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## **The case for industrial policy and its application in the Ethiopian cut flower sector**

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## Abstract

The floriculture industry has been one of the most spectacular growth successes in Ethiopia. It has been driven by a dynamic mixture of government action, foreign investment, and local entrepreneurship. We build the case for the use of innovative industrial policy regimes to support processes of structural transformation in low income countries. Further to this, we demonstrate how a complex array of state institutions helped support private-sector engagement and success in floriculture. However this success in floriculture has been erratic, and at times, very costly. Using a mixed methods approach, we trace past and present bottlenecks in the evolution of the sector. In particular we show that the regulatory framework facing the sector needs continuous reform in order to meet the requirements at each specific stage of growth. Moreover, the sector faces an increasingly challenging external environment in international markets and will need substantial levels of government support in the medium and future term, in particular to access new markets, and to defend and expand market share in existing ones. High labour turnover, driven mostly by the lure of labour migration to the Middle East, shortage of land for expansion around Addis Ababa, and the unpredictability of the regulatory environment, all remain challenges for this sector. We assess the severity of each major bottleneck for future growth and performance of the flower sector, and propose ways to alleviate them. We recommend that the government strives to make sector regulation more transparent, predictable and responsive, and that support in marketing and market research is raised to a higher level. For firms in the sector, we recommend strengthening the dialogue with the labour force and to improve working conditions in order to retain workers, which we believe could be achieved without significant reduction in profitability given the extremely low share of wages in total production costs.

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The views and opinions expressed herein are those of the authors and do not necessarily reflect the positions of the Ethiopian Development Research Institute (EDRI).

## 1. Introduction

In the face of widespread poverty and growing inequality, the question of how to ignite and sustain broad-based economic growth remains a key preoccupation for countries around the world. The failure of neoliberal structural adjustment programs to achieve their stated goal, namely the acceleration of growth experienced in developing countries to allow their income levels to converge towards those of rich countries, has sparked a renewed interest in the role politics and policy play in driving – or hindering – growth. Industrial policy, that is both indirect and direct, state action aimed at fostering growth and accelerating structural transformation, is firmly back on the policy agenda in an increasing number of countries. Not surprisingly, debates about the appropriate role of the state, its direct or indirect involvement in the economy and the ‘correct’ depth and width of industrial policy show no signs of abating.

These debates operate on two levels. On the theoretical level they concentrate on cases for or against various types of industrial policy regimes, encompassing not only economic, but also institutional and structural arrangements and effects. On the empirical level, scholars have either sought to identify policy-related patterns of cause and effect from large numbers of cross-country regressions, or have focused on historical case studies of particular countries or regions. These debates have expanded our understanding of the benefits and dangers of industrial policy making, and subsequently have helped widen the ‘policy space’ open to the governments of developing countries. What the debates so often lack though, are thorough studies of industrial policy regimes currently being executed in developing countries. Cross-country regressions tend to be ineffective at identifying particular policies or institutional arrangements as they trade depth for breadth of coverage, whereas case studies are often focused on the successful cases of development in the (recent) past, with less emphasis on what is happening now in low income countries. The literature on industrial policy has been very good at generating principles for policy design, but in many cases has not applied these to concrete cases.

We hope to help address this gap by carefully analysing the recent history and current development of industrial policy, as well as the underlying institutional arrangements with respect to the Ethiopian cut flower sector, one of the most spectacular and recent successes of agro-business creation in a low income country. While our analysis builds on the existing empirical literature on the Ethiopian cut flower sector, it takes a different approach by focusing explicitly on the institutional framework in which industrial policy for the sector was designed and implemented. It draws out the evolution and idiosyncrasies of this framework, and demonstrates how it needs to develop further. In this, we draw on the latest available farm-level data from a comprehensive sector survey conducted in 2013, and add to this new qualitative data from in-depth interviews across the sector.

This paper then has three aims: First, to review the debates around selective industrial policy in low income countries in order to position the Ethiopian government’s take on industrial policy, and further to extract broad principles for contemporary policy design. Second, to review the actual industrial policy measures taken in the Ethiopian cut flowers sector, and to analyse the growth and development of the institutional framework set up to deliver these policies. Finally, to evaluate the policy measures taken and to make recommendations for the improvement of the policy regime, so that it better supports the future growth of the sector. We conclude that while industrial policy has driven the success of the sector thus far, it is unlikely to continue to do so, unless it moves from relying on individuals’ action and ad hoc coordination, to a policymaking process and supporting institutional framework that incorporate key principles of successful policy making into their blueprints and actions.



The rest of the paper is structured as follows. Section 2 reviews the debate around industrial policy, presenting the theoretical arguments for selective industrial policy and draws out practical principles for policy making from the relevant literature. Section 3 describes our methodology in reviewing and evaluating the policy regime in the Ethiopian cut flowers sector. Section 4 presents a historical and empirical overview of the cut flowers sector. Section 5 analyses industrial policy in the sector, in particular examining the institutional actors that implement, are affected by, or contest such policies. Section 6 presents the challenges currently facing the flower sector, and Section 7 concludes with recommendations for improving the policy regime.

## 2. The industrial policy debate

The requirement of some form of industrial policy is increasingly accepted by development economists and policy-makers alike. While the old Washington Consensus, built on an extreme interpretation of neoclassical economics, envisioned a minimal role of government along the lines of the ‘night watchman state’, which confines itself to providing a functioning legal framework and indisputable public goods such as defence, the practical experience of rapid and sustained growth in the newly-industrialized countries (NICs), particularly in East Asia, highlighted the weaknesses of this approach. In contrast to the neoclassical view, which neglected structural change and emphasized static allocative efficiency<sup>1</sup> as a means of capital accumulation, detailed case studies showed how the governments of countries such as South Korea (Amsden 2001) and Taiwan (Wade 2004) had actively intervened over decades to bring about the structural transformation of their economies. What emerged from these studies was a view of the government “governing the market” (Wade 2004), through a coalition of an efficient state bureaucracy with a flourishing capitalist class, engaged mostly in production. The aim of such interventions, against the neoliberal dogmas of the time, was to manipulate the relative price structure of the economy in a way that was conducive to industrial upgrading; a feat that market mechanisms alone did not seem capable of. Amsden has famously called this “getting the prices wrong” (2001).

The debate has since largely shifted from disagreements about the principle of government intervention to arguments about what constitutes the appropriate level and depth of such interventions. Industrial policy is usually divided into two fields of application: horizontal policies, which affect the entire economy, and selective policies, which focus support on particular sectors. Investments in education could be seen as an example of horizontal policies, while providing export incentives for particular goods is an example of selective policy<sup>2</sup>. Debates are increasingly centred on whether government intervention should be limited to horizontal policies that largely leave relative prices in the economy unaltered, or whether industrial policy should purposefully change the prevailing price structure and defy conventional ideas about comparative advantage.

Economists who make the case for defying comparative advantage, stress the historical experiences of infant industry promotion and trade restrictions of today’s rich countries (Chang 2002), the unquantifiable nature of pervasive externalities (Rodrik 2004) or the need for the accumulation of technological capabilities and knowledge more broadly (Cimoli et al 2009). They maintain that states must, at minimum, actively manipulate comparative advantage if they hope to upgrade their industries and catch up with advanced economies. While there are great differences between these approaches, they all share a commitment to selective industrial policies. This position is further supported by in-depth historical case

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<sup>1</sup> Taken at face value this requires the presence of ‘undistorted’ relative prices to guide individual decision making and ‘getting the prices right’ means minimizing the economic role of government and ensuring free trade.

<sup>2</sup> As Chang (2012) argues, this classification scheme is slightly misleading, as all policies involve some measures of targeting. So, while useful for ordering the debates around industrial policy, the horizontal-selective dichotomy becomes less clear when looking at actual policies pursued by developing countries.

studies, such as those by Amsden (2001) and Wade (2004) which showed how different governments employed highly selective policies to bring about the rapid structural transformation of their economies.

### **2.1. Comparative advantage and horizontal industrial policy**

Adherents of the idea that industrial policy should be restricted to horizontal dimensions either argue that governments should follow their respective comparative advantage as the fastest way of accumulating capital (Lin, in Lin & Chang 2009), or they purport to show that there is no theoretical or empirical evidence for the effectiveness of selective industrial policy. As a full review of the literature is beyond the scope of this paper, we will take the much-cited paper by Pack and Saggi (2006) as an example of those who emphasize the lack of evidence. Even the strongest defenders of selective industrial policy will readily admit that it is almost impossible to conclusively prove that the growth performance of any one country was the direct result of any particular set of policies (Wade 2003). While there are a great number of case studies making connections between policy regimes and growth outcomes in a variety of countries, none of these can be considered hard and fast proof. An obvious problem is the lack of historical counterfactuals, i.e. that we do not know what would have happened if a particular country had not implemented selective industrial policies. The situation is further complicated by the fact that the experience of any given country is often taken to show the success of selective policies by supporters of this view, only to be used by their critics to illustrate how government policies confirmed to comparative advantage and therefore do not constitute selective industrial policies (e.g. Lin & Chang 2009 on South Korea). Pack and Saggi (2006), who are against selective policy regimes, say that the empirical evidence alone can be interpreted in both ways and will alone not resolve the argument. Contrary to this we argue with Wade (2003) that the idea that the NICs would have grown even faster in the absence of selective policies stretches credulity. Moreover, it seems clear that there are almost no countries that grew rich without selective industrial policies of one kind or another (Chang 2002).

Pack and Saggi (2006) in a recent review of the evidence, try to evaluate the theoretical models underlying some of the arguments for selective industrial policy. They state that all arguments for such policies are based on the notion of market failure, and identify three particular areas where markets fail, namely knowledge spillovers and dynamic scale economies, coordination failures, and informational externalities. While these form the basis of argument for many who advocate for selective policies, we see below that many heterodox arguments do not in fact base themselves on market failures. Pack and Saggi (2006) also allow for the more general argument of infant industry protection. The conventional infant industry protection argument hinges on the notion that newly-established firms must be given time to become competitive at world market prices, which requires intervention from the government to take protective measures, in order to shield such companies from competition until they reach sufficient scale.

Pack and Saggi (2006) cite Baldwin's 1969 contention that having a weak industrial base does not mean that you must have government intervention. They argue that if it were the case that protection now produces lower costs at firm level later on, then capital markets should be willing to finance the learning period of the firm, so there is no role for government. If however, capital markets do not extend finance because the risk of not achieving lower costs in the future is too great, then this is just the operation of a well-functioning market, and does not constitute an instance of market failure. Pack and Saggi (2006), who wrote before the financial crisis, generously concede that financial markets may be 'incomplete', which may constrain the finances of a firm, however, they see this as an argument for strengthening the banking sector and not for protective measures. Leaving aside the glaring problem of assuming that financial markets are 'rational', their argument lacks any

explanation as to how or why a deeper financial sector will bring about an increase in productive capital investment, rather than, for instance, an increase in speculation and volatile short term capital flows and therefore financial fragility<sup>3</sup>. Even worse, showing how it may be rational for a financial sector not to cover a firm's learning costs due to excessive risk (not to mention uncertainty), completely misses the point. While it may satisfy the theoretician that such an outcome is in line with neoclassical welfare theorems, narrowly understood, any concerned government must be quick to point out that the result is then, no investment at all in the sector in question.

The policy advice that comes out Pack and Saggi's (2006) approach boils down to shunning targeted industrial policies, as governments may inadvertently end up steering the economy towards sectors in which the economy has no comparative advantage. They make no attempt however to link comparative advantage to the structural transformation of the economy and actually do concede that comparative advantage, while being "the most powerful concept in economics", is only concerned with static comparisons. The challenge of using the notion of comparative advantage to forge a theory of how countries can and should manage structural change is taken up by new structural economics, the brainchild of Justin Lin (2012), who looks to marry neoclassical economics with an appreciation of the centrality of structural transformation for economic growth in developing countries.

## 2.2. New structural economics

Like the older structural traditions, new structural economics accepts that developing countries are fundamentally different to rich economies. Unlike its structural predecessor however, new structural economics is firmly based on the precepts of the neoclassical school. Accordingly, developing countries should upgrade their industries by seeking an industrial structure that is in line with their current comparative advantage. Producing in line with current comparative advantage ensures national and international competitiveness, which maximizes returns to capital and therefore allows for the fastest possible capital accumulation.

To achieve industrial upgrading in this way, it is vital that relative prices are in line with international markets, as this alone can reveal comparative advantage, and which in turn implies an open trade policy. The comparative advantage of a country is seen as endogenously given by that country's current factor endowment, that is, it depends on the relative abundance and scarcity of the different factors of production, which in turn determine whether products can be profitably produced at prevailing world market prices. Lin calls this the 'latent' comparative advantage. This encompasses the familiar factors of land (including natural resources), labour and capital, to which Lin adds infrastructure. The latter is further subdivided into 'hard' infrastructure, such roads and airports, and 'soft' infrastructure, which means regulatory frameworks, social structures and similarly 'intangible' aspects. Countries are seen as progressing along a continuum of development from poor agrarian societies to rich highly-industrialized ones. At any given level of development, a country's optimal industrial structure is given endogenously by its factor endowment. As the country accumulates capital and skills its endowment structure begins to change and its industrial structure will gravitate towards one that is optimal for the new factor endowment.

While at all stages the market is seen as the central mechanism of resource allocation, industrial upgrading requires that infrastructure, both 'hard' and 'soft' be upgraded in lockstep with the changing factor endowment, so as to support the optimal industrial structure. As infrastructure upgrading is characterized by externalities in the form of spillover effects and coordination problems, government is called upon to fill this vital role. The

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<sup>3</sup> Suffice to point here to the growing literature examining the dangers of financial deepening (see for instance Easterly et al 2000, Cecchetti and Kharroubi 2012, IMF 2012).

acknowledgement of such market failures and the call for government intervention are a break with neoclassical orthodoxy, albeit a limited one. Further allowances for government intervention are made in education, vital to building the skill base of the economy, and also in providing finance. Governments may also be forced to compensate companies that are first movers in new industries for the knowledge spillovers they generate, as they cannot appropriate the full benefits of their knowledge discovery (see also Rodrik 2004 and below).

According to new structural economics, industrial upgrading requires government intervention, but the role of government is circumscribed to horizontal industrial policies. Under no circumstances must governments try to 'pick winners' or engage in selective industrial policy, as that would move the economy away from the ideal structure given by comparative advantage, reduce allocative efficiency, and therefore slow down capital accumulation. However, the theory fails to address path dependency and lumpiness in investment or the acquisition of new technological capabilities, all of which characterize the development of industrial systems and imply that what you make and how you make it are important. Advocates of selective industrial policy argue that governments must seek to build industries that have dynamic potential, which means that such industries have the possibility for acquiring technological capabilities to develop and increasing returns to scale.

