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Defiance of environmental governance: environmental impact assessment in Ethiopian floriculture industry

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Ethiopian floriculture sector is growing at least by 20 per cent each year making the nation the second largest African exporter of roses. Despite its economic importance (job creation, foreign earnings and other economic returns), the floriculture sector is responsible for many environmental effects including arbitrary expropriation, unregulated and high chemical consumption, depletion of water resource, unsafe waste disposal mechanisms and risk on workers safety. One of the environmental tools that could mitigate these impacts and optimally benefit from the sector was environmental impact assessment (EIA). However, despite existence of many laws (ranging from Constitutional provisions to specific EIA guidelines) and multiples of institutions (both government and private) functioning around the floriculture sector, EIA remains too weak and sidelined. International laws and practices have not stimulated the practice here in Ethiopia nor do the Constitutional provisions on environmental rights. Ethiopian laws and fourteen EIA reports of floriculture farms have been assessed and experts have been interviewed to get a clear picture of the EIA regime including timing, scoping, impact identification, identification of alternatives, environmental management plan, reviewing process, environmental monitoring/auditing and public participation. The author argues that the EIA regime is too weak to safeguard the environment owing to multiples of factors.

Keywords: environment, environmental impact assessment, EPA, mitigation measures, monitoring/auditing, public participation, scoping, screening.

INTRODUCTION

Environmental Impact Assessment (EIA hereafter) is a process which helps to identify, predict, evaluate, and mitigate the environmental impacts and risks which may arise from the proposed activities (EIA Proclamation No 199, 2002; Operational Manual, 2008). It serves to bring about administrative transparency and accountability, enhance community participation in development activities that might affect them and its environment, and promotes sustainable development (EIA Proclamation No 199, 2002). As is true for other development activities, EIA plays a significant role for sustainable use of resources in the floriculture sector.

After its first introduction in United States in 1969, many countries have enacted laws and adopted the EIA system (NEPA, 42 USC §§ 4321-4370(f); Craik, 2008). Since 1990s Ethiopia has been enacting different environmental instruments including national environmental policy, EIA legislation, EIA guidelines and directives and establishing implementing agencies. Though a decade has passed

since Ethiopia adopted the EIA law, the practice is still weak and poorly founded owing to a number of interacting factors that have slowed the progress (Mellese and Mesfin 2007; p. 1). EIA is still considered by proponents and licensing agencies as 'bureaucratic stumbling block in the path of development' (Krueger et al, 2012, p. 89). With expanding development activities in Ethiopia especially in the last decade, environmental protection has not got comparable attention.

Floriculture is becoming high economic priority sector for Ethiopia in the last few years and the country pledges to continue expanding its floriculture clusters (Joosten, 2007; Mulugeta 2009; GTP, 2010). In 2009/10 flower is produced over 2,000 ha (65% of which are located in 50 km radius from Addis Ababa) and employed a total of 70,000 where 64.4% of which are females (Asferachew 2007). Ethiopia already collected 160 million USD from the export of 1.7 billion flower stems in ten months time (July 2011-April 2012) showing 20% increase from same

period of the previous year (Haileselassie 2012). Despite its massive expansion, social and environmental concerns are growing that threatens sustainability of its rapid growth. Evidences indicate that Ethiopian floriculture sector is responsible for arbitrary expropriation of rural and semi-urban land; unregulated and high consumption of pesticide, fungicides, insecticides and chemical fertilizers (Malefia 2009) which are responsible for loss of soil fertility, depletion of nutrient, killing non-target organisms, loss of biodiversity, green house gas emission, effect on water quality; depletion of water resource and competition with local community; unsafe waste disposal mechanisms; and risk on workers safety (Mulugeta 2009; Degytnu 2012).

Perhaps, the necessity of ensuring sustainable use of environmental resources and safety of workers' by using EIA tool is underlined by stakeholders. This article assesses the practice of EIA in the floriculture industry together with its prospect and challenge. Next to the introduction, the Second section assesses international and national laws pertinent to EIA. The strength of the international and national regimes to stimulate good EIA practice is evaluated. Section Three is dedicated to national institutions involved in the implementation and/or administration of EIA. The Fourth section appraises the EIA practice in the floriculture sector. Detailed assessment of the EIA procedures followed, contents, reporting and reviewing of EIA, public participation during EIA and challenges are included. The article will wind up by discussing author's recommendation in section Five. In the processes of developing this article government documents, environmental and sectoral legislation, more specifically EIA legislations and guidelines, and literatures have been consulted. More importantly, empirical data (from 14 EIA reports of floriculture farms) and interviews with experts and government officials make an integral part of the discussion.

