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ESSAY

MAINSTREAMING CLIMATE CHANGE INTO PUBLIC POLICY FUNCTIONS: LEGAL OPTIONS TO REINFORCE SUSTAINABLE DEVELOPMENT OF KENYA

*Robert Kibugi**

INTRODUCTION

Kenya, which is a developing country, continues to face significant challenges of development to a middle-income economy, as proposed by Vision 2030, the official development policy.¹ Climate change threatens a major inhibition to the socio-economic and environmental progress due to climate vulnerability impacts on the population and economy. Addressing these challenges posed by climate change is critical because although Vision 2030 identifies the macro-level development priorities for Kenya, the constitution, promulgated in 2010,² explicitly indicates that development should be sustainable. It is important to discuss climate change in the context of sustainable development, because failure to effectively respond to climate change will likely inhibit Kenya's ability to attain sustainable development.

This article approaches the question of climate change from this perspective, by arguing that continued ineffective response to climate change is inhibiting realization of sustainable development. Yet in the Kenyan constitution, sustainable development is set out as a mandatory norm for public officials who are making public policy deci-

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1. *Sessional Paper No. 10 of 2012 on Vision 2030*.

2. CONSTITUTION, Aug. 27, Promulgated on 27 August 2010 (Kenya) (hereinafter "CONST.").

sions. The recent change in government structure has complicated the situation further because it creates two levels of government with functions that will likely overlap when climate change is concerned. This is because climate change responses address sectoral functions such as agriculture, forestry or water resources, which are vested in county governments. Part I of this paper critically examines the place of sustainable development in Kenya, and urges that failure to adequately respond to climate change inhibits realization of sustainable development. Part II examines the challenge of climate change in Kenya, highlighting the impacts, while Part III demonstrates the complex dynamics of a new system of government on climate change related functions. Part IV analyses the mainstreaming approach through the concept of horizontal and vertical integration.

I. THE SUSTAINABLE DEVELOPMENT IMPERATIVE

Sustainable development, as a constitutional norm, is identified by article 10 as one of the national values and principles that are binding on public officials and agencies whenever they make or apply the law or public policy decisions.³ In addition, ecologically sustainable development is set out as the key output of measures that should be taken to fulfill the constitutional right to a clean environment.⁴ The centrality of sustainable development, especially under article 10, suggests that any development planning policy, law, or decisions should consider and incorporate the principles of sustainable development. In the classical sense proposed by the Bruntland Commission report, "Our Common Future,"⁵ sustainable "development is defined as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'⁶ In practical terms, sustainable development captures the purpose of Principle 4 of the Rio Declaration.⁷ This is more aptly explained in the *Gabcikovo-*

3. CONST., art. 120 (2010) (Kenya).

4. See Article 69(2) of the CONST., art. 69(2), which specifies a duty on every person to cooperate with the state, and with other persons for the conservation of the environment and natural resources, and to ensure ecologically sustainable development. Article 69 is an article that sets out specific legislative and other measures that should be undertaken to fulfill the right to a clean and healthy environment that is specified in article 42.

5. See Report OF THE WORLD COMM'N ON ENV'T AND DEV., OUR COMMON FUTURE, U.N. Doc. A/42/427 (Oxford: Oxford University Press, September 25, 1987).

6. *Id.* at 43.

7. The provisions of principle 4 state that "environmental protection shall constitute an integral part of the development process."

*Nagymaros*⁸ decision by the International Court of Justice, where Vice President Weeramantry argued that sustainable development is a “right to development that. . .is relative. . .to its tolerance by the environment.”⁹ This view was reinforced by the South African Constitutional Court decision in *Fuel Retailers Association of South Africa v. Director General Environment*,¹⁰ where Justice Ngcobo determined that “sustainable development” does not require cessation of socio-economic development but seeks to regulate the manner in which socio-economic development takes place.¹¹

The inter-linkage between sustainable development and climate change was further articulated during Rio+20 through the outcome document entitled “The Future We Want,” which boldly named climate change as “one of the greatest challenges of our time”¹² and “as a cross-cutting and persistent crisis.”¹³ It expressed concern that developing countries such as Kenya are vulnerable to the adverse impacts of climate change, and are already experiencing increased impacts, including persistent drought and extreme weather events, sea-level rise, coastal erosion and ocean acidification, further threatening food security and efforts to eradicate poverty and achieve sustainable development.¹⁴ Thus the scale and gravity of the negative impacts of climate change affect all countries and undermine the ability of developing countries such as Kenya to achieve sustainable development.¹⁵

