stakeholders. IGC public lectures in 2013/14 hosted talks by leading international thinkers including Helen Clark (UNDP), Professor Paul Collier (Oxford and IGC) and Professor Edward Glaeser (Harvard), among others.

Following the success of the Ideas for India web portal, the IGC launched its first regional website for Africa, Ideas for Africa (I4A), during the Africa Growth Forum 2013. Similar to the Ideas for India initiative, which enables researchers and policy practitioners to present short pieces which are of interest both to policymakers, the media, other academics and citizens, I4A brings together leading thinkers from around the globe to share their views on growth policies in Africa. A renewed focus on enhancing the communications function of the IGC so that it can play a greater role in influencing national and global policy debates will be a major part of the work of the IGC in Phase II of its operations.

Analysing the impact of ideas generated from frontier research on policy and growth outcomes is an evolving and imperfect science. The relationship between research and policy is complex and non-linear. Moreover, the work of the IGC is not just about affecting a certain number of policies, but also about having a broader, longer-term impact on growth policies, for example, by providing an analytical resource that can help developing countries achieve stable growth paths and by generating new ideas to feed into global debates on growth policy. Indeed, a key overarching goal of the IGC is to enhance countries' own capacity to formulate evidence-informed growth policies, by demonstrating the value of bringing research into policy and by fostering the development of international networks of policy-makers and leading researchers.

Understanding short-term policy impact is nevertheless important and to place the IGC's work within an impact framework the IGC has devised a scoring system to capture how IGC research has affected policy;

- **Level 1** policy impact denotes 'ideas created/mobilised'. This is where the IGC produced work analysing a policy question, but it has not yet fed through to senior government officials or other policy stakeholders, often because it is at an initial stage.
- **Level 2** policy impact signifies 'disseminated to government'. These are outputs that have been formally conveyed to the requesting minister or permanent secretary (or other senior policy stakeholder) but not yet discussed in depth.
- **Level 3** signifies 'high level hearing'. Outputs in this category have been disseminated to government, usually to ministers or permanent secretaries (or other senior policy stakeholders), and 'internalised' in the sense of having been discussed in detail and follow-up work and discussions having been requested.
- **Level 4** signifies that ideas and outputs created by the IGC are reflected in policy responses and reforms. This can be evidenced by policy documents – laws, strategies, cabinet papers, decisions, etc. – being changed in ways that reflect the IGC analysis.

This report highlights 36 examples of high impact research at level 3 or 4. Of these cases 11 are examples of further policy impact achieved as extensions or follow on from cases that were highlighted in last year's report. This highlights the long term nature of IGC's research and the focus to maximise the policy impact of its research, resulting in strong value for money.

Scaling up IGC's capabilities and activities for Phase II has been a priority for 2013/14. The uncertainty surrounding Phase II funding had hampered IGC's ability to retain core staff in 2012/13 and resulted in the need to recruit a significant number of IGC Hub and Country Economists. IGC also adopted a new management structure and recruited three new members of the senior management team, including the Executive Director. IGC now finishes 2013/14 with a largely new hub team and all key posts filled.

IGC growing internal capacity during 2013/14 translated into a growing capacity to commission new research. The first open call for proposals, launched in late October 2013 and culminating in meetings of the three new commissioning boards in early February, resulted in the commissioning of a large number of new projects. Despite this late surge in new projects, the delays in commissioning due to the lack of country and hub capacity in the first half of the year resulted in an underspend of the 2013/14 budget. In a few cases, this lack of capacity was compounded by external factors. In particular, the civil war in South Sudan, which started in mid-December, has resulted in severe operational issues for the IGC South Sudan programme, whose in-country presence was curtailed after only three months in 2013/14. In Bangladesh, political unrest in the lead up to the controversial elections in January 2014 created some challenges for policy engagement in the second half of 2013 and early 2014.

Looking forward, the new IGC Monitoring and Evaluation strategy is expected to improve data collection and provide insights into the determinants of policy impact which together should provide a somewhat fuller picture of IGC activities and outcomes in year 2. This will also improve the communications function of the IGC where the organisation has been steadily building capacity during the first year of Phase II.

The structure of the remainder of this report is as follows. Sections 2, 3, 4 and 5 document the many cases in which the IGC has achieved high level policy impact at the country level, or significantly shaped the direction of global discourse across four key policy areas. These are level 3 or level 4 impact cases, as defined above. Section 6 documents key achievements in the implementation of the networking, communications and influencing strategy. Section 7 looks forward to the future of the IGC.

Policy Impact

State Effectiveness

The IGC has been at the forefront of rethinking the role of the state in economic development. Across all the countries where the IGC operates, this is a central part of IGC work, but the IGC also tries to think about these issues at a global level. This focus stems from the realisation that without a functioning state to implement policies to enable individuals and firms to become more productive, a large fraction of humanity will be consigned to poverty. The IGC thus is fundamentally concerned with the state's role engendering productivity increases and structural transformation in the private sectors of developing countries.

A key prerequisite to the formulation and implementation of effective growth policy is a state that is equipped with revenue raising capabilities and that is able to ensure the provision of essential public goods. There is a growing realisation that effective states have to develop sufficient domestic tax capacity to pay for the provision of essential public goods which underpin economic growth. Moreover, it is imperative that the state is committed to improving overall productivity and welfare, rather than engaged in the pursuit of private or individual rent-seeking activities. This includes the state implementing policies which prevent large firms from capturing and exploiting markets for their own benefit. IGC work has successfully informed and continues to produce pioneering research on state effectiveness and accountability, focusing on how to create such a state as well as on classifying the criteria fundamental to its establishment.

Under the state effectiveness theme, the IGC focuses its research on two questions. First, what mechanisms improve the capacity of the public sector to deliver the public goods necessary for firms to grow? Second, what policies help to ameliorate the broader social tensions and political institutions across the public sector? This requires an examination of not only public finance and organisation and public finance, but also of governance and political economy.

The first question of state capacity is related to how to develop the administrative capacity of the state to deliver public goods. Enhancing state capacity is intimately connected to the ability of the state to raise resources. Tax bases in developing countries are often narrow and distortionary. Research which examines how these bases can be broadened in a manner that encourages firms to grow in size requires work on the overall design of tax systems, including consideration of issues related to exemptions and compliance which can have a major bearing on how much revenue the state can raise. Another reason for the current failures to deliver the essential public goods which underpin economic growth may be because public sector workers are not properly monitored and incentivised. There are major questions in public organisation which concern not only how to incentivise existing bureaucrats but also how to select individuals who are best suited to the tasks they need to perform. A final prerequisite for creating an environment in which firms can grow concerns the state playing an active role in providing a stable macroeconomic environment which encourages both domestic and foreign investment.

BUILDING STATE CAPABILITIES: PUBLIC FINANCE

The public sector in many countries fails to deliver key public goods, and a primary contributing factor is limited capacity to raise revenues and to spend those revenues effectively. States may be unable or unwilling to deliver public goods; alternatively, they may encounter a lack of resources to do so due to widespread tax evasion or a very narrow tax base.

In the former case, failure to deliver public goods may be due to improper monitoring mechanisms and incentives for public sector workers. To this end, the IGC has funded research on the impact of changes in incentives and increased monitoring on tax collectors in Pakistan (Khan, Khwaja and Olken 2013), the role of social norms in improving the state's fiscal capacity in Bangladesh, and research on changing the incentives of bureaucrats in Zambia.

A lack of revenue raising capabilities due to a narrow or distortionary tax base, results in a state that is unable to make the investments necessary for growth promotion (Besley and Persson 2011, 2013). The IGC has done a substantial amount of work on tax policy and optimal tax design, and on the determinants of fiscal capacity (see for example, Kleven and Waseem 2013). Given the central importance of such issues for a state's ability to invest and thus stimulate growth, the IGC aims to sponsor further research in this area.

BOX 1: ENGAGEMENT WITH THE FEDERAL BOARD OF REVENUE IN PAKISTAN

Note: this work is highly confidential and not to be disclosed publically.

BOX 2: INDEXATION OF PERSONAL INCOME TAX IN RWANDA

The International Monetary Fund mission to Rwanda suggested ways to improve the national fiscal framework. One suggestion in particular was indexing the personal income tax brackets to match real wages and take into account inflation, which would be useful to avoid taxpayers falling into higher tax brackets due to changes in their nominal income. Distribution of taxes is unequal in Rwanda, with individuals in the highest income decile paying 70% of all tax revenues. As a result, indexation will affect total tax revenue and will therefore have an impact on the capabilities of the Rwandan government.

The Ministry of Economic Planning and Finance in Rwanda asked IGC to conduct some research on tax reforms in this area. Professor Lennart Flood and Michele Savini produced a model and corresponding report modelling the effects of these potential changes on the government's tax revenues. This started with a discussion of international experience and the theoretical costs and benefits of personal income tax (PIT) indexation. They then modelled several different scenarios and inflation trajectories in order to track their effects on government revenues. They went on to evaluate the potential effects of introducing this PIT indexation into the Rwandan tax system.

This IGC engagement builds on IGC Rwanda's previous positive experiences with investigating the fiscal feasibility of a flat tax regime for Rwanda. The findings of this PIT indexation paper were presented to the Tax Policy team at Rwanda's Ministry of Finance. The findings were discussed in depth, and the Ministry raised comments on the work. This project is part of broader engagement on tax policy and administration, one of the strongest areas of IGC engagement in Rwanda, with the government showing interest in and appreciation of this IGC work in support of their fiscal reform efforts.

Given the IGC's influence on the debate on the potential Flat Tax Regime in Rwanda and the discussions that resulted, this project merits a policy impact level 3.

BOX 3: PROPERTY TAX PROJECT – OBJECTIVE TRANSFERS IN PAKISTAN

Economic development relies on the provision of services from the government. The extent and quality of services that the government can provide are constrained by the revenues it is able to generate. Low and inconsistent service delivery constrains growth in an economy by reducing the productivity of factors of production. Historically, tax revenues in poorer countries have remained low. Pakistan has a declining tax to GDP ratio (9.5% in 2008 and 12.5% in 1996). Property tax collection in particular is just one fifth of collections in comparable areas (World Bank 2009). This reduces the ability of the Punjab government to raise enough revenue to provide adequate public services.

The Property Tax Experiment in Punjab began in mid-2009 with discussions between the Government of Punjab and the Principal Investigators. The project involves the design and evaluation of incentive packages to increase revenue mobilisation while retaining/raising customer satisfaction. PIs on this study include Asim Khwaja (Harvard and IGC), Ben Olken (MIT), Adnan Khan (LSE and IGC). Great care has been taken to undertake a thorough stakeholder consultation process at all levels, both internally within the Excise and Taxation (E&T) Department and with external players including other related government departments.

Under this experiment, three types of incentive schemes were tested in the context of Punjab, through a randomised control trial. Tax circles within a representative sample of Punjab were randomly assigned to each incentive scheme. Changes in tax collected and the performance of the inspectors were compared against a control group that operates under the status quo. Since random assignment to schemes guaranteed that all groups were statistically equivalent, differences in collections and inspector behaviour could be attributed to the changes in incentives. This allowed the government to a) test improvements in tax collection against the status-quo, b) consider which of the three systems are likely to work best in the case of Punjab, and c) pilot a new model for governance reform – one that integrates innovations in the civil service.

After rigorously testing different incentive schemes, it has been found that schemes directly based on performance as opposed to fixed wage increases are most beneficial in terms on increasing tax recovery without increasing rates of taxation. The project has also digitised circle and HR data for the past 6 years leading to greater monitoring capabilities. This data is also visually represented using heat maps and other data visualisation tools.

Any successful human resource performance system must determine how to reward its staff, both pecuniary and non-pecuniary, in order to motivate them. In the context of civil service, the decision over *where* one serves is potentially a very important motivator, yet transfers are rarely based on transparent and/or objective performance-related criteria. The research team complemented the earlier pay-for-performance project with a new system where performance could also be used to help determine transfers. Specifically, by allowing individuals to choose at the end of a year between a predefined set of places based on their performance during that year, one could create a merit-based system to motivate staff to perform better. In light of this, in 2013 a new merit-based scheme was proposed by the project team and subsequently approved by the Chief Ministers office. The scheme was successfully piloted and is now underway across 150 tax circles across the Punjab. The project is expected to last for two years and, together with the promising results from the performance-pay project, will help inform a broader civil service performance system.

This project is a strong example of how embedding research into policy environments (here, with the Department of Excise and Taxation and more generally Government of Punjab) can see benefits not just after the conclusion of a project but also during it – in this case, over the extended period of five years. Not only does this structure benefit from frequent interfacing between researchers and policymakers, but it helps to build coalitions within and outside government that help support reforms based on the research. Furthermore, the sustained engagement has created a number of beneficial by-products useful for policymakers: including the digitization of revenue and personal data that was necessitated by the research, digital mapping of tax circles, and the web-based heat map visualisation of tax data. Because of the strong internal coalitions driving this project, these by-products are able to directly impact on property tax collection approaches. Lastly, a number of nascent ideas for future intervention have been catalysed by this close co-operation, including early ideas about human resources reform, data quality improvement and taxpayer value proposition reforms.

Due to the multiple direct and indirect impacts on property tax policy stemming from long-term close cooperation with government agencies, and in particular the merit-based postings and transfers scheme implemented during this year, this project warrants level 4 categorisation.

BOX 4: BEYOND ODA WORKSHOP: STRATEGIC CONSIDERATIONS ABOUT PUBLIC SECTOR FINANCING IN UGANDA

The politics of austerity in OECD countries have caused many traditional bilateral sources of funds to level off since 2008. It seems likely that funds from traditional donors, certainly on a concessional basis, will become more constrained as Uganda raises its per capita income. Therefore, it is possible that Official Development Assistance (ODA) from other countries may decline in the future years – an event which could have significant ramifications for the federal budget. Pro-cyclicality and the increased volatility of revenue flows can contribute to significant macroeconomic instability. As a result, it is becoming increasingly important for the government to start considering ways in which it can lessen reliance on ODA assistance, manage funding volatility, and yet increase public investment to remedy a looming infrastructure deficit.

In December 2013, at the request of the Deputy Governor of the Central Bank and the Permanent Secretary of the Ministry of Finance, IGC Uganda organized a closed, high-level workshop to help structure integrated thinking about these issues. The purpose was to provide an analytical framework and data that the senior macro team could use to discuss policy options about the financing of the public sector, particularly public investment. Professors Christopher Adam and David Bevan prepared a paper on the macroeconomics of public investment and its financing; IGC Tanzania Country Economist Ben Langford together with Christine Asiimwe of the Bank of Uganda wrote on the costs and benefits of alternative sources of finance; and Albert Musisi and Peter Richens of the Ugandan Ministry of Finance, Planning and Economic Development (MoFPED) prepared a macroeconomic scenarios paper.

The event was chaired by the Permanent Secretary/Secretary to the Treasury Keith Muhakanizi and attended by the Deputy Secretary to the Treasury, five MoFPED Directors and senior advisors. The Governor of the Bank of Uganda was accompanied by the Deputy Governor and three Directors as well as various senior staff. Other notable attendees included the Executive Director of the National Planning Agency and a senior representative of the Uganda Revenue Authority. The quality of discussion was excellent owing to inputs from leading economic policy officials and a lively debate with Oxford professors Paul Collier, Christopher Adam and David Bevan ensued. Topics included desirable financing sources, investment appraisal and implementation institutions and suitable capital expenditure increases. The seminar spawned requests for follow-up research on some of the analytical underpinnings of assumptions shaping macroeconomic planning and public investment decisions.

Given the IGC's role in bringing together these policymakers and researchers and helping to mobilise a shared consensus view within the Ministry of Finance and the Bank of Uganda, this project merits policy impact level 3.