Legal and Institutional Frameworks In EIA

International Law

The importance of EIA was raised in international discourses as early as 1972 during the United Nations Conference on the Human Environment though could not make in to the final version of the resulting Stockholm Declaration (CRAIK, 2008). However, a more concrete stipulation was included under the World Charter for Nature adopted by UN General Assembly obliging states to conduct EIA in advance for activities which may disturb nature (World Charter for Nature, 1982). The Brundtland Report, also signify the importance of EIA as a tool by which environment and development objectives could be integrated to achieve sustainable development (OUR COMMON FUTURE, 1987; Gullett, 1998). Since then, many

binding and soft international documents came to require EIA as a policy guideline without specifying under what circumstances EIA should be mandatorily required (CRAIK, 2008). The Rio Declaration on Environment and Development, however, under Principle 17 calls for use of EIA as a national decision making instrument in assessing whether proposed activities "have a significant adverse impact on the environment" (Rio Declaration, 1992; Agenda 21, 1992, para. 9.12(b), 11.23(b), 13.7(a), 15.5(k), 17.6(d) and 22.4(c)). It also underlines the importance of national institutions in the decision making process.

Hence, a more detailed requirement of EIA is found only in few international conventions: the Convention on Environmental Impact Assessment in a Transboundary Context (Espoo Convention, 1991) and the Protocol to the Antarctic Treaty on Environmental Protection (the Antarctic Protocol) are examples (CRAIK, 2008). Though its scope of application is limited, Espoo is the first multi-lateral EIA treaty. In addition to requiring EIA only during transboundary impacts of activities, Espoo was framed as a regional convention before it is opened to all later (CRAIK, 2008). It stipulates responsibility of signatory countries, the principles, provisions and procedures to be followed and list of activities, contents of documentation and criteria of significance that apply (Achieng, 2007).

In addition to those binding and non-binding international documents, some customary principles are interpreted in way that strengthens requirement of EIA during transboundary impacts. Recently, the International Court of Justice (ICJ) has confirmed that EIA must be carried out prior to the implementation of a project that is likely to cause significant transboundary harm (Pulp Mills Case, 2010). In the case between Uruguay and Argentina (Pulp Mills on the River Uruguay), the ICJ found that "it may now be considered a requirement under general international law to undertake an environmental impact assessment where there is a risk that the proposed industrial activity may have a significant adverse impact in a transboundary context" (Pulp Mills Case, p. 23-24). In addition, the court stated that EIA is a necessary element of the general obligation of due diligence in the prevention and control of transboundary harm (Boyle, 2011). Either way, the court seems to conclude that transboundary EIA is a requirement of customary or general international law (Rio Declaration, 1992, Prin. 17; Espoo Convention, 1991).

The corpus of international law that authorizes transboundary EIA is growing and EIA is becoming unavoidable criteria. Moreover, major international financial and development organizations have designed their own EIA guidelines making international funding impossible without conducting EIA even if the impacts remain national (World Bank, 1999).

The finding that EIA is evolving in to customary law, at least for activities with transboundary impact, will oblige

nations to adopt comparable national EIA instrument and practice. In addition, the inclusion of EIA requirement in different international environmental conventions (e.g. climate and biodiversity regimes) and regulations of international financial institutions will stimulate universal understanding and practice. Ethiopia remains within the influence of all those international discourses and is responsible to its international obligations assumed through treaty or customary international law (ETHIOPIAN CONSTITUTION, 1995, Art. 9(4)). The influences of these international understandings are yet to be felt by the national system.

Ethiopian Legal Frameworks

Constitution and Policy

Though the Ethiopian constitution nowhere used the language EIA, it has recognized that development activities should not hamper the environment and be done to ensure sustainability (ETHIOPIAN CONSTITUTION, 1995, Arts. 42, 43, 89, 92). Accordingly, consultation and community participation is an indispensable part of decision making process in development activities. EIA could be considered as one of the most acceptable tools for achieving the above said environmental values included in the constitution.

In addition, Environmental Policy of Ethiopia (EPE, 1997) contains more detailed EIA regulations that stimulate EIA practice. Section 4.9 of the policy requires that EIA should include physical, biological, social, socio-economic, political and cultural impacts of the proposed project, and mitigation and contingency plans of impacts. A mention is also made about timing and auditing to ensure that EIA is done early and incorporated in the project design. With the understanding that public comment is vital in the decision making process, the policy anticipates a well built public participation and independent EIA review system.

Legislation

Subordinate to the constitution and EPE, basic laws are in place to require and regulate EIA practices. The Environmental Impact Assessment Proclamation (No. 299/2002) states that any project which deserves EIA should not be implemented before the preparation of EIA and licensing organs are required to ensure its execution (EIA Proclamation No 299, Art. 3). Project proponents who have failed to prepare or misleadingly prepared an EIA are also criminalized (EIA Proclamation No 299, Art. 18). This law also requires consideration of factors like the size, location, nature, cumulative effect with other concurrent impacts or phenomena, trans-regional effect,

duration, reversibility or irreversibility of effect in identifying its impact (EIA Proclamation No 299, Art. 4). It is understood that list of environmental attributes that might be evaluated is practically infinite and highly relies on the appreciation of the valued environmental and community resources within the vicinity of the project (FOURACRE (ed.) 2001; JAIN, et al. 2004). Yet it is appreciated that the proclamation requires indirect or secondary and cumulative impacts of projects to be considered.

