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REVIEW OF POLICY-CONSTRAINED VALUE CHAIN INITIATIVES



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LEO

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Opportunities

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ACRONYMS

ABM	Agent-based modelling
ACE	Agent-based computational economics
ACED	Agricultural Competitiveness and Enterprise Development
AgBEE	Agribusiness Enabling Environment
AgCLIR	Agribusiness Commercial Legal and Institutional Reform
AGRI	Agribusiness Regulation and Institutions
BFS/ARP	Bureau for Food Security/Agricultural Research and Policy
CIBER	Competitiveness Impacts of Business Environment Reform
DB	Doing Business
EAT	Enabling Agricultural Trade
EBA	Enabling the Business of Agriculture
EEA	European Economic Area
FTF	Feed the Future
LEO	Leveraging Economic Opportunities
MSA	MarketShare Associates
OECD	Organisation for Economic Co-operation and Development
OMB	Office of Management and Budget
PAM	Policy Analysis Matrix
RIA	Regulatory Impact Assessment
SMART	Specific, measurable, achievable, realistic, and time-bound
SMD	Strategic Decision Matrix
USAID	United States Agency for International Development

I. INTRODUCTION

This report documents and provides an initial analysis of initiatives in Feed the Future (FTF) projects designed to address policy related constraints to value chain competitiveness, and, in particular, increased private sector investment. It will assist the Policy Division of the Bureau for Food Security/Agricultural Research and Policy (BFS/ARP) to strengthen the framework for understanding and addressing policy issues as part of comprehensive competitiveness strategies for targeted value chains in FTF countries.

The current study is a desk study, focusing on initiatives designed to drive value chain competitiveness, inclusiveness, and resilience. The research focuses on how various FTF projects are seeking or have sought to address policy constraints and opportunities, and concurrent documentation of increased private sector investment, though evidence of causation remains limited. This initial analysis lays the groundwork for identifying case studies through which to better understand the barriers posed by adverse or absent policy elements, and how interventions opened up new private-sector investment opportunities by overcoming those barriers.¹ The focus on better policies—creating a truly enabling environment—covers both commission and omission in existing policies that may impose constraints on productivity, competitiveness and investment.

The value chain approach to designing a competitiveness strategy highlights the importance of strengthening the business enabling environment as a basis for sustained competitiveness.² That approach recognizes the key role that policy plays in boosting or constraining sector performance:

“Improving the business environment by lifting constraints and filling gaps in the regulatory and administrative support mechanisms is central to any comprehensive competitiveness strategy for a targeted value chain. Consideration of the enabling environment should inform each stage of a value chain development project.”³

This review outlines the mechanisms by which policy change can affect value chain performance in general, and private-sector investment in particular. It also considers the circumstances that matter in these economic impacts. The emphasis is on the following topics:

- Major policy-related initiatives in current and past FTF programming, and their potential correlation with increased private sector investment in key value chains; and
- Initial lessons learned concerning how to address policy constraints and ways to strengthen private sector engagement in these issues

¹ Much of this overview paraphrases the Scope of Work for this Study. The reference to better policies echoes the theme of “Better Regulation for Growth,” a World Bank program that has offered sound analysis of many of these issues across sectors.

²[http://acdivoca.org/sites/default/files/attach/legacy/site/Lookup/Competitiveness%20Strategy%20Briefing%20Paper/\\$file/Competitiveness%20Strategy%20Briefing%20Paper.pdf](http://acdivoca.org/sites/default/files/attach/legacy/site/Lookup/Competitiveness%20Strategy%20Briefing%20Paper/$file/Competitiveness%20Strategy%20Briefing%20Paper.pdf)

³ <https://www.microlinks.org/good-practice-center/value-chain-wiki/business-enabling-environment>

The sources consulted include FTF project-specific materials (including annual and quarterly reports, mid-term evaluations, and final evaluations), the Enabling Agricultural Trade AgCLIR assessments, AgBEE reports, and AGRI Index Report; the World Bank's *Enabling the Business of Agriculture* report; institutional architecture assessments; and the New Alliance cooperation frameworks.

The first part of this report establishes the conceptual framework for analyzing and optimizing the impact of policy reforms on agricultural productivity and competitiveness. It then provides summary tables documenting key FTF initiatives that have explicitly addressed policy-related constraints and summarizes initial lessons learned from this review. The report concludes with suggestions for future research, including a selection of projects from which to identify the in-depth case studies.

II. THEORETICAL FRAMEWORK

Much of the work on creating a better business environment for agriculture rests on the notion that the policy and regulatory environment can impose unnecessary costs, block innovation and provide perverse incentives for agricultural activities.

For the purposes of this paper, the research team reviewed project documents to assess whether they implemented activities designed to change laws, regulations and government involvement in given value chains. This leaves the field of action relatively broad, which is necessary to capture the range of ways in which government policy adversely or positively affect value chain competitiveness. Drawing from the AGRI and EBA frameworks discussed further below in Annex 1, the types of policy constraints that value chain initiatives might theoretically address include the following:

- Selling agricultural goods & markets (includes trade policy, import/export regulations and government certifications)
- Obtaining seed & livestock inputs
- Obtaining fertilizer
- Accessing rural land
- Accessing finance
- Starting and operating a farm
- Enabling contract farming
- Transport & infrastructure
- Management & information

While regulation in the above areas is often justified to protect consumers or producers, excessive zeal or poor administration not only undermine the original intent, but can deter investment and lead to illegal and corrupt practices. Many policy-related initiatives start with the presumption that improved policies will minimize unnecessary costs to businesses, allow for greater value chain investment, and ultimately lead to poverty reduction via enterprise growth. In exploring recent experience with the policy component of agricultural support projects in FTF countries, it is therefore useful to frame our findings with empirical evidence linking regulatory quality to economic performance and poverty reduction.

Without special provisions, such as protection or transfer payments, the only way to raise the income of farms or firms in a given value chain is higher productivity in its most basic definition—the ratio between the value of outputs and the value of inputs. In the case of agriculture, higher productivity is critical to raising net incomes, and boosting competitiveness. The issue is therefore the degree to which elements of the business environment hamper or help rapid productivity gains.

Weaknesses in the business environment affect productivity and competitiveness in two major ways:

- Unnecessary regulations or burdensome administrative procedures impose *transaction costs* on the firms in a particular value chain. Excessive regulatory compliance costs lower productivity (by increasing the denominator) and diminish competitiveness. This view of transaction costs is actually quite narrow, since the term often refers to all costs involved in economic transaction, or the cost of

participating in the market. The interpretation here focuses on the direct costs of regulatory compliance that can be calculated through accounting measures. The Standard Cost Model (SCM) deals with these measurement issues.

- In addition, deficiencies in the business environment are likely to inflict *economic costs*. Unwarranted, flawed or missing regulations, excessive bureaucracy or poor administrative and judicial practices may create unnecessary risks, constrain market access, curtail the ability of producers to meet quality standards, or indirectly raise the cost of production anywhere along the stages of the value chain. Economic costs of regulatory barriers represent a form of foregone income or profits. They cannot be measured directly, but require the careful elaboration of a counterfactual that best represents the potential performance in the absence of these regulatory constraints.

Obviously, the line between transaction costs and economic costs is blurry. But the focus has been primarily on the transaction costs, which are easier to measure. Determining economic costs of a poor business environment calls for careful elaboration of the counterfactual. Even so, there is reason to believe that economic costs of a poor business environment outstrip by far the transaction costs of regulatory compliance.

The basic presumption of the current concern with the business environment for agricultural value chains (or any other sectoral value chains, for that matter), can be sketched schematically as shown in **Error! Reference source not found.** A donor intervention is expected to contribute to improvements in the policy and regulatory environment for agriculture; in the words of the World Bank’s Enabling the Business of Agriculture, project and related interventions are expected to lead to “smarter regulation.” Smart regulation in turn lowers cost and raises revenue for agricultural activities, resulting in greater return on investments. Greater profit expectations in turn stimulate investment. Accelerated investment in turn contributes to a more competitive performance, enterprise growth throughout the value chain, and ultimately poverty reduction.

Figure 1. The presumed causal chain of policy initiatives for poverty reduction



III. A SUMMARY OF RECENT EVIDENCE

Given the widely accepted premise that improved policies contributes to better economic performance and growth, there have been several attempts to quantify these relationships. Annex 1 offers a brief review of some of these attempts and the tools used to do so.

In general, at the aggregate level, there is a significant association between measures of regulatory quality or the pace of regulatory reform and selected measures of economic performance, such as the overall growth rate. However, the aggregate nature of the measures used complicates the task of tracing the causal linkages. Improving regulatory quality and efficiency appears to contribute to faster growth, but linking better regulation to faster growth requires a step back to look at these relationships in a disaggregate context.

LINKING IMPROVED BUSINESS ENVIRONMENT AND ECONOMIC GROWTH

The *prima facie* case for better business environment reforms is persuasive. Excessive regulation or poor administrative practices can stymie entrepreneurial initiative and add costs. Efforts to track this relation on the basis of aggregate statistics, however, have encountered some obstacles, primarily in terms of confirming a clear causal link from reform to performance.

Simeon Djankov and his colleagues⁴ found a consistently significant relationship between more business-friendly regulations and higher growth rates. Jalilian et al. (2003) conclude that the causal effects of better governance on higher per capita incomes have been identified in a number of papers.⁵ Their analysis used an econometric model linking growth in per capita GDP to a combined measure of regulatory quality and effective governance (Worldwide Governance Indicators), together with other explanatory variables. The explanatory value of these equations is relatively acceptable, and once regional dummy variables (for continents) are added, the adjusted R² for the regression equations increases to over 0.55. In another study, Kirkpatrick and Parker (2005) find that a unit change in a combined variable of the quality and effectiveness of regulation is associated with approximately 0.6 to 0.7 percent increase in economic growth.⁶

Even so, a broader review of efforts to link reforms to growth performance finds no clear pattern. Babetskii and Campos (2007) seek to answer the basic question: “Why are socially beneficial reforms not implemented?” They carry out a meta regression study of the findings of some 43 studies on the effects of policy reforms on economic performance that yield more than 300 coefficients describing such effects.⁷ Babetskii and Campos find that “approximately one third of these coefficients is positive and significant, another third

⁴ Simeon Djankov, DCaralee McLiesh and Rita Ramalho, “Regulation and growth,” March 17, 2006.

⁵ Hossein Jalilian, Colin Kirkpatrick and David Parker, “Creating the conditions for international business expansion: The impact of regulation on economic growth in developing countries—A cross-country analysis,” July 2003 (Centre on Regulation and Competition, University of Manchester, UK).

⁶ Colin Kirkpatrick and David Parker, “Towards better regulation? Assessing the impact of regulatory reform in developing countries,” paper prepared for the presentation at a workshop, 22-24 June 2005, University of Manchester.

⁷ This meta-regression analysis uses the t-statistics of explanatory variables (indicators of reform) in regressions linking growth to reforms as dependent variables and uses a variety of modeling indicators as the independent, explanatory variables.

is negative and significant, and the final third is not statistically significant different from zero.” They conclude that how reforms are measured or described matters in explaining these findings. Controlling for institutions and initial conditions tend to decrease the likelihood that a significant and positive effect of reform on growth can be ascertained.

One of the most difficult challenges turned out to be the definition and measurement of both reform and economic performance:

“... Considerably more attention should be paid to measurement issues. ... official data [on GDP growth] tend to underestimate the participation of the nascent private sector (in some cases because of the large informal sectors) and overestimate that of the public sector. With respect to reform, the existing measures are mostly subjective, difficult to replicate and tend not to reflect reform reversals ... it is somewhat surprising that we were not able to find a single study that pays explicit attention to the problem of errors-in-variables ...” (pp. 23-24)

The meta regression analysis also confirms that in many instances, the response path of the economy to a reform follows a J-curve path—things tend to get worse before they get better:

“The use of lagged reform measures shows that reforms have negative contemporaneous effects which can be offset by positive effects in subsequent periods, after some level of reform is in place.” (p. 23)

Babetskii and Campos (2007) therefore conclude that “[d]espite the numerous benefits economists assign to structural reforms, the empirical literature has thus far failed to establish a positive and significant effect of reforms on economic performance.” That uncertainty about the ultimate payoff of structural reforms, which include revamping the regulatory and administrative framework for business activity, undermines efforts by proponents of reform, and stiffens resistance to action.