Rather than being a brave new theory, new structural economics is better understood as another instance of the 'art of paradigm maintenance', to use Wade's phrase. In a situation where research on pervasive market failures in industrial development, and the impact of the global financial crisis have undermined faith in the core of the neoclassical canon, it represents an attempt to maintain the relevance of the said canon, even as developing countries increasingly look elsewhere for solutions to their problems. The result, however, is little more than "a new way of presenting a pro-business, low-wage strategy, grounded in neoclassical orthodoxy, and yet presenting itself as favourable to state intervention" (Fine 2013).

In practice, the 'comparative advantage' of a low-income country is the poverty of its inhabitants, which translates directly into low reservation wages, although this simple fact is rarely stated so bluntly. Quite simply, poverty, desperation and hope for a better life force workers to accept low wages. A comparative advantage approach to development emphasizes exports which are labour-intensive, such as light manufacturing products, based on primary commodities or natural resources, or both. This is nothing other than advising low-income countries to keep supplying raw materials and cheap labour to feed global production networks. Most of the value added however, is captured in the design and marketing stages of such production networks, and these stages are concentrated in the countries that are already rich (Wade 2010). New structural economics, if implemented, would slow the rate of structural transformation and rather reinforce and entrench an already unjust global division of labour.

### **2.3. Against comparative advantage: technological capabilities and selective industrial policy**

While many have welcomed Lin's focus on the role of governments in bringing about structural transformation, they would also argue that his ideas do not go far enough (see for instance the comments following chapter 1 in Lin 2012). Economists from the fringes of the neoclassical schools, as well as those from more heterodox backgrounds, tend to argue that countries must not always follow comparative advantage, which may be difficult in practice anyway, or indeed should actively defy it to achieve structural transformation. Some, like Rodrik (2004) believe that neoclassical theories are incomplete and need to be expanded, to incorporate selective government intervention. Others think that neoclassical theories are plainly wrong and best disregarded, and instead emphasize the messy process of capability acquisition and innovation to argue for infant industry protection (Cimoli et al 2009).

Schumpeterian economists point towards the shortcomings of the comparative advantage framework (Reinert 2009) or the role of the state in directly fostering innovation (Mazzucato 2011). Another line of argument shows how comparative advantage-defying policy regimes have been key to the growth of virtually all now-industrialized countries (see for instance Chang 2002). What all share however, is the belief that well-designed and carefully implemented selective industrial policies are of vital importance in the structural transformation of developing economies.

#### **2.4. Externalities**

Critics of a pure neoclassical approach point out that such models do not pay sufficient attention to the realities of industrial transformations, which generally do not take place within well-functioning markets. Rodrik, (2004) who remains close to the neoclassical tradition, bases his arguments for government intervention going beyond horizontal policies on the idea that markets may fail to deliver socially desirable outcomes due to externalities, in particular coordination externalities and informational externalities in the form of knowledge spillovers. The latter arise because the process of development involves innovation, in the sense of introducing products and services that are new to a given economy. An entrepreneur introducing a new service or product reveals knowledge about its profitability that cannot be kept from potential competitors. The non-rival (quasi-)public good nature of knowledge itself makes knowledge spillovers inevitable. The entrepreneur has faced the full costs and risks of producing that knowledge but competitors can acquire the knowledge for free. As they enter the market and bring down the first mover's profit margin, that firm is unable to recoup the full cost of producing this knowledge which reduces incentives to offer new products or services. A free market is therefore very likely to offer less innovation than is socially desirable, and there is a strong case for government to compensate first movers. Following Rodrik (2004), markets also will tend to fail when the profitability of an investment depends on concomitant investments taking place over which the initial investor has no control; that is when firms are faced with a coordination externality. In a free-market situation the investment would then simply not be made, leading to a coordination failure. These are not technically market failures in the neoclassical sense, although they are often classed under this heading in the literature (Chang 2009b). In the case of coordination failure, there is a case for government to step in and enable the investment, for instance by providing guarantees (Rodrik 2004). Floriculture is a good example, as this requires an integrated cool-chain from farm to customer, but no flower farm alone would be capable of constructing the necessary large-scale cooling sheds at an international airport.

Externalities such as these militate against an allocation of resources according to comparative advantage. An allocation according to comparative advantage can only be realized if relative prices are 'undistorted', but, in the case of the above externalities, such 'undistorted' prices would lead to far too little investment. If relative prices are distorted, then comparative advantage cannot be revealed. Moreover, in practice such externalities can be hard to locate precisely, meaning that the government will tend to have to rely on even more distortive second-best solutions to overcome them (Rodrik 2004).

While Rodrik bases his arguments on externalities and market failures, that is, on deviations from efficient markets, other theorists reject the view that industrial policy should confine itself to correcting market failures. Ul Haque (2007) for instance argues that such a view of industrial policy leads to policy prescriptions that are inappropriately "narrow, restrictive and cautious". In his view, markets are not capable of correctly evaluating the profitability of resources that do not actually exist yet, making an industrial policy regime based on comparative advantage untenable. The comparative advantage approach assumes markets are the most efficient mechanism for allocating resources. However, the inherent short-sightedness of profit-seeking private companies may in practice clash with longer term

national goals for structural transformation. UI Haque (2007) terms this “private sector failure”.

## 2.5. Technological Capabilities

Another approach to understanding industrial development identifies the accumulation of knowledge and technological capabilities as the engines of structural transformation. The challenge is then one of building policy frameworks capable of supporting such capability accumulation (Cimoli et al 2009). This has two immediate consequences. First, having an industrial structure that is in line with static comparative advantage, i.e. one that is allocatively efficient, is not the same thing as having an industrial structure that displays “dynamic” or “innovative efficiency” (Cimoli et al 2009). Sectors differ greatly in their potential for accumulating technological capabilities and knowledge. For instance, becoming a highly productive rice producer may lead to allocative efficiency in the distribution of factors of production, but also all but ensures that a country will not catch-up with the global knowledge frontier and most likely will remain poor, as rice production hold few possibilities for acquiring sophisticated technological capabilities (see comments by Stiglitz in Lin 2012). Governments, in this view, should encourage firms to develop sectors with high potential for innovation and the accumulation of technical capabilities, and invest heavily in providing the infrastructure for the acquisition and adaptation of new knowledge.

Second, a focus on learning creates a strong argument for infant industry protection. As Amsden (2001) argued, efficient domestic firms are vital to successful industrialization. To build such firms means to grow organizations capable of knowledge acquisition; of progressing from the adaptation of imported knowledge, to the production of new knowledge domestically (Cimoli et al 2009). Knowledge is often “tacit” that is embedded in people heads and in networks of people which form organizational structures such as firms. While technologies can, to a degree, be bought and adapted for local use, an important aspect of knowledge accumulation can only be produced through Arrow’s famous “learning-by-doing”.

While many acknowledge the importance of learning-by-doing, some, such as Succar (1987) and Lucas (1988) for instance, have insisted that the skills acquired through such processes should be meaningfully linked with horizontal industrial policies that aim at ‘human capital formation’. In industries where the country has comparative advantage, the scope for learning-by-doing is greater. While learning from wasteful past practises offers cost-saving advantages, the magnitude of these benefits falls significantly short of stimulating production and productivity gains that transform comparative advantages into competitive advantages. There are at least two reasons why this is the case. First, it is not immediately clear that markets offer producers sufficient access to learning opportunities to ‘self-initiate’ learning processes. For example, in many developing countries active learning of standardized technologies developed elsewhere is constrained by limited local knowledge about the significance of learning<sup>4</sup>. Second, there is a limit to gains from passive and limited learning as the learning potential declines as more and more of the product mix associated with the country’s existing comparative advantage is produced (e.g. Pack and Westphal 1986, Lucas 1988).

While market discipline may be necessary in the longer run to ensure producers are and remain efficient, firms will need to be protected from undue competition while in the early phases of learning (Cimoli et al 2009). This resonates with Amsden’s (2001) observation that manufacturing experience is a good predictor of successful industrialization, as firms engaged in manufacturing are likely to have accumulated ‘knowledge products’.

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<sup>4</sup> Abebe and Sonobe (2012), for example, empirically illustrate that there are systematic differences in willingness to learn even in conditions where pecuniary learning costs approach zero.

## 2.6. Emulation and phasing

There are large differences between the technological capabilities of different countries. In developing countries, which are far from the global technology frontier, entrepreneurship is primarily concerned with introducing goods or services that are new to the domestic economy, but not the world. Entrepreneurial firms must adapt these technologies, goods and services for local use and learn to produce and market them efficiently (Hobden and Perini 2009). Which is to say, they are emulating technologically more advanced economies and producers. Such emulation played a key role in the development of all of the now-industrialized countries (Reinert 2009). By accumulating technological capabilities, countries move from adapting foreign technologies for domestic use, via stages such as own-equipment manufacturing (OEM) to becoming innovators in their own right and engaging in own-brand manufacturing (OBM) (Cimoli et al 2009).

The appropriate industrial policy will therefore depend, not on a country's current comparative advantage, but rather on its level of accumulation of technological capabilities. In a country with few capabilities, the government must support this process of emulation through protecting industries in their learning phases. Only once such emulation has begun to close the technology gap, can countries open themselves to free trade and benefit from the competition of other innovative producers (Reinert 2009). The timing and sequencing is critical. Embracing free trade too early will damage domestic companies before they have had a chance to emulate, while maintaining protection for too long creates perverse incentives to remain non-competitive in international markets. Government should lay the foundations for such emulation, by supporting education and research, and by compelling firms to continuously improve their productivity by adapting increasingly sophisticated production technologies and techniques. This is best delivered, led and supported as a process of government-supported and led manufacturing for future comparative advantage<sup>5</sup>.

## 2.7. Rent-seeking, government capacity and corruption

Even if the need for selective industrial policy is accepted in principle, policy advice given to developing countries is often paradoxical. Low income countries tend to have weak institutional structures, which limit the ability of governments to deliver effective industrial policy. And yet, these countries are most in need of structural transformation and the innovative industrial policies this implies. Critics often argue that industrial policy, while possibly desirable in principle, should not be undertaken in poor countries, as these countries supposedly cannot be trusted to institute effective development states. The bestowed criticism generally focuses on problems of rent seeking, corruption, and the alleged lack of government capabilities. A related line of argument states that while industrial policy may have been effective in the past, changes in the global division of labour and the structure of global trade, have now rendered such policies either ineffective or illegal (DiCaprio and Gallagher 2006).

The concept of rent-seeking rose to prominence in the wake of the failure of structural adjustment policies to achieve either growth or human well-being in sub-Saharan Africa. Based on rational choice theory, the standard assumption is that rent-seeking undermines developmental efforts, and that states prone to pervasive rent-seeking should stay clear of industrial policy, except possibly of the weakest horizontal kind, as that would only create greater opportunities for rent-seeking and corruption. However, as a more subtle treatment of rent allocation will demonstrate, this view fatally misconstrues the role of rents in the process of economic development.

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<sup>5</sup> Also such activity does not end at some stage when 'development' has been achieved. Mazzucato (2011) argues that publicly-financed research, rather than just private sector innovation, has led to the development of many of the most productivity-enhancing and 'disruptive' new technologies.

As it became clear that structural adjustment policies had led to “structural adjustment without structural change” (Page 2011), the explanation was sought in the perceived lack of ‘good governance’ across the continent (Ocampo et al 2009). The failure of adjustment policies was supposed to lie not in any intrinsic problem with the policy prescriptions themselves, but rather with their weak implementation by corrupt and incompetent governments. African states as a whole were now seen as “neo-patrimonial”, a concept harking back to the Weberian concept of patrimonial leadership, as opposed to rational-legal leadership (Mkandawire 2001). Such states are apparently subject to wide-spread rent-seeking, which undercuts all efforts at achieving structural transformation by directing the energies of producers towards lobbying government for more rents. This rent seeking process necessarily entails the corruption of public officials, which not only wastes more scarce resources, but it also further undermines the capacity of government.

But, as Khan (2000, 2010) points out, rents are not simply always ‘bad’. In fact, some types of rents are essential to the growth process. Economic development necessarily involves the creation and distribution of rents. The task facing policy makers is not to eliminate all rents, but rather to separate ‘growth-retarding’ from ‘efficiency-enhancing’ rents. Governments must be able to effectively allocate the latter and to identify and discontinue the former. To ensure that rents are, and remain, efficiency enhancing, access to such rents must be conditional upon performance – Amsden’s (2001) famous reciprocal control mechanisms. Receipt of rents must be subject to fulfilling long-term development goals, such as continual improvements in productivity. Such an approach does not require huge amounts of government capacity, but it must be compatible with “the organisation and structure of political power” (Khan and Blankenburg 2009). So the question is not simply *rents* or *no rents*, but rather a question of what kinds of rents, for whom, under what conditions and for how long.

This argument can be taken one step further to argue that neo-patrimonialism can, under certain conditions, even be developmental, in other words can be supportive of structural transformation processes. Kelsall (2013) argues that what matters for development is how rent seeking and patronage relationships are organized. In a review of ten developing countries, he finds that those countries which were able to centralize rent allocation, and pursue a long-term developmental vision, meaning that rents are subject to meeting developmental goals, have far better growth performance in their economy in general than countries which fail on those points. Kelsall defines such centralized, far-sighted rent allocation as “developmental patrimonialism”, and cites Ethiopia as an example. Wade (2010) also argues that South Korea was successful, not because it was free from corruption, far from it, but rather because the corruption in South Korea took place within an environment that forced all actors to pursue their own enrichment through the long-term development of the economy.

The point here is not to argue that rent seeking and corruption are not damaging, or that there are no political risks in pursuing selective industrial policies, but simply to show that successful industrial policy making can take place in a political environment that is quite far removed from the textbook ideal cases of political scientists. After all, as Mkandawire (2001) reminds us: “Capitalist economies operate with much broader moral latitude than is often preached. A wide range of morally reprehensible behaviour can be integrated seamlessly into strategies of accumulation”.