The contents of EIA and publicizing the report are also the subjects of such statutory regulations (EIA Proclamation No 299, Art. 15). After reviewing the report, the relevant authority may approve the project without conditions or conditionally, or refuse implementation of the same as the case may be. The EIA proclamation also requires preparation of supplementary EIA if “unforeseen facts of serious implication” are realized after the submission of the first report (EIA Proclamation No 299, Art. 11).

The EIA proclamation also authorizes Environmental Protection Authority (EPA hereafter) to issue directives and regulations that stimulate effective EIA practice. Such directive, which came six years after the proclamation, answers only the threshold issue (Directive No. 2, 2008). It lists only 22 projects that require EIA where ‘horticulture and floriculture development for export’ is one. The directive has been regarded as ‘incomprehensive’ partly because the lists are very brief and incomplete leaving out many more projects that should have been scheduled (Wondossen and Solomon 2009). For example, the directive does not include lists of projects that do not require EIA nor projects that should undertake preliminary assessment (Tesfaye Abate, 2012). Though the EIA proclamation authorizes EPA to determine lists of public instrument (defined as “a policy, a strategy, a program, a law or an international agreement” (EIA Proclamation No 299, 2002, Art. 2(10)) that should pass through EIA (otherwise called ‘strategic environmental assessment’), the directive does not include any of these. It is understood, however, that “[a] broader environmental assessment should be applied not only to products and projects but also to policies and programmes” that induces significant environment impacts (OUR COMMON FUTURE, 1982; Gullett, 1998)

In addition to environmental laws, other sectoral laws, e.g. investment laws, could play a role by providing additional incentives for an effective EIA system. The earliest investment proclamation No 15/1993, though did not require preparation of EIA for getting an investment license, threatened that polluting the environment will result in cancellation of the license (Investment Proclamation No. 15, 1992, Art. 20 (2e)). The next coming investment proclamation did not mention EIA requirements but cautioned licensing agency to validate that the proposed investment activity “complies with

conditions stipulated in environmental protection laws.” (Investment Proclamation No. 37, 1996, Art. 14(a)) This phrase, however, has been intentionally watered down in the latest investment laws of the country (Investment Proclamation No 280, 2002). Solomon is of the opinion that the investment proclamation that came after environmental proclamations are superior in hierarchy, have got more political will and are ultimately devaluing the importance of EIA and sustainable development (Solomon 2009).

In addition, EPA has issued many guidelines including EIA procedural and reviewing guidelines (EIA Procedural Guideline, 2003; EIA Reviewing Guideline, 2003; EIA Guideline on Pesticides, 2004). As per the procedural guideline, EIA process includes activities of pre-screening consultation, screening, scoping, EIA study, reviewing, decision making and systematic follow-up. Detailed steps of EIA reviewing and decision making, and the responsibilities of stakeholders involved in the EIA process have got place in the procedural guideline. Lists of projects that require full EIA, those that may not require EIA and those that require preliminary EIA, and detailed description of potential environmental impacts are included in the annex. The EIA review guidelines, in its part, determines matters to be considered during the review process and determining adequacy of the report, the contents and scope of the report, checklist of valued environmental factors and attributes and reviewing criterion to evaluate sufficiency and accuracy of data in the report.

Code of Practice

This self regulatory document of the horticulture/floriculture sector is becoming influential in many respects. The bronze level of the code of practice is developed by Ethiopian Horticulture Producers and Exports Association (EHPEA hereafter) in 2007 to make the sector more competitive in international market and responsible for the environment (Code of Practice, 2008; Mulugeta 2009). The code is binding only to its members but non-members are encouraged to work for it.

The code does not say much about EIA partly because members are farms who are operational and obliging them at this stage would be too late and unrealistic, EHPEA claims (Humphries, 2009; Mulugeta 2009). However, if a member farm wants to expand its farm or wants to get new land for cultivation, the code obliges it to conduct EIA for the new farm. Though further information on the practical utility of the code is not available yet, the resulting certification may incentivize farms to value the regulation. The Council of Ministers has recently upgraded this self regulatory instrument to binding regulation applicable across the sector. But some of stipulations in the original self regulatory document are

excluded with no major innovation regarding EIA.

Institutional Frameworks: EIA Administration

EPA and Regional Environmental Agencies

EIA is a process where the interaction and cooperation of many institutions is required. The close reading of environmental laws ultimately makes EPA, a federal agency accountable to the Prime Minister, the guardian of the national environment and administrator of EIA system (Proclamation No. 295, 2002, Arts. 6 (4) & (5)). Specifically, EPA is empowered to propose environment related policies, laws, regulation and issue directives and guidelines (EIA Proclamation 299, 2002, Arts. 5 & 13). Perhaps, it has proposed many laws and policies, and issued one directive and many more guidelines to stimulate an effective and efficient EIA practice. Regarding EIA, EPA is responsible for reviewing reports, ensuring public participation, monitoring the implementation of mitigation measures and hearing grievances. More importantly, EPA is authorized to certify farms that have attained the bronze, silver or gold levels according to the regulation.