Djankov et al. (2006) rely on (early) cross-sectional data on regulatory quality from the *Doing Business* database and growth, approximated by the average annual growth of GDP per capita (1993-2002). The researchers created a composite index of regulatory quality based on the country rankings on (then) seven indicators in the database. They found a robust positive relationship between their measure of regulatory quality and growth. Using statistical techniques, the study seeks to examine the causal link more closely. However, given the data, it is difficult to arrive at firm conclusions about the direction of causation.

Kirkpatrick & Parker (2005) used the indicators for regulatory quality and government effectiveness from what is now known as the Worldwide Governance Indicators dataset as the key independent variables in their analysis of the impact of regulatory reform on growth. They use various specifications of their model linking growth in per capita income to the regulatory measures. The coefficients for regulatory quality and government effectiveness (either separately or jointly) are consistently positive and significant. The authors conclude that the statistical evidence suggests that a better regulatory framework matters for economic performance.

Thus, some assessments of the impact of policy reforms on growth on the basis of aggregate data suggest some positive impact. Even so, the evidence is far from persuasive. What may be needed to improve confidence and allow for better targeting of regulatory reform is more “work in the trenches,” in determining how businesses react to specific reforms and how their reaction affects (total factor) productivity.

TRACING THE IMPACTS OF SPECIFIC REFORMS

An alternative approach looks for any impacts of specific reforms on growth. By now, the World Bank’s annual *Doing Business* surveys provide several years of information on reforms affecting specific indicators of the business environment. A number of studies have focused on exploring the growth effects of these reforms.

Eifert (2007, 2009) linked reforms identified in *Doing Business*—such as changes in entry and exit regulations, labor regulations or the efficiency of contract enforcement—to changes in aggregate investment and unemployment rates. Originally, he found no evidence of a positive relationship between reforms and macroeconomic responses. The addition of another year of data and modifications in the model, focusing on investment rates and productivity, and better statistical techniques allowed Eifert to arrive at a more positive conclusion in his 2009 paper. “Relatively poor and relatively well-governed countries grow about 0.4 and 0.2 percentage points faster in the year immediately following one or more reforms, respectively. In both subsets of countries, investment rates accelerate by about 0.6 percentage points in the subsequent year.”

Without implying any critique of the methods used, the question remains: Are changes in specific metrics of the business environment the actual drivers or are they expressions of changes in overall economic policy? No matter how the data are massaged, isolating the effects of reforms in selected indicators is difficult.

A recent contribution to the literature is Haidar (2012), who links regulatory reforms to overall economic growth rates. Basically, the author identifies the number of reforms by country that have been catalogued in the annual *Doing Business* exercises, and correlates them with the annual growth rate of GDP per capita, controlling for other possible influences. He finds that on average one business environment reform results in a change in growth rate of 0.15 percentage points. Looking at lagged effects, the impact is slightly higher: one reform in the 2006-2008 time frame is associated on average with a change in the GDP per capita growth rate of 0.18 percentage points. While the relationships are statistically significant, it is unclear whether they are additive. It may be naïve to expect that any ten changes in one year that meet the criteria for “reforms” by the *Doing Business* team would result in an increase of the growth rate by 1.5 percentage points. As always in these studies, the precise causal link—how do changes in the business environment actually affect investment behavior and productivity—remains unexplored.

DISAGGREGATION OF INTERVENTIONS AND IMPACTS

Recent efforts have focused more on selected aspects of the business environment, such as the individual indicators of the annual *Doing Business* exercise. A series of targeted studies, such as Djankov et al. (2002), Botero et al. (2004), or La Porta et al. (1998), provided the basis for choosing appropriate *Doing Business* indicators, and developed the detailed case definitions for estimating the comparative scores. These studies reflect assumptions about causal relationships between specific business environment factors and economic performance.

These kinds of disaggregate indicators make it possible to trace effects on particular economic segments or sectors. For example, for the case of trade, Djankov et al. (2006b) use a modified gravity trade model to assess the impact of delays in terms of border crossings (using the “Trading across borders” indicator). The authors find that an extra day at the border adds the equivalent of 70 km to the distance, reducing trade flows. The effects are even greater for exports of time-sensitive goods, such as perishable agricultural products or fashion items.

Disaggregate business environment indicators also allow researchers to investigate root causes of differences. Amin and Haidar (2010) explore the cost of registering property among civil law and common law countries. They find that the cost in common law countries is 26 percent lower than in civil law countries, offering a transaction cost advantage. The difference in the “non-notary” costs of registering property is the principal reason. The authors suggest a number of possible explanation for these differences, but suggest further research is needed to explain them.

Other authors have studied the impact of differences in investor protection on growth. Both Haidar (2009) and Berdugo and Hadad (2009) find that better investor protection is in fact associated with higher growth performance, largely through improvements in the performance of financial systems. Berdugo and Hadad (2009) argue that better legal protection for investors can expand the range of more innovative investments that can be financed, and that it is likely to shift investment resources from less productive (medium-tech) to highly productive (high-tech) projects opportunities.

Further developments have stressed a more disaggregate approach to tracing the effects of regulations and other elements of the business environment on competitiveness, defined at the level of value chains with respect to individual markets and products or services. Rather than estimating the effects of a particular business environment factor on economic performance across the board, the new approach seeks to identify those elements in the business environment that undermine the competitiveness of specific value chains. These factors act as constraints on competitiveness in terms of cost/price, quality and market access. The CIBER (Competitiveness Impacts of Business Environment Reform) process represents a systematic application of this “bottom-up” approach. Combining a close interaction between value chain stakeholders and analysts/researchers, it is designed to identify binding constraints on competitiveness in a comparative framework, and guide the public-private policy dialogue toward solutions that eliminate or at least alleviate these constraints. This process therefore offers a complement to the more traditional top-down approaches to regulatory reform.

IV. MEASUREMENT CHALLENGES

While the argument that appropriate policy reforms will lead to improved competitiveness and enterprise growth is persuasive, and has been widely endorsed, tracing the causal linkages between specific regulatory and policy reforms and measures of economic performance (including private sector investment) can be surprisingly difficult. Several issues impede our ability to convincingly measure the linkages between policy initiatives and increased private sector investment. Annex 2 provides a more detailed discussion of this topic. Indeed, determining the specific contribution of policy change is difficult, as the legal business environment does not function in isolation; instead, it interacts with a broad array of other factors to influence economic performance at the level of the individual value chain.

Practically, the process can be very long between a policy change and an expected result. This requires time and can mean that it is unrealistic to expect to measure those results during the lifetime of a typical project. Thinking in terms of innovation adoption shows the myriad steps that need to take place before policy changes can result in increased private sector investment, improved value chain competitiveness, enterprise growth and poverty reduction. Regardless of the particular political context, new policies and regulatory provisions call for decisions at the central policy-making level, such as new laws or policy directives. Reaching this first step reflects a learning process among decision makers. Assuming that new policy provisions are adopted, the written law represents only a first element of changing the effective business environment. Bureaucratic support or resistance shape the implementation of reforms and may result in significant variations among cities or regions of the country for how they are carried out (or not).⁸ Thus, policy makers at the national and often regional level have to go through a learning process.

Once reforms are promulgated, and appropriate implementation and enforcement systems are in place, the ultimate impact on productivity and investment for actors in the value chains depends on their own responses. Improvements in the business environment can create new *opportunities*, but unless farmers adopt innovations to take full advantage, the impact may not be appreciable. For example, the introduction of national seed policies that make better seeds universally available may not necessarily lead to changes in the use of seeds by smallholder farmers. As a result, changes in the business environment and subsequent responses by farmers and investors take time and are by no means automatic. As for reforms, building consensus, developing the legislative texts, promulgating and implementing regulations, and developing adequate administrative procedures and capacities often take years. Consequently, even successful reform efforts may not pay off immediately.

Additionally, the responses by actors in the system are characterized by heterogeneity. Policy makers, bureaucrats, farmers and investors do not react in necessarily predictable ways, which disrupts the neat linkages sketched in **Error! Reference source not found.** These factors lead to the difficulties in establishing a robust causal relationship between regulatory quality and economic performance for the entire economy or for a particular sector.

⁸ One of the challenges in working with national assessments, such as *Doing Business* or elements of the *Global Competitiveness Report* is precisely the fact that they apply to the national level; in fact, the *Doing Business* metrics apply specifically to the country's economic capital. There are often wide variations across regions. For example, in the case of Ukraine, earlier business environment reform efforts started often at the level of oblasts, making national-level metrics a poor guide to understanding the situation on the ground.

These issues have a practical impact upon the effort to identify FTF-funded policy initiatives that have increased private sector investment. The indicator for measuring private sector investment is titled “Value of new private sector investment in the agriculture sector or food chain leveraged by Feed the Future implementation.” It includes only capital investments (both upstream and downstream) made by a for-profit formal company, or by a CBO or NGO engaging in for-profit agricultural activity. The FTF Indicator Handbook specifies that the phrase “leveraged by FTF implementation” means that the new investment was directly encouraged or facilitated by activities funded by FTF. However, the indicator is not disaggregated by type of investment, or project activity (Feed the Future Indicator Handbook: Definition Sheets. 2014. p.51).

Whether due to these issues or for other reasons, secondary research does not show FTF monitoring systems explicitly assessing the linkages between policy reform and increased investment. However, the FTF indicator measuring the number of enabling environment policies that addressed through FTF assistance requires disaggregation by policy area, including one titled “enabling environment for private sector investment” (Feed the Future Indicator Handbook: Definition Sheets. 2014. p.70). Project documents provide evidence of concurrent policy reform and increased private sector investment, however authors do not discuss what proportion (if any) of increased investment can realistically be attributed to a given policy initiative. This greatly impedes the ability to analyze the success of such initiatives in successfully addressing constraints to greater value chain investment. A very select number of the reviewed projects addressed highly specific policy constraints and helped initiate subsequent reforms, which can logically be associated with increased investments in specific areas of the value chain.

In most cases however, project documents and evaluations do not specifically address this question, and the causal link cannot simply be assumed, making it difficult to define the relationship between policy change and evidence of increased private sector investment. Additionally, not all projects reviewed had ended, meaning that changes in private sector investment patterns may not have had time to occur. Finally, the research team had difficulty obtaining documentation, which creates the risk that some information about policy initiatives and private sector investment was not captured during the review. Documentation was unfortunately quite incomplete in an online database of USAID-funded project documents, the Development Experience Clearinghouse, nor were efforts by FTF staff to collect missing documentation always successful.

V. REVIEW OF POLICY-CONSTRAINED FTF VALUE CHAIN INITIATIVES

In spite of the challenges outlined above, MSA proceeded to conduct a review of a sample of FTF projects to assess the evidence for policy-linked private sector investment. Given the large number of FTF-funded projects, this review built off of a review of FTF projects that was conducted by the LEO project in 2014. Additional projects were added for consideration based on the feedback of reviewers. In total, 31 FTF projects were reviewed, of which 15 had documentation of policy constraints that the project addressed. The tables in Annex 3 summarize a description of the policy constraint, a description of the policy initiatives implemented by the project, as well as any quantifiable evidence of increased private sector investment in the value chain. The tables are organized alphabetically by country.

VI. SUMMARY CONCLUSIONS

The review of FTF projects implementing policy initiatives reveals a variety of approaches to addressing policy-related constraints, which include the following (often in combination):

- Developing multi-stakeholder advocacy platforms
- Building advocacy capacity among value chain actors
- Sponsoring policy-specific exchange visits for government officials
- Support researching, drafting, revising legislation
- Direct advocacy with government agencies
- Promoting public-private dialogue on specific policy issues
- Supporting national governments to negotiate and implement regional trade policy

The secondary information available provides little insight into whether (and how) these approaches have successfully overcome policy constraints to value chain competitiveness and investment. The standard indicators that FTF uses to capture private sector investment leveraged by the project, offer little information on where this investment originates. Document reviews suggest that in many cases the increased private sector investment can logically be attributed to matching grants designed to stimulate investment and innovation, however this fact would need to be confirmed with project staff.

