

amendment of the existing vesting structure of timber and trees to divest the ownership of trees off reserves from the President to enable their vesting in the landowners or farmers or stools concerned.

The amendment of the tree tenure system to give farmers/inhabitants a share of proceeds made from the harvesting of any naturally occurring trees that they have nurtured and recognized by the Forestry Commission.

Pesticides and fertilizer use in agriculture

- (a) Legislation to create a requirement to license the use of pesticides in significantly large quantities. The license should require an assessment of the cumulative effect of projects on the environment.
- (b) Legislation to provide a framework for regulating non-commercial quantities of fertilizers and to ensure that the impact of fertilizer products on ecosystems and biodiversity are assessed and controlled.

TEXTBOX 1:

THE PESTICIDES CRISES IN GHANA

The government's role as provider of pesticides at subsidized prices to farmers ended in the 1990's when the pesticides industry was liberalized. Since then the amount of imports, the number of importers, the quantities of pesticides used and the number of farmers using pesticides all appear to have increased. Majority of Ghanaian farmers (estimates as high as 80-90%) use chemical pesticides to control insects and diseases on their food and cash crops. Ghana currently approves the use of 537 pesticides while 32 have been banned and some restricted in use. However, these banned and restricted pesticides are still being used by farmers. Lindane and endosulfan - which were restricted to use on cocoa, coffee and maize - are being used on vegetables, along with DDT, which was banned. In 2008, the EPA discovered 71 tonnes of banned pesticides, most of which were found at the warehouses of the Ghana Cocoa Board at Anyinam, the Benso Oil Palm Plantation and the Twifo Oil Palm Plantation. Endosulfan, a toxic organochlorine widely used in cotton growing, was suspended by the government in 2009. It had previously been restricted to use on cotton but was suspended because of its widespread diversion by farmers for use on food crops such as cowpea, tomatoes and okro. The increase in pesticide imports has been accompanied by an increase in the number of private importing companies. Up to 50 companies are now believed to be importing pesticides into Ghana. Yet many imports are illegal. In 2001, EPA estimated that 20 per cent of pesticides used by farmers in Ghana were obtained from unauthorized traders. The use of unregistered pesticides is also on the rise. The main reasons for using unregistered pesticides include: the relatively lower cost compared to registered pesticides; their availability (sold on local market); and difficult access to registered pesticides (in terms of proximity).



Ensuring Sustainable Land-Use THROUGH Good Agricultural Practices In Ghana



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Background

Ghana's agriculture land area is estimated at 13.6 million hectares, representing about 56 percent of the country's total land¹. The economy is heavily dependent on agriculture, employing nearly half of the national labour force. Yet agriculture remains largely rain-fed and subsistence-based, with rudimentary technology supporting 80 percent of total output. The majority of farm holdings are less than 2 hectares in size, although there are some large farms and plantations, particularly for rubber, oil palm and coconut. Most food crop farms are intercropped while monoculture is mostly associated with large-scale or commercial farms.

Agricultural intensification and expansion has been identified as a significant cause of land use change in Ghana. This is leading to the over exploitation and loss of trees and non-timber forest products across the landscape, increasing pressures on water supply through water abstraction for primarily irrigation, unquantified (over-)use of fertilizers and pesticides that seep into water courses threatening fisheries resources and limiting water. Aichi Target 7 of the Convention of Biological Diversity calls for the sustainable management of areas under agriculture, aquaculture and forestry by 2020².

Compared to other relevant areas, such as forestry, there is no existing work to ascertain how well legislation and regulation in this area delivers for sustainable land use. Unlike other relevant areas such as forestry, there is a paucity of information on how effective the legal framework on agriculture is in supporting the sustainable use of land as described in the Abuja Declaration³. Protected areas and sustainably managed agricultural landscapes can safeguard important habitats where effective policies and legislation are well implemented. This policy brief is a result of an assessment of an extensive list of legislation and regulations on agriculture in Ghana.

Findings

- **Water rights:** a person is required by law to obtain water rights, in the form of a water use permit, to divert, dam, store, abstract or use water resources, or construct or maintain any works for the use of water resources. The use of water for domestic purposes is exempted. The Water Resources Commission (WRC) is responsible for issuing and regulating the permits regime but this is subject to parliamentary ratification. Legal collaboration is required between the WRC and the Environmental Protection

Agency (EPA) to decide whether an Environmental Impact Assessment (EIA) is necessary, while the WRC is also responsible for consulting the potentially affected local communities. In practice, however, unless an operation is large scale there is no attempt to regulate water rights. Moreover, the WRC is basin based and unless an operation is affecting a water basin there is in practice no regulation by the WRC.