Which leaves the important question of government capability. Considerations about rent-seeking aside, questioning the capability of a developing country government to implement selective industrial policy, assumes implicitly that industrial policy making is somehow especially difficult, or requires a particularly sophisticated understanding of modern economic theory (Chang 2012). Neither claim is backed up by any evidence, nor can it be



demonstrated that contemporary African states have institutions that are any worse than the fantastically corrupt and entirely undemocratic institutions that led the industrialization processes in European states over a century ago. It is inconsistent to argue that African states are able to pursue good governance reforms, which, if successful, would deprive powerful elites of comfortable rents, or that they can implement sophisticated macroeconomic measures to 'get the fundamentals right' (as often demanded by IFIs), but that they cannot choose which branches of industry they will need going forward (ibid).

However, this does not imply that government capacity is not important to effective industrial policy. There is broad agreement in the literature that a capable and efficient civil service is a vital ingredient for industrialization. Not only must governments be capable of laying the foundations of a learning society (Cimoli et al 2009), but they must be able to target support to sectors that have high potential for future growth and innovation. They must "shove" domestic firms up their learning curves (Wade 2010) by making support conditional on meeting targets (Chang 2010). Crucially, the government must be capable of discontinuing support when such targets are not met (Rodrik 2004). To achieve this, the structure of political governance, that is state-society relations, are of crucial importance. Evans (1995) argues that the ideal civil service should be "embedded" within a nexus of government-private sector interactions, so as to be able to guide private sector development, but needs to remain "autonomous" enough from the private sector to avoid political capture and to make decisions that support national long-term development goals, rather than narrow and short-term sectorial interests. In other words, the state must, in order to further capital accumulation, be capable of taking decisions that conflict with the interest of particular capitalists or sections of capital (Altvater 2003)<sup>6</sup>. Support schemes for companies or sectors must be open, transparent in their application, subject to constant monitoring and, when necessary, change (Altenburg 2011). This is a challenge for any government. But such capabilities within government can only be built through actually 'doing' industrial policy and learning from the inevitable mistakes that will be made along the way.

## 2.8. The international division of labour, openness and global trade regimes

In addition to worries about the complex problems of rent seeking and a (perceived?) lack of government capabilities, discussed in Section 2.7, the second main area of concern around industrial policy concerns the external environment in which contemporary developing countries operate. When for instance, the East Asian NICs began their process of industrialization, the world economy was quite a different place. Not only did these countries receive huge amounts of aid and preferable trade conditions due to the 'beauty contest'<sup>7</sup> between the rival cold war superpowers, but also their growth coincided, and was supported by, the onset of the second period of globalization, which gave these countries ready access to overseas markets for their exports. Moreover, firms in developing countries were beginning to look for new locations to site their own manufacturing plants to avoid the high wages prevalent in the richer global North (Westphal 2005). But over the last few decades the global division of labour has undergone huge shifts. While growth in the NICs was speeding up, the ladder of capabilities and the markets for final and intermediate manufactured goods became far more open, as the concentration of manufacturing firms into hard-to-penetrate, oligopolistically-controlled global production networks, was yet to happen. Nolan et al (2008) call this the "global business revolution". Furthermore, the NICs did not have to face the competition of China's huge low-wage manufacturing capacity (Weiss 2011). Lastly, many of the policy tools used by so many countries to further their own industrialization are now restricted or even banned by international trade regimes such as

<sup>6</sup> The state thereby acts as an *ideeller Gesamtkapitalist*, a notional complete capitalist.

<sup>7</sup> During the cold war both superpowers sought to expand and maintain their respective spheres of influence by buying favours in countries around the world. At the same time it was necessary for ideological reasons for both powers to demonstrate the superiority of their economic systems, by encouraging economic development in client states. Countries such as South Korea were therefore recipients of large amounts of US aid.

the WTO, but also regional and bi-lateral trade agreements (Chang 2002, Rodrik 2004, DiCaprio and Gallagher 2006, Altenburg 2011). It is therefore legitimate to ask whether selective industrial policy, no matter how desirable it may be, is actually possible in the current global environment.

There are many good reasons to believe that selective policies remain vital. First, even the more restrictive trade regimes of today still allow for substantial 'policy space' for developing countries and are more generous for low-income countries. While trade and international investment rules are becoming more restrictive, developing countries do have some choice over which rules to adopt and can make use of exceptions for low-income countries. In addition, such countries can still engage in "underhand" types of industrial policy, such as via government procurement and by pushing foreign companies to use local suppliers (Chang 2012). Governments can very well act within the letter of certain rules, without adhering to their spirit. Second, the rise of China and other NICs is not only a competitive challenge, but it also opens new potential export markets and areas for south-south trade (Weiss 2011). Third, becoming part of the global production network may result in faster transfer of knowledge and technology skills (Westphal 2005), although the exact terms for inclusion are critical, especially as empirical evidence suggests the benefits of direct foreign investment by TNCs is uncertain at best (Amsden 2001, Rodrik 2004).

Global production networks are characterized by "trade in tasks", which means that different steps of the production process of a single product are located in different countries. Learning such tasks in stages is easier than having to build the entire production process at once, and therefore may offer possibilities for developing countries (Page 2011). However, the value added in these networks tends to be highly R&D-driven, and the vast majority of R&D expenditure is concentrated in industrialized countries, where most of the value is then captured (Nolan et al 2008). Moreover, entry into such networks tends to require minimum efficient scale<sup>8</sup> at firm level (i.e. firms above a certain minimum size determined by the sector), to be able to meet the increasingly stringent cost and quality requirements set by "system integrators", that is, the oligopolies that control these networks (ibid). The agglomeration of companies, with all the associated challenges of infrastructure and other coordination problems, will be vital to meeting this challenge (Pack 2011). As firms in developing countries are typically small and often far below minimum efficient scale (Altenburg 2011), there is a strong case for governments to selectively intervene to support firm agglomeration and learning in such small firms, as well as to help protect 'national interests' where firms actually serve global production networks. If industrialization is indeed best achieved through carefully planned and strategic use of export markets, then selective government support will remain a necessity.

However, export orientation is double-edged sword. There is an intimate connection between the export-led growth pursued by many countries, including Ethiopia, and the relative strengths of capital and labour, with severe implications for the political economy of developing countries. The wage level, determined in part by the relative strength of organized labour vis-v-vis capital, is usually viewed in the literature on developmental states and industrial policy as a tool of competitiveness. Particularly poor countries are advised that their comparative advantage is in labour-intense manufacturing, implying that a low wage level would be desirable to raise exports. This view however, neglects the idea, prominent in Keynesian and Kaleckian economic theory, that the wage level is also one of the main determinants of the size of the domestic market by way of effective demand. A balance must therefore be struck between low wages to support exports, and higher wages to support domestic consumption and investment. There is a mismatch between an export-oriented, FDI-driven growth strategy and the concept of a democratic developmental state. Foreign

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<sup>8</sup> Minimum efficient scale is the smallest size a production unit can and still be cost competitive. In production costs tend to fall – up to a point – as the scale of production increases.

capital, especially in light industry, is more likely to take flight if increasingly organized labour drives up wage levels. Domestic investors, especially where they serve primarily the domestic market, are perhaps more likely to take a strategic view and realize that rising wages, not only increase their cost of production, but also increase the demands for their goods (Wade 2003). A state that is truly democratic and developmental will tend to have independent labour organizations capable of articulating the economic interests of wage earners, whereas foreign capital seeking to serve export markets, is more likely to turn to the government for the repression of labour. In fact, labour relations in general, and the severe repression of labour that occurred in many of the East Asian NICs in particular, are sorely neglected dimensions of debates around industrial policy and developmental states (Chang 2013). This is not to argue that an inward-looking strategy is preferable or even advisable, but simply that export-orientation should not be a goal in itself, but instead should serve primarily as a tool to increase the technological capabilities of domestic firms, and carefully balanced with other considerations.

## 2.9. Industrial policy in Ethiopia: The ‘democratic developmental state’

Since at least 2007 the incumbent party in Ethiopia, the Ethiopian Peoples’ Revolutionary Democratic Front (EPRDF), has been moving away from its long-held ideology of ‘revolutionary (or *abyotawi* in Amharic) democracy’<sup>9</sup>, toward a self-defined ‘democratic developmental state’ (Kefale 2011). In the absence of any consensus of a clear definition of developmental states (see for instance White 2006) and the criticism of the concept itself (e.g. Chang 2009a), we describe a democratic developmental state as one which combines democratic forms and meaningful democratic practice with active government interventions to further economic development. While the Ethiopian government has not offered a singular definition of its formulation of a democratic developmental state, this definition seems close to the implicit understanding of the concept in Ethiopia (Desta 2011, Kefale 2011). The notion of the democratic developmental state, which is not an Ethiopian invention by any means, has recently been gaining traction in development debates recently. The label ‘democratic’ appears to be part of an effort across certain development circles to rescue the developmental state from its association with autocratic rule, which has of course served to lessen its appeal. Suffice to say that democracy implies at minimum functioning and transparent democratic forms and practices across all spheres of decision making.

The government of Ethiopia has a detailed plan to achieve middle income status in the medium term, subsequent to Ethiopia’s firm commitment to transforming the domestic economy. For a long time, this was based around a strategy of ‘Agricultural Development-led Industrialisation’ or ADLI, although the focus is now shifting to support labour-intensive light manufacturing. To achieve these goals the Ethiopian government has executed a number of ambitious five-year development plans (MoFED 2006, 2010). It is currently in the final year of a flagship national development plan called the Growth and Transformation Plan (GTP), covering the period from 2010/11 to 2014/15. The GTP aims to position the economy on a high-growth path that is geared towards achieving middle-income status by 2023. It entails strong government involvement in the agricultural sector, which is recognized as vital for growing the economy at large (MoFED 2010). Agriculture (both large- and small-scale) is considered to provide both forward and backward linkages for the development of industry. With regards to industrial development, the government advocates selective industrial policies and has chosen eight priority sectors, including floriculture, which receive special attention, not least in terms of finance from the DBE. Moreover, the Ethiopian government aggressively makes use of both state-owned enterprises and, to a lesser degree, the endowment companies to pursue the development of particular industrial sectors (Vaughan and Gebremichael 2011).

<sup>9</sup> See the 2011 special edition of the Journal of Eastern African Studies [5(4)] for a collection of recent assessments of the concept of ‘revolutionary democracy’ in Ethiopia.

## 2.10. Industrial policy in practice

As the above discussion shows, industrial policy remains a contested field, not only because of practical questions of economic management, but also because of the complicated problems of political economy surrounding processes of rent creation and allocation. Our analysis will show that creating a successful mix of policies is highly idiosyncratic and depends heavily on the conditions of the country and sector in question. Any successful policy mix will have to be flexible and dynamic, ready to change when internal or external structures evolve or circumstances suddenly shift. No one should feel able to offer policy advice that holds for all countries at all times. Nonetheless our coverage of industrial policy debates and the political economy questions pertaining to these debates, allows us to identify broad principles for policy making. In particular, we deem the following four principles to be relevant in general terms and concrete enough to help in making better policy. After all, the key to successful industrial policy regimes appears to lie in creating an institutional framework that can solve the difficult political economy problems, rather than in trying to find that one 'perfect' policy.

## 2.11. Experimentation

One of the reoccurring themes of the debate is that industrial policy is highly risky. Failure is not just possible, but inevitable. This is a risk that governments must embrace. However, this is not an invitation to create policies with reckless abandon only to then drop them shortly after. Rather governments must put in place mechanisms to monitor the success or failure of specific policies and maintain the flexibility to act upon information when it becomes available. All policies should be consulted upon, and if possible trialled, prior to full scale implementation. This requires a culture of transparency and open-ended discussion.

## 2.12. Embeddedness

To be able to experiment the government needs both information and the agency to act. To follow Evans (1995) it must be embedded within a set of relations with emerging and existing capitalists to be able to access information on the activity in each sector, even down to the level of individual companies. To do this the governments not only needs agencies that extend down to firm level and have regular contact with those employed in those sectors, it also needs regular higher level discussion forums. Policies must be critically evaluated by both government and the private sector on a regular basis. At the same time the government must at all times have the interest of its citizens, and by extension of the national economy as a whole, at heart. This means that organized labour and civil society must be heard and become part of the public debate.

A broader focus on social wellbeing can create tension between the interests of individual capitalist or sectors and sustainable growth in the economy at large. Governments must therefore have the autonomy to act independently of the interests of any particular firm or sector, be they private or state-owned. State institutions must avoid capture by vested interests, regardless of whether they emanate from the state apparatus, party politics or private business interests<sup>10</sup>. However, autonomy should be constructive and used to ensure the greater good and not lead to generalized distrust of private enterprise. Again, regular, transparent and public consultation processes seem the best way ensure both aims are met.

## 2.13. Coordination

Governments are faced with the difficulty of not only having to coordinate the disparate actions of individual companies, but also have to coordinate their own various branches and levels of authority, in order to be able to confront problems effectively and in a consistent manner. If the government lacks coordination, this can severely disrupt the functioning of

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<sup>10</sup> Capture by organized labor seems rather farfetched a proposition in most contemporary developing countries.

particular sectors, and can cause bottlenecks and delays with severe implications for growth. Governments must ensure that all agencies and institutions involved with any aspect of a given sector are pulling in the same direction. This can be achieved by regular internal sector round tables, and coordination bodies endowed with real decision making and coercive power vis-à-vis other agencies. Such coordination should transfer across all levels of government from federal to local.

#### **2.14. Strategic awareness and vision**

Lastly, governments must seek to act strategically with regards to both the internal and external environment, and have a clear overall vision for the direction of development at both national and sector levels. Economic convergence is a long process that requires sustaining high rates of growth while a country undergoes intense socio-economic change and reorientation. As sectors mature and others fail, governments must be ready to reallocate resources, correct identified weaknesses and leverage learning efforts in one sector to support others. Both the rules governing the global trade system and the terms of trade for individual products and commodities are unstable and show increasing volatility.

Governments must be aware that policies enacted today will be obsolete tomorrow and actually damaging the day after that. A strategic approach to promoting learning and allocating rents is one that seeks to minimize waste and to maximize current gain in ways that maintain as much flexibility as possible, bearing in mind that the avenues of future developments in many cases cannot even be imagined now.

The four principles of experimentation, embeddedness, coordination and strategic vision are what we will use to evaluate the performance of Ethiopia's industrial policy regimes in the cut flower sector. From the information presented so far, what should be apparent is that an evaluation based on deep principles, coupled with detailed empirical work, goes beyond the simplistic assertion of success or failure based on sector growth rates or foreign exchange earnings.