In addition to EPA, regional environmental agencies (REAs here after) have similar mandates in their respective regions. Unless federal licensing is involved somewhere in a project life or a project has inter-regional or inter-country impact, REA have full responsibility of administering the process (EIA Proclamation No 299, 2002, Arts. 3(2) & 14). This leaves REAs with their hectic resource shortage to enforce EIA regimes in the vast majority of development activities.

EHPEA

Since its establishment in 2002, Ethiopian Horticultural Producers and Exporters Association (EHPEA) is the only association that represents floriculture (including other horticulture) farms. Though, the basic objective of the association being to represent farms' interest in different forums, it gives capacity building trainings to its member farms and *administer the self regulatory Code of Practice “to encourage Good Agricultural Practice, protection of the environment and corporate social responsibility.” EHPEA makes internal auditing of member farms before and after certification of compliance to the code* (Rutta Firdissa, 2010). Moreover, the association has played significant role in developing the code of practice to national law.

Regarding the EIA practice, the EHPEA was not doing much except providing necessary trainings to member farms.

Ethiopian Horticulture Development Agency

Ethiopian Horticulture Development Agency (EHDA hereafter) is an autonomous federal agency established to coordinate the horticulture sector and provide technical assistance and market information (Regulation No 152, 2008). Some of its responsibilities like ensuring the sustainability of the sector, and assisting farms during project feasibility studies, access to land and supply of inputs, carries environmental agenda in it. More specifically, the agency is responsible “to encourage the responsible and productive use of land and water in order to protect the environment and conserve natural resources” (Regulation No 152, 2008). However, EHDA, which has a distant relation with EPA, is not helping the EIA system any better other than conducting minor coordination role in the implementation of the code of practice (Gosaye Dechassa, 2010).

Investment Offices

Both federal and regional investment offices are involved in the granting of investment and later business license to floriculture farms (Investment Proclamation 280, 2002; Investment Proclamation 375, 2004; Investment Regulation 84, 2003). The EIA proclamation authorized licensing agencies to ensure that EPA or REA has authorized the implementation of the project before issuing any permit (EIA Proclamation No 299, 2002, Art. 3(3)). However investment offices do not require EIA reports or environmental clearance certificate while applying for license claiming that investment laws do not require them. After issuing the license, investment offices notify EPA about the proposed activity that makes tracking proponents an extremely difficult and unworthy process. Then after, preparing EIA will become a voluntary practice as follow ups are missing (Mulugeta 2009; Yared 2007).

Moreover, there exists a great disparity between the numbers of licenses issued and numbers of projects notified to EPA. In the years 1996 – 1998, investment agencies have licensed 11,091 different projects, while only 3,311 projects are notified to EPA by the federal investment agency. Out of these 3,311 projects, though 1,308 of them require EIA, only 24 of them have undertaken it (Solomon, 2009). Despite the fact that the data is not conclusive and specific to floriculture, similar situation is projected in the floriculture sector. Until 2009, federal investment agency has licensed about 224 floriculture projects while only around 20 have done EIA so far.

Consulting Firms

The EIA proclamation only stipulates that the EIA should be conducted and costs covered by project proponent (EIA Proclamation No 299, 2002, Art. 7). The EIA procedural guidelines, however, determined that the proponent should “appoint an eligible independent consulting firm who shall seek to undertake EA [EIA]” (EIA Procedural Guidelines, 2003, p. 19). The consulting firm should have the required expertise, form an interdisciplinary team during the preparation of EIA, declare to be neutral and provide curriculum vitae and registration license. However, EPA has not issued a single license or authorization to consulting firms for undertaking EIA. To ascertain that experts have done the report, EPA requires consultants to attach their curriculum vitae with the report so that they could be called for further inquiry (Solomon Kebede, 2009). But out of the fourteen reports examined, none of them have attached the said curriculum vitae. In conclusion, neither the capacity of the consultants, which are licensed as general or agricultural consultants’, nor if they have hired required experts for the preparation of the EIA can be ascertain.

Assessment Of EIA Reports Of Farms

Pre-EIA process, activities during EIA preparation and post-EIA steps have been discussed under this section.

Timing of EIA and Screening of Projects

Timing of EIA

Preparing an EIA too early in the planning stage is problematic as it lacks the appropriate information to make correct environmental analysis (FERRY, 2004). Likewise, EIA should not wait too long in the planning stage which delays the progress of decisions or meant only to justify what the proponent intended to do (FERRY, 2004). EIA should be conducted “before major decisions are taken and, ideally, while feasible alternatives and options to a proposed action are still open” and soon after project initiation (Abaza et al., 2004). To assess the time when farms have prepared EIA, full data are available only for ten floriculture farms that are licensed by federal investment agency. The following (Table 1) shows the dates when the investment permit was issued and EIA prepared

Accordingly, a minimum of four months and a maximum of seven years (72 months) difference exist between the dates when the investment permit was issued and the EIA prepared. Moreover, evidences show that most EIAs are prepared long after the floriculture