BOX 5: AN OVERVIEW AND ASSESSMENT OF RWANDA'S MINERAL FISCAL REGIME (JOHN STRONGMAN, MICHELE SAVINI, LINDA CALABRESE) – PAPER AND BRIEF

Mineral exports constitute Rwanda's second largest source of foreign exchange income. In 2011 Rwanda exported approximately $150 million worth of minerals, making up 30% of Rwanda's exports and equivalent to the cumulative value of tea and coffee exports combined. Mineral exports continue to grow and the sector is attracting interest from large foreign investors. Unfortunately, tax revenue from these sectors remains low and is mostly collected via employee taxes. Mining will be a key driver of Rwanda's growth in the upcoming years and it is of crucial importance for the government to be able to capture a fair share of the proceeds.

One of the items under discussion to improve tax revenues from the mining sector is the introduction of royalties, with the Ministry of Finance interested to establish whether a Royalty would yield more revenue without discouraging investors. Similar interest was expressed by the Minister of Trade and Industry, Hon. Min. Kanimba. And the International Monetary Fund has also recommended the Ministry of Economic Planning and Finance to create a more comprehensive fiscal framework for the mining sector. As a result of the interest demonstrated by key government stakeholders, IGC Rwanda has subsequently contracted John Strongman and Michele Savini to produce a study outlining key principles and international best practice for approaching mineral taxation. The study analysed the current fiscal framework for the sector and provided options for increasing the revenue generated from the previous system.

This engagement produced two key outputs: a policy research paper, presented and discussed with the Tax Policy Team at the Rwandan Ministry of Finance, and also delivered to the Rwandan Revenue Authority; and a policy brief outlining key information and policy suggestions for tax policy and administration related to the mining sector.

The main findings highlighted that Rwanda's Royalty Bill is in line with the tax framework of other mining countries, and is likely to attract investors. The paper also made some suggestions in terms of the wider tax policy and administration framework to improve revenue collection for the mining sector. The findings were widely discussed with the Ministry of Finance, whose Tax Policy Team requested the IGC to share the work prepared and information collected to further inform their engagement with the IMF mission.

Given the high level engagement and the request for further dissemination of the paper's findings to inform the policy framework, this project merits impact level 3 with the Royalty Bill currently under discussion.

BOX 6: FISCAL MANAGEMENT ADVICE IN MYANMAR (ADB COUNTRY STUDY)

The IGC country office, the Myanmar Development Resource Institute - Centre for Economic and Social Development (MDRI-CESD), and the Asian Development Bank engaged with the Government of Myanmar to provide advice on the fiscal management reform process, a key part of the country's transition and a necessary element underpinning state effectiveness.

IGC worked with MDRI-CESD to co-author a chapter on fiscal management in the ADB's forthcoming in-depth Country Study on Myanmar. This country study was directly driven by government demand, as the Myanmar government has asked for input and training on public financial management. The chapter discusses strategic resource allocation, resource mobilization, fiscal decentralisation, macro-fiscal linkages, and transparency and accountability.

IGC country economists introduced evidence from research on the nuanced linkages between these policy areas and growth. The chapter draws, for example, on the work of Van der Ploeg and Venables in discussion of Myanmar's natural resource revenues and the policy trade-offs faced by developing countries in: allocating these revenues efficiently, both intertemporally and between regions; managing risk, uncertainty and volatility; and using sustainable investment tools.

Policymakers were first consulted with the plan for the study during an initial set of meetings where their comments on the framework for the diagnostic study were received. A series of follow up meetings were held to present the drafts of the background papers. Finally the chapter's findings and recommendations were presented to policymakers in Naypyitaw at a workshop on the 11th of March including officials from the Ministry of National Planning and Economic Development, the Ministry of Finance and Revenue and the Central Bank of Myanmar, as well as in separate private meetings with Ministry of Finance officials.

The ADB Country Diagnostic Report for Myanmar is in its final draft form to be published in 2014 with plans for wider dissemination. Additionally, the activity has already aided in building capacity with IGC Myanmar's partner organisation MDRI-CESD, piloting a model of team projects in which IGC country economists work closely with their local counterparts to produce policy-relevant outputs.

In an area where other international stakeholders are already active in disseminating technical skills, the IGC country office aims to contribute to the policy debate in making an evidence-based case for these reforms as drivers of growth. **As these recommendations have been presented to government officials through a targeted workshop and various consultation and follow-up meetings, this activity can currently be categorised at policy impact level 3.**

PUBLIC SECTOR ORGANISATION

Not only do challenges exist in raising funds for public service provision, but equally in the organisation and management of these services. The effectiveness of the public sector depends substantially on the characteristics of the agents responsible for providing public services, and thus it is valuable to investigate both how public sector organisations can attract high ability workers as well as how to design incentives to enhance public sector worker motivation.

Institutional design is another important factor in determining the effectiveness of public service delivery. The optimal design of the institutional structure may include consideration of issues such as the extent of decentralisation and the distribution of powers across differing levels of government and across regions. Such characteristics of the institutional structure have significant consequences for the accountability and efficiency of the state.

BOX 7: ONLINE PROCUREMENT SYSTEM IN PAKISTAN

With limited revenues and urgent spending needs, the efficient use of the funds available to developing country governments is crucial. Arguably the most important task in this respect is to ensure the efficiency of public procurement, without which cost effective service delivery is impossible. IGC research on procurement in Punjab began as a randomised control trial on the purchasing behaviour of generic goods across government agencies, but has expanded to directly impact on the procurement process itself. This expansion of the research into implementation of an online system flows from tight cooperation with public sector agencies and embedding the research within these policy environments which tends to create beneficial spinoffs necessitated by the research but useful for government.

The project has a twofold aim of a) developing a methodology for the measurement of procurement effectiveness, and b) designing, implementing, and evaluating policies to improve procurement effectiveness in the context of developing countries, in this case Pakistan. The project is being implemented in close collaboration with government bodies such as Punjab Procurement Regulatory Authority (PPRA), Punjab Information Technology Board (PITB), Finance Department, Accountant General Punjab, and five administrative departments (Agriculture, Communication & Works, Health, Higher Education, and School Education) of Government of Punjab.

A key challenge in measuring effectiveness of procurement is the non-existence of information on procurement and hence it is extremely difficult to ascertain value for money obtained by any procurement. To bridge this gap the research team, in collaboration with Punjab Information Technology Board (PITB), designed an online system called Punjab Online Procurement System (POPS). POPS is designed to collect detailed data in real time on generic purchases within the public offices; it collects data on the characteristics of purchases such as detailed specification of item being purchased, delivery condition of item and use of item within the office etc. It not only covers information on the final purchase of item but on all the steps preceding that, starting from the demand of good/service in the office.

The roll out of POPS started in August 2013 when the researchers and implementing partners conducted training for the public officials in their respective districts across Punjab. Since then multiple rounds of training sessions have been carried out by the research team jointly with the government for 750 public bodies (more than 1500 officials) across five districts of Punjab.

Although POPS is currently used by only those public bodies which are part of this project, the evidence gathered from current users will help refine it before scaling it to the whole of Punjab. The system has the potential to be scaled up to cover all the purchases within the public offices and hence act as a catalyst of e-procurement in the provincial government, and the World Bank has expressed interest in replication elsewhere. In future, POPS aims to act as a platform for public officials where supervisors can monitor the procurement plans of their sub-offices; it can allow better accounting and monitoring of public bodies along various margins such as speed of procurement, following of processes, prices paid and so on. POPS has the potential to act as a market place that links public procurement agencies with vendors, allowing procurement agencies comprehensive access to information of vendors and the history of their transactions. In the longer term, POPS will enable smart auditing of procurement agencies by getting rid of paper trails and putting greater transparency at the disposal of provincial government.

Data from POPS will also enable the impact assessment of interventions on the effectiveness of procurement. These interventions include relaxing a number of rules governing the conduct of public procurement to test whether these rules, designed to curtail corruption, are so restrictive that they prevent procurement officers from using discretion to improve procurement effectiveness to a greater extent than they restrict corruption. A second intervention is to incentivise procurement officers to perform their duties more effectively, rewarding them based on a holistic assessment of their procurement performance, in order to test whether the key problem with procurement is that the officials doing procurement do not have sufficient incentives to achieve value for money. The interventions were rolled out last year and are currently on-going.

The result of this project will enable government of Punjab to reform its procurement system based on rigorous evidence. Since greater efficiency of public procurement in particular and revenue mobilisation in general are some of the top priorities for developing countries, the lessons from this project are also likely to be of interest to a wide audience of policymakers beyond Pakistan.

This project warrants level 4 impact as it has resulted in the implementation of an online system for procurement that is already being used: it has changed rules and incentives for the evaluation sample of approximately 600 cost centres, and has led to the adoption of POPS for these cost centres. Furthermore, this project has enjoyed the engagement and buy-in of numerous public sector agencies.

BOX 8: IMPROVING EDUCATION IN RWANDA

Each year, the Rwanda Government has its annual Leadership Retreat with His Excellency President Kagame and his senior levels of government. This involves reviewing progress on national goals to date and setting the future agenda. As a result, there is a release of resolutions from every year reflecting the conclusions of the retreat and determining the coming year(s)'s policy.[1] It is one strategy of IGC Rwanda's to keep this top-level meeting in mind and ramp up engagement with government in the run-up to the retreat as this is when many members of upper government are looking for new strategies and solutions.

This year, IGC researchers Professors Andrew Zeitlin, Clare Leaver, and Pieter Serneels, prepared a brief for government on incentivising public sector education workers. This project built on a request from the President's Office to evaluate their performance-based contracts, 'Imihigo'. This was released to coincide with the Rwandan Leadership Retreat. Six of the forty-three resolutions from the Leadership Retreat deal with education. These are: "(25) To put in place a Monitoring and Evaluation system for tracking the quality of education in 12-year basic education.", "(26) To put in place incentives to motivate teachers and ensure their salaries are paid on time as it is done for other public servants.", "(27) To put in place, in collaboration with concerned stakeholders, a five year strategic plan for improving the quality of education in 12YBE by indicating the current status and desired targets.", "(28) To mobiliser private sector to invest in education.", "(29) To ensure well-functioning PTAs in all primary and secondary schools.", and "(30) To streamline modalities for implementation of one laptop per child by ensuring that computers are only distributed to schools that are ready to utilise them immediately." These align closely with the brief sent, especially with regards to issues of properly incentivising teachers so they are effective and monitoring education outcomes. As a result, the IGC's targeted analysis is reflected not in specific policy bills, but instead in these resolutions and general policy directions.

Given the alignment between the IGC's advice and these specific resolutions of the Rwandan Leadership Retreat, and the IGC's strategy of targeting these specific meetings, this project merits a policy impact level 4.

[1] The resolutions for 2014 can be found at: http://www.primature.gov.rw/top/news/news-details.html?tx_ttnews%5Btt_news%5D=1137&cHash=b80d3c6b4fc0c208af79a7b113229fb0 (Accessed 06 April 2014).

BOX 9: INTEGRATED CHILD DEVELOPMENT SCHEME IN BIHAR

This IGC study, carried out by IDinsight, conducted a quantitative assessment of the status of the Bihar government's child nutrition programme with a survey in three districts. The study found that over half of the allocated budget (over USD 200 million per year) for providing supplementary nutrition is being siphoned off and child nutritional health is abysmally low (43% of surveyed children were underweight). In addition, this study highlighted shortcomings in the state's food pricing policy for supplementary nutrition foodstuffs, which the government subsequently used to reformulate its official food pricing policy, showing a significant and direct policy change emanating from the study.

This quantitative assessment also forms the basis for an impact evaluation of two initiatives to improve the status quo. First, the Bihar government is considering handing over the supplementary nutrition programme to government-aided women's self-help-groups with the aim of increasing demand-side accountability and community ownership over the programme. Second, the government is also introducing an initiative to promote bottom-up and top-down accountability channels using technology, with the aim of reducing leakages and improving nutritional health. IGC is supporting the government in designing this programme as a follow-up to the initial study. The PIs are working closely with the Bihar government to evaluate these initiatives in order to inform the government's policy decision as to which intervention(s) should be scaled up across the state, if any. **This project to date has achieved level 4 policy impact given it directly led to the government reformulating its official food pricing policy based on the project findings.**

BOX 10: AUDITING THE AUDITORS: AN EVALUATION OF MGNREGA DIWAS IN BIHAR

The Minister for Rural Development Department (RDD), Mr. Nitish Mishra requested IGC to evaluate the functioning of MGNREGA Diwas and suggest ways to make it more effective. MGNREGA Diwas is a special initiative of the RDD in Bihar, in which each district administration of Bihar is supposed to send an independent team to one panchayat per administrative block of the district every Wednesday. This team checks on the status of public works and audits muster rolls of work and payments against the factual situation on the ground.

IGC Bihar conducted an evaluation of this programme as a rapid response. The findings of the study were presented to the Minister of Rural Development, the Chief Secretary of Bihar, the Secretary of RDD, and the social audit and monitoring teams of RDD. The presentations have been well received by the top policy makers of Government of Bihar. The Minister was particularly happy with the speed and comprehensiveness of the study. In fact, he subsequently shared the findings of the report with the Chief Minister of Bihar. The RDD have now requested IGC to help them revise the official guidelines issued by the department to the inspection teams, and also develop a mobile-based monitoring tool that can overcome some of the weaknesses of the MNREGA Diwas that were outlined in the study. **This project has been given impact level 3 as it has fed into the Rural Development Department's decision process and that high-level engagement has led the RDD to request more work to be done to influence programme implementation.**

BOX 11: USING PREFERENCE PARAMETER ESTIMATES TO OPTIMISE PUBLIC SECTOR WAGE CONTRACTS: A FIELD STUDY IN PAKISTAN

Polio has become endemic in Pakistan. It is one of the three countries of the world still infected with the polio virus, besides Afghanistan and Nigeria. Consequently, eradicating the diseases from these three countries is central to global public health efforts. The eradication campaigns in Pakistan have been marred by shortcomings in planning and administration, and have been further complicated by the prevailing insecurity.

Pakistan's polio eradication efforts are built around elaborate mass vaccination campaigns that are run through the Department of Health. The workforce is seconded from government departments and temporary workers, hired by the Health Department as "volunteers". These workers are paid roughly Rs. 250 per day for four days of work, though they are expected to work for five days. The workers are assigned an area of operation and are expected to vaccinate all children in the area while working in pairs. The department and donors have come up with several monitoring systems to ensure the quality of the campaigns however the results have not been satisfactory as the reported cases of diseases continue to rise in the country.
IGC is currently funding a research study in partnership with the Department of Health and Government of Lahore Division to pilot test efficiency wages for improvement in performance of the polio workers. The project also envisages testing a smartphone based monitoring system to provide objectively verifiable information on the number of vaccinations completed by each team. The Principal Investigators on the project include Dr. Michael Callen (UCLA), Yasir Khan (IGC), James Andreoni (UCSD), Charlie Sprenger (Stanford) and Karrar Hussain (USC), and it is being managed by the Centre for Economic Research in Pakistan (CERP).

Since this project deals directly with the motivation of public sector workers and raising their efficiency, while it focuses on the health sector, its implications are much broader.

In the first phase of the project, the research team undertook a rapid assessment of the local polio eradication campaigns on the request of Commissioner Lahore Division, Mr. Rashid Langrial. In this phase the team held focus group discussions with the campaign workers and area in-charges to identify low hanging fruit in terms of reforming the polio eradication effort. The team also undertook a door-to-door survey of 2000 households in selected areas of Lahore to ascertain the number of vaccinations claimed by these teams in the most recent campaign.

The findings from this phase were presented in a meeting at the office of Commissioner Lahore Division in January 2014, which was attended by district officers of the health department, the divisional representative of the World Health Organisation (WHO) for polio eradication and the Commissioner, Lahore. The meeting discussed findings from various tests being run by the WHO and the Department of Health to ascertain the quality of the campaigns. It also discussed initial steps to start the process of reform in the Lahore Division. The IGC funded research team recommended two steps to improve the workings of the polio eradication campaign: these included a recommendation to update the primary planning documents known as Micro-Plans, since in some cases these have not been updated since 1990s. The second recommendation was to increase the daily wage of polio workers, especially the volunteers, from Rs. 250 to Rs. 500 to at least match that of unskilled daily wage-workers, in order to attract better "volunteer" workers. These recommendations were well received by the Commissioner, who ordered the Department of Health to prepare a Summary for the Chief Minister requesting additional funds from the government for polio workers of the Lahore Division.