### **3. A note on methodology**

As discussed above, the debate about various types of industrial policy has continued unabated in part due to major methodological problems in conducting such types of assessments with the sort statistical accuracy that leads to more generalizable inference. To provide irrefutable proof of the impact – be it positive, negative or absent - of wide-ranging macroeconomic and sector policies over a long time period, would require knowledge about what would have happened in the absence of the enacted policy measures. The absence, indeed impossibility, of historical counterfactuals contributes to leaving the debate unresolved, as it is almost impossible to establish causality (Wade 2003)<sup>11</sup>. Another approach to empirically evaluate the impact of different policy regimes on economic growth, seeks to find the combinations of various state and policy variables that are related to higher growth outcomes through running cross-country regressions. Testing an ever-increasing number of independent variables in models which employ growth in GDP per capita as the dependent variable, has yielded a huge number of statistically significant correlations, but overall they have added little to our knowledge of how to build policy regimes that enhance structural transformation or even economic growth (Jerven 2011). In addition, the entire exercise is potentially fatally undermined by pervasive, though rarely fully acknowledged, measurement errors in the dependent variable<sup>12</sup>.

<sup>11</sup> No one appears to have yet found, or indeed seriously attempted to find a method of operationalizing more conventional methods of impact assessment, which are designed for project assessments and therefore likely to be totally unsuitable to the analysis of industrial policy. It is hard to image for instance, how a serious national program of industrialization could be randomized.

<sup>12</sup> See Jerven (2013) for a discussion of this problem in GDP estimates across sub-Saharan Africa.

Evaluations have therefore mostly relied on case studies of individual countries. These are also problematic in evaluating the effectiveness of developmental states per se, as there appears to be a selection bias towards 'successful' developmental states, which cautions against drawing sweeping conclusions for all developing countries (Fine 2013). However, the inductive case study approach is very useful in evaluating industrial policy regimes in individual countries and/or industrial sectors, and it is the approach we pursue in this paper. Using a mixture of quantitative panel data and in-depth qualitative interviews, we seek to relate policy measures to outcomes. Qualitative data is especially useful in this respect as it allows us to directly engage with possible lines of causality, as reflected by key sector actors. We carefully triangulated the information from different respondents to ensure the veracity of our data.

We employ quantitative data from several rounds of sector-wide censuses of all flower farms conducted by EDRI and GRIPS between 2007 and 2013. This dataset charts the development of the sector over a total of six years, allowing us to compare the development of the sector to major shifts in policy and the external environment. In addition to this, we collected qualitative data by conducting in-depth semi-structured interviews with respondents from government, the sectoral association and the private sector. Respondents were carefully chosen using purposive non-random sampling to include key informants in the sector, and domestic investors were oversampled to improve our understanding of their experiences. Apart from conducting interviews with senior staff from EHDA and DBE, we also interviewed several members of the EPHEA's board of directors. In the private sector we conducted in-depth semi-structured interviews with a total of four foreign investors and six domestic investors, as well as two farm managers on foreign-owned farms and one manager on a domestically-owned farm. Given the high levels of company mortality in the sector, we also tracked and interviewed two domestic investors who have left the cut flower sector. The choice to split investors by origins, rather than by farm size, capitalization, or sales volume and destination, was made in order to effectively elicit any differences in the effects of policies on domestic and foreign capitalists.

#### **4. The Ethiopian cut flower sector**

The cut flower sector has more potential than the 'traditional' agricultural sector to make some inroads into the twin problems of unemployment and the widening gap in technology between developed and developing countries. This is because unlike the 'traditional' agricultural sector, the flower industry has higher technology intensity at the production phase and greater labour intensity at the processing and post-harvest phases. It also helps diversify the export base, which can improve export earnings while reducing their volatility. This is essential to low income countries like Ethiopia that depend on 'traditional' agriculture, which is highly sensitive to the vagaries of weather and provides limited opportunity for technology and (additional) labour absorption. That said, cut flowers are of course a luxury good for most consumers and are therefore subject to pro-cyclical demand swings.

In many ways, Ethiopia can be said to enjoy a 'latent comparative advantage' in the production of flowers<sup>13</sup>. The country is endowed with favourable climatic conditions for the production of different flower varieties, and the high altitude and prevalent soil types constitutes ideal conditions for growing higher quality flower varieties. In addition, the physical proximity to the European market reduces the cost of freight and enables the timely delivery of fresh high-quality blossoms.

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<sup>13</sup> Of course, external factors play a role in determining the relative costs of production and export in different countries. Ethiopia, for instance, benefitted from Kenya's loss of EU trade privileges, which undermined the profitability of Kenya as a production destination.

The key advantage stressed by investors however is the availability of a cheap labour force. Wage levels in Ethiopia are lower than in competing flower producing countries, more than making up for lower labour productivity. In addition the workforce is largely pliant, organized only via a single state-run labour union, and there are no known instances of organized industrial action at union level, while less organized occurrences of labour strife are relatively rare.

#### **4.1. The history of the cut flower industry in Ethiopia**

The earliest attempt to set up a flower farm for export to the European market dates back to the 1980s. In this period, under the auspices of the Stalinist Derg regime, state-owned farms began exporting flowers to Europe. After the economic liberalization in the early 1990s, which followed the EPRDF-led revolution in 1991, two Ethiopian entrepreneurs established open field cut flower farms. The first farm was established in 1992 and began exporting open field summer flowers in 1993. These entrepreneurs greatly contributed to the industry by way of information externalities regarding the feasibility of the industry (Gebreeyesus & Iizuka 2012). More importantly, however, they initiated dialogue with government, pushing it to adopt supportive, sector-specific industrial policies. In 1997 the prime minister at the time, Meles Zenawi, initiated talks with representatives from the Ethiopian private sector, with a view to strengthening their involvement in the national economy. The prime minister had been very impressed with the growth of the cut flower sector in Kenya and was keen to help the fledgling Ethiopian sector grow. In 1998 talks with the prime minister resulted in the deputy prime minister and twelve other cabinet members visiting one of the pioneering Ethiopian-owned farms. The government intervened on behalf of floriculture investors in an on-going dispute about land rental between flower farms and the regional government of Oromia, by removing a binding constraint on the development of the sector. Following a lull in communications during the Ethiopian-Eritrean war, the prime minister instituted regular three-monthly talks with representatives of the cut flower sector in 2001.

A major breakthrough for the sector in terms of technology came in 1999 when a UK-based company started rose production using steel structure greenhouses; a technology that hitherto had been adopted by neither the SOEs nor the existing Ethiopian farms (Gebreeyesus & Iizuka 2012). In the early 2000s, the industry saw the entry of both domestic and foreign entrepreneurs. The first Dutch investors, soon to become a backbone of the industry, arrived in 2003.

Yet the flower industry faced several challenges in the farm-to-market value chain. First, investors found it difficult accessing suitable land for floriculture development close to the airport. Investors acquired land through a time-consuming process of leasing from small-holder farmers, a process which required the “consolidation of small contiguous holdings” (Gebreeyesus & Iizuka 2012). The second problem growers faced in the 1990s and early 2000s was the absence of dependable airfreight to the European market at competitive rates. Since cut flowers are delicate products, postharvest life and foliage are dependent on the availability of efficient air transport logistics. Along the farm-to-market value chain, air freight costs to market destinations often make up a substantial fraction of the total cost (Global Development Solutions 2011). Without competitive cost structures across the shipping and marketing phases, efficient flower production may not be translated into profitability. The third commonly observed problem in the industry was the limited ability of firms to raise capital, as investment in cut flower farms required substantial amounts of upfront expenditure for fixed capital acquisition, such as greenhouses, packing houses and cold storage facilities. None of these problems could be tackled by those managing the flower farms, and all required direct government intervention.

All these problems came to the government’s attention in 2002, after a group leading investors in the sector had established the Ethiopian Horticulture Producers and Exporters

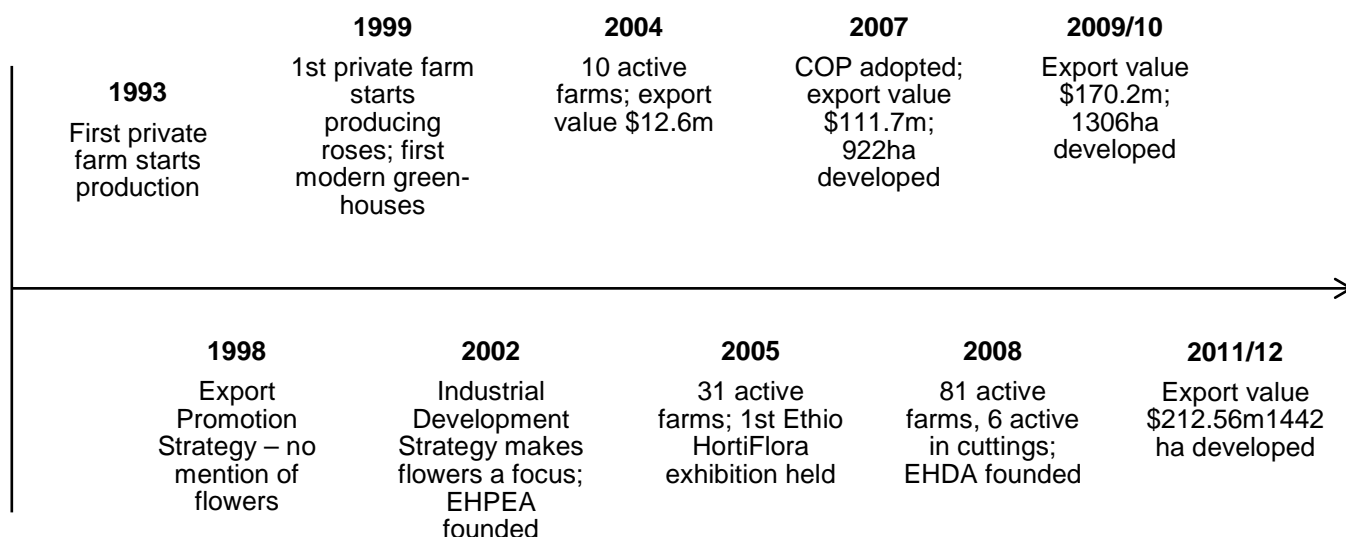
Association (EHPEA), following a request from government to facilitate dialogue by uniting the voices of farms. This business association was established by five investors and has since expanded to incorporate more than 85 members. Through consultation with EHPEA, the government recognized the potential of the flower industry to increase export earnings and provide stable incomes to workers.

With full government support the sector expanded rapidly. As a result, export earnings from the cut flower sector jumped from a paltry \$150,000 in 2001 to \$212.56 million in 2011/12 (EHDA 2012). Similarly, the land under flower cultivation increased from less than 40 hectares in early 2000s to 1,440 hectares in 2011/12 (EHDA 2012). But what role did an active industrial policy and direct government interventions play in the take-off of the sector? The literature on the Ethiopian cut flower sector is unanimous in response to this question. Consistently, studies record that this industry flourished only when the government started providing industry-specific support in 2003 (e.g. Altenburg 2010; Taylor 2010; Gebreeyesus and Iizuka 2012). This view was echoed in interviews with flower farm owners and managers, all of whom attributed the growth of the sector to government support.

In summary, the history of the sector clearly shows how industrial policy in the sector was initiated and led by private sector initiative. Figure 4.1 illustrates important milestones in the evolution of the cut flower industry since the early 1990s. Continued lobbying work succeeded in convincing the government of the importance of the sector, after which it took an interest and provided leadership on policy and problem-solving. All interviewed respondents agree that the sector could never have achieved sufficient size for take-off without the substantial assistance it received from government. To use Wade's terminology this constitutes a case of "big followership" (2003), where the government initially follows a private sector lead, but then takes action to push out the production frontier of the sector.

**Figure 4.1 Time line of important events in the Ethiopian cut flower industry**

*Source: Authors' compilation*



#### 4.2. An overview of the cut flower sector

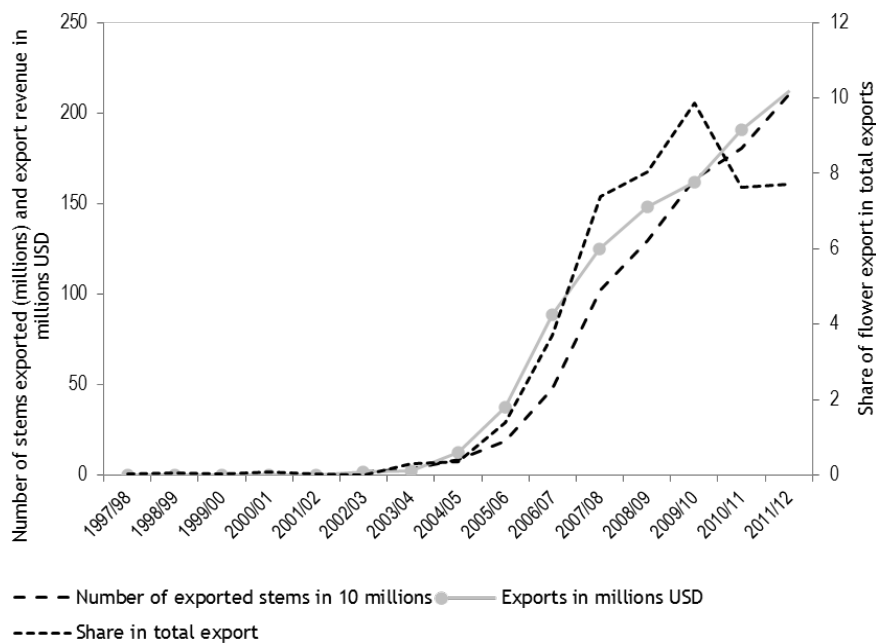
As shown above, the production of cut flowers was a completely new sector in Ethiopia and exports were virtually zero in the 1990s. Once EHPEA's persistent lobbying succeeded in convincing the government of the strategic value of the sector, and the government enacted support measures and cleared bottlenecks, cut flower production and export increased



substantially between 2002/03 and 2005/06. In just three years, the number of flower stems exported grew more than ten-fold, from 16 million to 186 million. Correspondingly, export revenue and the share of the flower industry in total exports grew from \$1.8 million to \$37.5 million and from 0.01% to 1.4%, respectively. Figure 4.2 summarizes the growth of the cut flower since 1997.