Table 1: Date of licensing and completion of EIA assessment

No	Names of the farm	Date investment permit given	Date EIA prepared	Time gap b/n permit and EIA (months)
1.	Gallica Flowers	Jan. 15/2007	Nov. 2008	11
2.	Lucy Ethiopian Flowers Plc	April 7/2004	Nov. 2005	7
3.	Roshanara Roses Project	Dec. 15/2004	Sep. 2006	20
4.	RSL Flowers and Vegetable Plc	Feb. 27/2004	June 2006	27
5.	Oromia Wondera Plc	May 6/2005	Sep 2006	4
6.	Joshua Flowers Plc	May 1/2005	Mar. 2007	24
7.	Dream Acres Plc	July 6/2004	Aug. 2007	36
8.	Golden Rose Agrofarm Ltd	Oct. 30/1997 & Jan. 23/2002	Oct. 2007	72
9.	L'arca Investment Plc	Sep. 29/2005	Oct. 2007	24
10.	EFW Flowers	July 30/2007	Sep. 2008	12

project went on to the implementation stage (Yared 2008). Specifically, EIA of Mam Agrofarm, Surya Blossoms Plc (EIA was prepared after 12% of the project is implemented), and RSL Flowers and Vegetable Plc have prepared their respective EIAs after they have constructed greenhouses and some after planting flowers. The fact that the investment law has withered away EIA requirement during licensing, regional land granting offices are inactive, and mandatory regulations are absent can be the reasons for poor EIA practice and delay in timing.

Solomon, nevertheless, mentions that some farms prepare EIA merely to fulfill the requirement for accessing loan from Development Bank of Ethiopia (Mulugeta 2009, pp. 256 & 257). Data show that the practice of preparing EIA is decreasing in all development activities so as in the floriculture sector. However, the floriculture sector accounts for 28% of EIA reports reviewed by EPA. The floriculture sector accounts for 28% followed by energy sector with a 21% share, and others are mining and industry sector each 13%, water resource, agriculture and transport sectors with 10%, 9% and 6% share of the EIA reports respectively (Solomon presentation, 2009).

Screening

Otherwise called as threshold decision, screening helps us "to determine whether or not a proposal should be subject to EIA and, if so, at what level of detail" (Achieng, 2007). It also helps authorities to use resources on projects most likely to have significant impacts, uncertain impacts and where environmental management input is likely to be required (IIED, n.a.). Screening is usually decided by regulation and, with the coming of the new directives in 2008, part of the question has been answered in Ethiopia. There are three ways of determining the threshold: by listing all projects that require EIA; stipulating the standards/test of determining the projects that should undertake EIA; and mixing the

two methods (Andreen, 2000). In Ethiopia, the EIA proclamation and new directive opted for the first method and included 'horticulture and floriculture development for export' in the lists where EIA is required. The EIA proclamation, however, entitled EPA to exonerate projects from conducting EIA if it believes that such project will not have significant environmental impact (EIA Proclamation No 299, 2002, Art. 6). To date, no farm has applied to benefit from the exception.

Contents of EIA

EIA report should contain sufficient information to enable the decision making authority to determine whether and under what conditions the project shall proceed (EIA Proclamation No 299, 2002, Art 8). Specifically, it should, at least, contain Executive Summary, Introduction, Approach to the study, Assumptions and/or Gap in knowledge, Administrative, Legal and Policy requirements, Assessment, Mitigation measures, Conclusions and Recommendations, and Appendices. The next discussion will evaluate EIA reports in light of these requirements.

Assumptions and Baseline Information

The review guideline requires identification of knowledge gaps, assumptions and unavailable information; reasons for incomplete information; implications of those identified knowledge gap and assumptions; and proposals to avoid the identified constraints and limitations (EIA Reviewing Guidelines, 2003). However, proponents overlooked its importance or misunderstood it, and very often either it will not be considered at all or the description of the projects is repeated (Mam Agrofarm PLC, 2008; EFW Flowers, 2008).

In addition, the guideline requires full and detailed description of baseline information about the proposed

project and the environment, and analysis of the information to the environmental impacts of the project (EIA Reviewing Guidelines, 2003). The EIA reports are comparably good in describing the baseline information which is helpful in determining impact and facilitating agency decisions making process. Very often mentions have been made about climate data, soil type, geology, hydrology, topography, flora and fauna, demographic indices, standard of living, infrastructure services, housing and energy and water supply (Mam Agrofarm PLC, 2008).

Scoping

Scoping is a 'narrowing' process that allows us "identify the key issues of concern at an early stage in the planning process and guide the development of terms of reference for the EIA" (IIED, n.a.). Scoping helps define the project's area of influence (including cumulative impacts) and ensure that assessments are more focused and EIA reports are more relevant and useful (World Bank, 2002). The decision over scoping issue also enables to avoid segmentation problems and consider cumulative impacts of related programs.