Due to the implications of the findings for a crucial area of public health in Pakistan as well as the strong engagement of the local government and evidence of significant internalization of the results, this project warrants level 3 policy impact.

BOX 12: ROLE OF INFORMATION PROVISION IN IMPROVING PUBLIC SERVICE DELIVERY IN INDIA

The state government of Uttar Pradesh (U.P) has shown keen interest in an IGC India Central funded project titled "Role of information provision in improving public service delivery" by Sheetal Sekhri (University of Virginia) and Sriniketh Nagavarapu (Brown University). The project aims to examine whether information reaching individual beneficiaries through informal or formal means empowers them and leads to improvement in the delivery of the Targeted Public Distribution System (TPDS). The survey was conducted in U.P.

The project finds that the identity of the PDS shopkeeper matters for take-up of Scheduled Caste (SC) households. Grain take-up is higher when SC households face SC shopkeepers, whereas there is no difference for kerosene or sugar. The research shows that informal monitoring and enforcement provided by the social network drive these patterns.

One of the initiatives tested was the dissemination of information regarding the quantity of PDS goods procured by a household's shop keeper from the government supply chain by SMS to every mobile phone. Archana Agrawal (Commissioner, Food and Civil Supplies) and Anita Srivastava (Assistant Commissioner, Food and Civil Supplies) expressed interested in the SMS programme and consented to share some of the UP government data with the project team.
The final outputs have been disseminated to Montek Singh Ahluwalia (Deputy Chairman, Planning Commission), Jairam Ramesh (Union Minister for Rural Development) and K.V. Thomas (Minister of State for Food and Civil Supplies).

The PIs presented a related paper at the 3rd IGC ISI India Development Policy Conference in July 2012. In the context of the take up of TPDS by Scheduled Castes, the paper examines how the identity of the delivery agent can affect service delivery for vulnerable populations, and evaluates the effectiveness of increasing monitoring and enforcement. Arunish Chawla (Planning Commission) was among the policymakers present at the session. The PIs also have written a column for Ideas for India (May'13) based on this work, which was also re-printed in Live Mint, a leading financial and business e-newspaper.

One of the initiatives tested by the project was the dissemination of information: the quantity of PDS goods procured by a household's shop-keeper was examined. The PIs looked at the goods which originated from the government supply chain by means of SMS. A piece on 'SMS design' was then submitted by the PIs to the Commissioner, Food & Supplies, and the UP government. The Commissioner has confirmed that changes are being made based on the recommendations of the project. The Commissioner added that the UP Government is updating and giving out new ration cards to handle the National Food Security Bill roll-outs. Changes should be implemented after the ration cards have been distributed. This work was also featured in 'Economic and Political Weekly', March 2014

This project warrants a policy impact level 3 because of the strong involvement with the state government of Uttar Pradesh.

BOX 13: MINIMUM WAGE LAW IN MYANMAR: NATIONAL MINIMUM WAGE COMMITTEE

MEETING AND REPORT

As a first step toward a more efficient and just labour market, the Parliament of the Union of Myanmar approved a new Minimum Wage Law in March 2013. Under the law, a National Committee was formed under the chairmanship of the Minister of Labour, Employment and Social Security (MOLES) – U Aye Myint – to deliberate on the minimum wage level and its structure. The law allows for different rates to be set across sectors and regions, but provides little guidance on how to determine the most appropriate minimum wage level. For this reason, the Minister of Labour engaged the IGC's local partner - MDRI-CESD (Myanmar Development Resource Institute-Centre for Economic and Social Development) – and the ILO (International Labour Organisation) asking for their technical input and to contribute to building the Ministry's capacity to implement this law.

The IGC Myanmar country office was asked to join the coalition and played a central role in supporting the reform process through a series of ongoing activities that have taken place since November 2013. The primary objective has been to build capacity among the relevant stakeholders, both within the National Committee (Ministry and Local Government staff, Representatives of Labour Unions and Chamber of Commerce) and civil society, to ensure that the debate on minimum wage policy was informed by theoretical and empirical evidence, as well as international experience. This has been achieved through various instruments, including a discussion paper and a policy brief disseminated to the National Committee and the press, newspaper articles and consultations with stakeholders. The country team was also requested to take the lead in the provision of technical inputs to the National Minimum Wage Setting Committee, which took the form of empirical estimation of living wage levels. The analysis employed existing household level data coupled with the collection of new data on prices and living conditions, requiring the country team to also develop local capacity in quantitative and qualitative data collection.

The inputs provided to the Ministry and National Committee were well received, as demonstrated by the deadline for the final deliberation being pushed forward to allow for training to be delivered and written outputs to be examined. The debate within the National Committee showed that the IGC team's recommendations were fully internalised and had an impact on the structure of the minimum wage. Finally the empirical analysis of living costs presented at the National Committee Meetings in NayPyiDaw generated widespread consensus on living wage rates among all participants: representatives of the MOLES, Subnational Governments, workers and Chamber of Commerce.

In light of the evidence above, including the central role that the IGC played in supporting the reform process, this activity earns to date a policy impact level 3, a conservative assessment motivated by the fact that the National Committee has not come to a final decision yet.

BOX 14: NEGOTIATION SKILLS AND GIRLS EDUCATION AND HEALTH OUTCOMES IN ZAMBIA

This project was a pilot Randomised Controlled Trial (RCT) conducted in selected schools in Lusaka focusing on girls' education and negotiating skills. The ultimate aim was to explore if and how behavioural intervention with secondary school girls in Zambia can improve their educational and health outcomes and in turn contribute to a healthy and skilled labour force that can support and improve the economic and social development of the economy. Thus, this study would have far reaching policy implications for national skills education policy and development interventions targeting girls' education and health outcomes.

Headed by Nava Ashraf (Harvard Business School, IPA and IGC), newly appointed Lead Academic for IGC Zambia, the study found that negotiation skills enabled girls to access more food and successfully manage difficult conversations in their lives. The key substantive products of this pilot phase included a negotiation and information curriculum customised for the Zambian setting, seven coaches with in-depth training and experience teaching this curriculum, fully set and tested evaluation instruments and a programme implementation for the 8th and 9th Grade at the Mahatma Gandhi Basic School in Lusaka.

As a result of researchers' long working relationship with the Ministry of Health, and the deeper relationship developed with the Ministry of Education, the groundwork for future collaboration on the full study implementation has been laid and the potential for an eventual country wide roll out on the best practices from the programme. The results of the pilot study were very positive and the Department of Education agreed to an up-scaled version of the programme; the IGC researchers are preparing for a full scale RCT to extend the work to other districts. As this study is still on-going the full impact of teaching negotiation skills on girls' education and health outcomes, over and above the impact of traditional informational programming is still to be assessed. **This project to date has achieved level 3 policy impact given it has influenced the government in collaborating with the implementation and scale up of the project.**

BUILDING STATE CAPABILITIES: MACROECONOMIC STABILITY

Providing a stable macroeconomic environment is necessary condition for domestic and foreign investment to take place. It is this investment in the private sector that ultimately underpins economics growth. During the first year of Phase II, the IGC has been working closely with central banks and other government bodies with this policy responsibility to improve the macroeconomic environments of countries in the countries where the IGC works. Introducing frontier ideas from mainstream macroeconomics into these government bodies has yielded strong policy impact in terms of the way central banks and other government bodies manage the macroeconomic environment.

BOX 15: SUPPORTING INFLATION FORECASTING CAPACITY IN THE BANK OF TANZANIA

In the previous annual report, IGC Tanzania described its close collaboration with the Bank of Tanzania's (BOT's) Monetary Policy Committee (MPC) – including the provisions of a number of research papers, with IGC Tanzania research having fed directly into the analytical discussions and policy decisions at MPC meetings. This work has broadened to encompass inflation forecasting in general.

Building on this work, BOT invited IGC Tanzania researchers – primarily via the Lead Academic, Professor Christopher Adam – to support the Bank's work in developing their in-house inflation forecasting capacity.

Between July 2012 and September 2013, IGC and BoT staff presented jointly-prepared inflation forecasts to the regular meetings of the MPC. In October 2013, through a series of seminars and technical hand-over meetings, responsibility for generating regular inflation forecasts was fully transferred to the Bank of Tanzania Forecasting Team. The Forecasting Team has since presented its own forecasts at MPC meetings as part of the the regular BOT workflow.

Going forward, we expect the Forecasting Team to continue its work, with IGC Tanzania available for assistance and rapid response requests. **This activity is considered a level 4 impact, due to its direct contribution to the formulation of monetary policy in Tanzania, supporting the Bank of Tanzania to develop a more structured approach to inflation forecasting.**

BOX 16: EXCHANGE RATE DETERMINANTS IN ZAMBIA

In 2013, the International Growth Centre (IGC) commissioned a twin study on the Optimal Real

Exchange Rate Determination and its effects on competitiveness. The study was requested by the Bank of Zambia (BoZ), which wanted an independent assessment of the exchange rate and its policies. The first chapter of the study was by Professor John Weeks from the London University, on the "Short Run Determinants of the Kwacha". The paper examined the statistical relationship between the nominal exchange rate of the Zambian Kwacha and various possible determining factors, such as the trade balance, relative interest rates, and foreign exchange transactions conducted by the BoZ. The study found that the variability of the nominal exchange rate against major currencies has declined over recent years, and that the instability of the currency is quite low compared to other countries. The other study on the 'Copper Price and the Kwacha in Macroeconomic Model and using the Kwacha for Economic Diversification', conducted by Dr. Oswald Mungule from the National Economic Advisory Council, was the second chapter of the project. The key findings of this chapter were that copper dependence is high but has accounted for a small proportion of gross domestic product, and that in the long term, the Kwacha's value depends on a highly diversified economy.

The results of these papers were first disseminated during a closed meeting on the 11th September 2013, and included important BoZ stakeholders; Director of Economics, Peter Banda, and Director of Financial Markets, Dr Emmanuel Pamu. Also in attendance at this meeting were representatives from the Economics Association of Zambia and the Zambia Institute of Policy Analysis and Research. The comments and contributions from this meeting fed into the final draft of the papers. Ivan Zyuulu (BoZ) who was discussant at this meeting suggested the need for further exploration on the characterisation of the relationship between the Copper price and the Kwacha. There was much discussion on Dr Mungule's paper, which he later revised, and his final version was approved by the BoZ; this was presented at the IGC Growth Week Conference in London.

The recommendations of the exchange rate determination study were to avoid a change in policy despite the pressure from business and some political circles. An in-country public dissemination of the study seemed well-timed to help explain the dynamics of the Kwacha to the general public - the Kwacha had been depreciating since late 2013. Supported by the BoZ, a series of meetings were held between the 11th and 14th February 2014 to disseminate the findings. The first of these meetings, and the most attended with over 200 people, was the public forum. Important institutions, such as the Cabinet Office, Zambia Revenue Authority, Zambia National Farmers Union and the Bankers Association of Zambia attended; as well as academic institutions such as University of Zambia and the Copperbelt University; and participants from banking, entrepreneurs, media and other associations. The public forum event was reported in two of Zambia's leading newspapers, the Post and the Times of Zambia. Following the discussions that took place during the workshops, the Ministry of Finance has requested further work from IGC Zambia on assessing the fiscal implications of exchange rate fluctuations.

Other dissemination meetings included one at the National Assembly with chairpersons of various parliamentary committees; a Lusaka specialized forum with selected private sector, civil society and academic groups; and another specialised forum on the Copperbelt province. BoZ appreciated the workshops and IGC's efforts, and a letter from the Governor of the Bank of Zambia was received that expressed their gratitude.

Due to the influence of engagement on this topic in Zambia, this work merits policy impact level 3.

BOX 17: CURRENCY CONFIDENCE IN LIBERIA

Note: this work is highly confidential and not to be disclosed publically.

BOX 18: BNR'S MACRO MODEL: RAPID RESPONSE IN RWANDA

The IGC has been involved in Rwanda's macroeconomic modelling since its inception phase. Prof. Dick Durevall produced several outputs for the IGC in Rwanda, including work on monetary demand and inflation, a study on the exchange rate and a note on the East African Community Monetary Union. This work proved instrumental in the creation of the current macroeconomic model that was developed by the National Bank of Rwanda in 2013. This was done with the support of the International Monetary Fund.

As a result of the IGC's previous work, the National Bank of Rwanda invited IGC Rwanda to help in calibrating the model and providing further recommendations for its improvement. Prof. Peter Montiel then visited the National Bank of Rwanda and the Ministry of Economic Planning and Finance and presented work on the relevant aspects of monetary transmission to the National Bank's research team. He then met with policymakers to discuss their monetary policy and modelling.

Prof. Montiel then produced a short report that detailed his findings and recommendations regarding the macroeconomic model currently being developed by the National Bank with the support of the International Monetary Fund. The National Bank took into account Prof. Montiel's suggestions and requested his support for a final revision of the paper. The Bank also requested Prof. Montiel's support on their work on monetary transmission in Rwanda.

Given the tangible effects of improving the modelling approach used by the National Bank of Rwanda and the positive reception by the BNR, this project merits a policy impact level 3 policy impact.

BOX 19: CONTRIBUTIONS TO THE EAST AFRICAN MONETARY UNION PROTOCOL

In 2011 IGC Tanzania was requested by the East African Community (EAC) Central Bank Governors to produce a research paper on exchange rate arrangements during transition to the proposed East African Community (EAC) monetary union. After consultation with the Governors on a number of drafts, the paper written by IGC Tanzania Lead Academic, Christopher Adam (Oxford University and IGC), was accepted, and its recommendations adopted and forwarded to the High-Level Taskforce negotiating the Monetary Union Protocol. The recommendations were incorporated into the draft Protocol.

The final Protocol was signed by the Heads of State in November 2013; in addition to reflecting Tanzania's negotiating position as influenced in part by the IGC comments on the full draft Protocol, it also incorporates the specific recommendations from IGC's exchange rate arrangements research. **The impact level of this project is therefore 4: IGC Tanzania has made significant contributions to the regional Protocol on monetary union, informing and influencing the decision process at the highest political level.**

POLITICS AND POLICY CHOICE: POLITICAL ACCOUNTABILITY

Evidence shows that many principal political actors do not necessarily act in the interests of the citizens they represent. This is a key reason why the necessary public goods that underpin economic growth are not provided. The IGC has been engaged in pioneering work looking at how political accountability can be improved. This is important in its own right but also as implemented policies better match citizen preferences there also tends to a positive feedback loop where citizens are more willing to pay taxes to fund public good provision. IGC work in this area has concentrated not only on accountability but also on how to achieve greater consensus in decision making as ethnic and other cleavages often hamper government effectiveness. New work by Robin Burgess (LSE and IGC), Remi Jedwab (George Washington), Edward Miguel (UC Berkeley and IGC), Ameet Morjaria (Harvard), Gerard Padro I Miquel (LSE and IGC), for example, looks at how the return to multi-party democracy in Kenya has reduced the extent to which presidents concentrate road investment in districts that share their ethnicity.[2] Elections can act as an important mechanism for imposing accountability. However, in many developing countries, elections fail to serve this purpose, often accompanied by a lack of electoral accountability. It has been argued that the 'political culture' of citizens is an important determinant of degree of political accountability in developing countries (Robinson 2009; Eifert, Miguel and Posner 2010).

BOX 20: GOVERNANCE AND ACCOUNTABILITY IN SIERRA LEONE

A cluster of projects led by IGC Sierra Leone Lead Academic Rachel Glennerster (MIT and IGC) have shed light on the mechanisms of transparency and accountability in Sierra Leone's governance. Their project, 'The Impact of Voter Initiatives in Sierra Leone', used the mechanism of parliamentary debates to study the effect of increased information on voting preferences in a typically information-poor region. Information about representatives is the necessary first step towards holding them to account, and forthcoming projects will extend and deepen this research. This study is among the earliest to test rigorously for such effects in an environment where reliable information on candidates may be limited or non-existent and democratic institutions are nascent. This project is not a direct intervention for particular policymakers, but rather a demand side effort to suggest ways to significantly improve the political process. Specific policy action is made hard since bolstering accountability is not always the priority of current politicians, and so the project sought to reach out and influence a broader set of stakeholders than usual.