Information available for secondary review does not therefore provide sufficient evidence for definitively assessing the relationship between policy reform and increased private sector investment in FTF value chains. In order to understand this relationship, and to analyze if and how FTF initiatives have successfully addressed policy-related constraints to private sector investment, information needs to be collected that deliberately explores this link and the process by which it occurs. In-depth case studies with projects that show the most promising logical causation between policy reform and increased private sector investment will provide greater insight. Additionally, interesting tools exist that might be applied to this task ex-ante. One such tool is agent based modeling (ABM), which might allow for ex-ante assessments of the possible results of policy interventions (for more details on how ABM might be applied to this task, see Annex 2).⁹

⁹ See Douglas W. Hubbard, *How to measure anything. Finding the value “intangibles” in business.* (3rd edition) Hoboken, NJ, 2014 for the value and process of decomposition of business processes.

VII. RECOMMENDATIONS FOR CASE STUDIES

Very few project documents explicitly describe efforts to stimulate private-sector investment through policy interventions. However, several promising examples exist which warrant further research. The table below lists the 15 projects for which summary tables are provided above, and provides an assessment of the extent to which each project meets several case study selection criteria.

Table 1. Assessment of Attractiveness as a Case Study

Country / Region	Name of Project	Active / Closed	Addressed Clear Policy Constraint to Increased Investment	Evidence of Increased Investment
Cambodia	HARVEST	Closed (2010-2015)	*	***
Ethiopia	AGP-AMDe	Active (2011-2016)	**	***
	AGP - LMD	Active (2012-2017)	**	*
	PRIME	Active (2012-2017)	*	*
Ghana	ADVANCE II	Active (2014-2019)	***	*
	APSP	Active (2014-)	**	(none)
Honduras	USAID-ACCESO	Closed (2011-2015)	***	**
Kenya	REGAL-AG	Active (2012-2017)	*	*
Liberia	FED	Active (2011-2016)	**	**
Mali	IICEM	Closed (2007-2012)	*	**
Rwanda	RDCP-II	Active (2012-2017)	**	**
Senegal	PCE	Closed (2009-2014)	*	*
Tanzania	NAFAKA	Active (2011-2016)	***	**
Tanzania	SERA	Active (2011-2016)	*	*
Uganda	Agricultural Inputs Activity	Active (2013-2018)	***	***
Zambia	PROFIT+	Active (2010-2016)	*	*

Based on the research team’s assessment of likely linkages between enabling environment policy initiatives and increased private sector investment, we recommend the following three projects for in-depth case study:

- Tanzania – NAFKA
- Uganda – Agricultural Inputs Activity
- Ethiopia – Agricultural Growth Program – Agribusiness and Market Development

These cases represent a diversity of policy constraints, and approaches to addressing them. Additionally, the implementation timeframe increases the likelihood that enough time has passed for results to appear, but the

projects are still active. Assuming that the USAID mission and implementing partners are receptive to conducting the respective case studies, they represent the best opportunities to generate hands-on knowledge from FTF's experience to date.

ANNEX I: DIAGNOSTIC TOOLS FOR POLICY AND REGULATORY REFORM

THE POLICY ANALYSIS MATRIX FOR AGRICULTURE

Efforts to raise productivity and incomes in agriculture therefore have always addressed policy issues in some form or another. Arguably, policy concerns actually may have played a larger role in the past. The articulation of the Policy Analysis Matrix (PAM) in the 1980s marked a major milestone in this process. The PAM established a computational framework for assessing the impact of the policy (and regulatory) environment on the performance of agricultural activities, measured in terms of a profit metric for a particular commodity.

The basic approach consisted in comparing the profits at prevailing market prices with the counterfactual, profits at social (efficiency, shadow or world market) prices. The latter describe the actual performance of the typical producer (or value chain), while the profits at prevailing market prices and the implicit deviation from the efficiency prices reflect the impact of policies and resulting market distortions.

The basic idea would be to assess the performance of the value chain under the do-nothing option with the corresponding metrics after the proposed policy changes. 2 provides an overview of the elements of the PAM. The cell descriptors do not offer much mnemonic value, but they are established in the literature. The first row is designed to estimate private profits (as a measure of competitiveness) under a given set of policy conditions. The prices for outputs and inputs The symbol A refers to revenue in private (market) prices. The symbol B stands for the costs of tradable inputs in private prices, the symbol C refers to the cost of domestic factors (non-tradable inputs) in private or market prices. And the symbol D stands for private profit. The data for these measures are derived from farm and activity budgets, reflecting current market conditions for producers.

Table 2: The Policy Analysis Matrix

	Value of output/ Revenues	Value of inputs/Costs		Profit
		Tradable	Domestic factor (non-tradable)	
Private prices	A	B	C	D
Social prices	E	F	G	H
Divergences (policy transfers)	I	J	K	L

The profitability identity means that $D = A - (B + C)$. The private benefit-cost ratio for a particular value chain under a given policy environment is then $PBCR = A/(B + C)$.

Private or market prices can be subject to distortions as a result of policies that tax or subsidize certain products, market conditions (such as barriers to entry or monopolistic conditions), or externalities. Assessing the

private profit as a measure of competitiveness therefore needs to be complemented by an appraisal of the competitiveness under “ideal” price conditions, that is, under social prices. Social or efficiency prices are hypothetical prices that would result in the best allocation of resources and highest generation of income.

E stands for revenues in social prices, F for the cost of tradable inputs at social prices, G for domestic factor cost at efficiency prices, and H for social profit. The social or efficiency prices for tradable outputs and inputs are the comparable world market prices—import prices (cif) for commodities that are partly imported, and export prices (fob) that are partly exported. The efficiency value or social opportunity cost producing an additional unit of some importable commodity is the amount of foreign exchange earned by increasing exports by that unit, given by the export prices.

While the PAM is still being used in analyzing policy impacts on agricultural activities, its importance as a tool for policy design currently tends to the negligible; for example, the World Bank’s *Enabling the Business of Agriculture 2016* does not even mention the PAM as a tool for agricultural policy analysis.

SCRUTINIZING NEW LAWS AND REGULATIONS: THE REGULATORY IMPACT ASSESSMENT

The Regulatory Impact Assessment (RIA) is a tool to assess *proposed* policies, laws and regulations. Most countries now require some form of RIA for proposed laws and regulations. Most countries have embraced that requirement as part of its regulatory reform program. While there are many variants of the RIA process, they all basically follow the same rules:

- Define the problem and establish clear objectives of the proposed regulation. Most approaches call for SMART (specific, measurable, achievable, realistic, and time-bound) objectives.
- Define and examine systematically alternative approaches for reaching these objectives, including the “do nothing” option.
- For feasible approaches, explore all social and economic costs and benefits.
- Recommend the best alternative (with the best ratio of benefits to costs) for policy adoption.

The introduction of RIA as a systematic (and mandatory) policy development tool dates back to the late 1970s and early 1980s. In the case of the U.S., the Office for Management and Budget (OMB) in 2004 issued updated guidance for the preparation of RIAs (OMB Circular A 4). Virtually all 28 OECD countries have adopted a mandatory RIA system. Both the EU and the UK have major regulatory reform programs in place that incorporate RIA as a key element.

With some prodding by donors, including the World Bank, a number of developing and transition countries have adopted some form of RIA as a policy development tool. Many countries have stipulated RIA as a component of any rulemaking at both the national and local level, but resource constraints and limited capacities have diminished the role these assessments play in the policy making process. As a result, there have been proposals to encourage developing countries to adopt a more limited approach to conducting RIA.

Given this extensive experience with regulatory reform, it is surprising that assessments have found little evidence for the beneficial impacts of a more structured approach to building a better business environment. Most of the studies have focused on *outcomes* rather than *impacts*. It is virtually impossible to introduce regulatory change as a controlled experiment, so impact evaluations require leaps of faith in terms of defining the counterfactual. Kirkpatrick laments the “limited use of alternative impact evaluation methods, such as case

studies, participatory surveys, or theories of change.” The argument for better regulation as determined by RIA therefore rests on the (admittedly persuasive) *logic* rather than empirical evidence.

Ideally, RIA should be approached as a process, rather than a one-off evaluation. While some analytical techniques can go a long way toward elaborating the costs and benefits of proposed laws and regulations, a well-designed RIA process typically also includes consultations with the business sector and civil society organizations. A participatory approach will not only result in a better analysis, but is also likely to build support for the implementation of the act under consideration.

Once the new laws or regulations have been adopted, the actual impact on the business environment depends in part on how the administrative apparatus of the state apply them. Poor administration can turn reasonable regulations into serious constraints, or can create deficiencies in key government functions needed for competitiveness of key value chains.

RIA is not directly concerned with such administrative issues, beyond addressing administrative feasibility in the design process. Efforts to build a better business environment, however, need to include assessments of administrative performance. The methodology outlined below as the bottom-up approach explicitly incorporates an assessment of the administrative (and political) feasibility of implementing the reforms to address specific constraints to value chain competitiveness.

Thus, while some of the RIA techniques are of interest to our task of tracking the economic impact of regulatory reform support by EEA, its focus on outcomes means that it is ultimately of limited value for the type of analysis required here.

COMPREHENSIVE APPROACHES TO POLICY DIAGNOSTICS AND DESIGN

Most of the regulatory and policy reform efforts have aimed at raising regulatory quality across the board. This “top-down” approach seeks to identify and rate indicators of different dimensions of the business environment. Most of these initiatives have been inspired by the *Doing Business* approach, focusing on the costs of regulatory compliance and the resulting disincentives to productivity and investment. Any improvement in one of these indicators is expected to lower the cost of doing business or raising productivity, thereby boosting economic growth.

THE DOING BUSINESS APPROACH

The prime example for the comprehensive approach to regulatory and policy reform is the World Bank’s annual *Doing Business* survey, first published in 2003. *Doing Business* seeks to measure regulatory quality and efficiency across the entire spectrum of the business environment. It focuses on ten principal indicators:

- Starting a business (Procedures, time, cost and paid-in minimum capital to start a business);
- Dealing with construction permits (Procedures, time and cost to complete all formalities to build a warehouse);
- Getting electricity (Procedures, time and cost to get connected to the electrical grid);
- Getting credit (Movable collateral laws and credit information systems);
- Transferring property (Procedures, time and cost to transfer a property);
- Protecting minority investors (Minority shareholders’ rights in related-party transactions and in corporate governance);
- Paying taxes (Payments, time and total tax rate for a firm to comply with all tax regulations);
- Trading across borders (Time and cost to export the product of comparative advantage and import auto parts—recently changed);

- Enforcing contracts (Time and cost to resolve a commercial dispute);
- Resolving insolvency (Time, cost, outcome and recovery rate for a commercial insolvency and strength of the legal framework for insolvency).

In addition, *Doing Business* has also introduced several additional indicators:

- Quality of building regulation and its implementation;
- Reliability of electricity supply, transparency of tariffs and price of electricity;
- Quality of the land administration system;
- Quality of judicial processes.

The development of the *Doing Business* indicators has responded to criticism of some aspects of the original approach, both from within the World Bank by the Independent Evaluation Group (2008), and outside (*A Review of Doing Business*, 2013).

For each one of the *Doing Business* components, key metrics are obtained through a stylized case study. These case studies estimate such items as the cost and time to business for regulatory compliance in the commercial capital of each country. These measures are then used to rank some 189 countries. These rankings therefore incorporate primarily the first type of business environment impacts, related to regulatory compliance. The scores for each of the nine indicators are then summarized into an overall measure that determines the ranking of the business environment.

The *Doing Business* approach has had considerable success in the development field. Governments vie for gaining better rankings. Since most of them are trying to improve their scores, and the ranking is relative, these assessments certainly have contributed to better regulatory quality all around, at least with respect to the costs of regulatory compliance. However, it remains difficult to link these improvements to increased competitiveness beyond reductions in the cost of doing business. The introduction of such measures as the “Distance to frontier” measure (how the country compares the best in class) represents an attempt to offer a less variable standard for evaluation.