Currently, governments are preparing horticulture/floriculture zones thereby bringing more farms in a confined locality. At times letting individual farms prepare EIA will not provide much help as cumulative effects of floriculture farms are not linear and could be ignored in the process. Right from the start, the government should prepare program EIA before designating horticulture/floriculture zones instead of preparing segmented EIA. In addition, individual farms should be cautioned to consider cumulative effect of the sector and other activities around the farm in the preparation of EIA.

The EIA reviewing guidelines require EIA reports to indicate and justify the scoping method used, identify the valued environmental attributes, and identify project activities that have significant impacts on the valued environmental attributes (EIA Reviewing Guidelines, 2003). Practically, however, reports tend to ignore the related factors other than the proposed project though these reports are good in identifying the frequently mentioned environmental attributes.

Determination of Impacts

US legal regime requires EIA documents to make "a full and fair discussion of environmental impacts" which should discuss direct, indirect and cumulative environmental effects of the proposed action, any alternatives to the action, and uncertainty, delay, worse-

case risk and cost-benefit-analysis of the actions (FERRY, 2004, p. 115). Similarly, the Ethiopian law requires detailed description of the negative and positive environmental impacts of the project together with the criterion used to determine significance, opinion of affected stakeholders, comparison of proposed options and the like (EIA Reviewing Guidelines, 2003, Series 2 & 4). Besides, direct and indirect/secondary impact of each activities of the project, possible accidents and emergencies that arise in the implementation of the project, and impacts not significant by itself but that increase the existing impact should be identified (EIA Reviewing Guidelines, 2003, Series 4).

Though the range and degree of impact treatment differs in different EIA reports, the adverse impacts identified in the floriculture sector are similar, and characterized by inadequate and weak treatment. RSL Flower's EIA report, for instance, discusses positive and negative impacts together. Threat to the genetic biodiversity, human health, and introduction of new pests due to the importation of genetically modified planting materials (GMO); fertilizers and pesticides impact; salinity, water logging and disease prevalence due to irrigation system; erosion from the running water and wind; solid and liquid waste; effect to workers health due to chemical exposure, accident or disease; and increased temperature in green houses are the impacts identified together with mitigation measures. While socio-economic impacts are the positive ones (RSL Flower EIA report, 2006).

In addition to unnecessarily combining the negative and positive effects together, environmental impacts are shallowly identified and described. For instance, EWF Flower's EIA report identified six impacts where five of them are exaggerated positive economic impacts. These are job creation, source of labor, improved working conditions, income distribution and economic impact (e.g. demands for housing, foreign currency and livelihood improvement) that should have been combined as 'economic impact'. Nonetheless, environmental issue is underemphasized and relegated to sixth place without detailed descriptions of the impacts (EWF Flowers EIA report, 2008). Instead of describing the impact by revealing which activities would result the impact, and magnitude, extent, duration and frequency of the impact etc, the report is devoted to self-excuse.

Likewise, Mam agro farm merges negative and positive impacts. In addition, it describes what the project will not affect instead of what and how it affects. This report has not described the impacts in a way that the magnitude, frequency, nature etc of the impacts are understandable; instead more discussion has been owed to mitigation measures. As a result, very important effects of the project have been ignored including effect on workers' health, local community and animals.

Big questions are the method of impact identification employed and whether EIA is done to justify what the farm has intended to do. More relevant environmental information is missing in many EIA reports. For instance, cost-benefit-analysis has not been observed in a single farm. In addition, every farm is duty bound to construct waste disposal sites after conducting EIA for it and got approval from EPA (Mulugeta 2009, pp. 254 & 263). Currently there is no evidence showing that farms have done EIA before designating waste disposal sites, if they have any.

Mitigation Measures and Environmental Management Plans (EMP)

Identification of environmental impacts should be followed by enforceable and project specific mitigation measures, environmental management plan (EMP) and auditing/monitoring systems (EIA Reviewing Guidelines, Series 2). The mitigation measures should include impact preventing, reducing or minimizing methods, and rectifying methods if they occur (EIA Reviewing Guidelines, Series 2). In addition, mitigation measures shall be followed by detailed EMP and proposed monitoring arrangements for the significant impacts (EIA Reviewing Guidelines, Series 2). The EMP, in its part, contains a set of mitigation, monitoring and institutional measures to be taken during the implementation and operation of the project (Achieng, 2007).

Though, the EIA reports submitted to EPA seems relatively fine in listing mitigation measures, they are practically short of devising practical preventive measures and contingency plans in case of emergencies. Such reports that do not give sufficient information about the nature of the impacts itself cannot describe workable mitigation measures. Some of the EIA reports assessed have enumerated mitigation measures followed by detailed scheduled activities, cost of each mitigation activities and responsible individuals for its implementation. Farms, however, do not prepare a separate EMP (Mam Agrofarm EIA report, 2008). Hence, the objective that EMP “provides a crucial link between alternative mitigation measures evaluated and described in the EIA report and actual implementation of such measures” will be defeated (World Bank, 2002). Added is the gloomy that mitigation measures are unnecessarily merged with description of the impact.