The researchers, comprised of Kelly Bidwell (IPA), Katherine Casey (Stanford GSB) and Rachel Glennerster (MIT and IGC) used the 2012 elections - hailed as generally peaceful, fair and free - to test the effect that a relatively marginal amount of information could have in a country traditionally riven by pre-existing party affiliations predicated along ethnic lines. They, along with implementing partner Search for Common Ground, showed debates between rival MP candidates across 112 randomly assigned polling stations (out of 264) with another 40 receiving individual information and the rest serving as a control group. The debates were seen by an estimated 19,000 people across Sierra Leone and a series of pre and post-election surveys and interviews has helped to shed light on how much this small amount of additional information can achieve. Results suggest an approximately 5% swing in voting from one party to another - while this could be perceived as a small margin, with such a small intervention and in a country as driven by party affiliations as Sierra Leone, the results are striking both academically and practically, demonstrating the logistical feasibility and desirability of expanding such a programme.

[2] 'The Value of Democracy: Evidence from Road Building in Kenya', Robin Burgess, Remi Jedwab, Edward Miguel, Ameet Morjaria, and Gerard Padró i Miquel, August 2013. Revised and resubmitted to the American Economic Review.

IGC held a workshop in Freetown in February 2014 to disseminate the findings of this research and to engage across its stakeholders. The workshop featured a presentation of the research findings by Rachel Glennerster along with a presentation by an invited representative of the Indian NGO Satark Nagrik Sangathan, who have pioneered the use of report cards for MP accountability in their country. By importing the strategies for improving governance from one continent to another, this provided an atypical but highly enriching diffusion of knowledge. The workshop was attended by progressive MPs, former ministers, members of the National Elections Commission, local academics, representatives from local CSOs, IGC partners and the media - an interview on national radio as well as coverage on the national television news were subsequently broadcast. With a lively series of debates, the engagement of the parliamentarians in responding to the research was particularly thoughtful and helped to solidify IGC's position in providing impartial advice to them where this engagement is ongoing. A follow-up roundtable discussion was also immediately organised between the Indian NGO representative and high-level representatives of the key civil society organisations involved in this area in Sierra Leone, where regular contact continues. The next stage of the research project is now starting, where the focus shifts from voting preferences to specific mechanisms of MP accountability, and will see its completion towards the end of 2014.

Because of the engagement of high-profile stakeholders and salient nature of the findings, this engagement warrants level 3 policy impact.

Firm Capabilities

It is well-established in economic literature that private sector productivity is a key driver of economic growth.[3] IGC's main stakeholders in partner governments are ever more interested in understanding and supporting and improving the productivity of firms within their economies, be it large formal firms, small informal firms, large commercial farms or small-scale family farms. The IGC has been a frontrunner in exploring questions related to where productive capacities come from in developing countries, what the determinants of firm productivity are and what explains productivity differentials between developed and developing economies, as well as what constrains the reallocation of resources from unproductive firms and sectors to productive areas (Hsieh and Klenow, 2009).

Evidence suggests that lack of access to finance, lack of skills, institutional constraints, and lack of infrastructure are among the top constraints to firms' expansion and productivity increases.[2] The IGC is working with policymakers in directing their attention to structural change and interventions that enable people to transition into more productive occupations; promote vibrant entrepreneurship; enable firms to transition into more productive sectors and participate in global value chains; enable multinationals to increase investments in these economies; and encourage diversification away from subsistence agriculture towards modern agricultural technologies.

DETERMINANTS OF LABOUR PRODUCTIVITY: INSTITUTIONAL CONSTRAINTS, INFRASTRUCTURE AND MARKETS FOR INPUTS AND OUTPUTS

Firms in developing countries are often much less productive than their rich-country counterparts. The IGC, through its work over the past four years, has developed a rich portfolio of studies dissecting this issue, often in collaboration with the private sector and government partners. One of the IGC's globally renowned flagship projects is The Enterprise Mapping of selected countries in sub-Saharan Africa by Prof John Sutton, which examines how the economic capabilities of existing firms in a country can be expanded by first establishing an understanding of where existing capabilities of successful firms originate from. The findings from these projects suggest that one of the possible development paths for countries which have a basic industrial sector is to move into middle-level manufacturing by broadening the industrial base and by improving working practices in the mid-term horizon. The experience of many countries shows that one way to move into mid-level manufacturing is to finance investments through FDIs, which bring in international experience and know-how.

An effective way of channelling FDIs and investment in general is through the establishment of effective investment authorities. Ethiopia has successfully developed a pro-active investment

[3]Cited in IGC Evidence Paper, Firm Capabilities and Economic Growth (Nicholas Bloom, Gregory Fischer, Imran Rasul, Andres Rodriguez-Clare, Tavneet Suri, Christopher Udry. Eric Verhoogen, Christopher Woodruff,Giulia Zane)

promotion agency that works with high-potential firms to ensure they are assisted at each stage, especially during their crucial first years. These agencies should target mid-size firms with high potential for job creation, and work together with them to understand sector-specific challenges and to anticipate their problems.

Furthermore, natural resource rich countries have an advantage of easily attracting investments. These countries can develop their industrial base by integrating small and medium firms in the natural resource value chain at different stages. Regulations to ensure local content in the production process need to be put in place by strategically choosing the products that can be sourced locally. The IGC is working with the governments of Ghana and Tanzania to develop strategies of integrating local firms in the inputs market of multinational companies operating in the natural resource sectors.

Previous IGC research has shown that the magnitude of internal trade barriers has a potential effect on the growth of firms. Atkin and Donaldson (2012) show that internal trade barriers may be very large in poor countries. In the agricultural context, IGC-supported research suggests that lowering transportation costs in Sierra Leone led to large gains among farmers and also improved competition amongst traders by reducing search costs. In the industrial sector, there is currently little evidence on whether internal trade costs might have similar effects on firm productivity. In Liberia, IGC research has played an important role in the formulation of trade policy.

The fast-growing services sector can also play an important role in the process of integration in global value chains – for example, in the construction sector. A competitive and productive construction sector can also support the urbanisation process in major cities in the developing world. In Mozambique, the IGC is working with the government to identify the necessary structural reforms to boost the sector, mainly by leveraging the synergies between the construction industry and the mineral sector (see Box 32).

BOX 21: ESTABLISHING A LOCAL CONTENT UNIT IN TANZANIA

As Tanzania prepares for gas production, a number of stakeholders have contributed to a lively debate regarding how the country can ensure that its newfound resources benefit the economy broadly and sustainably. IGC Tanzania research on firm capabilities has been applied to the issue of establishing a local content unit. This unit would ensure that the Tanzanian private sector can be integrated into the supply chains of multinational gas companies; this integration could include industries from transport, to construction, to food services, and others. Professor John Sutton (LSE and IGC) presented his proposed approach to increasing domestic participation in the gas boom at both public and private high-level meetings sponsored by the Bank of Tanzania and the

President's Office Planning Commission. Prof Sutton was then asked by the Executive Director of the President's Office Planning Commission to prepare a report on how such a unit could be operationalised in Tanzania.

This report was submitted in September 2013. While no policy has yet been enacted on local content regulations, there has been increasing discussion surrounding the unit. For example, the issue was raised in the popular press by the Tanzania Private Sector Foundation (TPSF) in November 2013. Prior to the coverage, TPSF consulted with IGC Tanzania on Prof Sutton's work. Following that, Prof Sutton was invited to present the report at the Uongozi Institute (Institute of African Leadership for Sustainable Development; an independent government agency), and has been requested by the Governor of the Bank of Tanzania, Professor Benno Ndulu, to deliver the Bank's annual public lecture in 2014 on local content issues.

IGC Tanzania research on this topic has therefore informed the conversation at both the public discourse and policymaker levels, with significant interest and follow-up generated. **Given that policy change has yet to be effected, impact level remains at 3. However, upon high-level request Professor Sutton will make a pair of high-profile presentations on the subject in 2014, and therefore, additional, tangible changes in local content policy are anticipated in the next financial year.**

BOX 22: GOVERNMENT AND PRIVATE SECTOR AGENTS IN GHANA CONTINUE TO UTILISE ENTERPRISE MAPS IN 2013

The work of John Sutton and Bennet Kpentey (An Enterprise Map for Ghana) in Phase I had further impact this year as private sector agents began to uitlise the findings of this book. The Enterprise Maps of Ghana categorised the structure and capabilities of firms in Ghana, revealing the possibilities of engineering growth with these firms and hence across the industrial sectors they studied. The book has continued to have a great impact on policy discussions in 2013 as well as public discussions in the Ghanaian media, with over 1,500 copies distributed so far in Ghana.

This fiscal year, Professor Sutton received feedback that enterprise maps have been utilised in driving the integration of local content in multinationals' supply chains in the oil and gas industry. The CEO of Tullow Oil PLC, Aidan Heavey, gave feedback that the maps are being used to identify Ghanaian companies that Tullow Oil can work with and integrate into their supply chain. Developing local content and a sustainable supply base in the areas where Tullow oil operates is a priority for the oil and gas giant. The types of skills required in the oil and gas industry are quite specialised and require a high level of vocational and technical skills. Therefore Tullow aims to help develop these skills and run skills development programmes and supplier forums in the countries where they operate. Tullow Oil has set up an Enterprise Development Centre (EDC) in Ghana in May 2012, that aims to help local small and medium sized enterprises (SMEs) realise their potential, develop their skills and get involved in the oil and gas supply chain. The EDC will provide a range of services such as business training, capacity building programmes, advisory services, access to market and information, as well as act as a focal point for coordination between SMEs and the oil and gas companies, their contractors and sub-contractors. The maps have hence been providing the information and local capability profiles that private agents require, seeking a sustainable supply base for their long term operations.

The book also continues to be utilised by policymakers especially in the Ministry of Trade and Industry (MTI), which ordered 300 copies of the book to be distributed to heads of units and sections. Ms Diana Afryie Addo (Industrial Promotion Office, Ministry of Trade and Industry (MTI)) participated in discussions on firm capabilities at the IGC African Growth Forum 2013. She mentioned that the maps have been valuable in providing accurate information for input into policy decisions. MTI has been utilising the book for the following:

- Identifying specific competitive advantages as a nation for Ghana
- Writing sector reports and accurately targeting sector support programmes for different industries
- Enterprise Maps have enabled MTI to correctly group clusters of firms together in reviewing current industrial support policies and have also helped MTI to understand the challenges facing each sector's growth

As the findings from the Enterprise Map of Ghana have been utilised by Tullow Oil to integrate local Ghanaian firms into their supply chain boosting local content in the oil and gas sector; and the Ministry of Trade and Industry in Ghana uses the map to shape industrial support policies and sector reports, this output has achieved level 4 impact this year.

BOX 23: CONTINUATION AND IMPLEMENTATION OF REFORMS AT THE ETHIOPIAN INVESTMENT AGENCY TO PROMOTE FOREIGN DIRECT INVESTMENT

Building on the Ethiopia Enterprise Map Project (completed in June 2010), Professor John Sutton (LSE and IGC) has been working on a relationship building programme with the Ethiopian Investment Agency (EIA) since mid-2012. The aim of this programme is to reform practices within

the EIA, so that it has better relations with a large set of foreign firms. In particular, since approximately 75% of all jobs created by foreign firms are created by those that hire at least 50 people, part of this project involves redirecting the EIA's focus towards such firms.
Following recommendations by John Sutton in 2012, the first key reform was to focus on encouraging large firms to become operational after taking out a license; this followed on from a direct request by the Minister of Industry for advice from the IGC on establishing a 'one-stop shop' for licensing. In this respect, the programme has rapidly progressed, and the key achievement of the past year is the near completion of a one-stop shop: of 29 procedures required by foreign firms to set up in Ethiopia, 27 are now carried out within the EIA, and the remaining two are to be put in place shortly.

John Sutton visited Ethiopia in February 2014 to advise on the next steps of the project. Specifically, over the next six months, attention will be focused on embedding a cultural shift within the EIA towards supporting a formal, structured and consistent Relationship Building Programme which maintains good contact with all significant employment creators. The key components of this programme include a reassessment of priorities (focusing on large foreign firms), new staff hires and training, and a cultural shift towards being proactive rather than reactive.

The Relationship Building Programme is expected to as much as a quadruple the rate of job creation by foreign firms in Ethiopia. Half of this gain would come from raising the proportion of firms moving from 'taking out licenses' to 'becoming operational', while the other half would come from working with already operational firms to improve their prospects of expansion in both the scale and the range of their Ethiopian operations. Furthermore, the Government of Ethiopia is actively pursuing industrial policy as part of its development strategy, and this programme supports that policy by encouraging increased FDI flows, crucial for deepening and broadening the industrial structure.

This project has the potential for further impact: if the EIA can achieve a professional and personal relationship with the investor as a result of this project, there are more opportunities for the EIA in providing post-investment services. Such services can support reinvestment by existing investors, help to embed investors more strongly in Ethiopia, and increase the value of the investment through increasing the share of value added sourced from local firms and upgrading the operations of the investor over time.

The Director General of the EIA, Ato Fitsum Arega, fully supports John Sutton's work and the resultant reforms the EIA is undergoing, acknowledging that the EIA has been restructured as a result of the findings and recommendations of this project. He has requested further IGC support on good practices for relationship building with foreign firms. The Minister of Industry has also endorsed the recommendations and ongoing reforms of this project. The IGC Programme at the EIA is now well advanced with current efforts focusing on maintaining momentum in the Relationship Building Programme and ensuring continuity in the implementation of reforms. **Given the significant reforms undertaken by the EIA as a result of IGC recommendations, this project merits a level 4 policy impact score.**

BOX 24: REVIEW OF INVESTMENT INCENTIVES IN ZAMBIA

This project was undertaken with the Ministry of Commerce, Trade and Industry through the Zambia Development Agency and the Ministry of Finance and National Planning as the main clients. The Zambia Institute for Policy Analysis and Research (ZIPAR) also conducted a complementary study that looked at the costs of the Zambian tax incentives that fed into the IGC study.

The project grew out of the concern many administrations have that not offering incentives could put them at a disadvantage, hence their continuing to offer programmes that do so. Given the case in context, it became important that any costs and distortions related to these tools were minimised. This IGC study by Krista Tuomi therefore provided an overview of investment incentives, and looked at trends in investment schemes and the benefits and costs related to them. The key finding of the resulting report was that tax incentives in Zambia are of limited use and should be managed carefully to avoid wastage of potential government revenue.

The results from this study were presented in February 2013 at the Regional Tax Incentives Workshop organised by the German Development Corporation (GIZ) and the Ministry of Finance. Attendance at this dissemination event included local experts and stakeholders, and senior government officials from several African countries. The workshop led to important changes in investment incentives. IGC Zambia made recommendations towards the ZDA Amendment that fed into the 2014 budget. As stated in the 2014 budget, "… studies undertaken to examine the extent to which investors accessing tax incentives, have met their investment obligations including creating employment have revealed disappointing results. Whilst these incentives have been granted on the basis of attracting foreign direct investment and stimulating exports, it has been found that some investors have abused the incentives". IGC work in this area is ongoing. **Due to the influence of engagement and policy change in Zambia where IGC Zambia's recommendations fed into the 2014 budget, this work merits policy impact level 3.**

BOX 25: GLOBAL AND REGIONAL TRADE STRATEGIES IN LIBERIA

Research undertaken in response to the Liberian Ministry of Commerce and Industry (MOCI) has proven highly effective in forming and shaping trade policy in Liberia. This Policy Paper, Regional and Global Trade Strategies for Liberia, by Jaime de Melo (University of Geneva and FERDI) and Armela Mancellari (LSE and IGC), responds to demand from MOCI for an analysis of the likely impacts on government revenues and consumer welfare of Liberia moving to the ECOWAS Common External Tariff (CET) system. As well as the economic importance of trade policy alignment, such a shift would be significant politically in terms of the reduction of regional tensions and the enhancement of social capital stemming from deeper regional integration.