Therefore, considering the binding nature of sustainable development as a constitutional norm in Kenya, it is critical that climate change is considered as a building block for realization of sustainable development. The failure to adequately address adverse impacts of climate change will undermine Kenya’s ability to realize development that is sustainable. This suggests that both climate change and sustainable development are policy challenges that impact all other sectors of the economy. In essence, in order to overcome the develop-

8. *Gabcikovo-Nagymaros Project (Hungary v. Slovakia)*, Judgment, [1997] I.C.J. Reports 7, 88-116 (separate opinion of Vice-President Weeramantry., 88-116.). *Gabcikovo-Nagymaros*, “Separate Opinion of V-P Weeramantry.”

9. *Id.*

10. *Fuel Retailers Association of Southern Africa v. Director-General Environmental Management, Department of Agriculture, Conservation and Environment, Mpumalanga Province* 2007 (6) SA 4 (CC) (S. Afr.).

11. *Id.* at 58.

12. United Nations, *The Future We Want* Rio+20 Conference on Sustainable Development, Rio de Janeiro, Braz., June 20-22, 2012, *The Future We Want*, ¶ 190, U.N. Doc. Outcome of the Conference A/CONF.216/L.1* Rio de Janeiro, Brazil, June 20-22, 2012.

13. *Id.* at ¶ 25.

14. *Id.* at ¶ 190.

15. *Id.* at ¶ 25.

ment deficit caused by adverse impacts of climate change, for instance through enhanced climate resilience, it is necessary to frame a legal approach that requires every sector to address both sustainable development and climate change challenges, in the course of normal business. This is typically referred to as the mainstreaming approach, which entails a system of horizontal and vertical integration. This approach is analyzed in Part IV. Prior to that, it is important to comprehend the extent of the adverse impacts of climate change affecting Kenya propose a theoretical basis for adopting a mainstreaming approach to address climate change to avoid inhibiting the imperative for sustainable development.

II. UNDERSTANDING THE CHALLENGE OF CLIMATE CHANGE IN KENYA

Climate change is attributed directly or indirectly to human activity and alters the composition of the global atmosphere, and is in addition to natural climate variability observed over comparable time periods.¹⁶ As highlighted above, this change of climate has significant implications to developing countries such as Kenya, which are extremely vulnerable. This is mainly because the national economy is heavily reliant on climate vulnerable sectors, such as agriculture, water resources, and tourism.¹⁷ In this context, for instance, the vulnerability to negative impacts of climate change is particularly high for communities directly dependent on natural resources for their livelihood as the changes to climate induces droughts and floods; creates public health emergencies due to rapid spread of diseases; and causes conflict and insecurity in resource use; overgrazing; deforestation; soil erosion and fertility decline; water scarcity; food insecurity; and wood fuel crisis.¹⁸ Overall, the society, economy and environment are vulnerable to the negative impacts.

Indeed, the socio-economic reliance on the natural environment coupled with an increasing risk of extreme weather events evolving into disasters tends to bear tragic consequences such as loss of life, and destruction to social and productive systems. This has been evident in Kenya, with drought and flooding cycles recurring every two to four

16. United Nations Framework Convention on Climate Change, art. 1 (May 9, 1992), available at http://www.unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf.

17. Republic of Kenya Ministry of Environment and Mineral Resources, National Environment Management Authority, *National Environmental Action Plan (NEAP) 2009-2013* 44 (Nairobi: National Environment Management Authority, (2008)), available at <http://www.ecolex.org/server2.php/libcat/docs/LI/MON-083009.pdf>. at 28.

18. *Id.*

years.¹⁹ Most recently, a debilitating drought occurred in 2011 and was declared a national disaster due to the magnitude of impacts.²⁰ Heavy rains in 2012 caused severe flooding in many low-lying areas of Kenya, particularly around Lake Victoria, and significant mudslides across the country, such as the one in Elgeyo Marakwet County in December 2012.²¹ These extreme weather events, such as floods, are causing significant harm to critical infrastructure such as road networks, bridges, and even homes, raising concerns on the level of climate proofing for critical infrastructure. It also raises questions on whether planning and development control systems integrate climate change impacts as considerations during planning and when granting development approvals. The debilitating impacts of disasters are further compounded by increasing vulnerabilities related to changing demographic and socio-economic conditions, development within high-risk zones, underdevelopment, environmental degradation, climate variability, climate change, geological hazards, and competition for scarce resources.²² Even in the absence of natural disasters, vulnerability to the impacts of climate change is worsened due to the presence of weak systems of building resilience for the productive systems, which exacerbates citizens' vulnerability to climate change impacts. Thus, climate change is a system wide problem.