EXTENSIONS OF THE DOING BUSINESS APPROACH: AGCLIR

In an attempt to provide more depth to the *Doing Business* (DB) appraisals, USAID has sponsored the development and application of the **BizCLIR** approach. Using the original DB indicators, the BizCLIR appraisals explored in some detail further aspects of the measures used. The approach explored four dimensions:

- *Legal Framework (or Black Letter Law)*: How closely do existing laws reflect international best practices? How well do they respond to the realities of the country’s economic indicators? Do embedded incentive structures track with economic objectives?
- *Implementing Institutions*: How well do implementers and enforcers carry out their duties in terms of efficiency, transparency, and predictability? Do institutional behaviors create barriers to participation and predictability?
- *Supporting Institutions*: How deeply rooted in civil society are the laws and institutions that govern commercial pursuits? Do the many needed individual components of the system exist, and if so, do they work together efficiently?
- *Social Dynamics*: How well does the legal system respond to users’ evolving needs? How receptive to change are the key stakeholders? What forces or factors govern the pace and direction of change in the system?

The original BizCLIR methods were subsequently expanded to cover specific topics, such as GenderCLIR, MicroCLIR, or AgCLIR. The latter involves the application of the basic approach to agriculture. It still follows the *Doing Business* categories, but has introduced additional categories. For example the January 2015 AgCLIR report for Liberia, prepared under the Enabling Agricultural Trade (EAT) project, covers the following topics:

- Starting a business (DB)
- Dealing with licenses (DB)
- Integrating gender (additional)
- Registering property (DB)
- Competing fairly (additional)
- Employing workers (DB, but no longer reported)
- Accessing marketing infrastructure (additional)
- Paying taxes (DB)
- Protecting investors (DB)
- Trading across borders (DB)
- Enforcing contracts (DB)

This AgCLIR application does not address issues of Getting electricity, Getting credit and Resolving insolvency. Certainly the first two matter in most agricultural environments. For example, the issue of Getting electricity has often hampered agricultural investments in remote areas, and access to credit typically tops the list of issues for producers, processors, traders and investors involved (or interested in) in critical value chains.

The AgCLIR assessments offer solid qualitative insights in major policy issues affecting agriculture. However, the restriction to the *Doing Business* indicators often means that features specific to agriculture are treated in a more general fashion. For example, the Liberia AgCLIR report¹⁰ notes that:

“... Missing from the sector is a range of goods and services that producers, processors, and traders need, such as

- Accessible, reliable suppliers of seed, fertilizer, and crop protection products.
- Live young animals; animal feed and medicines; supplies for raising livestock; veterinary services; safe and clean slaughterhouses.
- Dry storage and packaging supplies.
- Cold storage and cold transport.
- Seed cleaners and grain mills.
- Coffee cleaning and coca fermentation stations.
- Warehouses, butchers and bakeries.” (p. 8)

These gaps in the value chains (or agribusiness) clearly have policy implications. These issues, however, do not fit well into the expanded *Doing Business* schematic.

14. January 2015.

THE AGRIBUSINESS REGULATION AND INSTITUTIONS (AGRI) INDEX

To address the specific issues facing agriculture, or rather agribusiness, USAID's EAT project developed an alternative approach to looking at policy problems affecting investors in that sector¹¹. The Agribusiness Regulation and Institutions (AGRI) index compares countries along seven major sets of issues:

- Trading agricultural goods;
- Obtaining seed;
- Obtaining fertilizer;
- Accessing rural land;
- Accessing finance;
- Starting and operating a farm;
- Enabling contract farming.

The corresponding data were collected for eight FTF countries (Bangladesh, Ghana, Kenya, Mali, Nepal, Senegal, Uganda and Zambia), and two comparator countries (Netherlands and Thailand). The AGRI index is not proposed to rank countries, but instead to compare them on different dimensions.

The overall findings are likely to sound familiar to anyone acquainted with the issues affecting agriculture in developing countries:

1. Complex and unpredictable regulatory requirements increase costs and reduce incentives for agribusinesses to become legitimate, competitive enterprises.
2. Poorly delineated legal authority and lack of coordination between agencies creates [sic] uncertainty and increases the compliance burden for agribusinesses.
3. Implementing institutions lack capacity to enforce regulatory requirements.
4. Absence of a functioning legal and regulatory framework may lower the time and cost of operating an agribusiness in the short run, but creates operational uncertainty in the long run. (pp. 3-4.)

The results on each one of the data dimensions are used to rank countries by individual component; however, there does not appear to be an attempt to summarize the scores across these different dimensions to “rank” countries overall. The principal use of the AGRI index or rather indices appears to be to identify particular gaps and thereby highlight priorities. That approach is similar to the underlying hypothesis of *Doing Business*. The focus on agribusiness abstracts to some extent from the value chain approach to building competitiveness, inclusiveness and resilience. While many of the conclusions obviously apply to targeted value chains, the issues identified in the AgCLIR assessments, such as lack of cold storage and cold transport, may matter only to some of the key value chains (as does the lack of facilities for coffee and coca).

THE WORLD BANK'S ENABLING THE BUSINESS OF AGRICULTURE

Partly in response to these insights, the World Bank has recently launched a pilot project that applies the top-down approach to the agricultural sector. The project seeks to develop a common framework for the assessment of the business environment for agriculture across countries¹². The World Bank has followed up the

15. EAT, Agribusiness Regulation and Institutions (AGRI) index. USAID, January 2015.

Washington, DC, 2015

original progress report, published in 2015, with another version that was just published.¹³ It is interesting to track the development of the approach chosen for this *Enabling the Business of Agriculture (EBA)*. The original progress report (2015) covered the following dimensions:

- Registering agricultural land
- Accessing financial services
- Strengthening seed systems
- Improving fertilizer supply
- Transporting agricultural goods
- Selling agricultural goods

The authors indicated their intention to broaden the coverage of this approach to measuring the business environment for agriculture by adding the following topics:

- Contracting agricultural production
- Electrifying rural areas
- Connecting farmers to information

The topic of “contracting agricultural production” deals in part with the important issues of value chain organization and management. However, the issue of access to water does not (yet) appear on the list of major topics defining the business environment.

The new report presents a more sophisticated approach to the comparison of regulatory regimes for agricultural activities. This approach is summarized in table 3.

The EBA approach is characterized by major efforts to ensure reliable data collection in the 40 countries the report covers. The results of the analysis are not summarized in a ranking. Instead, a color scheme is used to describe the performance of each country according to the six sets of criteria shown in the first column in **Error! Reference source not found.** The results are summarized in table 4.

In table 4, Colombia, Denmark, Greece, Poland and Spain score above average for all six criteria.¹⁴ Burkina Faso, Burundi, Ghana, Myanmar and Niger score below average on all topics. While the ratings serve primarily to flag areas for concern, it would appear difficult to set priorities for policy and regulatory reform when all areas demand action.

Washington, DC, 2016

Table 3: The structure of the EBA indicators

	OPERATIONS	QUALITY CONTROL	TRADE	
SEED	Seed registration (0-100) Seed development and certification (0-100)			SEED SCORE (0-100)
FERTILIZER	Fertilizer registration (0-100)	Fertilizer quality control (0-100)	Fertilizer import requirements (0-100)	FERTILIZER SCORE (0-100)
MACHINERY	Tractor dealer requirements (0-100)	Tractor standards and safety (0-100)	Tractor import requirements (0-100)	MACHINERY SCORE (0-100)
FINANCE	Microfinance institutions (0-100) Credit unions (0-100) Agent banking (0-100) E-money (0-100) Warehouse receipts (0-100)			FINANCE SCORE (0-100)
MARKETS	Production and sales (0-100)	Plant protection (0-100)		MARKETS SCORE (0-100)
TRANSPORT	Truck licenses (0-100)		Cross-border transportation (0-100)	TRANSPORT SCORE (0-100)
	OPERATIONS SCORE (0-100)	QUALITY CONTROL SCORE (0-100)	TRADE SCORE (0-100)	

Source: EBA 2016, p. xii

Table 4: Performance of countries by criterion, EBA 2016

COUNTRY	 SEED	 FERTILIZER	 MACHINERY	 FINANCE	 MARKETS	 TRANSPORT
BANGLADESH	●	●	●	●	●	●
BOLIVIA	●	●	●	●	●	●
BOSNIA AND HERZEGOVINA	●	●	●	●	●	●
BURKINA FASO	●	●	●	●	●	●
BURUNDI	●	●	●	●	●	●
CAMBODIA	●	●	●	●	●	●
CHILE	●	●	●	N/A	●	●
COLOMBIA	●	●	●	●	●	●
CÔTE D'IVOIRE	●	●	●	●	●	●
DENMARK	●	●	●	N/A	●	●
ETHIOPIA	●	●	●	●	●	●
GEORGIA	●	●	●	●	●	●
GHANA	●	●	●	●	●	●
GREECE	●	●	●	N/A	●	●
GUATEMALA	●	●	●	●	●	●
JORDAN	●	●	●	●	●	●
KENYA	●	●	●	●	●	●
KYRGYZ REPUBLIC	●	●	●	●	●	●
LAO PDR	●	●	●	●	●	●
MALI	●	●	●	●	●	●
MOROCCO	●	●	●	●	●	●
MOZAMBIQUE	●	●	●	●	●	●
MYANMAR	●	●	●	●	●	●
NEPAL	●	●	●	●	●	●
NICARAGUA	●	●	●	●	●	●
NIGER	●	●	●	●	●	●
PHILIPPINES	●	●	●	●	●	●
POLAND	●	●	●	N/A	●	●
RUSSIAN FEDERATION	●	●	●	N/A	●	●
RWANDA	●	●	●	●	●	●
SPAIN	●	●	●	N/A	●	●
SRI LANKA	●	●	●	●	●	●
SUDAN	●	●	●	●	●	●
TAJIKISTAN	●	●	●	●	●	●
TANZANIA	●	●	●	●	●	●
TURKEY	●	●	●	●	●	●
UGANDA	●	●	●	●	●	●
UKRAINE	●	●	●	●	●	●
VIETNAM	●	●	●	●	●	●
ZAMBIA	●	●	●	●	●	●

● Top performing countries, defined as those with topic scores above 85, indicating a high number of good practices in place as measured by EBA.
 ● Countries with a score above the sample average in a particular topic.
 ● Countries with a score below the sample average in a particular topic.
 ● Countries with topic scores below 30, indicating a low number of good practices.

High-income countries—Chile, Denmark, Greece, Poland, Russian Federation and Spain— are not measured under EBA finance indicators (see *Topic Data Notes* in appendix B).

ASSESSING THE ECONOMIC IMPACTS OF COMPREHENSIVE REFORMS

Given the widely accepted premise that better regulation contributes to better economic performance and growth, there have been several attempts to quantify these relationships. In general, at the aggregate level, there is a significant association between measures of regulatory quality or the pace of regulatory reform and selected measures of economic performance, such as the overall growth rate. However, the aggregate nature of the measures used complicates the task of tracing the causal linkages. Improving regulatory quality and efficiency appears to contribute to faster growth, but linking better regulation to faster growth requires a step back to look at these relationships in a disaggregate context.

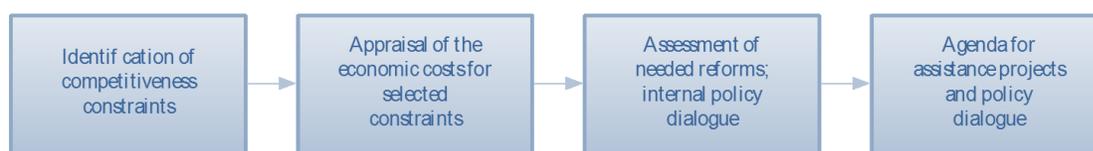
The diagnostics discussed in this section provide important insights into the policy and regulatory regime governing the economy and in particular agriculture. However, they generally offer limited guidance with respect to setting priorities for reforms. The example of the poorly performing countries in the World Bank's EBA 2016 raises the question: Where should reforms start? The argument that better regulation is good for growth is persuasive, but predicting what reform action will bring what results becomes difficult. The difficulty of directly assessing the economic gains from a specific business environment may provide few incentives to launching effective reforms. Priorities arising from international comparisons may not meet the needs of key value chains.

LOOKING AT THE BUSINESS ENVIRONMENT THROUGH A VALUE CHAIN LENS: CIBER

An alternative to the top-down comprehensive approach to regulatory reform is the “bottom-up” option of looking at the policy constraints from the perspective of the value chain. This approach looks at the existing regulatory regime to identify and rate constraints and gaps according to their impact on value chain productivity, competitiveness, and investment. Improvements in the business environment had always been part of designing and implementing a competitiveness strategy for a targeted value chain.