The analysis suggests that moving to the CET could almost double Liberia's tariff from its current import weighted applied tariff of 5.3% to somewhere in the 8% to 13% range. Furthermore, findings suggest that there will be an adverse impact on household well-being; however, the authors argue that Liberia will have no difficulty obtaining the exceptions to the CET that can neutralise these effects. One of the main takeaways of the report is that Liberia is better off pursuing a two-pronged trade strategy, focusing resources on WTO accession while maintaining ECOWAS membership.

The research and the recommendations were initially presented at the Ministry of Commerce and Industry to the Minister and MOCI’s WTO Technical Working Group in October 2013 and has since been disseminated by MOCI itself. Since then, the research has affected policy in a number of ways. First, the authors have been requested by the Deputy Minister to comment on new draft legislation regarding trade policy which integrates and reflects the findings of their study. Second, the Ministry has requested follow-up work from the authors to extend and deepen their research to assess the impact of Supplementary Protection Measures that have entered since the start of the project. This paper will conclude and be disseminated towards the start of the coming fiscal year. And third, during the customs data analysis performed in the course of the project, it was revealed to the Minister that the Heritage Foundation’s Trade Freedom Indicator was relying on outdated and incorrect data for Liberia. This indicator is especially significant because it is a constituent component of eligibility for funding from the Millennium Challenge Corporation (MCC) – such that below a certain threshold for trade freedom, eligibility is revoked. Using the IGC paper, the Ministry of Commerce and Industry was able to successfully appeal against the Heritage Foundation categorisation of Liberia (which placed it below the threshold) and therefore MOCI was able to retain funding eligibility for Liberia from the Millennium Challenge Corporation. While

Liberia is still not a full 'compact' country, it remains classified as a 'threshold' country by MCC and IGC's research has contributed towards this.

This project warrants level 4 policy impact because of its role in retaining eligibility for MCC funding, the buy-in from the Ministry of Commerce and Industry, including requests for follow-up, and the ongoing use of the paper in shaping Liberia's trade policy.

DETERMINANTS OF LOW PRODUCTIVITY: SKILLS AND TRAINING, AND CREDIT MARKET FRICTIONS

In addition to work on the capabilities of firms in developing countries, the IGC is also focused on the most effective ways to address constraints to firm productivity related to shortages of skills and the lack of access to finance. In IGC partner countries, where unemployment is often high and productivity low, issues such as low investment in human capital, and youth unemployment are at the centre of discussions on structural change. Ensuring that there are enough skilled workers in the labour force to match the requirements of industry and allow the private sector to flourish is a crucial factor in achieving economic growth. Likewise, difficulty in accessing credit features prominently in all IGC countries. Financial development is associated with higher economic growth and lower poverty. In addition to the IGC's focus on larger firms within the manufacturing and service sectors, these research questions reflect the fact that the majority of citizens in developing countries are employed in unproductive small firms (including farms), resulting in an urgent need to understand how these firms can be made more productive as well as how to encourage the transition of workers into more productive sectors.

To successfully create a skilled workforce that matches industry needs, governments need to closely cooperate with the private sector and thoroughly think about strategies to improve basic skills, managerial skills, the formal education system, vocational and technical education programmes, and incentives for on-the-job training. In many partner countries the IGC is providing thought leadership on these issues and also serving as a bridge between the government and the private sector. For example, in Pakistan the IGC is working on improving the productivity of the garments sector, where one of the constraints is a poorly skilled workforce. In Zambia, a thorough analysis of employment, education, and industry needs for skilled workers shows that while a general improvement in the education system is necessary to address current problems, skills training requirements are heterogeneous across sectors and thus a sector-specific strategy needs to be followed by the government.

IGC's work also seeks to understand how to relax credit constraints to firm expansion and entrepreneurial development. Lack of access to credit due to limited banking infrastructure and the high cost or rigidity of financial intermediation for the poor is a well-documented constraint.[4] In Bangladesh, close to 50% of small firms report finance as being the key constraint to expansion. Significant numbers of entrepreneurs also report this constraint as being important in Ghana and Liberia. In Pakistan, the IGC is working with the banking sector to incorporate the informal credit channel into a formal financial infrastructure. In India, the IGC seeks to understand what role derivatives play in financial development and how they affect the credit constraints of large firms.

BOX 26: GARMENTS STUDY IN PAKISTAN

IGC research has helped to guide policy in the garment sector, one of the critical manufacturing industries in Pakistan. At a meeting of the Prime Minister of Pakistan's Economic Advisory Council in 2011, the Finance Minister requested an assessment of Pakistan's garments industry, concerned by its recent lacklustre performance. Two studies were designed by IGC Pakistan to respond to the request.

The first study 'Garments as a driver of economic growth' was based on detailed interviews of 43 garments manufacturing firms in Pakistan across three clusters in Lahore, Faisalabad and Karachi. The interviews were structured to obtain firm views on the potential of garments manufacturing in Pakistan and the challenges that need to be overcome. The PIs on this study included Dr Ijaz Nabi (Country Director, IGC) and Dr Naved Hamid (Resident Director, IGC). The objective of the second study 'A comparative study on the garments sector' was to identify the main reasons for the relative stagnation of Pakistan's garments sector. A macro level analytical framework was applied using disaggregated trade statistics to show the performance and relative positioning of Pakistan's garment exports in comparison to Turkey and Bangladesh, contrasting differences in policies and their outcomes. A survey of 234 garment firms across the major garment clusters in the country was carried out. A Global Value Chain approach was implemented to identify and explain the positioning of Pakistan's manufacturers. The Principal Investigators of this study included Dr Turab Hussain (LUMS), Mohammad Usman Khan (LUMS), Kashif Malik (LUMS) and Adeel Fahim (LUMS).

A formal presentation of the finding of the two studies was made to the Punjab Government and the Punjab Board of Investment and Trade (PBIT) in July 2013, chaired by the Chief Minister of Punjab, Shahbaz Sharif, and attended by a wide group of stakeholders. The presentation was led by Dr Nabi and supplemented by private sector representatives, contacted during the research, on the seven key areas of concern in the study.

[4] UNCTAD, (2009) 'Information Economy Report 2009: Trends and Outlook in Turbulent Times.'

The event concluded with a commitment by the Chief Minister to take up the reform program under each of the areas of concern highlighted by the study. The Chief Minister called for the immediate formulation of seven reform implementing sub-committees (one for each area of concern) with members drawn from the private sector and senior Punjab government officials. The sub-committees work under the overall guidance of the core committee headed by Dr Nabi. Each sub-committee was given four weeks to develop an implementable action plan. The ensuing discussions took place within the relevant departments, with regular review meetings chaired and hosted by the Planning & Development Chairman, Irfan Elahi (who had participated in the 2013 IGC Growth Week in London and thus was eager to work with IGC).

A series of decisions and events in the intervening months have given traction to the research findings. These include a workshop hosted by the Punjab Skills Development Fund in September 2013; an international conference on textiles; the formation of a garments manufacturing cluster; the creation of a ministerial committee relating to trade policy surrounding garments; another committee activated and headed by the Minister of Communication to improve logistics in the sector; and the receipt of GSP+ status for Pakistan in December 2013 following a campaign spearheaded by the Chief Minister himself.

An important outcome of the research on garments is the strengthened relationship with the private sector as research findings gain policy traction. This paves the way for further research on garments led industrial growth. An example is the recent visit by Professor Rocco Macchiavello (University of Warwick) who has been eager to work on the garments industry in Pakistan. He held meetings with leading manufacturers of garments in the Punjab and was impressed with the private sectors' keenness to engage with academics.

This project, on a salient industry and with the participation of a broad array of stakeholders, has ignited significant movements in policy around garments manufacturing. It therefore deserves categorisation as level 4 policy impact.

BOX 27: WHO IS THE ARTHI PROJECT IN PAKISTAN?

IGC Pakistan, in collaboration with National Institute of Banking and Finance (NIBAF), undertook a study last year to understand the informal credit market in Punjab's agriculture sector and the role of middlemen known as 'Arthis'. Despite the fact that agriculture remains an important source of economic activity in the province, formal credit providers are absent from this sector. The gap between supply and demand of credit is therefore being increasingly met by informal credit markets run by middlemen or Arthis. Understanding the business models of the Arthi and identifying the implicit interest rates earned from the farmers is therefore of central concern in designing policy for the agriculture sector. The study mapped Arthis' networks and linkages, analysed their role in agriculture supply chain and tried to understand the operations and risk management techniques being employed in the informal credit market. The Principal Investigators on this study included Aban Haq, the project being a collaboration between NIBAF and Pakistan Microfinance Network. The study found that the Arthis provide customized service to the farmers based on their needs instead of extending a standard package of credit. They control their risk by binding the farmers to sell their produce through them, acting as clearing agents for the market. They earn an implicit interest rate between 60 to 80 percent, besides explicit commission on sale of produce and they manage risk through identification of the right kind of borrower and then managing the cash flow to the farmer by controlling the sale of output.

Based on these findings, the study had recommended that formal banks could enter into the market by learning from the Arthis' model of operations. The study provides a formal model through which banks can reduce the processing costs and manage risk while extending credit to the farmers at a potentially lower interest rate compared to that charged by the Arthi. The salient feature of the model would be the establishment of a specialised service provider that would act as an intermediary between the bank and the farmers. In this tri-party arrangement, the intermediary would perform functions of client identification, credit appraisal and need assessment, and disburse loans on behalf of the bank for a fee/commission. In addition to providing access to loans, the intermediary would also provide the farmer with access to the latest farming techniques, modern farm equipment, and inputs – for a fee/rental – that could help increase yield and productivity. Post-disbursement, the intermediary would monitor the borrower to ensure the loan is used for the intended purpose and also act as the loan recovery agent of the bank. In addition, like the Arthi the intermediary would also be the point of sale for the farmer's produce. Insurance against catastrophic risks (such as floods or pest attacks) would need to be built into the model as these tend to be the only systemic credit risk.

As an outcome of this initiative, NIBAF is currently facilitating the engagement of Faysal Bank Limited, one of the top 10 banks in Pakistan, with over 260 branches across 70 cities, to pilot test this model. A special service provider has been set up by an entrepreneur based in Lahore. This company is finalising legal contracts to act as an agent of the bank extending small loans to farmers. The company will perform duties including the risk assessment and monitoring of farmers, identification of relevant inputs needed for the sowing period, the provision of these inputs on a rental basis and the purchase of the produce directly from the farmer.

The pilot was rolled out in Pakpattan, Punjab from February 2014 for the maize cropping season, which spans four months. In the first phase of the pilot, the firm will extend credit and support to 50 small farmers covering a total area of 200 acres. The next phase will include expansion to three more districts based on results from this pilot.

This project represents a level 4 impact on policy. The combination of a salient but underexplored market, cooperation with national-level institutions and direct impact on the rollout of mechanisms to supply credit to the market warrant this categorisation.

BOX 28: USING BASIC ENTREPRENEURSHIP TO TACKLE EXTREME POVERTY – EVIDENCE FROM THE ULTRAPOOR PROGRAMME

IGC's rigorous evaluation[5] of Phase II of BRAC's CFPR-TUP (Challenging the Frontiers of Poverty Reduction, Targeting the Ultra Poor) programme in Bangladesh, has achieved further impact in 2013-2014. This evaluation (baseline in 2007 and follow-ups in 2009, 2011 and 2014) was the first randomised-controlled-trial type independent evaluation that BRAC had carried out for its flagship programme, which has reached 400,000 households considered to be ultra-poor in Bangladesh to date. BRAC, the world's largest NGO, is credited with pioneering this approach to tackling extreme poverty starting with the implementation of Phase I of the Targeted Ultra-Poor Programme in 2002. The programme aims to help individuals in extreme poverty to graduate into sustainable livelihoods through basic entrepreneurship.

Using a large-scale and long-term randomised control trial in Bangladesh, IGC researchers demonstrated that sizable transfers of assets and skills enable the poorest women to shift out of agricultural labour and into running small businesses. This shift, which persists and strengthens after assistance is withdrawn, resulted in a 38% increase in earnings for treated women four years after introduction of the programme. Hence inculcating basic entrepreneurship was proven to be a powerful means of transforming the economic lives of the poor. In response to the success highlighted by the IGC evaluation, BRAC has decided to implement the programme for yet another phase (Phase III, which completes in 2016).

Professor Robin Burgess (LSE and IGC) also presented his findings of the 4 year evaluation of the

[5] Can Entrepreneurship Programmes Transform the Lives of the Poor? Oriana Bandiera, Robin Burgess, Narayan Das, Selim Gulesci, Imran Rasul, and Munshi Sulaiman. IGC Working Paper. http://www.theigc.org/publications/working-paper/can-basic-entrepreneurship-transform-economic-lives-poor

CFPR-TUP Programme at the CGAP-Ford Foundation Graduation Program's 'Reaching the Poorest Global Learning Event 2014', at the World Bank Centre, Paris in February[6]. This event convened an audience of top policymakers and researchers from 24 developing countries working on poverty alleviation programmes and financial inclusion who are interested in implementing TUP type programmes in the countries where they work.

With the contribution of IGC's evaluation, BRAC's original graduation model has to date been copied and implemented in 10 other countries[7] outside of Bangladesh, by other NGOs and by government bodies. Buoyed by the positive results from the evaluation BRAC has also brought the programme to other countries where it works, such as South Sudan and Pakistan. An idea which originated in Bangladesh in 2002 is thus gaining a global currency.

BRAC has also convened a Targeted Ultra-Poor advocacy group consisting of high level BRAC executives worldwide[8] tasked with disseminating results of TUP and raising awareness of the potential for basic entrepreneurship to aid the extreme poor to graduate into sustainable economic livelihoods. In March 2014 IGC met with BRAC leadership in Dhaka, and discussed the coordinated efforts of IGC and BRAC in further disseminating the successful elements of the TUP graduation approach to policymakers and donors globally. BRAC TUP's Programme Director gave feedback that IGC's evaluation has been highly effective at illustrating the mechanisms by which the asset transfer and skills training interventions had succeeded at targeting the poor and their graduation into higher income economic activities that were sustainable. The IGC evaluation has thus become a cornerstone of BRAC's efforts to scale up the TUP program worldwide.

Based, in part, on the positive results from the evaluation, BRAC has also embarked on the strategy of placing the TUP Programme at the core of extreme poverty eradication efforts within Bangladesh. The Bangladesh Bureau of statistics estimates that 17.6% of the population was still classified as extreme poor in 2010 and the plan is to remove extreme poverty from the country by 2022. Sir Fazle Abed, founder of BRAC, gave feedback that he has not come across a more effective program for alleviating poverty amongst the extreme poor[9]. In August 2013, BRAC launched its Manifesto for the Extreme Poor[10], which is an ambitious national campaign for Bangladesh to aim to be the first developing country to transform the livelihoods of the extreme

[6] http://graduation.cgap.org/2014/02/26/meeting2014/
[7] Peru, Haiti, West Bengal, India (Andra Pradesh), Pakistan, Honduras, Ethiopia, Yemen, Ghana
[8] Members of the group include BRAC Vice President, Mushtaque Chowdhury, BRAC USA President Susan Davis, BRAC Communications Director Asif Saleh and TUP Programme Director Rabeya Yasmin
[9] Extreme poverty here is consistent with the World Bank's international poverty line, at $1.25 a day at 2005 international prices.
10 http://en.manifestofortheextremepoor.com/one-demand/

poor and eradicate extreme poverty by 2022. Phase III of the CFPR-TUP Programme which targets over 100,000 households in Bangladesh[11], including new efforts to target households facing climate change related destitution will be at the heart of these efforts. In the coming years BRAC has planned to scale up TUP further, not just in Bangladesh but also across the world, and together with the TUP advocacy group, to attract and channel more resources to this programme.