**Figure 4.2 Volume and value of export in the cut flower industry 1997-2012**

Source: ERCA and Ethiopian Horticulture Sector Statistical Bulletin (2012)



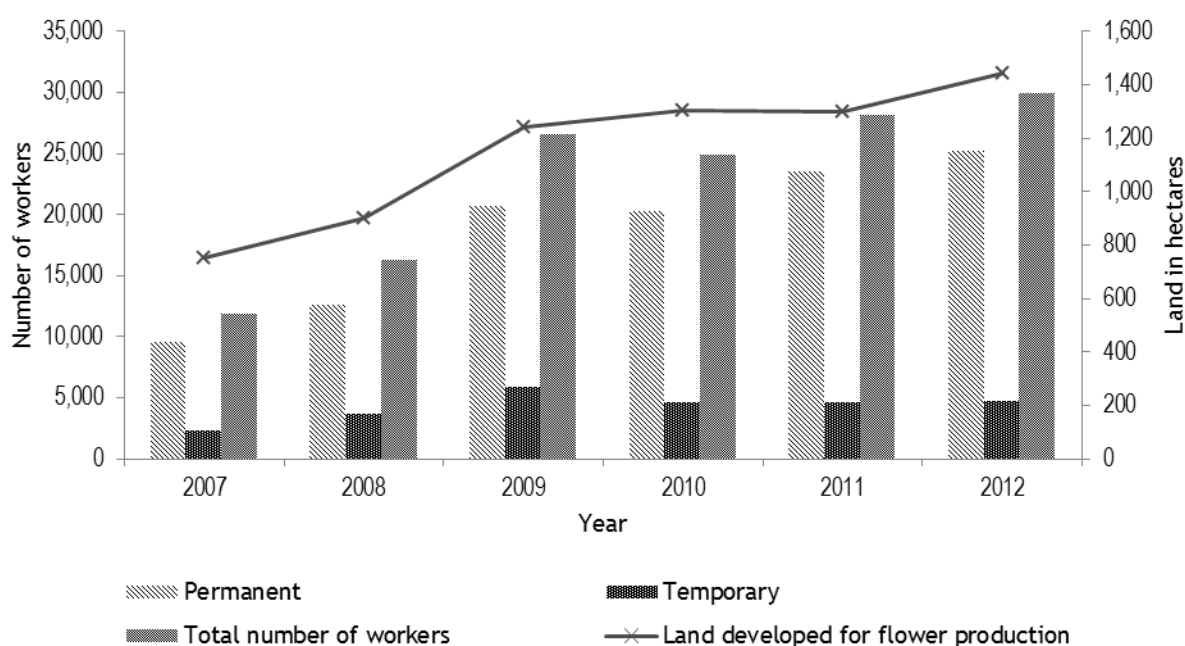
Government support for the sector became more systematic and aggressive after the adoption of the second five year national plan, Plan for Accelerated and Sustained Development to End Poverty II (PASDEP-II), covering the years 2005 to 2010, which made cut flowers one of the priority sectors eligible for special support and additional incentives, such as the ability to borrow from the Development Bank of Ethiopia. By contrast, the 1998 export promotion strategy had made no mention of the cut flower industry in its listings of all priority sectors considered for promotion (Gebreyesus & Iizuka, 2012).

Once the industry's potential became apparent however, it prompted support at the highest levels of government. The former prime minister became personally involved in the promotion of the sector, holding regular meetings with investors in the cut flower industry to get up-to-date information and seeking, in consultation with investors, immediate solutions to the constraints faced by the industry. The combined effects of these measures made the cut flower industry one of the major export earning sectors in the country. In 2009/10, this industry accounted for 10% of total export earnings, an increase of about 8 percentage points in just three years (see Figure 4.2). The number of stems exported reached 2 billion in 2011/12, generating \$212.6 million in revenue. Ethiopia's current development plan, the GTP, requires huge amounts of foreign currency to finance the levels of imports needed to complete the public investment projects envisioned in the plan. The government therefore valued the capacity of the cut flower sector to generate high levels of foreign currency.

Labour intensity, and, hence, the creation of employment opportunities is another beneficial feature of the cut flower industry. As shown in Figure 4.3, employment has substantially increased in the sector in the six years up to 2012 to reach nearly 30,000 jobs. As Ethiopian employment laws requires workers to be made permanent after 45 days, and the training of flower workers represents an investment for the farms, the proportion of permanent jobs is very high. Land development for flower production appears to follow a strikingly similar trend as employment levels. Unlike other industries where expansion is often associated with the adoption of labour-saving technologies, Figure 4.3 perhaps suggests that, for the moment at least, expansion in the flower industry remains highly labour-intensive. This trend is good news given the severe unemployment problem in Ethiopia. How sensitive this current pattern is, or indeed Ethiopia as a growing location for the flower industry, to possible future wage increases remains to be seen.

**Figure 4.3. Levels of employment and land use in the cut flower industry 2007-2012**

Source: EHDA (2012) statistical bulletin (for land coverage) and EDRI's sector surveys, several rounds (for employment).



The employment figures used here may understate the actual number of jobs created in the sector. These figures are, for example, gathered from 70 farms in 2012, while EHDA data shows that there were more than 80 flower farms in the same period. As the result, EHDA official forecast puts employment in the cut flower industry at much higher levels. Accordingly, EHDA put the number of workers engaged in the industry in 2011/12 at 50,500. As we are not sure of the methodology EHDA used in arriving at this figures, we have stuck to the findings from EDRI surveys.

## 5. Industrial policy in the cut flower sector

The government's early and continuous commitment to promoting the cut flower industry is one of the most important factors which enabled the industry to reach a critical mass for take-off (Taylor 2010). Towards the end of 2002, the then Ministry of Trade and Industry (MoTI) was asked by the Prime Minister's office to prepare a five-year action plan for the industry detailing potentials, problems and possible solutions (Gebreyesus & Iizuka 2012). Based on this plan, a five-year target was prepared and three concrete areas of intervention were identified, namely the provision of land, long-term credit and improved air cargo logistics.

### 5.1. Nurturing capitalists

In the process of economic development, a strong and viable private sector does not happen naturally, it must be created, firm by firm, through the hard work of entrepreneurs and workers, supported by appropriate government policies. A key role in this process is played by entrepreneurs who must identify business opportunities, mobilize capital, and organize the set-up and subsequent operation of firms, often in sectors where the risk of failure is high. In short, what is required is the creation of a new and growing class of capitalists, along with diversifying the activities of existing capitalists. Building new industries entails creating new property rights (Khan 2000). In agriculture, the principal asset required for production is land. Once land is acquired however, prospective entrepreneurs need access to sufficient finance to develop the land and adequate transport to get their goods to market.

Providing investors with land and other property rights however, carries political and economic risks. Should such a process fail to create a viable class of capitalists, engaged in productive investment, the result could easily be a huge waste of resources. Political dimensions are added to this problem where land is taken from previous productive users and distributed to new, less-productive users or even speculators<sup>14</sup>. Whether or not new capitalists in developing economies become productive (enough) investors depends on government oversight and appropriate support, especially during the early stages of a new industry or activity.

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<sup>14</sup> Of course, there can still be problems when the new users of the land are more productive than the old ones, as is common in industrialization processes.

**Table 5.1. Sources of flower farms' land and previous use.**

	Year	
	2007	2010
<b>Means of land acquisition (% of flower farms)</b>		
directly leased from the government	71.88	NA
contract from farmers	14.63	NA
leased from other leases	9.38	NA
other means	4.13	NA
<b>Previous use of the land (% of flower farms)</b>		
open field (grazing)	23.44	22.08
farm land	53.13	57.14
Forest	7.81	9.09
dairy farm	6.25	3.9
state farm	9.38	9.09
<b>Number of flower farms</b>	<b>64</b>	<b>77</b>

Source: EDRI-GRIPS 2007 and 2010 sector survey rounds.

Note. NA means data not available.

The government's initial support schemes thus primarily targeted the alleviation of the three major problems mentioned earlier. Suitable land located at a reasonable distance from the airport was made available to investors at very low lease rates and with extended lease periods. Table 5.1 shows that about 72% of land allocated to cut flower farms that were active in 2007 obtained their land directly from the government through such types of leasing arrangements. The leasing process was quick; the 2007 EDRI-GRIPS survey round shows that on average land acquisition from the government took about four months.

The land allocation process itself was characterized by two main features. First, as mentioned before, early investors in the sector leased land in small parcels from smallholder farmers located in areas suitable for flower production. As indicated in Table 5.1, 14.6% of cut flower farms reported to have acquired their land from (small-holder) farmers. This cumbersome process required contracts with large numbers of individual farmers and led to long lead-times before flower farms could be set-up, despite heavy involvement of district governments in the negotiation processes between small farmers and investors. The federal government therefore soon centralized the land allocation process and prohibited the leasing of land from private farmers. Instead, land would be provided by the regional government out of government land holdings<sup>15</sup>. Alternatively, investors were also allowed to sub-lease from other large leases. In 2007, for example, nearly 10% of flower growers appeared to have sub-leased their land from a large foreign-owned flower farm.

Second, due to the suitability of the climate, soil conditions and the need for proximity to the country's main international airport, most of the flower farms initially were located in areas that were already under productive use around Addis Ababa. Table 5.1, for example, shows that more than 68% and 70% of the land used for growing flowers in 2007 and 2010, respectively, was previously either mixed-use farm land, a dairy or state farm. A careful process of government oversight was needed in transferring agricultural land use rights to flower growers on a large scale. This is a sensitive process, most obviously because people lose their land. Moreover there is the risk that the land will be diverted to non-productive use

<sup>15</sup> Constitutionally, all land in Ethiopia is owned by "the people of Ethiopia", and therefore the government. However we refer here only to land that government had not leased to any farmers, whether large or small.

by the growers. Regarding the former, Mano et al. (2011) find that the industry has generated “employment opportunities primarily for low educated people, who are more likely to suffer from poverty”. The growing contribution of the flower industry to the export sector is evidence for the fact that the land that was brought in from other users has largely been put to productive use.

With regard to the air transport and logistics problem, the government “initiated discussion and cooperation between the flower exporters and the Ethiopian Airlines (EAL)” (Gebreeyesus & Iizuka 2012). The airfreight rates were then subsidized by the government and exporters were also granted the privilege to ship on EAL on a credit basis. To overcome the credit constraints faced by prospective investors, the government deployed the Development Bank of Ethiopia (DBE) as a prime lender in the sector. Through the DBE the government instituted a soft loan scheme with generous terms (Gebreeyesus & Iizuka 2012).

The bank extends long-term credit based on a 70/30 debt-equity ratio modality, asking for no additional collateral except the investment project itself and the fixed capital employed therein. DBE, as the result, has played a crucial role in the development of the cut flower industry. This role has evolved as the nature of the problems facing the industry changed and the sector matured.

The remainder of this section identifies the key institutional actors that implemented industrial policy in this sector, and then examines specific areas of intervention.

## 5.2. Institutional Actors

### *The Development Bank of Ethiopia*

Capital markets in many developing countries are often either non-existent or not capable of providing adequate finance, especially for capital investment. In economic theory, a well-functioning capital market should achieve allocative efficiency by channelling capital to activities with the highest returns. However, as argued above, even such well-functioning capital markets may not result in an optimal allocation of capital, where the overall goal is structural transformation of the economy. Particularly private sector financing of capital investment with long gestation periods and fundamental uncertainty, conditions often found in newly established industries, is unlikely to occur in sufficient quantity, as financial sector actors tend to find such investments too risky. If perceived investment risk is correctly priced into capital cost, then investors may be able to access finance, but only at prohibitively high rates of interest. As Pack and Saggi (2006) point out, this does not constitute a market failure. However it would still lead to levels of capital investment below what would be socially desirable. In other words, markets, if left to their own devices, will tend to maximize short-term returns, and will tend to under-invest in areas that carry high social returns, especially if these are only realized in the longer run. Health care for the poor is classic example.

However, capital markets in Ethiopia do not display the qualities that would be needed for the theorems of competitive markets to hold, even on its own terms. As a result, investments with high social returns are even less likely to attract sufficient capital if capital allocation is left purely to the market. The government thus had to find alternative ways of financing medium and long term projects. Development Banks are a tried and tested means of financing projects in strategic sectors, as well as to provide technical support for investors with limited project management capacity.

The DBE was established in 1970 to streamline the limited financial resources of the country towards priority areas. According to a key respondent at the DBE, the bank exists “to take risks that commercial banks would not”. To align the bank’s role with the government’s development plans, such as the PASDEP I & II and the GTP, the bank produces five year

strategic plans, which are then used to develop detailed annual plans. To increase its effectiveness, the government has limited the bank's role to supporting priority sectors<sup>16</sup>. Consequently, the bank provides medium to long-term credit to investment projects in priority sectors, and is willing to take short-term risks and shoulder costs in order to enhance the economic development of the country in the medium- and long-term.

**Table 5.2. Source of initial investment capital of flower farms by ownership (in percent)**

	Domestic		Foreign		Joint venture		All farms	
	2007	2010	2007	2010	2007	2010	2007	2010
<b>Source of (initial) fixed capital (% of flower farms)</b>								
Own source, Development Bank of Ethiopia	45.15	34.36	77.71	54.25	54.86	77.17	60.97	52
Local Commercial Banks	12.2	3.18	3.13	3.98	8.57	9.5	7.57	4.61
Foreign Banks	2.04	0	0	1.31	10.64	2.5	3.27	1.17
Informal Sources	0	0	0	0	2.14	0	0.52	0
Other source of finance	0	7.9	0	10.5	0	0	0	8.46
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Sample size</b>	<b>23</b>	<b>22</b>	<b>25</b>	<b>43</b>	<b>15</b>	<b>12</b>	<b>63</b>	<b>77</b>

Source: EDRI-GRIPS 2007 and 2010 sector survey rounds

Not surprisingly, at the early stage of the cut flower industry, commercial banks in Ethiopia were averse to get into lending commitments with entrepreneurs who wanted to invest in the industry (Taylor, 2010)<sup>17</sup>. This view is echoed by private investors in the sector, who all complain that private banks were unwilling to lend, or willing to do so only against unreasonably high collateral. Table 5.2 indicates that 12.2% of domestic investments and 3.1% of foreign investments were financed by commercial banks in 2007. By the 2010 survey round, the proportion of local flower farms whose initial investment capital was raised from commercial banks had declined to only 3.2%. The lending contributions of commercial banks to investments in the cut flower industry remained far below 10% in both 2007 and 2010.

It thus is not surprising that government has relied extensively on DBE to meet the financial needs of prospective investors in the industry since the early 2000s. In the process, DBE has become the major lender to local investors trying to move into the industry. As shown in Table 5.2, more than 40% and 54% of domestic investors had relied on the 70/30 debt equity loan modality of the bank to invest in the cut flower sector in 2007 and 2010 respectively. Foreign and joint venture investments have also benefited considerably from this loan scheme at DBE. Table 5.2 also shows that more than 19% of foreign-owned farms used DBE's loan facility in 2007, a proportion which significantly increased, by 10 percentage points, to more than 29% in 2010. Few joint venture farms appear to use this

<sup>16</sup> The horticulture sector is one of the priority sectors identified in the five year national plans, including the GTP. In addition, within the GTP, there are eight priority industries for medium/large enterprises: textile and apparel, leather and leather products, sugar and sugar related products, cement, metal and engineering, chemical, pharmaceutical and agro-processing industries (FDRE, 2010).