The current National Climate Change Response Strategy (NC-CRS) projects that Kenya will suffer significant negative impacts from climate change on natural systems; key economic sectors; as well as on physical and social infrastructure.²³ This suggests that unless action is taken to implement response measures, the country's key development agenda, as espoused through Vision 2030 will be compromised significantly. Similarly, the sustainable development imperatives imposed by the constitution will not be fulfilled.

19. See Government of Kenya, *National Climate Response Strategy* 34 (April 2010), available at http://cdkn.org/wp-content/uploads/2012/04/National-Climate-Change-Response-Strategy_April-2010.pdf (Nairobi: Ministry of Environment and Mineral Resources, April 2010).

20. See *Drought 2011: How Kenya Responded* (Kenya Red Cross, Mar. 2012), <https://www.kenyaredcross.org/PDF/K4K/Drought%202011%20:%20How%20Kenya%20Responded.pdf><https://www.kenyaredcross.org/PDF/K4K/Drought%202011%20:%20How%20Kenya%20Responded.pdf>.

21. Kenya Red Cross, *Floods 2012: International Federation of the Red Cross Disaster Relief Emergency Fund* (Jan. 15, 2013), <http://www.ifrc.org/docs/Appeals/13/MDRKE024.pdf>, <https://www.ifrc.org/docs/Appeals/13/MDRKE024.pdf>.

22. International Strategy for Disaster Risk Reduction, *Hyogo Framework for Action 2005–2015: Building the Resilience of Nations and Communities to Disasters*, Extract from the final report of the World Conference on Disaster Reduction (A/CONF.206/6).

23. Government of Kenya, *supra* note 12, at 30-42.

From a technical or scientific perspective, the most critical climate change response mechanisms are specified by the 1992 United Nations Framework Convention on Climate Change, which Kenya has ratified. Primarily, countries have to put in place mechanisms for mitigation and adaptation. Mitigation is defined by the Intergovernmental Panel on Climate Change (IPCC) to mean designing policies to reduce greenhouse gas emissions and enhance sinks.²⁴ Adaptation is defined as the adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.²⁵

Where resilience of the population and economic systems is a major concern, in places such as Kenya, due to vulnerability to impacts of climate change, adaptation becomes a major focus for policy and legislative mechanisms. Rio+20 concurs with this approach, noting that “adaptation to climate change represents an immediate and urgent global priority.”²⁶ Nonetheless, both mitigation and adaptation have to be considered together to maximize the co-benefits, and to eliminate any deleterious effects. In the development of a Climate Change Action Plan process, the Government of Kenya has a priority focus on a low carbon climate resilience development pathway that combines adaptation and mitigation.²⁷ The priority six areas of action include: geothermal power generation; clean energy; water resource management; restoration of forests on degraded lands; climate smart agriculture and agroforestry; and infrastructure.²⁸ Whether through mitigation or adaptation (reactive²⁹ or planned adaptation), the role of government in policy-making, enacting legislation, and institutional mechanisms is therefore critical.

24. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: MITIGATION 819 (Metz et al., eds., 2007). Sink is used here to mean any process, activity, or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere. See generally Article 1(8) of the United Nations Convention on Climate Change.

25. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2001: IMPACTS, ADAPTATION, AND VULNERABILITY 982 (McCarthy et al. eds., 2001), hereinafter “Impacts, Adaptation and Vulnerability”.

26. United Nations, *The Future We Want: Rio+20 Conference on Sustainable Development, Outcome of the Conference A/CONF.216/L.1**, Rio de Janeiro, Brazil, 20–22 June 2012.

27. *Government of Kenya, National Climate Change Action Plan 2013-2017: Executive Summary* (Nairobi, Dec. 2012).

28. *Id.*

29. Reactive adaptation is action taken after impacts of climate change have been observed. See Pierre Bernier and Dieter Schoene, *Adapting Forests and their Management to Climate Change: An Overview*, 60 UNASYLVA 231/232 (2009), 5-11, 7. See further, Impacts, Adaptation and Vulnerability, note 25 *supra*, at 982.