Having achieved national impact in Bangladesh, replication in 10 other countries, as well as global dissemination to high level policymakers and development economics practitioners, the IGC's contribution to the TUP Programme has achieved a level 4 policy impact this year.

BOX 29: AN INTERIM EVALUATION OF THE GIRINKA PROGRAMME IN RWANDA

The Girinka Programme forms an integral part of Rwanda's Growth Strategy. It was approved by cabinet in 2006 as part of the implementation of Vision 2020 Umurenge and the Economic Development and Poverty Reduction Strategy (EDPRS). The Girinka programme is an initiative led by the President of Rwanda, Paul Kagame. It was a transfer scheme where poor rural households were supplied with dairy cows. The aim of the programme was to increase agricultural productivity (through manure as well as dairy production), driving improvements in nutrition and reductions in poverty.

During early visits to Rwanda in 2010 IGC Rwanda Country Director, Richard Newfarmer had discussed the evaluation of this proposal with the Minister of Agriculture and received their backing to pursue this further. This evaluation was then developed through invitation by MINAGRI staff. The IGC's study of the effectiveness of the Girinka Programme was undertaken by Prof. Imran Rasul, Mr. Jonathan Argent, Mr. John Rwirahira, and Mr. Antoon van Engelen. The study focused on to what extent the recipients were making full and productive use of their animals and their resulting manure. It also investigated the effects of the animals on local markets and the welfare of the recipients.

The activity also produced a journal article that underscores the importance of the technical assistance to accompany the asset distribution to achieve the desired results.

This study informed the Government of Rwanda that the Girinka programme is not currently running at its full potential, and has suggested a set of measures to enhance its performance. The research paper was published in spring 2013 and the accompanying policy brief was well received

[11] Features of the CFPR-TUP phase III :http://research.brac.net/publications/CFPR_Phase_iii-3.pdf

by many institutions including the Ministry of Finance. This study has continued to be one of IGC Rwanda's central studies in its agriculture research, due to its continued relevance and the government's continued interest in the programme. The Chief Economist of the Government, among others, indicated that he valued the research, and underscored the importance of research that suggests how to improve government efforts. The Director General, Ministry of Agriculture also mentioned the paper was very useful to the Ministry. The paper was delivered to the President's Office.

As a result of IGC Rwanda's evaluation of a key government programme, its acknowledgement by government officials, and continued engagement with the programme, this project merits a policy impact level 3.

BOX 30: ASSET CASH TRANSFER PROGRAM IN PAKISTAN

More than 40 million people live below the national poverty line in Pakistan out of which ten million reside in South Punjab alone. The Pakistan Poverty Alleviation Fund (PPAF) is the primary agency targeting poverty in Pakistan through its asset transfer and livelihood generating programmes. IGC Pakistan has recently collaborated with PPAF to restructure its livelihood programme and evaluate the impact of asset versus cash transfers on the well-being of poor households in four districts of south Punjab. The new programme is being implemented by the National Rural Support Program and Farmer Development Organization in these four districts: namely Bahawalnagar, Bahawalpur, Muzzafargarh, Lodharn.

The focus of the study, entitled 'Design of Social Protection Programs for the Ultra-Poor: Asset Transfers versus Unconditional Cash Transfers (UCTs)' feeds well into the design of the PPAF asset transfer programme and other national level social protection programmes, including the Benazir Income Support Programme which is a huge national level unconditional cash transfer programme targeting poor households. The project originated as a part of the Punjab Economic Opportunities Programme, a collaboration of the Government of Punjab and DFID aimed towards poverty alleviation in south Punjab with direct support from the Chairman of the Planning and Development Department Punjab, who recently called a meeting with all stakeholders to create synergies between this project and others. He also had a meeting with the IGC team at the Growth Week 2013. The Principal Investigators on the project include Orazio Attanasio (UCL), Oriana Bandiera (LSE and IGC), Robin Burgess (LSE and IGC). Adnan Khan (LSE and IGC) and Imran Rasul (UCL and IGC).

The project is designed to analyse the impact of transfers on growth and welfare through enhanced entrepreneurial activities and how this would differ across various types of transfers. The research design is among the first to directly compare both designs (asset versus cash transfers) in the same environment. This comparison would help identify the underlying behavioural and market failures such as missing markets for training, imperfect markets in complementary inputs (e.g. veterinarians, infrastructure linking to urban consumers), and discrimination against ultra-poor households by intermediaries or other households, that cause rates of return on cash transfers and asset transfers to diverge. Besides informing design of social protection programmes for the poor, it will also inform policies to address market imperfections relevant for economic development. While the evaluation is still a work in progress, the interventions have already been rolled out and the programme has already benefitted 2000 individuals across 90 villages in Punjab and the strong support from PPAF and Government of Punjab will see it expanded further.

This project has seen level 3 impact with potential to achieve more, owing to the partnership with PPAF and subsequent implementation of recommendations, support from the government, and novel implications of the research itself.

Cities

Urban populations in sub-Saharan Africa have the highest growth rate globally at around 5% over the past 3 decades, and 450 million new urban dwellers are expected between 2010 and 2014. Rapidly growing cities are considered key to driving economic growth, mainly through driving employment and private sector productivity increases. However, there is evidence that African cities are not only failing to provide decent housing or adequate public services for poor people, but also failing to raise worker productivity. The visual expression of this double-failure is the slum near the centre of a city (Collier and Venables 2012). Under IGC's new Cities work programme, the IGC is closely working with partner governments to understand how to best manage urban growth with policies that are both equitable and efficient and which will unlock the potential of cities being the driver of economic growth.

Higher productivity of labour is mainly due to three forces of agglomeration: thick labour and product markets, the presence of specialised service providers, and knowledge spillovers. Working with policymakers, the IGC seeks to answer the question of how best to maximise the three forces in order to promote productivity growth within cities. However, before agglomeration economies boost private sector productivity, governments in our partner countries need to focus on immediate challenges/preconditions related to dealing with inadequate infrastructure, slums proliferation and overcrowding of cities. Challenges include provision of basic public goods, water and sewage facilities, formalising land tenure, providing affordable, good-quality mass-housing, etc. Furthermore, good physical infrastructure is also a precondition to extracting the benefits of agglomeration. All these requirements need to be addressed through some combination of public financing, private-public partnerships and other forms of direct financing.

Tackling rapid urban population growth and urbanisation challenges will be a very policy-intensive process, requiring high government capacity both at local and central government levels. The IGC has determined to understand what national or regional policies are effective in improving local governance, and to estimate the effect that improvements in local governance have on local economic growth, public service delivery, living standards and income distribution. The IGC is engaging with all levels of government in Liberia, Rwanda, Mozambique, India, and soon in other partner countries, to start the discussion on urbanisation and on boosting cities' productivity.

IGC work so far has focused on 'agenda setting' activities and on providing frameworks that guide discussions. However, the IGC is gradually moving towards concrete research that is expected to directly feed into urbanisation related policy discussions and/or changes.

BOX 31: NATIONAL FORUM ON SUSTAINABLE URBANISATION IN SUPPORT OF ECONOMIC DEVELOPMENT AND POVERTY REDUCTION STRATEGY 2 (EDPRS2) IN

RWANDA

In light of Rwanda's growing, and overwhelmingly rural, population, and the government's aspirations that Rwanda achieves middle-income country status in the next six years, the government of Rwanda set a national target to have 35% of the population living in urban areas by 2020 (compared with around 20% today). Several high-level officials in the Office of the Presidency, the Ministry of Finance and Economic Planning, and the Ministry of Infrastructure said the government needed to much better understand the priorities for an effective urbanisation programme, and requested that the IGC organise a conference to explore policy priorities for managing urbanisation.

In close communication with our government clients, the IGC Rwanda organised a two-day conference attended by over fifty national and international speakers and discussants, and around 200 participants. The conference was co-hosted by the World Bank and Ministry of Infrastructure. IGC Rwanda's Country Director Richard Newfarmer, IGC Director Paul Collier, and the Minister of Finance and Economic Planning, Claver Gatete, opened the conference, and in the following sessions international experts and national government representatives discussed the links between urbanisation and economic growth; current efforts in Rwanda, and best practices internationally, in urban management; systems for city governance; how to raise and manage municipal finances; the financing and supply of affordable housing; urban transport systems; and overall priorities for managing urbanisation in Rwanda.

Conference attendees ranged from Ministers to technical experts to private sector representatives. The panels on affordable housing were particularly prescient, as increasing the provision of affordable housing was the first priority emerging from the recent national leadership retreat. The Minister of Finance and Economic Planning requested the IGC to convene a working group on urbanisation to sustain the momentum of the conference going forward.

Given the government's eagerness to learn about urbanisation, and clear interest in the research and discussions presented at the conference, we judge that this forum successfully ignited governmental debate and awareness regarding important policy priorities related to urbanisation in Rwanda - itself a top and urgent priority of the government. It is too early to report on whether policies were changed as a result of the conference.

Because of the government's intense support of this activity and the inclusion of urbanisation as a central theme of its forward looking Poverty Reduction Strategy as well as the program of follow up work officials have requested, this project merits a policy impact

of 3. The impact level may reach 4 when the policy papers and ideas presented gain additional traction, and new policies take form.

BOX 32: CONSTRUCTION INDUSTRY STRATEGY IN MOZAMBIQUE

It is now understood that, in the early stages of economic development, the share of construction in gross domestic product increases while in the longer term it declines, as seen in industrially advanced countries. When a country is developing its infrastructure, a lot of construction is needed to support economic growth. One of the priorities of the IGC-Mozambique team is now to understand how to support the construction industry's current growth, and what type of policies can be designed to enable a more productive sector.

In late 2012, Rogério Quintella completed a report for the Ministry of Public Works and Housing that highlighted the structural constraints of the construction industry and proposed a clear sequencing of policies and strategies to boost the sector, mainly by leveraging the synergies between the construction industry and the mining sector. This research and policy work was presented at an IGC conference co-sponsored by the Ministry of Public Works and Housing following which the Ministry reiterated its demand for the IGC's assistance in further defining its strategy and policies for the construction and construction materials industries.

This further collaboration was kicked off in October 2013, when the IGC team met with Jaime Matsinhe, National Director for Construction Materials in the Ministry of Housing. Mr. Matsinhe reiterated his strong support for the incorporation of IGC's research findings on the construction industry into the national policy framework, but asked for further work to be done before he could formally update policy. A new research project was therefore initiated.

This project has been included as part of his Construction Materials Department`s Official Workplan, and the results of will directly feed into the policy infrastructure surrounding the construction industry. By July 2014, the final report will be completed and a high-level policy workshop will be organised. Mr. Matsinhe is very keen to take ownership and has offered for his department to sponsor the planned workshop.

IGC's past involvement in the construction industry has reinforced its position as a trusted advisor for the Ministry, which in turn enabled us to be the Ministry's partner of choice in developing their new Construction Industry Policy Framework. The aim is to reproduce this engagement model across all our high-level interactions with ministries.

This project to date has achieved level 3 policy impact given it has influenced the government in requesting detailed evidence prior to making decisions about the future policy framework for the construction industry in Mozambique and has been incorporated into the Construction Department's official workplan.

Energy

Access to affordable and reliable energy is a critical determinant of economic development and growth. Evidence shows that energy is able to transform lives and economies in many ways including: income generation, greater economic specialisation, substitution of labour with capital that increases productivity, creation of small businesses and enterprises, access to greater market size due to lower transportation costs, etc. Yet, energy provision and consumption levels are extremely low in developing countries, including all IGC partner countries. For example, per capita energy consumption in the state of Bihar in India is 0.9% of that in the United States; power shortages cost Pakistan's economy about 3% of GDP per annum; lack of electricity is reported as the number one constraint to productivity in business surveys in Liberia and Sierra Leone.

Large proportions of these countries remain unconnected to domestic electricity grids, despite the transformative potential for their populations. These areas are predominantly rural, which also happen to be those that are most difficult to electrify. The lower ability to pay and population density coupled with the higher cost of grid construction in these areas produce serious profitability concerns of potential entrants into these rural markets. The IGC's research in this area will focus on determining how this energy would be used by rural consumers if connected and, more generally, what the welfare enhancing effects will be. Additionally, the IGC will also focus on both strategies that can promote the extension of these grids into rural areas and, where this proves infeasible, the effectiveness of small-scale solutions, such as diesel generators and mini-grids, which can fill this gap.

Connecting consumers in developing countries is only the first step however. In many areas that are connected, the quality of service remains woefully deficient. Unreliable and incomplete service, as well as rolling blackouts, are often the norm. The economic costs of this are often very large, making developing strategies to improve the quality of service a high priority. Generally, it is necessary to evaluate how the necessary investments and practices to make these quality improvements can be made profitable for firms. It is very possible that these markets are stuck in a "bad" equilibrium, with high levels of electricity theft, non-payment, and low usage combined with reduced service. It remains to be determined how this can be moved to a better equilibrium where a high-quality service can be consumed and profitably maintained. The IGC's research will focus on how to improve collections and profitability, the willingness to pay for this service, and how to incentivise firms to make the necessary investments to achieve these quality improvements.

A trend that is observed in both developed and developing countries is the low uptake of energy efficiency enhancing investments. There are many differing reasons for this, including disconnects between private and social costs of these investments, imperfect information, and low rates of diffusion. Regardless, these investments will be of particular importance in the coming years as the developing world begins to consume the majority of the world's energy. These areas are electrifying and failure to make these investments now could constitute a missed opportunity. The IGC will then focus on what the actual returns are to these investments in these countries and then what the most effective strategies to promote them are.

Finally, our energy choices have consequences for the environment around us. In many developing countries, pollution is on the rise. Urban areas are being increasingly filled with smog, water sources are being contaminated to the point of being unusable, and previously arable land is being destroyed. This is coupled with a decline in many health outcomes for the populations of these countries. The IGC's research in this area will focus on the welfare impacts of these various external costs of energy consumption, and which strategies are effective for abating them. Additionally, large-scale climate change is also a factor that will continue to disproportionately affect developing countries in the future. Just what these effects will be and how they can be mitigated will also remain a research focus of the IGC.

Although the IGC's Energy programme was only officially launched during Growth Week 2013, the IGC has already started to productively engage with stakeholders in many partner countries. In Bihar, India, the IGC is working with the government in piloting interventions to cut energy distribution losses by using targeted staff incentives related to billing, meter reading, and payment collections in order to reduce collection losses, and by using feeder level power supply scheduling to reduce theft and reward collection. In Sierra Leone, the IGC is working with the Ministry of Energy to assess what mix of regulatory mechanisms, incentives, and public-private partnerships would be required to facilitate and accelerate rollout of decentralised clean energy (e.g. mini-grid) electrification across Sierra Leone.

BOX 33: INDIA - GUJARAT STATE POLLUTION CONTROL BOARD REDESIGNING OF AUDITOR SELECTION PROCESS BASED ON IGC FINDINGS

The IGC project "Does Improved Regulatory Enforcement Reduce Industrial pollution: An Evaluation of Public and Private Sector Approaches", initiated during the year 2011-12 to analyse third party auditing of environmental standards, has seen ongoing and increasing impact over 2013-14. The project was undertaken by Michael Greenstone (MIT), Esther Duflo (MIT) and Rohini Pande (Harvard). The study represents a multi-year collaboration between the researchers and the Gujarat State Pollution Control Board (GSPCB), the environmental regulator in India's second most industrialised state, from the programme design stage all the way through to implementation. The research also gained the support of the national Ministry of Environment and Forests (MoEF) which is interested in applying the approaches tested here that are found successful to other states.

The India Central country programme had funded a midline survey to measure the accuracy of auditors under two incentive schemes, the original one in place in Gujarat and the modified audit scheme introduced by this project. Under the original scheme, auditors are hired and paid for directly by the firm and can be fired at the end of one year. This creates an incentive problem, whereby the auditor's financial incentives are aligned with that of the firm rather than the regulator. Under the modified scheme, auditors are paid using a central pool of funds, and the GSPCB randomly assigns an auditor to the firm every year and back-checks on a random basis. The study has three main findings: first, under the original scheme auditors falsify reports in a targeted fashion, reporting many plants as just meeting regulatory limits. Second, the reports of auditors assigned to plants under the new scheme are statistically accurate in reflecting whether or not the plants meet these limits. Third, on average, plants in the new scheme reduced pollution emissions relative to plants under the old auditing scheme.