<sup>17</sup> This has hardly changed since. While commercial banks have financed a few projects in the cut-flower industry, these investments have faced difficulties due to the limited expertise and capability regarding the industry on the part of the banks. This has lead DBE to buy up some of the loans from the privately owned commercial banks.

lending facility at the Bank. Overall, one in three flower investments in Ethiopia appears to be directly financed by DBE in 2010.

Although the financing scheme offered by the DBE from the outset was very attractive compared to neighbouring countries, credit take-up was initially low. Once the profitability of the sector became apparent however, both foreign and local investors started borrowing from DBE using its 70/30 loan modality, whereby the investor is required to pay down a 30% deposit of the project costs and the bank would then lend the other 70%. Initially interest rates on the loans were as low as 7.5%, and while the rates have increased by one percentage point to date, they still remain highly subsidized and competitive compared to rates both in commercial banks in Ethiopia, and in other flower producing countries in the region, such as Kenya and Uganda.

DBE's initial lending experience in the flower industry was not all rosy. Since the cut flower industry was new to the country and had intricate production and marketing systems, local knowledge required for proper feasibility evaluation of investments in the industry was practically non-existent. The bank simply lacked the capacity to correctly appraise business plans, and in particular was not able to accurately assess the veracity or accuracy of claims made by loan seekers about project costs (including, but not limited to, greenhouses, external staff, chemical inputs, and fertilizers). In retrospect, it is clear that the cost estimates for some of the projects in the initial lending portfolio were significantly overstated. This in turn, affected the amount of collateral the bank took for its 70% portion of the project costs. At the time investors were not required to provide any collateral other than the fixed investments made in the projects themselves. Worse even, as these projects did not yet exist, lending was undertaken against the project plan alone. In the words of one investor: "you could borrow money against paper". Since low collateral requirements constituted part of the incentive package, the bank accepted these overvalued assets as collateral. The relatively low fixed capital content, typical of floriculture projects, combined with the erroneous - and in some cases outright fraudulent - project valuation, meant that the collaterals collected by the bank were insufficient to cover the 30% pay-down required for loans disbursed by the bank. In other words, a larger proportion of the project risk was shouldered by the DBE. These highly favourable terms were in some cases exploited by unscrupulous investors who greatly overstated their costs to criminally extract capital from the industry (Taylor 2010).

Recognizing its initial weakness and under pressure from the highest echelons of the political elite, the bank embarked on a series of internal reforms. It began strengthening its own research department and started working closely with development banks in other countries and local stakeholders to build its capacity. For example, the bank employees assigned to work on the cut flower industry now receive regular training in collaboration with the Ethiopian Horticulture Producers and Exporters Association (EHPEA). To further enhance its capacity, the bank has also established partnerships with development banks in other countries, notably the Netherlands, Turkey, South Korea and India, the latter is where a large numbers of staff are sent for training. And, since the establishment of EHDA, the agency and the bank have been working closely together, holding monthly meetings and sharing relevant information. This has helped the bank to build up sector-specific knowledge and keep track of the status of each project through active follow-up.

After undergoing a steep and painful learning curve, DBE now seems well placed to support the sector. The bank has developed a credit policy and a 'Project Rehabilitation and Loan Recovery Sub-Process' specifically tailored to the cut flower industry. Accordingly, the assistance provided to customers has evolved. Each farm is now assigned a contact officer who is uniquely responsible for that farm. Above these case officers sits a team ready to lend assistance to the farm. This goes beyond financial assistance, to include many forms of technical assistance, notably in export and market knowledge. Regular inspection trips are

undertaken to each farm and DBE staff is supposed to be aware of all relevant developments, irrespective of whether or not they are directly related to repayment capacity. In this way, whenever problems arise, the bank is able to quickly diagnose the problem and can propose an appropriate solution. The bank now says that their staff has received so much training and is so experienced that “we can meet our customers as equals”.

### ***The Ethiopian Horticultural Development Agency***

Since its establishment in July 2007, the Ethiopian Horticulture Development Agency (EHDA) has been the principal government institution charged with supporting flower growers in Ethiopia. The agency was set up to act as a one-stop-shop for government services required by investors. Prior to 2007 the sector was characterized by administrative dispersion, with investors having to deal with a number of different branches of government simultaneously to acquire the necessary licenses and other documents. The EHPEA had been pushing for the creation of a unified government body to serve the sector for several years already. In 2006 the government dispatched a committee to Kenya to investigate how the flower sector was regulated there. The rationale behind the agency is to bundle all government services to the horticulture sector into a single institution. However the agency is a service institution for investors and not a sector regulator<sup>18</sup>. Regulatory functions for the sector remain in the hands of a variety of institutions, each of which is responsible for its own field of authority, such as the Ministry of Trade, the Ethiopian Customs and Revenue Authority and the National Bank of Ethiopia.

The support the agency provides to investors can be subdivided into three broad pillars: Capacity building, investment support and market promotion. Capacity building efforts are geared towards local investors, who often have limited knowledge regarding production technologies, input procurement systems and flower marketing chains. Some of these investors had no prior experience either in the cut flower industry or in sectors similar to flower farming. Most Ethiopian-owned firms had not been involved in the sector previously. Foreign-owned farms, by contrast, are often run by specialized floriculture companies, or are established by investors with many years of experience in the industry. To address these shortcomings, the agency launched the “Integrated Capacity Building Program”, which involved employing foreign consultants to assist Ethiopian-run farms with all aspects of the business, including production, product handling, farm management and financial management. The “Integrated Capacity Building Program” also comprises short-term training programmes for flower workers and managers on a variety of practices along the horticulture supply chain, including benchmarking, farm management, harvesting and marketing. These programmes were implemented with assistance from training and research institutions from the Netherlands (Boer & Pfisterer 2009).

The agency also recognized that strengthening the agricultural research and extension system plays a pivotal role in the long-term sustainability of the cut flower industry. Ethiopia, for example, incurs substantial costs in royalty payments to international flower breeders<sup>19</sup>. The country can retain some of the breeders’ royalties by encouraging cut flower research and development locally at both public and private research institutions. EHDA is involved in some attempts to upgrade the existing local knowledge stock on the cut flower sector. One of the public universities recently launched a regular program for students in the field of horticulture at BSc and MSc levels (Gebreeyesus & Iizuka 2012). Similarly, to address the knowledge issue, a Horticultural Practical Training Centre has been established for graduates, investors, government staff and stakeholders in the industry.

<sup>18</sup> In Ethiopia a government body with regulatory power is called an ‘authority’, rather than an ‘agency’.

<sup>19</sup> Breeders provide the flower varieties that farms need against payment of royalty fees for the use of their intellectual property. As breeders are close to final markets, they are able to breed flowers in keeping with current demand trends. They use this knowledge to engage in sophisticated product differentiation vis-à-vis flower growers. In turn, better access to breeders, both in terms of prices and in terms of the varieties offered by the breeder, is a substantial competitive advantage for farms, albeit one that in Ethiopia is mostly reserved for foreign-owned farms.



Regarding the second pillar - investment support - a range of incentives was instituted, of which the provision of land is by far the most important. EHDA has been working closely with the federal and regional governments to facilitate the acquisition of land suitable for growing flowers by investors. As part of the investment support scheme, the agency also plays an arbitration role between investors and workers employed in the industry. The agency seeks to maintain labour and community relations by avoiding industrial action and smoothing out conflicts which may arise between management and labour. This appears to mostly involve keeping labour quiescent, as the agency is not responsible for monitoring labour standards.

The third support pillar involves market promotion. By working closely with Ethiopian diplomatic missions, the agency tries to promote both the products and the overall image of Ethiopian floriculture abroad. It aims to enhance the flower industry's global market share and reach by distributing samples, finding new importers and attending trade shows. To further facilitate exports, the agency also works with public logistics providers, such as Ethiopian Airlines and Ethiopian Shipping Lines, and with private logistics companies to open up new routes.

All interviewed members of the private sector strongly supported the idea of a unified government body. Several, however, also noted how the agency, despite best intentions, was often unable to help investors facing specific issues, as it lacked the legal powers which would have come with full 'authority' status and therefore could not force other parts of the government bureaucracy to comply with its wishes. For this reason it is often still necessary to deal directly with various other branches of the bureaucracy. Many farm owners also questioned the technical expertise of the agency and expressed doubts as to whether the agency had staff with competencies equivalent to its mission. As a result, many felt that the agency had actually impeded communications with government, as it could not affect changes directly and therefore created another layer of bureaucracy that separates farmers and decision-makers.

### ***The Prime Minister's Office***

The prime minister's office (PMO) is the key policy-making institution in Ethiopia and the main locus of executive power. While it is not officially involved in the floriculture, it has nonetheless played a key role in the development of the sector. We have already noted the great personal interest the former prime Minister, Meles Zenawi, took in the development of the sector. As a result, the PMO instituted regular meetings with representatives of the cut flower sector at which representatives of the sector were given the opportunity to voice any grievances. Such meetings were held several times a year, and created a lot of goodwill in the sector.

## **5.3. Specific areas of intervention**

### ***The Global Financial Crisis***

A defining moment in the interaction between the state and the investors in the cut flower sector came in the years 2008 and 2009, when the cut flower industry was on the verge of collapse following the onset of the global financial crisis. With key export markets in economic turmoil, demand for flowers plummeted heavily. For example, the Export Promotion Council of Kenya estimates that the crisis has led to a reduction in the volume of flower export amounting to over six thousand tons in 2009.

EHPEA sounded the alarm and started pressing the government to act. In 2008, the National Export Promotion Committee directed EHDA to evaluate the performance of the industry. At that time, 43 flower farms had altogether borrowed more than one billion birr from the Development Bank of Ethiopia (EHDA, 2009). When flower prices spiralled downward during the global financial crisis, many of these borrowers were suddenly unable to service their

debt. Faced with the possibility of part of the sector collapsing, the DBE called in all stakeholders in a desperate attempt to stem the coming wave of farm bankruptcies.

A team was formed to evaluate each farm individually, with the aim of preventing foreclosures. The team comprised staff from the DBE, the National Bank of Ethiopia (NBE), the Ministry of Agriculture and Rural Development (MoARD) and the EHDA, as well as owners of the farms and sector representatives. The team made recommendations for each farm and these were reviewed by the bank. The bank then implemented measures including rescheduling of loan repayments, additional credit for some farms and even direct management interventions in the most heavily affected farms. To handle this process, the bank set up the aforementioned special section dubbed 'Project Rehabilitation and Loan Recovery Sub-Process', which has since been tasked to follow-up on the status of borrowers in the cut flower industry. Subsequently, the percentage of local and foreign flower growers that used the credit facilities at DBE increased by more than 10 percentage points between 2007 and 2010, as indicated earlier in Table 5.2. The combination of these measures meant that foreclosures were avoided in all but a few cases. All other afflicted farms are apparently still operational. The Manager of the 'Credit Process' at the bank summarized the bank's stand in the bailout process: "If it is a genuine problem, we want to be part of the solution. We will reschedule the loans, we won't foreclose, and we will transfer sick loans to others who can manage the farm".

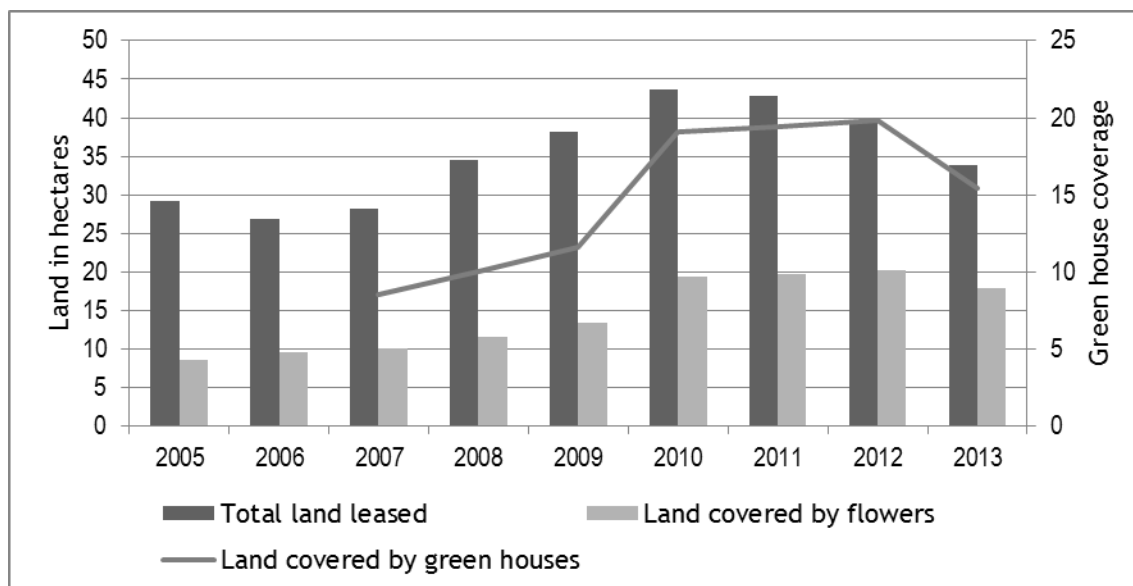
However this view of the crisis is somewhat simplified. Not all farms were affected equally. While DBE's assistance in the form of loan rescheduling and cash injection was available for both foreign and locally owned flower farms, it was typically Ethiopian-owned farms that were in financial distress. While foreign farms of course benefited from the loan rescheduling, they – by their own admission – did not need it. As one international investor put it: "when they give you free money, you don't say no".

This sentiment was echoed by some of the domestic investors as well. Overall it seems that while the crisis certainly produced a reduction in trade, this was highly differentiated according to the market segment served. Farms capable of consistently supplying high-quality flowers uniformly reported that, while the crisis had lowered their profit margins, they still managed to break even. Such farms all say their financial position was not substantially worsened by the crisis. The prevalent opinion expressed by both foreign and domestic investors is that farms that ran into trouble servicing their loans or other obligations were "weak" or "badly managed" before the onset of the crisis. This suggests that the financial crisis alone might not have caused the problems, but rather might have exasperated and exposed already existing structural weaknesses in the product portfolios, management capacity and marketing knowhow of badly-run farms. The loan rescheduling undoubtedly helped some farms survive the downturn, but, according to one foreign investor, it also saved "some farms that did not deserve to be saved". As the policy was rolled out to all farms it is likely that it was unnecessarily costly.