This constraint-driven approach to identify needed and impactful policy and regulatory reforms, and design appropriate responses in effect reverses the logic of the investigation as originally sketched in **Error! Reference source not found.** The constraints-driven analytical and action framework, shown in **Error! Reference source not found.**, approaches the problem from a value chain competitiveness perspective. It involves identifying major or binding business environment constraints on productivity and investment. Estimating their total economic cost in terms of productivity losses or income foregone provides a measure of the potential gains from business environment reforms. The analysis then uses that information to assess the needed reforms (and their feasibility), which in turn defines the agenda for the assistance projects or policy dialogue initiatives aimed at improving the competitiveness of and encouraging investment in the targeted value chains.

Figure 1: Constraints-driven policy appraisal and reform design



Reversing the flow of the analysis makes it easier to explore the effects of specific regulations or administrative practices on the competitiveness of value chains, as well as its inclusiveness and resilience. In order to develop the constraints-driven approach to business environment reforms, USAID has sponsored the development of a detailed framework for identifying value-chain specific constraints and gaps in the policy regime.

The new approach built on that background to forge a flexible instrument to set priorities for business environment reforms according to their payoff in terms of improved competitiveness, productivity and investment for the particular value chain. The CIBER (Competitiveness Impacts of Business Environment Reforms) process focuses on binding constraints on competitiveness in the target value chains. Rather than aiming at an exhaustive treatment of the entire systems of rules and procedures, it seeks to identify and assess specific obstacles and barriers as a result of constraints and omissions in the enabling environment.

CIBER is a process bringing together value chain stakeholders and analysts. The process starts out with a diagnostic to answer the question: What are the elements of the business environment that undermine efforts to enhance the performance of the value chain? The main input comes from value chain stakeholders, including farmers, processors, and traders. They identify a list of major constraints on competitive performance. Some of these may not qualify as business environment constraints, and the analyst team needs to control that process. In fact, it is often necessary for the analysts to complete the list of constraints, since some of them may not be apparent to value chain stakeholders.

Once the major “candidate constraints” and gaps have been identified, a first triage ranks the items according to a series of criteria, summarized in a Strategic Decision Matrix (SDM); these criteria include the following (although they may need to be adopted to the specific situation):

- Expected impact and risk
- Simplicity of action required
- Concentration of institutional responsibility
- Immediacy of impact
- Strength of advocacy
- Strength of opposition
- Resources required for implementation of reforms

To keep data requirements to a minimum, the process relies on analysts’ perceptions, expressed on a (Likert) scale of 1 to 7 (an approach CIBER borrows from the survey conducted for the *Global Competitiveness Report*). The rankings are subject to stakeholder validation. The result of this triage is a small set of (binding) business environment constraints.

The initial ranking is validated by value chain stakeholders. The diagnostic then shifts to estimating the costs associated with the top-ranked constraints. The economic analysis goes beyond the costs and disincentives of regulatory compliance to estimate the gains foregone because of these constraints and gaps. The approach is to define a credible counterfactual: What would be the total productivity of the value chain if the constraints were removed or gaps addressed? The difference between the possible and the actual defines the price tag for the constraints and gaps in terms of lost competitiveness. The techniques used for that appraisal are relevant in the current context, even without an explicit CIBER process. The basic approach is to simulate the performance of the value chain under current conditions and compare it to a simulation for the case in which the constraints are lifted. In the case of agricultural value chains, farm or enterprise budgets can serve as the core of these simulations.

Based on the findings of the economic appraisal of the total costs associated with each of the top-ranked constraints, the competitiveness gains foregone, reform priorities emerge. Once again, the results of the analysis are validated by value chain stakeholders, who then participate in an advocacy campaign that reflects findings

from a more detailed application of the SDM. The particular features of this advocacy campaign depend on the situation on the ground.

CIBER has been applied in a number of countries to a broad range of value chains. Its original development focused on cashew nuts in Brazil, where weaknesses in tax reimbursements put producers at risk. Other applications include the swine value chain in Cambodia, tourism in Tanzania, or horticulture in Palestine. In Zimbabwe, not known for effective policy dialogue between the private and public sector, a USAID project embraced CIBER as the core of its approach, dealing with cotton, poultry, grains, and livestock value chains. The regulatory reform component of USAID's ACED (Agricultural Competitiveness and Enterprise Development) relied on CIBER for developing priorities for business environment reforms. In fact, Moldova integrated the CIBER approach into the country's regulatory reform strategy as a "methodology for the analysis of regulatory constraints on the competitiveness of value chains." The regulatory reform strategy calls for a CIBER-type appraisal of a number of value chains for each year.

Two main lessons of these applications stand out. First, close cooperation with private sector representatives or associations is essential. In the case of Zimbabwe, the CIBER process involved significant interaction with relevant private sector institutions (partly because direct contact with the government was not permitted). As a result of the work on livestock value chains, the powerful meat and livestock association accepted the principal findings, and used them in their own discussions with the government. The author of several of these studies was then placed as a permanent adviser to the association.

The second lesson concerns the quality of the economic appraisal of lifting binding constraints and filling gaps. The scenario must be realistic and convincing to both value chain stakeholders and government officials. In one application, the economic appraisal used untenable assumptions. As a result, the findings were pretty much rejected, and the policy dialogue came to nothing. Sound economic analysis in estimating the price tag of constraints and gaps is critical.

TRACING THE IMPACT: ADOPTION OF INNOVATION ASPECTS

Two major challenges in simulating the performance of agricultural value chains in response to changes in the business environment relate to the problems of (a) outlining a realistic scenario for the adoption of specific reforms, and (b) the pattern of responses by value chain participants. As noted above, the adoption of business environment reforms represents an innovation for policy makers and bureaucrats. That aspect alone provides justification for the comparative appraisal of elements of the business environment discussed above. If "everyone is doing it," adoption of innovations becomes easier. In designing project interventions and evaluations, these processes should be explicitly considered.

At the second level, improvements in the business environment create new opportunities for farmers. Taking advantage of these new opportunities in effect also requires innovation. Adoption of innovation has long been a preoccupation of agricultural policy makers and researchers. In fact, one of the first systematic studies of the diffusion of innovation examined the adoption of hybrid corn in Iowa. That study stressed the importance of communication, especially the respective roles of mass media and farmer-to-farmer interaction. Much of the literature since has continued to focus on communication, probably to the detriment of business environment factors that enable farmers to carry out the actions needed for adoption.

ANNEX 2: MEASUREMENT CHALLENGES IN EX ANTE AND EX POST POLICY EVALUATION

A DEARTH OF INFORMATION

While there is ample reason to believe that reforms in the business environment are likely to raise productivity in targeted value chains and encourage investment, it remains difficult to predict the impacts of specific actions. Even in the case of CIBER, the economic analysis needs to make assumptions about the pace of innovation adoption to arrive at reasonable estimates of the costs or gains foregone. To promote evidence-based policy design and implementation as part of a value chain competitiveness strategy requires efforts to build the evidence. In particular, the major challenge for improving the knowledge base for ex ante policy evaluation concerns better data collection in ex post evaluations.

So far, information remains limited, although there have been significant efforts to develop a comprehensive database of project results. The 2011 review of the results of some 240 value chain projects by Weidemann Associates found that 47 percent of these projects had a policy component.¹⁵ Of the 28 completed projects that involved a policy component, total project costs were reported to be USD 274 million, generating farm income increases of USD 1,089 million, for a 397 percent return on investment.¹⁶ These figures compare to the total project cost for 35 projects without a policy component of USD 428 million vs. an impact of USD 677 million, for a return on investment of 158 percent. The reliability of these estimates is questionable.

It is unclear whether these results would hold for all projects in each group or whether there may be an upward bias. In any case, the authors of the review themselves raise questions whether the difference is in fact attributable to the presence of a policy component:

Moldova had four projects with policy activities ..., and Honduras had five projects ... Although the “income” impact was similar (\$84 million in value added for Moldova and \$84 million in total farm income plus estimated increase in value added for Honduras) Moldova’s beneficiaries were ten times those reported by Honduras. Was this due to the Moldova projects policy components?” (p. 23)

The results seem to suggest that the inclusion of a policy component somehow raises the return on project investments. However, without further comparison of the features of these projects, it may be difficult to attribute the observed difference in the return on investment simply on the presence of the policy itself.

¹⁵ Weidemann Associates, *Agribusiness and agriculture value chain assessment*. Final Report. USAID, April 2011.

¹⁶ The report refers to it as “total farm income without project,” which may either reflect some nomenclature in the database, or may be a misinterpretation of the impact. One would expect that the impact of project interventions measures the *increase* in farm income over the (estimated) total without the project, in other words, the induced change in farm incomes. Both the small sample and the interpretation of the numbers render these observations less than informative.

EVALUATION APPROACHES

THE “GOLD STANDARD”—RANDOMIZED TRIAL OR EXPERIMENT

The standard approach to assessing the effects of some form of treatment would involve some form of randomized trial or experiment, currently a major preoccupation among development researchers. Under such an approach, value chains in different regions would be assigned randomly to one of two or more groups defined by different business environments. Their performance could then be attributed to different features of the regulatory and policy framework. However, while there have been a series of advances in experimental design applied to development problems, the nature of the business environment basically rules out this gold standard approach. At the national level, the legal and regulatory framework apply to all.

Even so, serious thought should be given to experimental or quasi-experimental design options in offering different types of business environment features for a particular value chain across regions. In the case of Ukraine, at some point, some regional (Oblast) administrations introduced their own rules that did not always correspond to the national standards. These variations might offer an opportunity to tease out the impact of particular features of the business environment. In the case of project interventions elsewhere, it may be possible to vary one or more elements of the business environment across regions. For example, efforts to control quality of seeds and other inputs involves a number of features that could vary across communities involved in the value chains. Deliberate variation, by assigning some communities to (a) treatment group(s) and letting others serve as a control group, may provide the data for comparing effects of any changes. For example, administrators in certain localities may receive special training, or a one-stop shop may be launched. Such approaches can offer new insights into the efficacy of particular interventions, or better information on the opportunity costs, the losses because of a lack of such efforts. To be sure, it will be difficult to maintain purity of design, since participants in a value chain or local administrators communicate with others, which may result in spillover effects, contaminating the design.

MEASURING CHANGE OVER TIME

A similar approach involves the option of pre and post measurement, or some form of interrupted time series approach. That tends to be the standard approach, as reflected in the impact estimates obtained by comparing actual to “without project” metrics. The main problem with this option is the effect of other factors that influence the outcome, both within the project or from the outside. That in turn makes it difficult to attribute any observed differences to the various interventions under the policy component.

DIRECT SURVEYS OF THE VALUE CHAIN STAKEHOLDERS

The notion of asking the target population regarding their perceptions of how any changes in the business environment have affected their livelihoods poses both conceptual and practical problems. While consultations with value chain stakeholders are critical in the analysis (and represent a key element of the CIBER process), asking the target population to estimate the effects of project interventions (that they are probably not very familiar with) is unlikely to generate much insight. In addition, as the discussion of process of innovation adoption above shows, the effects may take time and may in fact materialize long after the project is over.

BENCHMARKING AND COUNTERFACTUALS

The remaining option is one that stresses comparison to reference cases. In other words, the analyst uses a comparable case as a counterfactual. For example, in a very early application of the CIBER process, the analysis adapted a model of a pig operations developed for the Netherlands to reflect the situation in the Cambodian swine value chain by modifying the parameters of the model appropriately. The “gap” between the more productive Dutch and the current Cambodian situation was then used to estimate the impact of changes in key elements of the business environment, such as the availability of better feed or improved veterinary care

to test the sensitivity of the performance of a “standard” pig operation. Unfortunately, the definition or selection of a reference case is often subject to considerable uncertainty: they may differ in important aspects, so the value chain studied may never approach that performance. In these cases, the reference case may be “artificial” in terms of simply setting a higher standard for productivity.

The basic reference case approach seeks to simulate the performance of a typical farm in the respective value chain under two conditions, for current policies and under improved regulations. In agriculture, a commonly used model of agricultural operations are the farm budgets for particular value chains and commodities, as discussed further below. These budgets detail the cost of production and the yield and revenue per acre or hectare, and both production costs and revenue are affected by elements of the business environment. Comparing current performance with prospective net revenues under better regulations allows for a direct estimation of the likely cost of weaknesses in the current business environment.