The results of this study confirm that reforms for auditor independence can impact real outcomes positively. In 2011, Hardik Shah (Member Secretary, Gujarat State Pollution Control Board) said that the GSPCB would like to explore how to alter the rules for third-party auditor selection based on the findings of the IGC project. And Shah subsequently confirmed that that the findings have been incorporated in the policy framework for the state. The new audit system (i) randomly assigns auditors to the firms, instead of letting firms choose their auditor, (ii) eliminates negotiation between auditors and firms on their fees, by paying auditors from central pool and/or having fixed fees based on the work needed, and (iii) introduces random checks by independent technical staff to validate auditors' reports. The following engagement with stakeholders has taken place in 2013-14:

- The Gujarat Pollution Control Board is planning to scale up the three components of the improved third-party audit system for industrial pollution to the entire state this year.
- Michael Greenstone and Nicholas Ryan discussed the findings of this study and their implications for third-party financial auditing in the U.S. with the Public Company Accounting Oversight Board (PCAOB) in December 2013.
- Michael Greenstone and Esther Duflo discussed this study and its lessons for U.S. environmental regulation with the Environmental Protection Agency (EPA) in January 2014.

The findings have also been presented at the India Central country session at IGC Growth Week 2013; Rohini Pande and Hardik Shah presented at the 3ie Delhi seminar series in January 2014; and Michael Greenstone and Hardik Shah presented at the University of California at Berkeley in April 2013. The paper was published in Quarterly Journal of Economics in January '14; a policy brief based on the project was produced by J-PAL in October 2013, and finally, articles based on the project were published in New York Times in December 2013, Wall Street Journal in July 2013 and the Financial Times in October 2013.

This project has achieved level 4 policy impact because its findings have been incorporated in the policy framework for the state.

Policy Engagement and Influencing Global Debates

During 2013/14 the IGC continued to expand and deepen engagement with its global network of growth policymakers and researchers, to influence not only local growth policies but also global debates. By restructuring the research strategy around four key areas, state capabilities, firm capabilities, cities and energy, the IGC is taking a more focused approach to its strategic goal of providing demand-led policy advice based on frontier academic research.

The foundation and unique feature of IGC's policy engagement is the resident country teams who enable and facilitate long term relationships and quality dialogue between researchers and policy makers. The senior and experienced Country Directors maintain extensive high level networks that provide IGC access to key decision makers. Although these senior relationships are most visible during IGC's high profile events, they are supported by regular meetings and engagements with a wide range of stakeholders within each country. For every Minister or Central Bank Governor contact, there are a series of relationships with middle ranking and junior officials as well as donors, NGOs and other stakeholders. Some of the most productive forms of engagement are during intimate meetings between senior policymakers, IGC directors and lead researchers and members of the country team. Typically these meetings are in confidence, and have not been publicised. The IGC has had many of these meetings in the majority of countries, typically at Ministerial or Central Bank Governor level.

Events complement the on-going engagement in country, by enabling policymakers to engage with a wider range of research and growth ideas and to interact with a range of leading researchers. The IGC runs a number of different types of events, from themed in-country workshops to larger scale regional events, Growth Week and public lectures. An example of a focused workshop was the Rwanda Urbanisation Event which brought together an unusual mix of practitioners, researchers and policy makers (see Box 31). In total in 2013/14, the IGC ran 43 events in 12 countries, engaging over a thousand people.

During 2013/14, the IGC organised Growth Week in London in September 2013, two South Asia Growth Conferences (SAGC) in Delhi, India in July 2013 and Lahore, Pakistan in March 2014, and launched the first Africa Growth Forum (AGF) in Kampala, Uganda in December 2013. All of these conferences brought together academics from world-class universities, local researchers and policymakers to share and debate research and growth ideas. The regional conferences were co-hosted with local partners: the Indian Statistical Institute in Delhi; the Ministry of Finance, Planning and Economic Development, and the Bank of Uganda in Kampala; and the Government of Punjab in Lahore. This co-hosting arrangement both reflects the existing strong relationships and help to strengthen engagement for the future with these key institutions. All featured presentations and active participation by high level politicians and policymakers, as well as key IGC researchers.

Growth Week is a unique initiative that brings together a critical mass of decision makers and top academic thinkers to debate the latest ideas for stimulating growth in developing countries, often sparking discussions and initiatives that go above and beyond the three days of the event. Growth Week 2013 also served as a platform to announce Phase II of IGC and its re-focused work programme. Box 34 describes Growth Week and the regional conferences in more detail. Public lectures within the UK also influence the public debate. In 2013/14, the IGC hosted 8 public lectures by prominent thinkers, including Helen Clark, Trevor Manuel and Professor Ed Glaeser.

BOX 34: GROWTH WEEK, AFRICA GROWTH FORUM, SOUTH ASIA GROWTH CONFERENCE

The IGC runs three high profile events every year – Growth Week, the Africa Growth Forum and the South Asia Growth Conference. These conferences are an effective way of bringing together academics and policymakers on topics of mutual interest to encourage information sharing and the creation of new projects. They allow the IGC to showcase recent research projects and to apply the outcomes of these to its partner countries.

Growth Week 2013

The IGC's fourth Growth Week was held in London in September 2013. The IGC's longest running conference brings together a wide range of policymakers and researchers to discuss the latest issues in development. A number of high profile academics and policymakers spoke at the conference, including Trevor Manuel (Minister in the Presidency and head of the South African National Planning Commission), Antonio Estache (European Centre for Advanced Research in Economics and Statistics), Dean Karlan (Yale and IPA), Mushtaque Chowdhury (BRAC), Keith Palmer (InfraCo and Emerging Africa Infrastructure Fund) and Abhijit Banerjee (Ford Foundation International Professor of Economics at the Massachusetts Institute of Technology).
Of the 61 project presentations at Growth Week 2013, 44 were IGC projects (72%). 12 of these projects have been presented as impact cases above. The conference has allowed the IGC to develop greater relationships with policymakers and the media in a number of its partner countries – two of which are highlighted here: Ghana and Tanzania.

Case Study One: Ghana

Dr. Doris Yaa Dartey, a communications and journalism expert, attended Growth Week in London and made contact with the IGC Ghana team. In February 2014, the team pitched to her the idea of creating a series of "Newsfiles" which are public facing summaries of current debates in Ghana highlighting IGC research outcomes. Dr. Dartey is on the Board of The Daily Graphic, one of the most read newspapers in Ghana, and worked with the team to publish the Newsfiles in the newspaper. She is also keen to assist the team with dissemination via TV and radio channels.

Case Study Two: Tanzania

The attendance of Adam Gahhu, a Policy Analyst at the Tanzania Private Sector Foundation (TPSF), at Growth Week has provided one of the most fruitful ongoing engagements in Tanzania. He attended a session where Professor John Sutton presented on the idea of implementing a Local Content Unit in Tanzania. Following the conference, Mr Gahhu requested a copy of the presentation which directly led to local media reports that Tanzania needs such a unit. While Prof. Sutton had already provided a similar report to the Tanzanian Cabinet, there had been no official response. The TPSF, by urging the government to consider a local content unit in Tanzania, brought the issue into the public domain. In addition, since Growth Week, IGC staff have now attended TPSF workshops and TPSF provided a panel member at an IGC Tanzania workshop. Furthermore, Professor Sutton's work on local content has gained further interest with requests from both the Uongozi Institute and the Governor of the Bank of Tanzania for him to deliver presentations on local content issues (see Box 21).

Africa Growth Forum 2013

The Africa Growth Forum was held in Kampala, Uganda, in December 2013 and was the first region-wide meeting of IGC network researchers, researchers based in the region and senior policymakers. The forum's themes centred on the major economic policy issues and challenges to sustainable economic growth in IGC partner countries. It was inaugurated by the Prime Minister of Uganda and co-hosted by the Ministry of Finance, Planning and Economic Development, Uganda, and the Bank of Uganda. It was designed both to showcase current IGC work and to help identify opportunities for further cutting-edge and policy-relevant research. The event was well attended by policymakers such as Hon. Elizabeth Bol (Minister, Petroleum and Mining, South Sudan), Hon. Mary Yak (Deputy Minister, Finance, South Sudan) and Emmanuel Tumusiime-Mutebile (Governor of the Bank of Uganda).

There were 16 project presentations at the Africa Growth Forum 2013. 11 were IGC projects, and 4 of these have been presented as impact cases above. The conference generated numerous follow-up engagements, especially in South Sudan and Uganda.

Case Study One: South Sudan

The Forum was well attended by high level policymakers from South Sudan, including Hon Elizabeth James Bol, Deputy Minister for Petroleum and Mining, and Alikaya Aligo Samson, Permanent Secretary in the Ministry of Housing. Prior to the Forum, IGC South Sudan had not been able to meet with these policymakers, but the Forum provided a space for engagement. Since December, Hon Bol has requested work on the environmental impact of oil, the effect of the oil shutdowns on the economy and social welfare and effective management of oil rents. Alikaya Samson has requested a review of land ownership/leasing policies, and suggestions for housing finance and planning. In addition to these requests, the team deepened their relationship with Hon Mary Yak, Deputy Finance Minister. She has continued to engage with the IGC and has since submitted a new request that we look at land ownership.

Case Study Two: Uganda

Holding the event in Uganda significantly increased the presence of the IGC in one of the IGC's newest partner countries and allowed the IGC to develop better relationships with the media. Many prestigious Ugandan newspapers covered the event and proceeded to write articles on many of the discussions, particularly the Opening Night Public Lecture by Paul Collier. The Daily Monitor, one of the most read newspapers in Uganda, is now compiling an article on economic growth in Uganda, highlighting the impact of IGC research in the area and interviewing key IGC personnel.

South Asia Growth Conference 2013

The South Asia Growth Conference was held in Delhi, India, in July 2013. Organised by the IGC's India-Central team, in conjunction with the teams from the Bangladesh, India-Bihar and Pakistan programmes, the conference provided a platform for the presentation of research undertaken by the IGC South Asia country programmes, and promoted regional dialogue inspired by ideas generated by the IGC. Notable participants included Raghuram Rajan (Ministry of Finance) and Abhijit Banerjee (Massachusetts Institute of Technology).

There were 15 project presentations at the South Asia Growth Conference 2013, 12 of which were IGC projects. 3 of these projects have been presented as impact cases above. In particular, the event gained policy traction in India Central.

Case Study: India-Central

India-Central is one of the IGC's most established partner countries, yet the South Asia Growth Conference allowed the IGC India-Central country team to reach out to new stakeholders and, in particular, increase the reach of their online platform: Ideas for India (I4I). At the time of the conference, the blog had been running for one year, and an anniversary event was held on the eve of the South Asia Growth Conference, drawing the blog to the attention of policymakers in attendance for the conference, and helping to increase I4I readership, visibility and social media. The number of I4I visitors per month rose from 6,423 in June (month before event) to 10,407 in July (month of event) and to 14,330 in Aug (by when highlight videos and images from the event had been posted online).

After the conference, Karthik Muralidharan (http://ideasforindia.in/article.aspx?article_id=245) and Nidhiya Menon (http://ideasforindia.in/article.aspx?article_id=194) wrote columns based on the presentations they had given at the conference.

Finally, the conference gave the team the chance to meet some new in-country stakeholders that had not previously been associated with the IGC. These stakeholders now form part of the India-Central network, and are active participants both online and at events.

In March 2014, IGC Pakistan hosted the South Asia Growth Conference 2014 in Lahore. The event was co-hosted by the Government of Pakistan and was very well attended by policymakers and academics from across Asia. For example, the keynote address was delivered by Ahsan Iqbal, Federal Minister for Planning, Development and Reforms at the Government of Pakistan. The IGC expects significant meaningful engagement off the back of this event, and especially expect it to lead to follow-up projects within Pakistan.

Given the number of follow-up engagements that emanated from IGC events in 2013, as well as the impressive stakeholder and media engagement, this merits an impact level 3.

During this financial year, the IGC has demonstrated active participation in international debates as illustrated by several global debate publications and IGC representation at global events. Such publications include the four IGC Evidence Papers, describing the IGC's four key research themes, as well as Paul Collier's (Oxford and IGC) and Robin Burgess (LSE and IGC) publications of cross-cutting papers on issues of infrastructure provision and women's empowerment in Africa. Furthermore, during 2013-14, senior IGC officials have been present at numerous external events, hosted by BRAC, J-PAL, the LSE, the WTO and CEPR. In February 2014, IGC hosted a roundtable discussion with senior practitioners on funding infrastructure development in Africa and South

Asia, under the auspices of the G8/G20 commitment. The roundtable identified some of the "killer risks" that investors and policymakers face in building infrastructure, and to identify systemic solutions. Thanks to the depth and breadth of experience represented in the room, the discussion moved beyond generalities to begin to map these risks to project type, project phase, investor risk profile, and the actor best placed to mitigate them. A follow up plan is being developed and a number of ideas are moving forward.

BOX 35: INFLUENCING THE GLOBAL DEBATE: IGC ROUND TABLE ON STIMULATING PRIVATE INVESTMENT IN INFRASTRUCTURE IN AFRICA AND SOUTH ASIA

The provision of infrastructure is essential for economic development and growth, and is therefore a crucial and timely area of focus in Africa and South Asia where there is a great deficiency in this regard. The vital and urgent nature of this issue is recognised both by countries in the developing world as well as by international institutions. Both the G8 and G20 processes recognise the importance of stimulating private investment in infrastructure in developing countries as an important area of focus, with the G8 Communique from Lough Erne stating that *"The G8 commits to explore and identify in advance of our next meeting the further steps it can take together or individually, in collaboration with the private sector, International Financial Institutions (IFIs) and other international organisations to facilitate institutional investment flows into bankable trade-related infrastructure projects in developing countries."*

The UK Cabinet Office specifically requested Paul Collier to follow-up on the G8 commitment. The IGC acted on this request both by producing academic work as well as hosting a round table discussion with senior and influential participants, following on from the public lecture hosted on this topic during Growth Week 2013.

Academic work on the topic was initiated by Paul Collier writing a paper on this topic in September 2013, which was further refined and co-authored with Professor Colin Mayer, into a paper entitled Unlocking Finance for African Infrastructure in February 2014. The papers and the initiative of organising a round table meeting to follow up on the G8 commitment was very warmly received at a very senior level amongst influential institutions, including by Angel Gurría, Secretary-General of the Organisation for Economic Cooperation and Development (OECD), and Donald Kaberuka, President of the African Development Bank (AfDB).

The IGC took further action by hosting a round table discussion on 27 February 2014, which brought together a unique group of people, from both the private and public sector, and consisting of both academics and practitioners. The paper by Collier and Mayer set the framework for the debate, which was led off with introductory remarks by Paul Collier and Lord Green, former UK Minister of State for Trade and Investment. The first session focused on setting out the main risks, followed by three sessions on how to mitigate them, with a session each on what host governments, financial intermediaries and the official sector can do.

The event had very high-level participation, including Jay Ireland (CEO of GE Africa), Bernard Sheahan (Director of Infrastructure and Natural Resources, IFC), Michel Wormser (Vice President and Chief Operating Officer, MIGA), Charles Boamah (Vice President (Finance), AfDB), and Karim Dahou, Executive Manager, OECD/NEPAD African Investment Initiative, OECD). A revised paper is also being produced as a result of the discussions, which will inform and feed into subsequent discussions in this area, including the wider OECD and AfDB meeting to be held during summer 2014, which will again feed into G8 and G20 work in this area.