Planned adaptation, for instance, is imperative when a government intends to put in place a deliberate policy decision, based on an awareness that conditions have changed or are about to change, and that action is required to return to, maintain, or achieve a desired state.³⁰ With extreme events that are attributable to climate change impacts, such as floods or droughts, evolving into disasters, the concept of disaster risk reduction becomes important for government structures. The purpose of disaster risk reduction (DRR) is to decrease disaster risks through systematic efforts, which involves analyzing and reducing the causal factors of disasters.³¹ It thus involves reducing exposure to hazards, minimizing vulnerability of people and property, enhancing wise management of land and the environment, and improving preparedness for adverse events.³² The absence of DRR in policies will significantly limit a country's ability to detect deleterious effects of climate change responses, likely diminish impact of adaptation steps, and generally vitiate the ability of a country or people to make sustainable development a reality. Climate change-induced extreme events, for instance, have the capacity to reverse sustainable development—hence the need to deploy DRR tools for anticipatory action. Such tools include developing early warning systems, public awareness and participation to build a culture of safety, undertaking hazard and risk assessments, and *ex ante* disaster preparedness. This requires a harmonized approach whereby all relevant sectors of the economy integrate DRR as a core part of implementing their mandates to mitigate deleterious effects.

From the foregoing assessment, a conclusion can be drawn that the adverse impacts of the climate change facing Kenya are systemic, and cut across the socio-economic and environmental sectors of the Kenyan state. This suggests that unless measures are put in place to reduce greenhouse gas (GHG) emissions, and to build resilience and capacity to cope with the impending changes, the capacity of Kenya to realize sustainable development will be significantly impaired. From a policy and legal perspective, this indicates a need to explore how the system of governance and administration in Kenya can or should work to implement responses to climate change that are necessary to secure the low carbon climate resilience development pathway that government policy has identified.

30. *Id.*

31. See INTERNATIONAL STRATEGY FOR DISASTER REDUCTION (ISDR), available at <http://www.unisdr.org/who-we-are> (<http://www.unisdr.org/who-we-are>) (last accessed visited Apr. 3, 2013).

32. *Id.*

III. IMPACT OF NATIONAL STRUCTURE OF GOVERNMENT ON SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE RESPONSE

With promulgation of a new constitution in 2010, the national structure of governance in Kenya was reorganized extensively. The fundamental changes relevant to this analysis includes a shift from a centralized national government to a devolved system of government. This features one national government, and 47 autonomous counties that have distinct executive and legislative authority over constitutionally defined roles. The national government still retains extensive national policy-making powers on the national government, including on economic policy, development, natural resource management, and environment. County governments have executive and legislative functions, specifically defined in the fourth schedule of the constitution. The social, environmental, and economic sectors have expanded exponentially due to the scope and breadth of the new national system of administration. In essence, the scope and breadth of the national system of administration, social, environmental and economic sectors has expanded exponentially. This will involve roles performed by institutions at the level of the national government and county governments. The purpose of a devolved system of government is to bring services closer to people, and to allow equitable sharing of national resources to spread development to all parts of Kenya. Devolution is therefore intricately linked to Kenya's search for sustainable development—which is under threat from adverse impacts of climate change. It is therefore critical to explore how the law can provide a holistic framework that integrates climate change as a fundamental factor in the various sectors and levels of government to ensure that climate change is part of core functions and mandates.

According to the constitution, where a function is conferred on more than one level of government, such function is presumed to be within the concurrent jurisdiction of both levels of government. Where a function is not conferred to either level of government through the fourth schedule, such function is to be presumed to be a function of the national government. Climate change is one such function that is not explicitly assigned by the fourth schedule to either level of government. Thus by default, article 186(3) of the constitution applies, and it can be interpreted as a function of the national government. Notably, clause 22 in Part I of the fourth schedule confers on the national government the function to protect the environment and natural resources with a view to establishing a durable and sustainable system of development. However, from a practical perspective, many of the specific measures

that climate law and policy may set up for mitigation adaptation fall within the province of constitutional functions conferred on county governments. This includes implementation of environmental policy; water services; agriculture; county transportation; health services.³³ The various sectoral functions that are critical for implementing climate change responses, such as agriculture, water, transport, infrastructure, and planning, will be performed by sectoral institutions spread across the national government, and 47 county governments. Cooperation between the national government and county governments (and among agencies of the same level of government) in the design and overall implementation of climate change responses will be imperative, as the counties are the likely implementers. It is therefore critical for the law to anticipate and provide a system that facilitates how all the various socio-economic and environmental sectors will integrate climate change measures into their regular functions. The concept of mainstreaming provides core tools that the law can deploy for this purpose.