In the case of the economic analysis for CIBER, this approach has been further refined, in particular for agricultural crops, using a simulation model. The simulation model reflects the farm budget for the particular commodity. In the US, most land grant colleges publish detailed farm budgets to assist farmers in tracking their costs and gross margins. Similarly, such farm budgets or gross margin models have also been developed for agriculture in developing and transition countries.

Comparing the cost to revenues provides a measure of the net income that can be derived from the cultivation of a particular crop. Using this farm simulation model for the assessment of weaknesses in the environment involves linking costs and revenues, including the relationships between inputs and yields, to elements of the business environment. That step requires careful economic analysis. For example, if farmers are ignorant of product standards, we think they would tend to produce subpar commodities which in turn lowers the price they can obtain in the market.

AGENT-BASED MODELING TO SIMULATE VALUE CHAIN RESPONSE TO CHANGES IN THE BUSINESS ENVIRONMENT

To our knowledge, there has not been an application of agent-based modeling (ABM, or agent-based computational economics—ACE) to the ex-ante evaluation of components aimed at reforming the policy or regulatory environment for targeted value chains.¹⁷ This approach allows for a significant decomposition of the elements of innovation adoption both at the level of policy makers and value chain stakeholders.¹⁸ Decomposition makes it easier to determine the processes of learning and application that are involved in translating policy-type interventions into value chain productivity and competitiveness.

The main element of the ABM approach is the recognition that average responses may not capture the actual process. In both policy making and response to new opportunities by value chain participants, people are unlikely to respond in an “average” way. Allowing for heterogeneity in these responses as determined by, say, attitudes towards risk, may help understand the process and the likely outcomes better.

¹⁷ It appears that ABM applications to agriculture have focused primarily on ecological questions. See: Steven F. Railsback and Volker Grimm, *Agent-based on individual-based modeling. A practical introduction*. Princeton and Oxford, 2012. incidentally, a number of economists believe that traditional equilibrium-oriented analysis techniques may not capture the proper characteristics of crises, such as the financial meltdown of 2008-2009, and that ABM approaches may introduce the needed flexibility in both micro and macroeconomic analysis.

¹⁸ See Douglas W. Hubbard, *How to measure anything. Finding the value “intangibles” in business*. (3rd edition) Hoboken, NJ, 2014 for the value and process of decomposition of business processes.

The ABM approach would simply simulate the performance of policy makers on the one hand and value chain participants on the other. It would be possible to simulate the behavior of producers, processors, traders and investors to explore the possible outcomes. Other agents that might be included in the simulation would be the bureaucrats tasked with implementing any reforms. At the level of value chain behavior, for specific commodity chains, farm budgets may provide the needed guidance. We know that individual farms do not necessarily follow the averages reported in a typical farm budget. Sometimes that is recognized by dividing these budgets according to the farm management processes used—traditional, semi-advanced, and industrial, for example. ABM could handle these differences across an even wider range of differences. It would also allow for the influence of other farmers on the decisions of each.

There is a certain paradox with respect to the role of policy and regulatory factors as part of a development strategy for targeted value chains aimed at greater competitiveness, inclusiveness, resilience, improved incomes, and other measures of progress. At one level, there is almost universal consensus that policy and regulations matter in shaping the performance of agricultural value chains. What is missing, though, is a clear understanding of what business environment reforms yield the highest benefits. That makes it difficult to set priorities, especially in situations where policy performance lags behind on all dimensions.

Reversing the logic of the analysis to focus first on binding constraints in the business environment and then determining a strategy for lifting or mitigating them offers one approach where the link appears clear. However, even in this process, the economic analysis of the benefits of reform requires assumptions about the pattern of adoption of the reforms and the responses by the value chain participants that are not necessarily evidence-based, since the evidence base is so thin.

Improving the methods of ex post policy evaluation may provide more knowledge and better guidance to future efforts to design and implement value chain development strategies. It may be possible to introduce some form of quasi-experimental designs. As the discussion above notes, the business environment normally should be pretty much the same for all elements of the value chain in a given environment. However, we know that different interpretations and different administrative practices can result in significant disparities regarding the effective business environment. For example, subnational applications of *Doing Business* have shown that the business environment varies considerably across regions or cities of the same country. In a given situation, it would appear advisable to give more thought to options along these lines.

Second, the potential of agent-based modeling so far appears to have been underused in ex ante policy evaluations. This may not be the place to launch a full-throated endorsement of this technique, but exploring the implications of fairly simple decision rules for policy makers, bureaucrats, and value chain participants in reaction to elements of the business environment may guide future designs for both implementation and evaluation. The features of ABM should allow for better treatment of heterogeneous responses to reform efforts and implemented reforms.

ANNEX 3: SUMMARY TABLES OF FEED THE FUTURE INVESTMENTS

Country	Cambodia	Project name	HARVEST
Value chain	Rice, aquaculture, horticulture	Timeframe	2010-2015
Implementer(s)	Fintrac		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - Agricultural extension services are informal, ad hoc and supply-driven, meaning farmers are getting out-of-date information that is not necessarily relevant to market opportunities. This limits their access to relevant technology. - There is a general lack of an enabling legal, business and regulatory framework for agriculture and natural resource management. In particular, corruption and lack of regulatory enforcement limits investment. (FTF Value Chain Constraints Matrix). 			
Description of policy initiative(s) implemented by project			
<ul style="list-style-type: none"> - HARVEST supported an in-depth consultation process that led to the drafting and adoption of an agriculture extension policy and guidelines, which passed in 2015. The policy covers a wide range of issues related to extension: demand-driven extension; support to extension training institutions; technology packaging and learning; extension methods and approaches. (Agricultural Extension Policy in Cambodia, 2015) The regulations are intended to help farmers access improved technology through government and non-government extension programs (Annual Report. 2015. p.11). - HARVEST has also supported drafting national legislation to “standardize the process by which government agencies inspect and regulate seed, ultimately leading to an improvement in seed quality.” Other specific regulations include assigning seed quality inspectors as police, determining fees for seed certification, and procedures for ensuring quality of crop varieties and seeds. (Annual Report. 2015. p.11). - However, according to the mid-term evaluation (2013) the sustainability of HARVEST’s policy reform and enabling environment accomplishments is an open question. There appears to have been little sustained leadership from key government offices. - “At a national level HARVEST may have built capacity through the provision of assistance in the preparation of various pieces of agronomic and environmental legislation, but the implied capacity development remains abstract unless it is accompanied by capacity to implement the legislation and policies that have been developed. Other HARVEST inputs at a national level are similarly constrained. The delivery of training courses, feasibility studies and environmental inventories are more realistically defined as service provision than as capacity development.” (Mid-term Evaluation. 2013. p.48). 			
Quantifiable evidence of increased private sector investment in the value chain			
<ul style="list-style-type: none"> - According to the 2015 annual report, \$8,802,137 in new private sector investment in the food chain was leveraged by FTF implementation (Annual Report. 2015. p. A16). - Details are not provided for how this leveraged investment was calculated, or whether any proportion of the increased investment can realistically be attributed to policy initiatives. 			

Country	Ethiopia	Project name	Agricultural Growth Program – Live-stock Market Development (AGP-LMD) Project
Value chain	Dairy and Livestock	Timeframe	2012-2017
Implementer(s)	CNFA		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - Ethiopian exports of live cattle and shoaat carcasses are solidly competitive in the regional market, but they are unlikely to increase unless costly regulatory barriers are reduced and incentives are created to shift animal export from informal to formal export channels (Mid-term evaluation. 2015. P5). - The government does not regulate informal export channels (FTF Value Chain Constraints Matrix). 			

<p>Description of policy initiative(s) implemented by project</p> <ul style="list-style-type: none"> - AGP-LMD has helped to develop regional Livestock Working Groups (LWGs) to bring together government, NGOs, business interests, and producers to discuss practical issues and problems impacting the livestock sector and recommend solutions. Multi-stakeholder Platforms (MSPs) will consider the recommendations and outputs of these groups (Mid-term evaluation. 2015. p. 13). - AGP-LMD has provided technical and policy training to value chain actors, including training on policy formulation (Mid-term evaluation. 2015. p. 11). - AGP-LMD is supporting national-level efforts to pilot the Livestock Identification and Traceability System (LITS), and providing technical assistance surrounding issues related to livestock and livestock product exports (Mid-term evaluation. 2015. p. 13).
<p>Quantifiable evidence of increased private sector investment in the value chain</p> <ul style="list-style-type: none"> - The project is processing grants totaling more than \$6 million to leverage private investment, and has successfully helped nine borrowers obtain \$2.2 million in financing (Mid-term evaluation. 2015. P7) - The value of new private investment in the livestock sector or food chain leveraged by the project implementation through December 2015 is \$3,188,747 (Mid-term evaluation. 2015). - The mid-term evaluation does not explicitly discuss whether this increased investment is likely to stem from policy related interventions.

Country	Ethiopia	Project name	Agricultural Growth Program-Agri-business and Market Development (AGP-AMDe)
Value chain	Chickpeas, coffee, honey, maize, sesame and wheat	Timeframe	2011 - 2016
Implementer(s)	ACDI/VOCA		

<p>Description of policy constraint(s) addressed by project</p> <ul style="list-style-type: none"> - Restrictive government policies inhibit international finance (being unclear on the status of foreign equity firms). Policies also keep foreign investors away from lending to horticulture by making it very difficult to lease equipment, because of unclear regulation on domestic investments. (FTF Value Chain Constraints Matrix). - While not explicitly stated in the documents reviewed, quarterly reports imply that price policies are distortionary and that they affect export potential and import substitution potential. Additionally, there is an export ban on maize, which the project has been advocating for the removal of, in the case of commercial farmers. (Quarterly Report. Jan-March 2015. p.90). - Cooperatives are disadvantaged by regulation and logistics, such as pre-set wages for workers who load and unload trucks, which in turn forces cooperatives to source from certain markets. Cooperatives also are constrained in how they can use trucks, as they are banned from renting spare capacity to outsiders, which means they often run below capacity and this affects profitability of the transportation business. (Quarterly Report. Jan-March 2015. p.91). - Policy barriers also restrict the introduction of new seed varieties by private sector seed companies (Quarterly Report. Jan-March 2015. p.92).
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<p>Description of policy initiative(s) implemented by project</p> <ul style="list-style-type: none"> - “The goal of the enabling environment component is to increase competitiveness through the following actions: increased private sector participation; reduction of output market distortions; improved access to agricultural finance and promotion of investments; increased efficiencies in transportation and logistics; strengthen the institutional structure for policy review and implementation; and greater public and private sector engagement in relevant value chain policy reviews.” (Life of Project Report 2011-2016. p.106). - The project has addressed the constraints posed by price policies (and responded to government requests for analysis and policy recommendations) by developing policy papers and presenting them at the <i>Agricultural Price Policy in the Context of Rapid Growth in Ethiopia Forum</i> (Quarterly Report. Jan-March 2015. p.90). - AGP-AMDe plans to undertake a “study tour” for the Ministry of Agriculture to Bangladesh and Vietnam to see international best practice for improving the enabling environment for the private seed sector (Quarterly Report. Jan-March 2015. p.90).

<ul style="list-style-type: none"> - AGP-AMDe worked with the Ethiopian Commodities Exchange (ECX) to divest warehouse operations and support the growth of third party warehousing and grading services in addition to those of ECX. This included organizing a study tour to South Africa and Colombia to learn about international warehouse best practices. Based on lessons learned, a committee comprised of Ministry of Trade and ECX staff developed a regulation to establish a new Warehouse Public Enterprise, which the Council of Ministers subsequently passed (Quarterly Report. Jan-March 2015. p.92). - For a summary of key results, see Life of Project Report 2011 2016. p.107)
<p>Quantifiable evidence of increased private sector investment in the value chain</p> <ul style="list-style-type: none"> - Based on the Q2 – FY2016 quarterly report, AGP-AMDe has leveraged \$30,034,425 in new private sector investment as of December 2015 (p.6). - Reports do not explicitly tie this increased private sector investment to policy related initiatives, and rather attribute it to grants programs designed to stimulate innovation and investment. However, AGP-AMDe worked on a policy with ECX (see above), which made substantial investments (though still matched by the project) in warehouses totaling about \$1.4 million to-date (see chart detailing partner investments on page 94 of the January-March 2015 Quarterly Report), which may be logically associated with the specific policy initiative on warehouse divestment.