Alternatives

Alternatives both primary (substitutes for the proposed action that will achieve similar result) and secondary (different ways in which a proponent can go about to its proposed action) are methods other than the proposed action which are less environmentally damaging way to

attain project's objectives (Ferry, 2004). Ethiopian law stipulates that EIA report should contain realistic and genuine alternatives that consider, inter alia, the no action alternative and alternative processes, and scales, layouts, designs and operating conditions of the project (EIA Reviewing Guidelines, 2003, Series 4). Moreover, the report should discuss “the reasons for selecting the proposed project and the part environmental factors have played in the selection” (EIA Reviewing Guidelines, 2003, Series 4, p.8).

Parties involved in the EIA process, however, either do not understand what alternatives are and its importance or do not want to think of it as most EIAs are done after the implementation of the project. The statement under ‘project alternative’ found in most of the EIA reports assessed reads: “The floriculture project will change the plants and rose varieties depending up on the market demand. Floriculture industry which is in nascent stage in Ethiopian is well supported by government for obvious reasons (Surya Blossoms Plc EIA report, 2006). This statement is too short, too brief and too insufficient to be considered as alternatives designed to mitigate environmental impacts.

Public Participation

Literatures repeatedly state that “timely, well-planned and implemented public involvement and consultation programmes will contribute to the successful design, implementation, operation and management of proposal actions” (Abaza et al., 2004, p. 66). EPA officials have mentioned that genuine public participation is one of the challenges Ethiopian EIA practice is facing though “it is key to identifying environmental impacts and designing mitigation measures” (World Bank, 2000). Genuine attempt to consult the general public, relevant public agencies, relevant experts and special interest groups; mandatory consultation with statutory consultees; and including responses in the report are required by the EIA guidelines. It further requires ‘approved minutes of public involvement process’ to be annexed with the report.

Due to poor monitoring and verification systems, public consultation has been concealed through different means. Preparing fake minutes without consulting the community and securing the seal of the local authority (through bribe) are the major ones (Solomon interview, 2009). Moreover, failing to disclose relevant project information during consultation, talking to the unaffected community or only to the local officials, concealing the concerns of the community during reporting, and conducting the consultation after the implementation of the project are additional procedural irregularities observed.

Public consultations with the local administrators and community have been conducted by Mam Agrofarm Plc long after the farm went in to operation.

The minute is dully signed by the participants, sealed by the local official and is attached with the EIA report. The communities have raised many concerns but none of them are addressed anywhere in the report except attaching the minutes in the annex (Mam Agrofarm EIA report, 2008; RSL Flower Plc, 2006; Surya Blossoms Plc EIA reports, 2006). On the other hand, in instances where none of the communities and local officials understands English, minutes written in English, signed by the local community and sealed by the local official are observed (L'arca Investment Plc EIA report, 2007).

Public consultation is not a one-stop process but should be integrated in the EIA process including during the review and post-decision stages (Abaza et al., 2004). Public involvement anywhere in the EIA process "ensures that the EIA process is open, transparent, and robust, and also that individual EIAs are founded on justifiable and defensible analyses" (Abaza et al., 2004, p.66). Ethiopian laws state that EIA documents should be accessible for the public and the EPA committed itself to make "...its decisions and the EA [EIA] report available to the public" (EIA Proclamation 299, 2002, Art. 15; EIA Procedural Guidelines, 2003). However, EPA is not prepared to avail EIA reports to the public.

Decision Making or Reviewing Process and the Delegation

After dully reviewing the EIA, the decision of the authority could possibly be request for supplementary or new EIA report; approval of the EIA report or performance reports at various stages in the project cycle; approval of the proposal with or without conditions; approval subject to ongoing investigation; or rejection. While making such decisions, the EIA procedural guidelines require that a summary of evaluation, reasons for decision and conditions of approval are made public. Nonetheless, let alone the decision and conditions of approval, EPA does not facilitate any meaningful access to the EIA reports.

Experts in EPA are of the opinion that rejection is an exception while approval is the most common and conditional approvals or request for additional data happen in few circumstances in the floriculture sector (Solomon interview, 2009; Abreham Haile Melekot, 2009). The author witnessed instances where farms are required to modify their original report for being too shallow (Surya Blossoms Plc, 2008/2009; Roses Project, 2006). Experts in EPA believe that EIA reports submitted for review are not satisfactory and are filled with uncertainties. EPA is not practically doing anything than requiring proponents to modify or amendment reports. Moreover, the fact that most EIA reports are a replica of one another and failing to address public concerns raised during consultation shows that EPA is not well reviewing the reports

Currently, EPA has delegated its power of reviewing EIA reports to concerned sectoral offices, and Ministry of Agriculture (MoA) is in charge of reviewing reports of floriculture farms. Many legal and practical counter arguments can be raised against the delegation including lack of qualified experts and commitment, and neutrality of MoA on the matter (Mulugeta 2009). However, EPA has signed memorandum of understanding with MoA and the planning department of the ministry will undertake the task (Wondossen, 2009). Even after the delegation, EPA was reviewing EIA reports of floriculture farms (Solomon interview, 2009). The movement was driven by the concept of 'one-stop-shopping' service delivery where a single office issues all licenses (investment, business, land and environmental clearance).