### ***Transport infrastructure and access to land***

As noted above, access to suitable land and adequate transport infrastructure are key ingredients without which no cut flower farm can flourish. Initially, investors were given land located close to Addis at low lease rates. The sector has, however, moved into a period where most of the growth is driven by the expansion of existing projects, rather than the establishment of entirely new farms. Expansion of existing projects however, is hampered by the availability of suitable land. Suitable land for cut flower farming needs to be conveniently located, have leases that are not too expensive and the necessary infrastructure in place. Ideally, plots for expansion should be adjacent to existing projects.

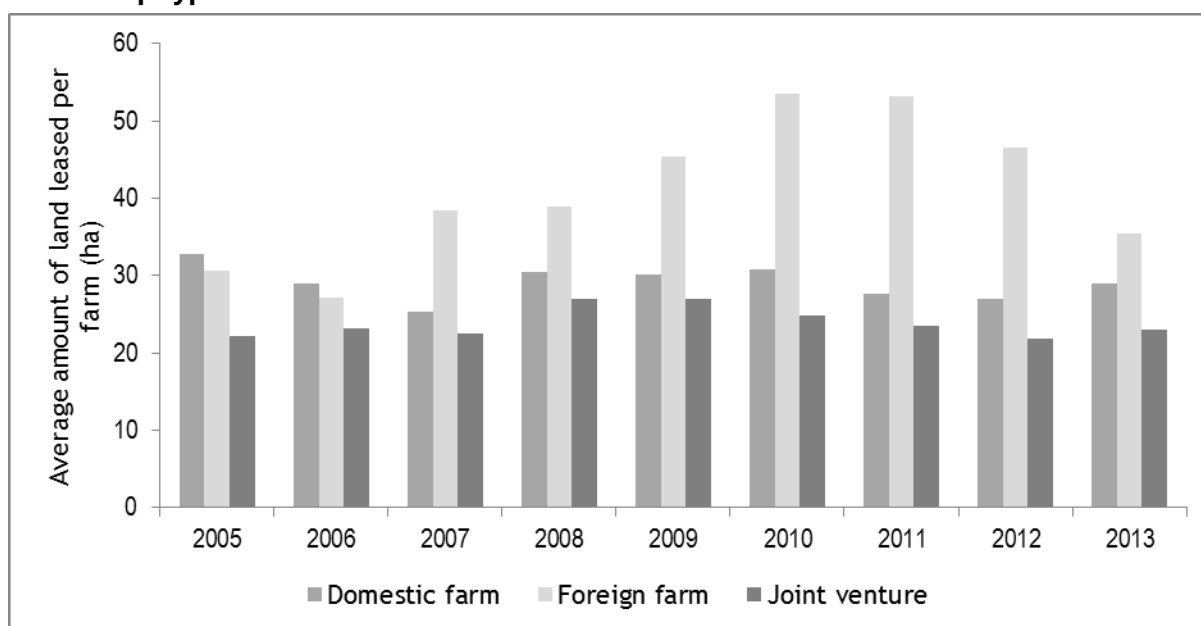
**Figure 5.1. Average size of leased, flower planted and green house covered land per flower farm 2005-2013.**



Source: EDRI-GRIPS various sector survey rounds.

Figure 5.1 shows that the average land holding of a flower farm increased gradually until 2011. The decline in hectares per farm leased land is partly attributed to closure and business switching of several locally-owned flower farms, and partly due to migration of growers to areas outside of Addis Ababa, which were not accounted for in the EDRI-GRIPS survey rounds of 2012 and 2013.

**Figure 5.2. Average size of land leased by the average farm from 2005 to 2013, by ownership type**



Source: EDRI-GRIPS various sector survey rounds.

Looking at average land holdings of farms by ownership type in Figure 5.2 clearly shows the differential fortunes of foreign-owned farms and domestically-owned businesses. While there has been a reduction in average farm size across all ownership categories since 2010, foreign-owned farms have seen the fastest expansion since 2005 and their average size has remained consistently above that of other ownership types. In part this is probably due to the sheer size of the Sher Ethiopia farm in Ziway though.

Given that suitable land around the capital is now extremely scarce, there has been an expansion of flower production in areas outside Addis Ababa. According to the EDRI-GRIPS survey, for example, between 2007 and 2010, the average distance of flower farms from Addis Ababa has increased by more than 18 km. Yet most of the existing flower farms are still located in close proximity to Addis Ababa, and they have already taken up nearly all the available government land situated in areas surrounding the city. The remaining land is owned by local farmers who, for the most part, produce cash crops for the Addis Ababa market. They would, therefore, require substantial compensation to cede the land to flower farms. In an attempt to resolve the land problem, the EHDA has put forward two measures. First, the incentive package with respect to land has been tailored so that farms located in less suitable locations or far away from the capital get the highest benefits to compensate for the drawbacks of the location. Second, the agency has started earmarking land in five 'Development Corridors' across five regions of the country for horticulture development. Land located in these areas will be put into a 'Land Bank' and fitted with the necessary infrastructure including power, cold storage facilities and transport linkages to and from either regional airports or Bole International airport in Addis Ababa for export and Djibouti port for imports of horticultural inputs. The corridors have the advantage of being geographically concentrated, which makes service provision easier. Also infrastructure, such as reservoirs and pack houses, can be shared amongst farms. Research shows that the Ethiopian cut flower sector benefits from agglomeration economies, although the effects are weak and somewhat inconsistent (Bigsten et al. 2008). It is possible that well-designed development corridors could strengthen these effects.

The dearth of high-quality transport links had been a hindrance on the Ethiopian economy for a long time. When cut flowers began growing in importance it became clear that the quality of transport links and the wider infrastructure would be crucial determinants of the sector's future. The government, after trying some smaller, less effective fixes, decided to construct a new cold storage facility at Addis Ababa airport and has put pressure on Ethiopian Airlines to improve the service they provide to the sector. While flower farmers initially rated the transport situation a major constraint, they now say that huge improvements have been made and that the system is functional. However, as the airline has huge market power it requires constant close monitoring to ensure that high-quality service is delivered and maintained at competitive rates.

#### **5.4. Knowledge production**

An important, but not very surprising, set of findings from the interviews concerned the lack of Ethiopians who had the necessary training or experience to meet the sector's demand the early days of its development. This was especially pronounced when looking at professional positions. Floriculture is very knowledge-intensive and requires trained, experienced professionals to both plan and supervise production. Foreign-owned farms usually were established by firms or individuals with experience in cut flowers, but for most Ethiopian farms, this was not true. They had to rely heavily on foreign consultants and farm managers. It became clear that Ethiopia would need to build up a stock of local resource of sector professionals, if the sector was going to grow, and that such professionals would be vital to maintain competitiveness in the longer run. Moreover, local expert staff commanding professional salaries represent an important linkage back into the wider economy through their increase in purchasing power.

Following lobbying from EHPEA, whose Ethiopian members were struggling to meet the high salary costs of foreign experts, and a sector-wide demand survey, under- and postgraduate degree-level programs in horticulture were offered at Jimma University. While the first graduates from the program were still considered too weak to be immediately employable, the situation has improved to the point where almost all Ethiopian-owned farms employ local farm managers. The training given at the university is academic in nature, and many respondents felt that graduates are still not well prepared for the practical nature of on-farm work. To improve the situation, the government founded the Horticultural Practical Training Centre, which takes on graduates to give them practical and technical lessons in horticulture. Overall, the educational achievements in the sector are impressive and seem to provide a solid foundation for future growth.

In addition to government efforts, the EHPEA has its own training programs. These are mostly targeted at farm workers and cover a variety of practical issues, including the safe use of chemicals, and other aspects of workplace safety. These programs are delivered by trained horticulture professionals and are offered to member farms for modest fees. Both domestic and foreign-owned farms rate these programs highly.

### **5.5. The political economy of success**

Having laid out the history and institutional setup of the sector, we can now see how the four principles of successful industrial policy identified above play out in practice. Both the policy measures taken and the evolution of the institutional framework, exhibit all four of the principles in action. Government experimented with different solutions to the problems encountered, and tried adapting lessons learnt from other countries and other sectors. In doing so, it gained invaluable insight from the sector's main investors and the sectoral association EHPEA. Action across different government bodies and regions was coordinated to deliver the land, transport and logistics infrastructure necessary for take-off and growth. In this, government was keenly aware of the strategic role the sector could play, not least for generating foreign exchange, even if it took some private sector leadership to drive the lesson home. This is in keeping with the government's long-horizon approach to its overall project of structural transformation in Ethiopia.

However, this is not the result of policies that are built upon or designed in accordance with the principles outlined. Rather, policy making throughout was often seemingly ad hoc. Experimentation was often driven by need rather embraced as a principle. Embeddedness relied almost exclusively on the direct and personal interest taken in the sector by strategically placed individuals, the former prime minister being a good example. This is quite different to deep and continuous relations between the wider civil service and the private sector. For this reason, coordination was generally the result of a series of top-down decisions on single and distinct issues, rather the general modus operandi of different branches of government.

The sector has witnessed its recent growth because of the principles governing the industrial policy measures which have been applied to the sector. But this was due to the idiosyncrasies of individual action and vision more than overall design or the strength and flexibility of the responsible institutions. As the next two sections will argue, the future of the sector is far from certain, and it has become too large to keep relying on individual action. Industrial policy has been successful so far, but to keep being successful a redesign of both the institutional framework and policy making process are necessary.

## 6. Issues Facing the Sector

The cut flower sector, aside from its growth record, faces a plethora of challenges to its continued expansion and prosperity. These are partly external factors, such as the changing patterns of global demand and the rise of new customer types, such as supermarkets, or wage differentials between countries. But partly they are also the outcome of ill-conceived or badly executed regulatory changes and requirements. Table 6.1 presents results from the 2013 primary survey round that inquired about the single major business constraint that flower growers are facing.

The business constraints reported by growers show a high degree of heterogeneity by ownership type. More than 87% of domestically-owned farms, for example, cite either land, working capital, market conditions, labour turnover or trade logistics as major constraints they are currently facing, while none mentioned regulation. Nearly one in three foreign-owned flower farms, however, mentioned unpredictable and inconsistent rules and regulations as the single most important constraint on their business. The list of problems in Table 6.1 is not exhaustive but it does capture the most pressing concerns that must be addressed if the sector is to move forward.

**Table 6.1. Major business constraints faced by growers at the end of 2013.**

	Domestic	Foreign	Joint venture	All farms
<b>The single most important business constraint reported (% of flower farms)</b>				
Shortage of land for expansion	17.65	14.89	50	16.67
Working capital problem	35.29	17.02	0	21.21
Market problem	23.53	0	0	6.06
Access to production technology	0	2.13	0	1.52
High labour turnover	5.88	10.64	0	9.09
Limited logistics and cold storage facilities	5.88	12.77	0	10.61
Unpredictable and inconsistent rules and regulations	0	31.91	50	24.24
Others (power outages, input shortages and telecom problems)	11.76	10.64	0	10.61
<b>Sample size</b>	<b>17</b>	<b>47</b>	<b>2</b>	<b>66</b>

*Source: EDRI-Hitotsubashi University 2013 survey round.*

We consider three of these constraints that allow us to complement our qualitative information with the quantitative data in further detail.

### 6.1. Unpredictable and inconsistent regulation

As argued throughout, government support has been vital to the growth and success of the cut flower sector in Ethiopia. However the supportive policy regime that helped generate this growth has been rather ad hoc in nature. While the government has been very supportive of the sector as a whole, regulation remains slow, inconsistent and unpredictable. Problems typically are identified by the private sector and then taken up with government officials, which can take a long time to solve. The government bureaucracy is sometimes perceived as unresponsive and unwilling to learn. Resolving issues appears to involve gaining the attention of proactive, high-level officials. But a regulatory system, whose effectiveness stands and falls with a few individuals, is neither effective nor sustainable.

The formation of EHDA was meant to centralize service provision, but was not designed to also provide for centralized and streamlined regulation. Sector regulation remains split between the various authorities and ministries responsible for various aspects of production and sales such as customs, transport, taxation, quality control and environmental protection. The practical result is that rules applied by various bodies are often not aligned, leading to Kafkaesque situations with firms trapped between the conflicting demands of different branches of the government. It is often not clear to producers who actually holds final authority for particular areas, with government bodies variously asserting their authority, or passing on responsibility to others. One example is the dispute between the EHDA and the tax authority ERCA over who has the right to define which kinds of capital goods qualify for duty free import.

**Table 6.2. Flower growers evaluation of the repatriation policy and regulatory environment**

	Domestic		Foreign		Joint venture		All farms	
	Low	High	Low	High	Low	High	Low	High
Evaluation score	2	1.4	2.0	1.2	-	1.15	2.03***	1.19
% who singled out inconsistent rules and regulations as major business constraint	0	0	35.5	21.1	-	50	27.5	19.2
Number of firms	9	5	31	19	0	2	40	26

Source: EDRI-Hitotsubashi University 2013 survey round.

**Note.** 'Low' represents low altitude growers located in areas where altitude above sea level is not greater 2200 meters, while 'High' stands for high altitude growers located at altitudes above 2200m. \*\*\*indicate that the mean difference between the two groups is statistically significant even at 1% level of significance.

More damaging than these inconveniences and inconsistencies though is the unpredictable nature of business regulation in Ethiopia. Regulatory changes are often enacted with little or no prior consultation on the practicality of the new rules. Typically government will – correctly – identify a problem caused by lacking or unclear regulation. But instead of consulting the sector to find a solution that fixes the problem while enabling incumbents to grow and new firms to enter, government tends to unilaterally enact changes. These are often put in place suddenly, without prior announcement, and are accompanied by draconian penalties for even minor infringements. The predictable result has been badly designed rules and regulations that have done little to improve the efficiency of producers or the effectiveness of sector regulation, but have placed unnecessary costs on firms. An example is the rules relating to minimum filling levels for trucks that arrive at the cold storage centre in Addis Ababa airport. While the regulatory change was born out of a correct analysis of inefficiencies in transporting flowers, the resulting rule, which underwent no consultation prior to being enacted, misunderstands the day-to-day realities faced by flower farms. A related example is the repatriation policy that requires cut-flower growers to repatriate \$3.68 per kg of exports<sup>20</sup>. This policy was introduced in February 2012 to act against foreign currency theft by those who underreport export earnings, so as to illegally retain as much of the earned foreign currency as possible. Given that flower are sold on a per stem basis in the international market, the weight-based requirement favours growers that have a high ratio of stems-to-weight and punishes those growers who produce flowers with longer stem and larger buds. Since producers in the highlands produce flowers with long stems and large

<sup>20</sup> At the time of writing.

buds, they can fit a smaller number of stacks into a given weight and hence, they are effectively required to repatriate more per unit of stem exported<sup>21</sup>.