Country	Ethiopia	Project name	PRIME
Value chain	Livestock, Fodder, Dairy	Timeframe	2012-2017
Implementer(s)	Mercy Corps + consortium		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - Lack of market information on prices for livestock - Inadequate understanding of livestock trade policies and regulations and weak relationships between producers, traders and the government weaken the market (FY15 annual report, p.45). 			
Description of policy initiative(s) implemented by project			
<ul style="list-style-type: none"> - PRIME, in collaboration with AGP-LMD has provided support to the Ethiopian Ministry of Trade in Implementing and Developing the National Livestock Information System (NLMIS). This system was designed to provide timely access to market information on price and volume of livestock sales at 47 monitored markets. PRIME/AGP-LMD have helped train and compensate enumerators, and transition the NLMIS from the Ethiopian Meat and Dairy Industry Development Institute (EMDIDI) to the Ministry of Trade. (FY15 annual report, p.44-45) - PRIME also developed a joint initiative with the Ethiopian Veterinary Association to introduce a pilot Sanitary Mandate Scheme and contractual arrangements to improve veterinary services delivery in rural areas through public private partnership (FY15 annual report, p.43). 			
Quantifiable evidence of increased private sector investment in the value chain			
<ul style="list-style-type: none"> - Taken from the mid-term evaluation report, PRIME has stimulated \$10,316,978 in new private sector investment in the agricultural sector or food chain leveraged by FTF implementation: (page 16). - This investment appears to be mainly a result of the Innovation Investment Fund, a matching grant mechanism whereby 30% of the investment cost is provided by PRIME, and the other 70% is provided by private investors (although the evaluation team noted that they may be counting business assets as part of the investment, which may be misleading). 			

Country	Ghana	Project name	Agricultural Development and Value Chain Enhancement Feed the Future Activity (ADVANCE II)
Value chain	maize, rice and soybean	Timeframe	2014-2018
Implementer(s)	ACDI/VOCA		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - Road governance is highlighted as a particular constraint affecting the given value chains. The main issues are disparities in axle load policy between Ghana and neighboring countries, penalty charges for overstay of transit goods, and police harassment and extortions (Annual Report. 2015. p.33) 			

<p>Description of policy initiative(s) implemented by project</p> <ul style="list-style-type: none"> - The project is working to strengthen the advocacy capacity of value chain actors, and in particular has seconded a policy specialist to support the Ghana Grain Council (GGC), to play an active policy and advocacy role for the grains sector in Ghana. GGC is a private sector member organization comprised of a wide range of value chain actors, including farmers, that is developing an enabling environment for grain trade including warehouse certification, rules and regulations – with the ultimate aim of setting up a functioning Warehouse Receipt System. (Annual Report. 2014. p.21). - ADVANCE has also provided grants to the GGC to support them to influence policies through advocacy on major issues that limit the efficiency of the grains sector (Annual Report. 2015. p.30) - ADVANCE has facilitated Agricultural Policy Events (Farmer Forums) across their zone of influence. The main objective is to bring together various actors to discuss ways of working together to present a strong front and effectively advocate for an improved agricultural business environment. - Road governance: ADVANCE mobilized two representatives of the regional branch of Ghana Private Road Transport Union to attend a forum in Tamale to deliberate on transportation barriers to West African regional economic integration, including informal road barriers, road harassment, and excessive delays by the police and other stakeholders (Annual Report. 2015. p.33) - ADVANCE is supporting metropolitan, municipal, and district assemblies to tackle constraints that inhibit investments in agribusinesses in their districts, by assisting MMDAs to document and market the agricultural potentials of their districts to local and international investors. ADVANCE signed MOUs with 14 districts to develop District Agricultural Investment Plans (Annual Report. 2015. p.39).
<p>Quantifiable evidence of increased private sector investment in the value chain</p> <ul style="list-style-type: none"> - In total, \$1,033,466 of capital investments were made by project beneficiaries during FY15 (Annual Report. 2015. p.1). - The report does not specify where these capital investments came from, however they are largely attributed to investment incentive grants and improved access to finance (Annual Report. 2015. p.11).

Country	Ghana	Project name	Agriculture Policy Support Project
Value chain	n/a – policy focused	Timeframe	2014-2018
Implementer(s)	Chemonics		
<p>Description of policy constraint(s) addressed by project</p> <ul style="list-style-type: none"> - The APS Project’s high-level theory of change is to improve the enabling environment for private sector investment to increase competitiveness of key value chains. - While project documents naming specific policy constraints were not publically available, the list below gives a sense of the types of policies that APSP is supporting the revision and writing of at various ministries: (1) the Seeds Regulations, (2) National Quarantine Pest List, (3) National Seed Development Plan, (4) Animal Production and Animal Bills, (5) Fertilizer Subsidy, (6) Agriculture Extension Policy, and (7) Plants and Fertilizer Act 803 			
<p>Description of policy initiative(s) implemented by project</p> <ul style="list-style-type: none"> - Support planning functions of key ministries (agriculture in particular) by training staff so they have the tools, capacity, and mechanisms to design, analyze, implement and evaluate agricultural policies. Also helping to reduce duplication of reporting commitments to free up staff time for more high value activities. - Developed training modules for enhancing capacity of government ministries - Trained public officers in policy development, planning, implementation, frameworks, etc. - Conducted research studies on key policy topics in agriculture (extension in particular) - Implemented policy dialogues at district level - Training journalists to report on policy issues 			
<p>Quantifiable evidence of increased private sector investment in the value chain</p> <ul style="list-style-type: none"> - Because of how this project frames its theory of change (and Intermediate Results), there are no indicators related to increased investment in the project documents. The project only goes as far as getting policy drafted and implemented, and doesn’t look at what the impacts are of policies that are successfully changed or influenced. 			

Country	Honduras	Project name	USAID-ACCESO
Value chain	High value cash crops and off-farm micro enterprises	Timeframe	2011-2015
Implementer(s)	Fintrac		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - USAID-ACCESO addressed 37 constraints that have resulted in increased access to credit among lenders and to final end users. They have streamlined processes for registration and legalization, and standardized some production practices. Below is a sample of a few of the 'resolved constraints' taken from the final report: <ul style="list-style-type: none"> o "Legalization process for MSMEs. o Simplification of export permit processes to regional markets of agriculture products. o Reform of the operational guidelines of the Trust Fund for Farmers' Credit Access. o Normative evaluation and classification of the loan portfolio issued by the National Banking and Insurance Commission (via policy measures to expand credit service to farmers). o Streamlined process for registration of poultry farms engaged in production of meat and eggs." <p>(Final Report, p.52)</p>			
Description of policy initiative(s) implemented by project			
<ul style="list-style-type: none"> - USAID-ACCESO built in depth relationships with key national stakeholders (from the Ministry of Food and Agriculture up to the president) that enabled it to support some significant policy reforms such as the creation of a Country Investment Plan for the agriculture sector. This plan created the space for the World Bank and a suite of other donors and investors to enter into key corridors of the country. - The program regulated an agricultural guarantee fund to facilitate access to credit for MSMEs, and supported policy measures to expand credit services to farmers.(Final Report, p.53) 			
Quantifiable evidence of increased private sector investment in the value chain			
<ul style="list-style-type: none"> - The two following results were reported in the executive summary of the final report for USAID-ACCESO. Neither is clearly linked to the policy changes mentioned elsewhere in the report. - "As a result of project activities that eliminate barriers to rural MSME competitiveness and access to financing, 8,656 MSMEs accessed market-based financing, including \$16.877 million in agricultural and rural loans; and 13,955 MSMEs began implementing sound business management practices. Thirty-seven value chain/sector constraints were identified and resolved and six policy reforms, regulations, or administrative procedures were passed." (Final report p.4) - "Private sector investment in fixed assets was \$22.711 million, with 26,911 farmers, small agribusinesses, and off-farm MSMEs applying new technologies or management practices." (Final report p.3) 			

Country	Kenya	Project name	Resilience and Economic Growth in the Arid Lands–Accelerated Growth (REGAL-AG)
Value chain	Livestock	Timeframe	2011-2016
Implementer(s)	ACDI/VOCA		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - The quarterly reports do not explicitly describe policy constraints. However, they appear to relate to community land use and tenure issues that affect pastoralists, as well as taxation along a key livestock transportation corridor. These two issues were identified for drafting policy briefs following a multi-stakeholder meeting to identify policy constraints affecting the livestock sector. (Quarterly Report, QIV- FY2013, p.6) 			
Description of policy initiative(s) implemented by project			
<ul style="list-style-type: none"> - REGAL-AG is working to address land use and land tenure policies by encouraging the participation of community-based groups in policy and advocacy efforts. The project facilitated community based advocacy training for participants from partner community-based groups (Quarterly Reports, QI FY 2014 and QIV FY 2013) - The project supported Community Advocacy Champions to conduct village level meetings, which led to the signing of a petition lobbying County Assembly representatives to support community inclusion in land tenure, land 			

<p>use and environmental conservation and protection through county-based legislation. The petition will form the basis for development of policy paper by the livestock sector working group before tabling in Marsabit County for discussion and passing into county laws in FY2014 (Quarterly Report. QIV 2013. p.1)</p> <ul style="list-style-type: none"> - Policy briefs (one on taxation along a livestock transportation corridor, and another on community-based land tenure, land use and environmental taxation are used to guide discussions with stakeholders and partners, and for policy lobbying and advocacy purposes (Quarterly Report. QIV 2013. p.6).
<p>Quantifiable evidence of increased private sector investment in the value chain</p> <ul style="list-style-type: none"> - The most recent quarterly reports found on DEC and the ACDI/VOCA REGAL-AG Profile do not discuss quantifiable evidence of increased private sector investment in the value chain. The project has supported investor conferences hosted by local governments, but no mention is made of what contribution this may have led to in private sector investment.

Country	Liberia	Project name	Food and Enterprise Development (FED)
Value chain	Rice, Cassava	Timeframe	2011-2016
Implementer(s)	DAI		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - A rice import tariff impedes the competitiveness of the local rice sector. - Some specific policies being targeted by FED include: “long-term policy incentives such as tax holidays, 25-percent local procurement requirement to spur investment, and import licensing regimes.” (FY14 annual report, p.66) - “The missing elements are a lack of market and processing infrastructure, weak research and extension capacity, and limited producer/industry organization” (Policy Sequencing Assessment for Liberia’s Rice Value Chain, p.21) 			
Description of policy initiative(s) implemented by project			
<ul style="list-style-type: none"> - USAID FED team met with ministries of agriculture, commerce/industry, finance and development planning to support policy reforms related to the business enabling environment. Specific reforms included “the implementation of ECOWAS Seed, Pesticide and Fertilizer regulations, progress on renewing EO#64, and tax incentives for small scale farmers.” (Q3 report, p.52). It remains unclear from the Q3 report the extent to which these discussions will lead to any concrete policy changes. - USAID FED also convenes multiple policy/regulatory related working groups (seed, fertilizer, pesticide) and has hired experts to draft policy guidelines (for example on ‘domesticating’ the ECOWAS seed policy so it makes sense for Liberia). 			
Quantifiable evidence of increased private sector investment in the value chain			
<ul style="list-style-type: none"> - “FED leveraged private sector resources in expanding production, improving productivity, and increasing processing and storage capacity. More than US\$1.4 million were generated from the private sector as investment in different segments of the value chain, resulting in increases in processing capacity and storage capacity” (FY14 annual report, pg.8) 			

Country	Mali	Project name	Integrated Initiatives for Economic Growth in Mali (IICEM)
Value chain	Cereals, etc.	Timeframe	2007-2012
Implementer(s)	Abt + consortium		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - Trade barriers include transportation regulations, and export and regional tariffs. - IICEM drafted two policy papers that demonstrated the importance of eliminating trade barriers in order to address issues of food insecurity. - Regional regulations regarding the free movement of cereals between countries are not consistently applied across Mali. 			