Post EIA Processes

Follow-ups and Monitoring

Monitoring arrangements "directed towards measuring and evaluating changes brought about by a project and assessing the effectiveness of agreed-upon mitigation measures" is essential part of the EIA process (World Bank, 2002, p. 23; EIA Reviewing Guidelines, 2003, Series 4, p. 9). In addition to internal auditing by the farms themselves, EPA is duty bound to monitor and audit the performance of farms' EMP (EIA Proclamation No 299, 2002, Arts. 11 & 12). In its history, EPA has undertaken monitoring once in two farms, i.e. Holleta Rose Plc and Red Fox Ethiopian Plc (Abreham Haile Melekot, 2009). The monitoring report is, however, kept as secret of unknown reason. According to an expert in EPA, the result of the monitoring was not satisfactory: one of the farms has not undertaken EIA while the second farm lost its EIA document and EMP. Lack of institutional capacity prevented EPA from auditing more farms, experts claim.

EHDA also claims that conducting environmental auditing is the mandate of EPA and it is not making any meaningful environmental auditing. Few follow ups by EHDA are limited to farms that have already started or about to start exporting products (Abdulwahab Ali, 2010). The checklists of the case-team in EHDA that undertakes monitoring is more about production and crop management than environmental issues. Very crucial matters like environmental management plan (EMP), use of fertilizers, pesticides and water, safe disposal of wastes, safe storing of chemicals, workers' safety etc are disregarded. EHPEA, in its part, conducts periodic and regular auditing of the certified and non-certified member farms (Rutta Firdissa, 2010). Such auditing is made according to the code of practice which stipulates some environmental regulation but few about EIA. Yet EHPEA's auditing is comparably meaningful for the

protection of the environment. Environmental auditing in the floriculture sector is not undertaken to confirm observance of environmental standards and reveal aspects of improved or deteriorated environmental quality. It is characterized by the existence of multiples of sectors and negative conflict of roles that have sidelined the importance of environmental monitoring.

Supplementary EIA

After preparing a final impact statement, new circumstances or information or “an unforeseen fact of serious implication” might trigger supplementary EIA (SEIA) or new or additional environmental impacts assessments (FERRY, 2004; EIA Proclamation No 299, 2002). The new circumstances might have arisen due to the introduction of new improvement options and/or major changes in the natural environment or communities or change in assumptions. Basically, environmental monitoring enables environmental agencies and farms to appreciate the changing circumstance, if any, that could necessitate SEIA. However, due to absence of environmental monitoring and weak institutional coordination, SEIA has not been observed anywhere in the sector.

CONCLUSION AND RECOMMENDATION

International environmental law has felt the necessity of EIA since 1970s. Though the body of international law seems stronger in requiring EIA during transboundary environmental impacts, a handful of them also require EIA even if the activities have only national impacts. More importantly, the regulations of international funding institution that puts EIA as a requirement for any funding will stimulate national jurisdiction.

The Ethiopian constitution and EPE have got marvelous environmental clauses that paved the way for the coming of subordinate and specific EIA laws. However, environmental values stipulated in environmental laws and policies are shadowed by recent sectoral laws (e.g. investment laws) and opposing practices (e.g. delegation of EIA review power to weaker and unprepared sectoral offices). Institutional wise, the process is segmented and more than five federal agencies are involved in different stages of the process though EPA is the dominant one. Yet none of them have given due attention to the importance of EIA.

For an effective EIA practice, particular emphasis should be given to four components central to administration and implementation of EIA process: comprehensive and understandable legal regime; committed and well coordinated implementing agencies; self-directed and initiated development proponent; and improved public involvement (Abaza et al 2004).

Unfortunately, in Ethiopian none of these components are available at the required degree.

Strengthening the EIA legal framework to fill the existing legal lacuna and mainstreaming environmental values in each sectoral laws and development activities deserve urgent respond. Bringing more practicable EIA guidelines or directives on matters like standards and valid ways of public participation; EIA for public instruments and policies, including designation of industry zones; licensing process, determination and responsibilities of consulting firm; and flexible ways of determining projects the should prepare EIA is much needed.

Enhancing implementation capacity of government agencies and strengthening the coordination among governmental agencies and other stakeholders should also be done. Integrating the segmented EIA process and defining the relationship and respective obligations of different regulatory institutions is necessary. These offices, in fact, need to be strengthened with required logistics and experts to deal with the imminent threat the sector is posing to the national environment. However, attitudinal change of government officials, stakeholders, especially proponents to consider EIA as a development tool that will ensure sustainability of the sector is important. The capacity of consulting firms should also be strengthened for quality and transparent EIA practices.

Moreover, preparing EIA at the earliest stage of project design, designing realistic project alternatives, enforcing public participation and information disclosure clauses of the laws, embarking on internal and external monitoring, and implementing EMP should not wait too long to come.

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