To check how the repatriation policy is viewed by different growers, at the end of 2013, we administered a question that asked flower growers to evaluate the favourability of the policy on a simple rating scale of zero to five, with zero implying the policy is 'extremely unfavourable' and five that the policy is 'extremely favourable'. If the repatriation amount of \$3.68 per kg exported is based on some rough measures of industry average, we should not observe systematic differences between growers by location or ownership or other observable characteristics. As shown in Table 6.2, the policy is generally negatively viewed by growers irrespective of farm location, but growers located in high altitude areas take a significantly more negative view of the policy than growers in low altitude areas.

Not surprisingly, while this policy has relatively more backing among the cut flower farms operating in the low lands, growers in the high land areas appear to be very unhappy about it. Such types of policies undermine the confidence of firms in the sector and deter potential new investors from entering. There is a very real possibility of derailing the growth of the sector. The simple act of consulting and forewarning firms would go a long way towards improving regulation, while allowing the concerns of government officials and firms alike to be addressed productively. To build confidence on all sides such a process of consultation must be formalized and transparent.

## 6.2. Low demand in key export markets

In the wake of the on-going economic crisis in the Eurozone, demand for cut flowers in Ethiopia's main export market has substantially weakened. While producers capable of supplying the highest quality flowers with a large selection of varieties have been able to maintain their sales, this has not been true for the majority of farms. Figure 6.1 presents the average number of stems exported and average export revenue generated for farms of different ownership types since 2007. Despite a marked increase in the volume of exports, export earnings barely moved in 2008 and 2009 suggesting price or demand problems rather than supply constraints. Strikingly, save for 2013 where export volumes seem to have expanded considerably, both the quantity of export and revenues have been stagnant among domestically-owned flower growers.

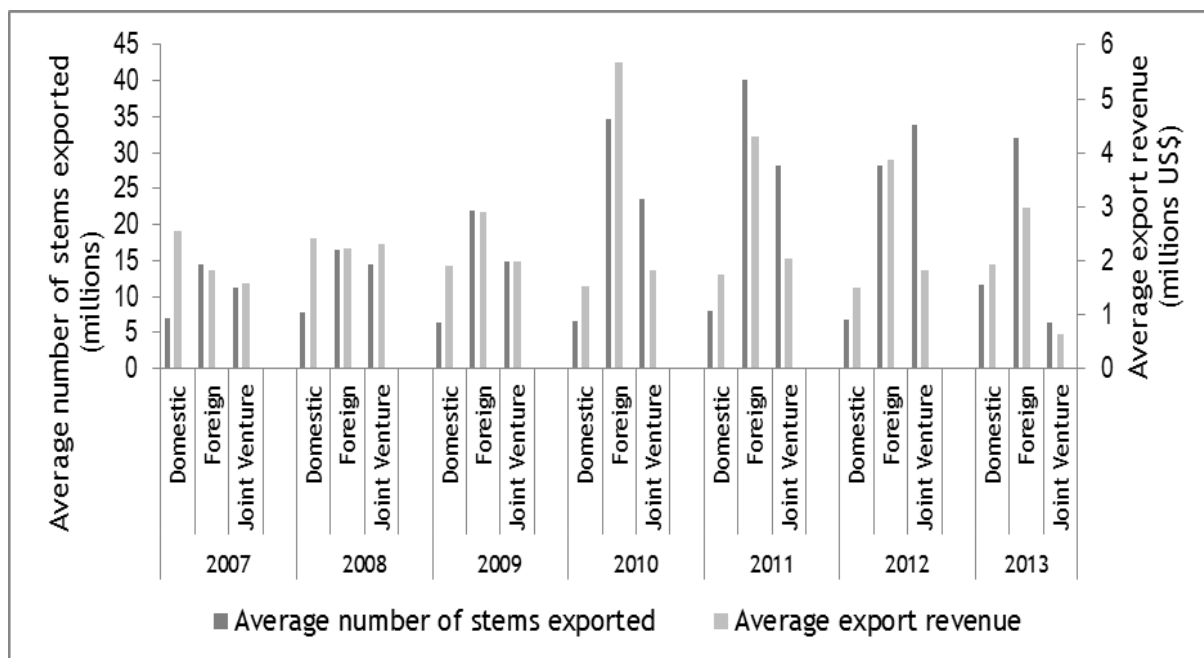
It is totally unclear whether and when European demand will recover, so the sector must look towards alternative export markets. The European auction market in particular is an 'easy' market to serve, as flowers of (almost) any quality can still find a buyer. Furthermore, is it not absolutely necessary, although it is very advisable, to consistently offer the same varieties, or any minimum selection of varieties.

Markets outside of Europe, that is in the Middle East, in Russia and in the rest of Africa, tend to be driven by direct sales. While direct sales to the European market are often subject to very stringent quality and consistency requirement, other markets are less demanding. However, even these less demanding markets require a minimum selection of varieties and scale that can be difficult for an individual farm to meet. To open new markets will therefore need action on part of both farms and government to coordinate supplies and promote the industry abroad.

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<sup>21</sup> One may argue that quality of flower produced in the high lands is superior; the prices per unit can thus more than make up for the smaller stack per kg compared to growers in the low lands whose flower quality is lower. The point is, however, there appears to be no consultation or systematic evaluation of the price and volume trade-off when the repatriation policy was introduced.





**Figure 6.1. Average export quantity and revenue per farm 2007-2013.**

Source: EDRI-GRIPS various sector survey rounds.

### 6.3. High labour turnover

The cut flower sector suffers from high rates of labour turnover. There appear to be two main drivers for this<sup>22</sup>. The first is competition from other sectors, particularly in urban and peri-urban areas. As urban areas expand outwards towards the flower farms, urban labour markets become increasingly accessible to the settlements close to flower farms. Wages in the cut flower sector remain low compared to the wages on offer in urban areas, and flower farms close to urban areas find it increasingly difficult to attract a local labour force. As seen in Table 6.3, nominal wages for production workers have been increasing at an annual rate of 13%<sup>23</sup>. After adjusting for inflation between 2010 and 2013, the annual wage rate increase is only 6%<sup>24</sup>. Given that wages are already too low compared to other urban area job opportunities, this rate of annual increment may not be sufficient for firms to retain production workers. In fact, turnover among production workers appears to have steadily increased, reaching 20% in 2013. On the other hand, Table 6.3 suggests that turnover appears to be less of a problem for the higher paid segment of the labour force, that is, local managers and supervisors. Overall though, turnover problems arising from low wages is more prevalent in some of the growing areas than in others, and does not constitute the main source of turnover in the labour force.

Much more dramatic is the effect of labour migration to the Middle East. In recent years the Middle East has become a preferred location for Ethiopian labour migrants, especially young women. Attracted by the prospect of earning salaries that are easily double the average

<sup>22</sup> A third possible factor, working conditions, was not investigated for this research project, as that would have required a large-sample survey of farm workers and extensive qualitative interviews. We therefore cannot comment on the quality of labour conditions and whether or not these contribute to labour turnover.

<sup>23</sup> Annual growth rate is calculated by taking the natural log ratios of average wages in 2013 and 2010 and dividing the result with the number of years between 2013 and 2010; i.e.,  $\ln\left(\frac{\text{monthly earning}_{2013}}{\text{monthly earning}_{2010}}\right)/4$

<sup>24</sup> There is a concern that real wage calculations based on CPI as price deflator might possibly overstate the rate of wage growth in this period, especially toward the lower end of the wage spectrum. Poor workers will generally have a higher share of food in their total expenditure than the CPI basket. In the last three to four years, however, Ethiopia has witnessed the narrowing down of the difference between food and overall inflation rates. While food inflation was higher than overall inflation rate until April 2013, the difference has diminished greatly. For 2012/13 fiscal year, for example, the average annual food inflation and overall inflation rates were 26.6% and 22.9% respectively (CSA, 2014).

Ethiopian earnings, a steady stream of workers is making their way out of the country. Farm owners and managers report losing between 30% and 50% of their workforce on a regular basis to such labour migration. These figures are usually impressionistic and not systematically collected by farms themselves. However their magnitude and consistency across respondents do lend them credence.

**Table 6.3. Employment indicators of flower farms over time.**

	2010		2011		2012		2013	
	Mean	CV	Mean	CV	Mean	CV	Mean	CV
<b>Production workers</b>								
Average number per farm	287	2.1	329.3	2.5	321.5	1.0	475.6	2.6
Monthly earnings (ETB)	452	0.5	558	0.7	632	0.4	760	0.3
Turnover rate (%)	10.9	1.3	11.8	1.2	13.8	1.1	20	2.1
<b>Local managers and supervisors</b>								
Average number per farm	23.7	2.1	24.2	2	20.2	0.9	27.1	1.6
Monthly earnings (ETB)	3902	0.6	4874	0.5	6634	0.8	8258	0.8
Turnover rate (%)	NA	NA	NA	NA	3.1	3.6	5.1	1.8
<b>Supervisors only</b>								
Monthly earnings (ETB)	1368	0.6	1949	1.6	2213	0.4	2739	0.3
Turnover rate (%)	NA	NA	NA	NA	5.3	3.2	6.6	1.6
<b>Sample size</b>								
	73		73		66		66	

Source: EDRI-GRIPS-Hitotsubashi University survey, various rounds.

Note. NA means not applicable. CV is coefficient of variation.

Labour migration, both to other sectors and to other countries, both legal and illegal, can only be combated effectively with real and sustained increases in wages and with better working conditions. At present, labour relations are mediated through a single state-run labour union. This union is de facto not an independent body, and is therefore by nature mostly interested in maintaining production. Allowing independent labour representation, perhaps initially through firm-level workers' councils and later through independent labour unions, can raise wage and improve working conditions permanently. This would help the sector grow without posing a danger to profitability, as wages are a small fraction of total business costs at present, while better wages and condition can be leveraged to gain market-share in an environment of increasing consumer awareness in target markets. Moreover, better wages would strengthen internal markets with potential for forward and backward linkages. What effect the recent mass expulsions of Ethiopian migrant labourers from some Middle Eastern will have, remains to be seen.

## 7. Clearing the bottlenecks

It is clear to us that the industrial policy enacted by the Ethiopian government has caused success in the sector to date. As the government lacked any prior experience in floriculture, policy initiatives in many cases came from the private sector, and were then taken up by senior policy makers. Without such decisive support – and this is recurrent theme in all interviews conducted – the sector could have never expanded in the way that it did. But can the sector be maintained at current levels and even expanded in the future? To answer this question, we must look not only at the specific issues identified above, but go on to ask how the institutional setup for the sector, and the policies enacted through it, fare in terms of the core principles of industrial policy making that we identified in section 2.

The government has shown great willingness to experiment and often has taken ad hoc decisions when time was of the essence. But it also displays a certain unwillingness to listen to advice, and the civil service tends to be quite insulated from the results of its own actions. The civil service is often prone to over-emphasize success and not acknowledge problems. Clear, transparent and enforced lines of accountability, rather than rigid internal hierarchies, could help here.

The government is also still struggling with internal coordination problems. This is, of course, a hugely challenging and complex task given the sheer size and federated structure of the country. Ethiopia stands out from countries at similar levels of income, for the organization and sophistication of its bureaucracy. However, the current mixture of centralism in certain policy areas and decentralization of other powers often creates situations in which more than one branch or level of government claims responsibility, or, equally damaging, no branch or level is willing to take responsibility. No quick fix is available for such issues which can only be addressed through on-going consultation and reform. Effective bodies for dealing with grievances at sector level could greatly assist in this regard.

As indicated in section 6 above, the sector regulation is often perceived in quite different terms by government officials and by representatives of the private sector. The government is certainly independent of any particularistic interest within the flower sector, meaning that it has achieved and maintained the autonomy necessary for independent decision making. At the same time however, it often seems detached from the sector. While, for instance, the DBE maintains case officers to follow up on companies in its lending portfolio, this does not seem to be the case with other involved agencies. Policies, as seen in section 6, are often not consulted upon and the limited official channels for providing feedback to government, seem to be intermittent at best. The government should do more to deepen and widen its connections to both state and private businesses involved in all branches of the sector. This will mean opening itself to critical discussion of both specific policy measures as well as the overall regulatory regime. However, it must gain more embeddedness without giving up the autonomy that is necessary for acting in ways that enhance overall growth and development, rather than boosting particular interests. Crucially, the state must be embedded in state-society relations (Evans 1995), which means listening to labour as well as to capital.

We have seen that the government has relied heavily on direct intervention to remove bottlenecks in all areas that are of concern to the sector, including land, infrastructure, taxation and knowledge formation. The government has successfully employed an idiosyncratic mix of policies that does not easily lend itself to classification along the fault lines of academic debate. It is to be commended for having had the courage to defy convention and to chart its own path. We have however, also seen that the government still struggles with the deeper political economy problems of maintaining a growth-enhancing regulatory structure, namely in showing a willingness to embrace some failure as necessary, finding the right balance of embeddedness and autonomy, and coordinating its own branches. For some of these problems, the solutions are political rather than technical. They require a loosening of the hierarchical culture of the civil service, and the introduction – at more than a symbolic level – of modern management techniques across the service. More importantly, however, they require a move towards free exchange of ideas and opinions on policy matters.

Both the government and the involved companies have to understand that the policies that brought growth in the sector will not be the ones that sustain it. Adopting, debating and securing a strategic and intelligent vision, beyond grand projects, is probably the biggest challenge of all. Both Rodrik (2007) and Sen (2013) have shown that at the level of national economies, sustaining growth not only requires different policies, but also is much more

difficult, than achieving a growth spurt. The same holds at the sector level, probably with even greater force.

The government must now think hard about how to reform sector regulation for the 21st century to ensure that cut flowers in Ethiopia can continue to bloom. At the same time it must also consider how to leverage the experience, the skills and the institutions built during this growth spurt to kick-start other sectors. The cut flower sector has been successful on its own terms and continues to be so. But it has also been a huge learning opportunity for all involved and the lessons must not be wasted.

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