IV. THEORETICAL AND LEGAL OPTIONS FOR MAINSTREAMING CLIMATE CHANGE IN PUBLIC FUNCTIONS

Bearing in mind the complex institutional structure of devolved government in Kenya, the implementation of climate change response requires carefully considered coordination. This is also because climate change is by nature multifaceted and cross-cutting, and potentially affects virtually all sectors of the economy.³⁴ Therefore, institutional structures must likewise be all-encompassing.³⁵ The concept of institutional integration, which forms the foundation for mainstreaming, provides a foundational basis for the creation of such institutional structures. Environmental policy scholars Lafferty and Hovden have discussed institutional integration, arguing there is vertical and horizontal integration.³⁶ Legal scholar Hans Christian Bugge concurs with this classification.³⁷ Vertical and horizontal integration is mainly defined by the nature of public administration and government that

33. See CONST., Sched. 4, Part II (2010) (Kenya).

34. International Development Law Organization [IDLO], *Enabling Legislative and Institutional Framework for Climate Change Response in Kenya - Sub-Component 2 of the Kenya NCCRS Action Plan* (IDLO, Rome, Oct. 2012).

35. *Id.*

36. William Lafferty & Eivind Hovden, *Environmental policy integration: towards an analytical framework*, (2003) 12 ENVIRONMENTAL POLITICS (ISSUE 3), 1-22.

37. Hans Christian Bugge, *The Principle of Integration and its Dilemmas*, Conference presentation at IUCN Academy of Environmental Law, (Dec. 22, 2009).

tends to be structured alongside specialized sectoral agencies or departments. There will also, in some cases, be a principal or framework environmental law establishing the environmental norms and rules.³⁸

A. *Horizontal climate integration*

Lafferty and Hovden argue that horizontal integration occurs when a central authority has put in place a comprehensive cross-sectoral strategy for integration of environment and development. The authors suggest the central authority could be a government, a government ministry, or an agency or commission that has been entrusted with an overarching responsibility for sustainable development.³⁹ It is plausible that an overarching treaty or municipal environmental law that establishes general and binding rules for implementation by the various sectors is a manifestation of horizontal integration. The Treaty of the European Community,⁴⁰ for example, takes this approach. Article 6 stipulates “environmental protection requirements must be integrated into the definition and implementation of the Community policies and activities. . . with a view to promoting sustainable development.” This horizontal integration further embraces a vertical integration approach by specifically highlighting the sectoral policies that should integrate climate change or sustainable development requirements.⁴¹

Often, national framework environmental laws that embrace horizontal integration also tend to establish “authorities”, “agencies” or “commissions” with powers to supervise compliance. The Kenyan framework Environmental Management and Coordination Act (EMCA) sets up a National Environmental Management Authority (NEMA) as the principal public agency “to exercise general supervision and co-ordination over all matters relating to the environment and to be the principal instrument of Government in the implementation of

38. Environmental Management and Coordination Act (1999) (Kenya). The preamble states that EMCA is an Act of Parliament “to provide for the establishment of an appropriate legal and institutional framework for the management of the environment” in recognition that improved legal and administrative coordination of the diverse sectoral initiatives is necessary to improve the national capacity for the management of the environment.

39. Lafferty & Hovden, *supra* note 36, at 14.

40. Treaty Establishing the European Community, Apr. 8, 1965, 2006 O.J. (C 321) E/3.

41. *Id.* The full article 6: Environmental protection requirements must be integrated into the definition and implementation of the community policies and activities referred to in Article 3, in particular with a view to promoting sustainable development (emphasis added). See Article 3 for an in-depth listing of the sectoral policies and activities.

all policies relating to the environment.”⁴² The Kenyan NEMA has a statutory mandate⁴³ to evaluate environmental impact assessment study reports and issue licences for development projects that require prior impact assessment.⁴⁴ This function manifests the horizontal integration role with EMCA setting the requirement for impact assessment, and NEMA (as a central authority) executing the environmental impact assessment requirement for other public and private economic activities. In addition, NEMA is empowered through section 12 to direct any lead agencies to perform their functions under EMCA or any other written law. NEMA can also take over such sectoral functions in the case that the lead agency fails to perform them satisfactorily.