- **Benefit-sharing:** neighbouring communities that will be affected by the grant of water rights have to benefit from the revenue generated but in practice, they do not get any share of the fee/sum paid for the water rights awarded. There is, in addition, some difficulty in ascertaining precisely which community is affected by the grant of water rights.
- **Regulation of irrigation:** there is no specific regulation of irrigation in law. Legislation has created the Irrigation Development Authority (IDA) with specific mandates for official irrigated farming, livestock improvement and aquaculture. However, the legal framework only sets up the authority and gives it the above mandates. It does not give the IDA any regulatory powers or set up a regulatory regime to regulate irrigated farming.
- **Protection of freshwater bodies:** A Riparian Buffer Zone Policy for managing freshwater bodies in Ghana exists that apply to lands adjacent to rivers, streams, lakes and wetlands and lands at the margins of municipal reservoirs. The Riparian Buffer Zone Policy is to be implemented by the Ministry of Sanitation and Water Resources with support from other governmental agencies but does not have the force of law and depends on the political will of district officers and local officials to be effective. While this may have already affected the survival of freshwater bodies, the transformation of the policy into law will greatly contribute to protect waterbodies from drying up and consequently, loosing habitats for aquatic life such as migratory water birds and fishes. Besides logging operations, no provision was found in law that forbids or regulates farming activities or construction activities within/along riverine/ riparian buffer zones.
- **Tree tenure:** The ownership of naturally occurring timber is vested in the President in trust for the people of Ghana. The management of the utilization of timber resources is the mandate of the Forestry Commission on behalf of the President. A person requires timber rights in the form of

a Timber Utilization Contract (TUC) to harvest timber in Ghana. An application for a TUC must be accompanied by a harvesting plan prepared in accordance with sustainable management of timber resources, an assessment of the likely environmental effect, a proposed programme to redress the effect, and proposals to assist in addressing social needs of the communities who have interest in the applicant's proposed area of operations through a Social Responsibility Agreement (SRA). The study has however revealed that applicants frequently fail to conclude the SRA after the grant of the timber rights or they fail to comply with the SRA if it is concluded.

- **Trees in the agricultural landscape:** In off-reserve areas, however, agriculture is the primary activity and forestry has to fit into the farming system, not vice-versa. The study found that, in practice, timber in off-reserve areas, especially in cocoa farms is (often unlawfully) harvested⁴ without adequate compensation to affected farmers. There is no provision in the law that spells out modalities for compensation of the affected farmer. The law does not provide any incentive structure to promote integration of native trees (agroforestry) in the faming systems. This goes contrary to Ghana's National Determined Contributions (NDCs) under the REDD+ programmes.
- **Pesticides:** The law requires that pesticides must be registered before they can be imported, exported, manufactured, distributed, advertised, sold or used in Ghana (see textbox 1). The EPA, as the responsible government agency must be satisfied that the pesticide does not present any toxicological risk to people, crops, animals and the environment before it approves and registers the pesticide. The study, however, found no provision in legislation/regulation that expressly takes into regard the assessment of impact of chemical/ pesticide/herbicides on the ability of pollinating organisms to perform their function. EPA appoints inspectors at the District Assembly level to ensure compliance with the requirements. In practice, there is weak enforcement of these requirements at the borders. Another challenge is the mixing of certified pesticides with illegal and inferior products. There is also a lack of supervision and monitoring of pesticides sold at the marketplace.

- **Fertilizers:** It is a legal requirement that fertilizers are registered before they are manufactured or imported into Ghana by the Ministry of Food and Agriculture (MOFA). The Pesticide and Fertilizer Regulatory Division of the Plant Protection and Regulatory Services Directorate of MOFA is to ensure the correct labelling, inspection, sampling, testing and nutrient guarantees in accordance with the Act. But as with pesticides, the practice of fertilizer use is different from the intended legislative framework:

due to inadequate enforcement of the requirements in legislation, there is a problem of smuggling substandard fertilizers into Ghana across neighbouring countries through Ghana's border towns. Furthermore, it appears that subsidies on fertilizers create domestic shortages. The study found no regulation for the use of fertilizers that has the potential of curtailing improper use, overuse or the pollution of the environment.

Policy Recommendations

Water Resources

(a) Water rights:

- An amendment to provide in detail the criteria the Water Resources Commission should use in the assessment of application for water rights.
- A requirement in law that the publication of an application for water rights in a local area should be done by town criers or on radio in the language of the inhabitants as appropriate.

(b) Water abstraction:

- An introduction of legislation to specify the thresholds of water abstraction and related activities which should require an EIA before the grant of water rights.
- A provision for a legal framework for Strategic Environmental Assessment (SEA), the threshold and criteria for its performance and its regular review in respect of water resources.
- A requirement in law that the WRC should prescribe what constitutes a fair and adequate consultation to ensure a proper representation of the inhabitants before making granting the right to use the water resource.

(c) Protection of freshwater bodies:

The existing Riparian Buffer Zone Policy for Managing Freshwater Bodies in Ghana should be transformed into law as an Act of Parliament to ensure the proper management of freshwater bodies in Ghana. The law on the riparian policy should particularly be applied within plantations and new agricultural developments.

(d) Regulation of irrigation:

An amendment to the laws on irrigation should be introduced to require that the Irrigation Regulatory Authority to be given regulatory powers to regulate all forms of irrigation and irrigated lands in Ghana.

Trees in the agricultural landscape

- (a) The underlying land ownership should determine the ownership of tree and timber resources thereon. The

¹ Government of Ghana (2005) Support to NEPAD – CAADP implementation: National Medium-Term Investment Programme. Accra
² <https://www.cbd.int/sp/targets/rationale/target-7/default.shtml>
³ The Abuja Declaration on Sustainable Land Use for People and Biodiversity, including Migratory Birds, in West Africa, was agreed by West African governments, international institutions and NGOs in November 2016, at a workshop organized by the UNEP Convention on the Conservation of Migratory Species of Wild Animals and hosted by the Nigerian government in Abuja.
⁴ The harvesting is unlawful because ownership of naturally- occurring timber is vested in the President and consent of the Forestry Commission is required before any harvesting. The unlawful harvesting is done either by the farmers themselves or by timber contractors with the consent of the farmers.