Rintaro Tamaki, Deputy Secretary-General of the OECD, early on confirmed top-level support of this process, and the OECD has also formed a task team in the Secretariat to support the follow-up process, including cooperation with the AfDB. Karim Dahou, the OECD representative at the round table, also re-confirmed Tamaki's early commitment to host a follow-up meeting in Paris, most likely to take place during summer 2014, with a view to feeding into ongoing G20 and G8 work. The OECD have already discussed cooperation with AfDB, where again there has been top level support from Mthuli Ncube, Chief Economist and Vice President. A great level of interest and support was also shown by other influential actors, including the Australian Government, the 2014 Chair of the G20 process.

The IGC's Round Table on Stimulating Private Investment in Infrastructure merits policy impact level 3 as both Collier and Mayer's paper and the round table hosted by the IGC both stimulated and helped shape the global debate on this crucial and timely topic, with clear signs of follow-up at senior levels shortly after the event, including commitments from leadership level at the OECD and AfDB.

In the past year the IGC has improved its main web platform, Ideas for Growth, continued to build Ideas for India, the economics and policy portal that was launched by the IGC India Central Programme in July 2012, and developed a new regional website Ideas for Africa. Similar to the Ideas for India initiative, Ideas for Africa brings together leading thinkers from around the world to share their views on growth policies in Africa based on frontier economic research. There have already been more than 40 publications on the website, mostly by top academics in the field of development and governance. One of the challenges for the IGC is to involve policymakers more actively not just as audience but also as contributors. We are working with IGC country teams, local and regional organizations and media to make this possible.

Media coverage within partner countries is a way of influencing the public debate as well as raising IGC's profile. For example in March 2014, the IGC featured heavily in the media across several partner countries. IGC Pakistan was featured in ten printed and online articles based on the South Asia Growth Conference. Nine major television networks in Pakistan covered the opening address given by Mr Shahbaz Sharif, the Chief Minister of Punjab, Pakistan. Three networks also covered the speech given by Mr Ahsan Iqbal, the Federal Minister for Planning and Development in the Pakistani Government. The involvement of IGC India–Bihar in the South Asia Growth Conference was also featured in the Hindustan Times, the Times of India, and the Indian Telegraph. Towards the end of the month, the Times of India published an article on Professor Michael Greenstone's IGC-funded research which contends that up to two billion life years could be saved by raising the quality of air in India's most polluted areas. IGC Bangladesh attracted intense media interest in March. Its Phase II launch event was featured in 14 online and printed articles (see Box 36).

The New Times, the leading newspaper in Rwanda, featured the work of the IGC office in Kigali on two separate occasions. The first article highlighted IGC Rwanda's very successful event on urbanisation, whilst the second included an interview with IGC Country Director Richard Newfarmer. These led to two related articles on the AllAfrica website. IGC Ghana was further featured on the BusinessGhana website.

BOX 36: HIGH LEVEL POLICY ENGAGEMENT AND MEDIA COVERAGE IN BANGLADESH

At the beginning of 2014, the IGC Bangladesh programme organised a series of public lectures and workshops which gained strong attention in the local media and influenced discussion amongst policymakers.

On 25 February 2014, IGC Bangladesh, in conjunction with the Institute of Governance Studies (IGS) hosted a public lecture at BRAC University on meeting the human resource needs of economic development. Professor Wahiduddin Mahmud (Member for the Development Commission, UN, and former advisor to the Caretaker Government of Bangladesh) presented his paper on the subject, stressing the importance of enhancing the quality of secondary and tertiary level education along with the Millennium Development Goals objectives. Policymakers such as Former Finance Minister M. Syeduzzaman, Former Governor of the Bangladesh Bank, Saleh Uddin Ahmen and other private sector stakeholders including Professor Ainun Nishat, Vice-Chancellor of BRAC University and Dhaka University Professor Barkat e Khuda, continued the discussion. M.

Syeduzzaman, in particular, emphasised the need for the government to increase budget spending on education to ensure the universal provision of education. Stakeholders emphasised the current lack of governance surrounding the schooling system in Bangladesh, and the need to regulate the programmes offered by local private universities in particular. The lecture received considerable media interest by The Daily Star, The Financial Express and the Dhaka Tribune. Reports emphasised the timely nature of the lecture, stating that secondary level education is the biggest challenge facing Bangladesh today.

Following this success, the IGC Bangladesh team organised a discussion about the expansion of economic opportunities in South Asia on 22 March, focussing on IGC priority research areas for Bangladesh. Again partnering with IGC, and hosted at BRAC, the lecture was presented by Professor Jonathan Leape and Professor Robin Burgess from LSE and IGC. Following the lecture, policymakers discussed the need for Bangladesh to rapidly urbanise and to put in place new evidence-based policies to manage this change. Of particular importance is the need for local firms to internalise the costs they impose on the environment as Bangladesh moves into middle-income status. Stakeholders requested the IGC to further engage on issues of state capacity and incentives – analysing the policies and systems that need to be in place to improve the ability of civil servants to respond to new urban challenges. They also urged the IGC to continue research into civil service selection and motivation of staff (especially for Ready-Made Garment Factory Inspectors). An agreement amongst policymakers emerged – that Bangladesh should pay for its own development by strengthening the states capacity to collect revenue and spend this income effectively. Finally, civil service attendees then discussed the need to promote private sector development and investment.

The lecture was followed by a two-day workshop organised by IGC on the Impact Evaluation of Educational Policies on 23 and 24 March. The workshop, co-hosted by BRAC and IPA was intended to give an introduction to NGOs, research organisations, policymakers and other stakeholders on how to design an evaluation, how to manage it and what output to expect. A range of stakeholders were present at the event, including the Director of Monitoring and Evaluation at the Bangladesh Education Directorate, Prof. Didarul Alam, and representatives from the Ministry of Education, the Institute for Education and Research, and the Bangladesh Institute of Governance and Development. In addition, members from World Vision, Action Aid, the BBC, BRAC and IPA were in attendance. Presenters including Dr. Mahabub Hossain, BRAC's Research Executive Director, stressed the importance of evidence-based policies and the use of RCT's and evaluations in analysing new and existing policies. The event received very positive feedback – all stakeholders agreed that knowledge of impact evaluations they gained at the workshop will greatly assist them in their work.

As a follow up to the discussion of opportunities for economic expansion Bangladesh during the lecture held on 22 March, IGC representatives also met with high level policymakers in Dhaka to consult them on the various challenges to growth that Bangladesh is facing; and how IGC can engage them on these policy issues with evidence from research. Professor Leape and Professor Burgess met with the Minister of Education to discuss the challenges of skills development and quality of education and how tertiary education needs to address the employability of students by matching industry needs. Discussions with the Minister of Agriculture were also held and follow up meeting with Minister Begum Matia Chowdhury will be carried out when IGC's research on the impact of SRI rice management techniques come to completion. IGC also had productive discussions with the management staff of its long-time partner, BRAC (Sir Fazle Abed, Founder and Mr Mushtaque Chowdhury, Executive Director) and these concluded with further opportunities for collaboration in mutual areas of research being identified. Through meetings with the Economic Advisor to the Prime Minister (Dr. Mashiur Rahman) and the Advisor to the Prime Minister on Power, Energy and Natural Resources (Dr. Towfiq-E-Elahi), IGC also identified demand management of electricity and electricity trade as a further area for research and follow up meetings will be carried out. IGC also met with the Minister of Planning (Mr. A H M Mustafa) and the General Economics Division (Prof. Shamsul Alam) that charts out the 5-year strategic growth plans to be implemented in Bangladesh. As a result, IGC has been requested to draft a background paper on growth and equity in Bangladesh, which will feed into the next 5 Year Plan and to engage on longer term research in skills development as well as Energy in Bangladesh. During this trip, IGC further met with the Secretary of the Bangladesh Bureau of Statistics and IGC has been requested to be part of the international panel of experts that the bureau is convening to improve their technical capacity and the planning of the data they collect.

As a result of the high level engagement, direct requests from policymakers, as well as the ideas that were generated together with policymakers and CSOs, these engagements as a whole, merit a policy impact level 3, with higher policy impact being achieved in the near future from the work developed during these events.

Challenges Faced

The IGC has achieved high level policy impact across its partner countries and under all four of its main research themes, as demonstrated by the successful cases outlined above. However, IGC operation in its partner countries continues to face challenges.

One major challenge the IGC faces is in obtaining the attention of top policymakers who have many competing demands on their time. Four elements of the IGC model help to address this challenge. The first is that the IGC provides something different – evidence and ideas based on frontier research and direct access to top scholars. The second is the IGC's ability to embed itself in implementing partners – government departments, NGOs, private sector (for example, tax project in Pakistan, ultra-poor and garment firms projects in Bangladesh, and civil servants project in Zambia). The third is the IGC's emphasis on co-generation of knowledge. At the core of IGC engagement is a collaborative discovery process where policymakers work with IGC country teams and with IGC researchers in identifying key research questions, in designing and evaluating feasible solutions and in sharing findings as the research progresses and is completed. The fourth is the local networks and relationships made possible by IGC country teams.

A second major challenge the IGC faces concerns the different timeframes of policymaking and research. Policymakers are often operating on short timescales, either because of political pressures or because strategic planning is underdeveloped. They may also face knowledge constraints and fail to appreciate the need for rigorous evaluations and investigations (for example, where it is a question of 'replicating' initiatives from other countries), and the time required. While this arises in all IGC partner countries to some degree, the problem is more acute in countries such as Myanmar, where pressures such as the imminence of elections can mean that the need for "quick wins" take precedence over longer-term strategic thinking.

One feature of the IGC model that helps to address this challenge is the collaborative approach to discovery, mentioned above, which means that IGC research provides direct input on questions policymakers want answered. A second relevant feature, again stemming from IGC's collaborative approach, is that IGC projects can generate intermediate products in the form of preliminary findings that can feed immediately into policy decisions, often allowing 'course correction' measures to be taken before final results are available. Finally, where projects are embedded into the work programme of government departments, the resulting co-generation of knowledge means that the thinking of policymakers can evolve continuously through interaction with the researchers, as well as through the emerging findings of the research, and research questions and methods may be modified to adjust for particular timing demands on the part of the policymaker.

A third major challenge in achieving policy impact is the limited availability of or access to data. This has been a serious constraint for research projects and analysis in many partner countries. In some cases, the data is not available as it does not exist. For example, South Sudan produces no customs data, hampering the IGC's ability to provide useful analysis of policy questions surrounding EAC accession, local content substitution, and export promotion. Moreover, a potential opportunity for research on the tax system in South Sudan collapsed with the discovery that no tax data exists and all personal tax is self-declared.

In other cases, bureaucratic processes have restricted access to data, slowing or even preventing project implementation. Data has also not been accessible in some instances because the information is politically sensitive. For example, work on tax exemptions for selected businesses and their impact on the public finances has been under discussion between IGC Uganda and the Ministry of Finance, Planning and Economic Development. While senior policymakers have voiced their interest in and support for such an investigation, the data necessary to implement a project has not been forthcoming. The underlying issue is that tax exemptions result in substantial savings for the benefitting companies and regardless of their merit (they may be net beneficial for the country, say for infant industry protection), information has political implications. For that reason, the IGC has not been able to procure the data necessary for a further investigation. This highlights the political economy dimension of work on issues such as public finances and other areas directly impacting on the interests of influential groups.

Here, too, the IGC's collaborative approach is a key feature in addressing the challenge. The networks and relationships developed by the local country team are often crucial to overcoming bureaucratic and political obstacles to accessing data. Where IGC researchers collaborate with government departments, it often proves possible to work together to produce new data, where none exists. Finally, the IGC has accumulated considerable expertise in commissioning, designing and carrying out surveys where data has not previously been available.

Whereas different features of the IGC model help address major challenges in achieving policy impact, it is fair to acknowledge that these features may nevertheless be insufficient in fully addressing these challenges in a dynamic environment where the challenges may also be evolving over time. As a learning organisation, the IGC will continuously take stock of its activities and their impact and will continue to refine its strategy to overcome such challenges and achieve greater policy impact.

Looking Forward

In its first five years, the IGC has established a unique model of demand led policy advice based on frontier research. It has built a reputation for independence and excellence and has demonstrated that top quality work by the world's leading economists and political scientists can improve growth policies in low income countries. The IGC's unique model has proved responsive to demands and needs of local policymakers, while generating important new ideas for growth. It has fostered strong relationships between researchers and local policymakers, enabling joint problem identification and ensuring research is highly relevant. This in turn has meant that research findings answer pressing growth questions in partner countries and enable local policymakers to make better informed policy decisions.

In the 2012/13 Annual Report and the Phase II bid document, the IGC outlined a clear agenda for the next four years. This report has demonstrated the IGC's progress in the first year of Phase II. A key component of Phase II was strengthening the senior management of the IGC and building capacity of the Hub and Country Economists. During 2013/14 the three senior positions of Executive Director, Country Programme Director and Evaluation and Communications Director were all successfully filled. In addition, a significant number of talented Hub and Country Economists were recruited reflecting the IGC's expanded scope and replacing Phase I staff who left during the period of uncertainty over Phase II funding. A key opportunity in 2014/15 is to continue to build this relatively new group of staff, spread over 14 countries, into a coherent and effective team delivering the IGC's mission.

Strong engagement with policymakers through the country programme will remain central to the IGC in 2014/15. The new senior management team will ensure that IGC expertise is taken up by policymakers and other key actors. Critical here is the density and quality of IGC interactions with finance and other ministers, heads of ministerial departments, central bankers, third sector organisations, business people and entrepreneurs. Through its resident country teams, the IGC will continue to build an effective presence on the ground. Events focussed on a specific theme, such as the recent Rwanda urbanisation event allow a more intimate engagement between researchers and policymakers, and the IGC expects to host more of these in 2014/15. The political situation in South Sudan will continue to be monitored and in-country engagement will resume when it is safe to do so. The IGC will consider options for new partner countries with a view to launching a new programme in 2015.

Phase II has introduced a new structure for the Country Review Meetings in February 2014, involving bi-annual meetings between country leadership teams and the London Hub. These meetings will strengthen the communication channels between the Hub and Country Teams enabling the Hub to support country programmes more effectively.

Frontier research underpins all of the IGC's work. During 2014/15, the IGC will continue to focus on the four research themes, building expertise and a track record in these areas. There will be two open and competitive central calls for proposals every year, covering both research and country programmes. Inaugurated in December 2013, this new approach is designed to both increase the quality of research proposals and also broaden the base of researchers working in partner countries.

Phase II is prioritising greater focus on communications and a new strategy is being developed and implemented. The strategy addresses wider issues of policy engagement including the way in which research gets translated into policy at the country level and how the IGC proposes to influence the global economic policy debate. The strategy has been developed through extensive consultation with IGC staff members, academics, key policymakers, key opinion leaders and other organisations. Implementation of the strategy will take place throughout 2014/15.

Ultimately the IGC will be judged in terms of its ability to influence growth policies, and therefore improve the lives of millions of citizens in the countries where it works. In some cases, the IGC will be able to demonstrate success in a more or less linear fashion; in others, achieved impact will be more difficult to demonstrate due to the complexity of the policy-making process, time lags and so on. In a subset of cases, the IGC will not have achieved its intended level of impact. The IGC openly acknowledges that not all projects succeed as planned and is committed to learn from these experiences.

To better understand its successes and failures, and to feed lessons back into its operating model, the IGC is currently developing its internal Monitoring and Evaluation strategy, and looks forward to working with the DfID-commissioned external evaluator in the coming year. The IGC aims to improve internal understanding of the research activities, government engagement levels and local conditions that contribute to achieving policy impact. Establishing such 'success factors' will enable the IGC to export good practice to other settings, improving overall impact.

The IGC is and will continue to be focused on delivering enhanced growth options to its partners in South Asia and Africa. Funded by DfID and operated jointly by the LSE and Oxford, the IGC has established a considerable reputation. Throughout the first year of Phase II, the IGC has been building on the foundations laid in Phase I. Going forward, the IGC will continue to maximise its effectiveness in the countries where it already works. It will continue to commission first-rate work in economics and political science. And it will build greater communication and evaluation capacity. The IGC will gain momentum, learn lessons and deliver results. Above all, it will improve the lives of the poor.

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