The constitutional provision, in article 10, that frames sustainable development as a binding national value that must accompany any public policy illustrates another instance of horizontal integration. However, this requires enactment of enabling legislation to provide proper normative content for implementation. In the context of climate change, horizontal integration would include an overarching legal, policy and institutional mechanism that provides the overarching structure. The National Climate Change Response Strategy is a viable illustration of horizontal climate integration. Potentially, as with EMCA, there will need to be a national law on climate change, and a corresponding policy. Institutionally, since climate change is cross-cutting and multi-sectoral, the effective approach involves creation of an institution that addresses the cross-cutting nature of the problem at hand.

B. Vertical Climate Integration

Vertical integration indicates the extent to which a particular sector or level of government has adopted and sought to implement climate change objectives as part of the core objectives assigned to that sector.⁴⁵ Hans Christian Bugge concurs, noting that institutional integration of sustainability objectives requires facilitating and convincing sectoral authorities to work with objectives that they do not consider or identify as primary tasks.⁴⁶ This is important because climate change

42. See EMCA, *supra* note 38 section at 9(1).

43. *Id.* at 58-60.

44. These projects are listed in the Second Schedule to EMCA.

45. See Lafferty & Hovden, *supra* note 36, at 12.

46. See Bugge, “Principle of Integration and its dilemmas,” *supra* note 51. Hans Bugge further argues that institutional integration requires that “all sector authorities must take

is cross cutting to sector areas to which it could be a novel concern. Therefore, each sector will be left to implement and execute its core objectives, and will be required to explain how these objectives, for instance, impact sustainability goals.⁴⁷ Furthermore, the integrating law or policy may require the sectoral agency or department to prepare plans or strategies on how to implement mitigation and adaptation measures, as appropriate. This theoretical approach is consistent, for instance, with the vertical integration adopted in the 2011 South African National Climate Change Response Strategy.

The strategy indicates how vertical integration of law, policy, and institutions is mapped out in South Africa. In that context, each Province (with constitutionally devolved powers) is required to develop a climate response strategy that evaluates provincial climate risks and impacts and that seeks to give effect to the National Climate Change Response Policy at the provincial level. A further level of devolution, local governments are required to integrate climate change considerations and constraints into municipal development planning tools such as Integrated Development Plans and municipal service delivery programmes.⁴⁸ Therefore, vertical integration could involve legislative mainstreaming of climate change into sectoral functions. This would require climate or other legislation or policy to define clear climate change duties, functions, and obligations for sectors, institutions, and levels of government whose competence impacts climate change.

Therefore, for purposes of effectively implementing climate change responses through the structures of either the national government or county government, it is necessary to deploy horizontal and vertical climate integration through legislation and policy. This will aid in the design of a coherent, horizontally, and vertically integrated institutional arrangement. Aligned to the constitutional division of functions, it will be imperative to undertake such integration by mainstreaming functions and duties for various institutions through legislation and guiding policy statements. Such legislation and guiding policy statements will perform the role of horizontal integration, and set the basis for vertical integration. When implemented, the latter requires the law governing each public agency or institution, at either level of government, to incorporate climate change considerations, poli-

responsibility for their environmental effects.” Hans Christian Bugge, 1987-2007: ‘Our Common Future’ Revisited, in SUSTAINABLE DEVELOPMENT IN INTERNATIONAL AND NATIONAL LAW 9 (Hans Christian Bugge & Christina Voigt eds., 2007).

47. See Lafferty & Hovden, *supra* note 36, at 13.

48. See, IDLO, *supra* note 34. See also South Africa (2011) National Climate Change Response Strategy (white paper) at 37.

cies, and legislative provisions into the performance of its regular functions.

CONCLUSION

Mainstreaming in the context of climate change involves the integration of policies and measures to address climate change in ongoing sectoral and development planning and decision-making. It is a theoretical approach that supports the law and institutions in allocating responsibilities and functions efficiently. This approach will enhance the capacity of state institutions at national or devolved government level to perform their climate change functions. In this sense, the law, through horizontal integration, will provide an overarching legal and policy system for climate change. It will also provide a system of vertical integration that requires that any sector institution whose functions impacts climate change, to incorporate climate change into its regular assignment. If this mainstreaming approach to climate change is adopted, it will stimulate a system-wide response to the adverse impacts, and enhance the benefits of adaptation and mitigation, and therefore enhance sustainable development, as required by the constitution.