<ul style="list-style-type: none"> - Mali will need to ensure that UEMOA and ECOWAS provisions are adhered to in order to serve as a regional “breadbasket” (Final Report. 2014. p.28)
<p>Description of policy initiative(s) implemented by project</p> <ul style="list-style-type: none"> - IICEM created a cereals advocacy committee, which has worked on a variety of policy issues; including streamlining the process for transporters to meet ECOWAS standards and documentation requirements. - “Through lobbying, advocacy and information dissemination to target value chain operators, IICEM helped improve the fluidity and efficiency of trade in cereals for the rice, millet and sorghum destined for both domestic and sub-regional markets “ <p>(Final Report. 2014. p.27-29)</p>
<p>Quantifiable evidence of increased private sector investment in the value chain</p> <ul style="list-style-type: none"> - “More than \$9 million in additional financing from the private sector was leveraged through IICEM’s strategic investment funds... In each investment, the enterprise contributed 25% of the total project cost and IICEM funds provided an additional 25%. Loans from banking institutions, primarily the BNDA, comprised the remaining 50% of the project cost, with each loan application supported by the project. More than \$8.8 million was invested in 12 projects over the course of the project, including two millet/sorghum processors, three cereal distributors and three rice processing mills.” <p>(Final Report. 2014. p.34)</p>

Country	Rwanda	Project name	Rwanda Dairy Competitiveness Program II (RDCPII)
Value chain	Dairy	Timeframe	2012-2017
Implementer(s)	Land o Lakes		
<p>Description of policy constraint(s) addressed by project</p> <ul style="list-style-type: none"> - In the mid-term evaluation of the DCP II program, policy reform does not show up anywhere in the theory of change (results framework). 			
<p>Description of policy initiative(s) implemented by project</p> <ul style="list-style-type: none"> - “On the policy side, RDCPII supports the industry to positively influence policy reforms and the business enabling environment in the dairy sector. The project was instrumental in facilitating policy dialogue to attract the private sector, and supported the development of the National Dairy Strategy. Also through a partnership with the Private Sector Federation (the sole private sector umbrella organization), the project supported a restructuring and establishment of an inclusive advocacy forum which include all dairy actors grouped in different clusters.” (Mid-term evaluation, p.44) - “3 Policies / regulations / administrative procedures currently in development. These include the National Dairy Strategy in process of validation, the National Milk certification plan and launch of Rwanda National Dairy Platform in restructuring process under Private Sector Federation umbrella.” <p>(Mid-term evaluation, p.45)</p>			
<p>Quantifiable evidence of increased private sector investment in the value chain</p> <ul style="list-style-type: none"> - The mid-term evaluation reported that RDCPII had facilitated \$1,038,437 of new private sector investment in the dairy sector against a target of \$4,000,000. - The report does not clarify the mechanisms by which this investment was supported, or the nature of the investment. As such, there are no clear links between the policy work of the project and this outcome. 			

Country	Senegal	Project name	Economic Growth Project (PCE)
Value chain	Rice, maize, millet	Timeframe	2009-2014
Implementer(s)	Engility (IRG)		
<p>Description of policy constraint(s) addressed by project</p> <ul style="list-style-type: none"> - Component 2 of this project is “enhanced policy environment” and the areas of policies mentioned in the mid-term evaluation are agricultural development, financing rural areas and land reform. - Poor/absence of agricultural data for ministry planning is one of the implied policy constraints that can be inferred from the mid-term evaluation. 			

<ul style="list-style-type: none"> - When it comes to land reform, the mid-term evaluation cites these aims of policy work in this realm: “(i)reconciling traditional land rights with legacy colonial law and Muslim law; (ii) providing an incentive for investment and economic development in rural areas; (iii) helping advance decentralization; and (iv) improving women’s access to land” (Mid-term evaluation, p.8)
<p>Description of policy initiative(s) implemented by project</p> <ul style="list-style-type: none"> - PCE helped the agricultural statistical agency in Senegal to improve the efficiency of its national agricultural survey data through technical assistance – tools and equipment and training and organizational support. This has decreased the number of staff at the agency required to do the work, and also expanded the scope of the household survey. (Mid-term evaluation, p.8) - “Other project initiatives for this component include the following: - Initiation of seed policy reform to support ISRA in producing adequate foundation seed on time and in adequate quantities for seed growers, through the establishment of a seed production unit. - Assessment of the government fertilizer subsidy program. - Assistance to the Ministry of Agriculture to produce the first update report on the implementation of LOASP (expected on a yearly basis), covering the 2004–2010 period. - Support to the Ministry of Agriculture in revising the country’s investment program (PNIA), a government plan for directing investment in agriculture.” <p>(Mid-term evaluation, pg 23)</p>
<p>Quantifiable evidence of increased private sector investment in the value chain</p> <ul style="list-style-type: none"> - The evidence of private sector investment comes from the tables at the end of the mid-term evaluation, which do not explain how the numbers are calculated. The simply give aggregate figures, which fall under “IR 3: Increased private sector investment in agriculture and nutrition related activities” (mid-term evaluation, pp.88-89) - Number of private-public partnerships: 25 as of FY11 - Value of new private sector investment in agriculture sector or food chain: \$1.7 million as of FY 11 - Number of business-to-business partnerships developed: 1,292 as of FY11

Country	Tanzania	Project name	NAFAKA
Value chain	Rice and Maize	Timeframe	2011-2016
Implementer(s)	ACDI/VOCA		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - The annual report describes a policy environment that discourages private sector investment, such as allowing large volumes of duty-free rice imports, leading to dramatic and persistent declines in prices (Annual Performance Report. 2014. p.35) and presenting a serious obstacle to attracting investment in the sub-sector. - Exporters have difficulties securing export permits, leading to demand for Tanzanian Maize in other East African Countries being met through largely illegal cross-border trade (Annual Performance Report. 2014. p.2) - There is limited and/or inaccessible data on which to base sound policy decisions 			
Description of policy initiative(s) implemented by project			
<ul style="list-style-type: none"> - NAFKA is facilitating the development of the Rice Council of Tanzania (RCT), which represents various stakeholder groups and emphasizes strong private sector involvement (NAFAKA supports salaries of the Executive Director and Rice Partnership Coordinator) - The policy related objectives of RCT are to represent the interests of private sector stakeholders in the rice sector to the Government of Tanzania and to cooperate in policy development. - RCT is supporting the government in preparing for negotiations with the East Africa Community on import/export tariffs. (Annual Performance Report. 2014. p.2) - NAFKA provides advocacy training to farmers associations to equip them with knowledge, information and skills to voice concerns and communicate needs to various stakeholders (Annual Performance Report. 2014. p.20) 			
Quantifiable evidence of increased private sector investment in the value chain			
<ul style="list-style-type: none"> - NAFKA has facilitated \$2.4 million dollars in private sector investment since project inception (Annual Performance Report. 2014. p.48). - The Annual Report does not detail how this increased investment is calculated, or which initiatives it can be attributed to. However, it does describe the issues with tariffs and pricing being a strong disincentive to investment. 			

Country	Tanzania	Project name	SERA
Value chain	Cross-cutting – Policy-Focused	Timeframe	2011-2016
Implementer(s)	Booz Allen Hamilton		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - “The requirement of the MAFC that traders obtain export and import permits from the GOT before undertaking trade” (Quarterly Report Year 5, Quarter 2, page 6) - “The ad hoc approach of GOT to emergency food imports that can disrupt markets and are vulnerable to rent seeking.” (Quarterly Report Year 5, Quarter 2, page 6) - 			
Description of policy initiative(s) implemented by project			
<ul style="list-style-type: none"> - “The proposal for a Transparent Rules-Based System for Emergency Food Imports, first proposed by SERA to the GOT in 2012, has gained strong support within the Government and will be the main policy activity of SERA to Expand Markets and Trade during the remainder of the project” (Quarterly Report Year 5, Quarter 2, page 6). More specifically, the project plans to <u>draft operational guidelines and training materials to support the design and implementation of a Transparent Rules-Based System for Emergency Food Imports.</u> - 			
Quantifiable evidence of increased private sector investment in the value chain			
<ul style="list-style-type: none"> - SERA frames its results predominantly in terms of the number of policies it manages to support through different stages of the policy development process (analysis->consultation/debate->drafting/revision->approval->full and effective implementation). Interestingly, as of Year 5, Quarter 2, no policies had reached the final stage (full and effective implementation). Some of this can be attributed to the change in government and restructuring of key ministries related to agriculture and livestock. - The closest indicator to increased private sector investment is the “Value of exports of targeted agricultural commodities as a result of USG assistance.” which was reported to be ~\$35million for maize and \$38.4million for rice. This appear to just be an estimate of the magnitude of the market however, not any sort of new investment that the project claims any attribution (via policy change) for. 			

Country	Uganda	Project name	Feed the Future Agricultural Inputs Activity
Value chain	Inputs	Timeframe	2013-2018
Implementer(s)	TetraTech ARD		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - The biggest policy constraint addressed by the project is the lack of effective regulation of the counterfeit agricultural inputs. This policy constraint was given major weight in the strategic assessment of the project in 2015, and going forward will be increasingly one of the major foci for strategy. - Other policy constraints include weak certification systems for seed. 			
Description of policy initiative(s) implemented by project			
<ul style="list-style-type: none"> - The project developed an anti-counterfeit hotline managed by subcontractor Transparency International Uganda. - The Agricultural Inputs Activity is supporting e-verification service providers to offer their services to input suppliers. - In addition, the project organized an exchange visit to learn about seed certification in Southern Africa (Annual Report. 2015. p.iii) 			
Quantifiable evidence of increased private sector investment in the value chain			
<ul style="list-style-type: none"> - Direct support to firms in the inputs sector is being pursued in parallel to the policy/regulatory activities of the project. With that in mind, the project in its 2015 Annual Report stated that “Investments by private sector businesses rose from \$14,986 in Y2 to \$41,195 in Y3. We expect this figure to increase even more once the e-Verification system is fully functional.” (Annual Report. 2015. p.2) 			

Country	Zambia	Project name	Production, Finance and Improved Technology Plus (PROFIT+)
Value chain	Groundnuts and legumes	Timeframe	2010-2015
Implementer(s)	ACDI/VOCA		
Description of policy constraint(s) addressed by project			
<ul style="list-style-type: none"> - Documents reviewed (high-level informational forms and PPT presentations) did not provide any details on specific policy constraints addressed by the project. - One of the program areas is the following: “Enabling environment (analysis and advocacy to improve agricultural policy and support for implementation of a Comprehensive Africa Agriculture Development Programme Country Investment Plan).” However, additional details are not provided (Impact Evaluation of Gender and Groundnut Value Chains. 2015. p.2) 			
Description of policy initiative(s) implemented by project			
<ul style="list-style-type: none"> - PROFIT+ helped to establish PPPs with input companies, although documents do not provide specific details on the activity, or whether it was designed to address specific policy constraints. - “The project works actively with Ministry of Agriculture and Livestock (MAL) extension departments to transfer knowledge to extension agents and coordinate the further roll-out of extension training to community agro-dealers (CAD) to ensure proper transfer of agronomic practices through project demonstrations. This activity builds the capacity of MAL and creates strong linkages between CADs, communities, and the government. PROFIT+ also works closely with the Zambian National Farmers Union (ZNFU) to ensure that CADs and surrounding farmers are increasingly utilizing the benefits of LIMA and other ZNFU credit schemes. Additionally, the project’s partnership with the Zambian Agriculture Research Institute (ZARI) facilitates the use of new technologies such as Aflasafe and improved seed varieties. All project activities that are carried out in collaboration with government partners are designed to support key PPPs and ensure closer ties between stakeholders in rural areas” (Annual Performance Report. 2015. p.4). 			
Quantifiable evidence of increased private sector investment in the value chain			
<ul style="list-style-type: none"> - Eight PPPs with leading input companies and commodity traders/processors have established new supply chains. Increased market opportunities in rural areas led to an estimated \$3.9 million in private sector investment in 2015 (Annual Performance Report. 2015. p.6). - The PPPs are supporting timely access to quality inputs by farmers at reasonable prices, leading to increased production and food security (USAID. 2015. Food and Nutrition Security Presentation: Role of Donors to foster pro-poor horticultural value chains development. p.6) 			

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