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The agricultural economist as preacher: from policy advocacy to policy impact

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1. Introduction

I want to first thank the President of the African Association of Agricultural Economists, Professor Akin Adesina, and his Executive for the singular honour and privilege of inviting me to give the Inaugural Distinguished Agricultural Economist Lecture in memory of Professor Hezekiah Adedunmola Oluwasanmi, a truly original, pioneering African agricultural economist. I congratulate Professor Adesina especially for the innovative content of his Presidency, anchored in academic brilliance and organisational capacity. I want to use this opportunity also to congratulate you for your latest award, the 2010 Borlaug CAST Communication Award. Although my commitments were binding, operating from Chicago, I succumbed to the persuasive powers of the President and re-juggled my commitments to be here. The last time I was in South Africa was during the Earth Summit, when, as Deputy Director General, I represented my institution, The International Service for National Agricultural Research (ISNAR), The Hague, The Netherlands. My wife and I were privileged to visit Johannesburg, Pretoria and Durban and drove north through vast stretches of farmland and open country in KwaZulu-Natal to one of your many parks.

I want to thank the AAAE Executive, the South African Chapter of the AAAE and the Local Organising Committee (LOC) for their choice of Cape Town as the venue for this conference. I am told by those who know that, on the African continent, there could not have been a better choice. I must not forget to thank the founding fathers of the AAAE, for their singular vision. I also want to use the opportunity to congratulate most warmly the Republic of South Africa and its people, for their successful and heart-warming hosting of the Soccer World Cup 2010, about which all Africans are exceedingly proud. I regret that my country, Nigeria, dashed the hopes of all Africans by losing out in the soccer competition the way it did.

Before I get into my lecture, let me say a bit about the man in whose memory we give this lecture, Professor Hezekiah Adedunmola Oluwasanmi. Hezekiah was born in 1919, in Ipetu-Ijesa in south-west Nigeria, from where, after his primary school education, he was admitted for his secondary education to Abeokuta Grammar School, Abeokuta – one of the early, reputable secondary schools in Nigeria that has produced scores of educationists and political leaders.

Oluwasanmi enrolled at Morehouse College in Atlanta, Georgia, USA as a freshman in 1948 – the same year that Martin Luther King Jr, the Nobel Laureate and civil rights leader, graduated from the same college. Between 1951 and 1955, Oluwasanmi studied for his doctorate degree at Harvard

University, after which he returned to Nigeria in 1955 to join the staff of the University of Ibadan as a lecturer in the Department of Agricultural Economics and as the first Nigerian on the staff of the department with a doctorate. He rose to become a professor of Agricultural Economics in the same department.

In my second year in the Department of Economics at the University of Ibadan (1965/66), I offered Agricultural Economics as an elective, and those of us offering this elective were privileged to be taught some classes by this giant of an agricultural economist. He taught Agriculture in Nigerian Economic Development, the same theme as his pioneering book on the subject, entitled *Agriculture and Nigerian economic development* (1966). Physically, Professor Oluwasanmi was an imposing figure, at well over six feet, who spoke with both authority and charisma. We were all eager to drink from his fountain of knowledge and I was one of the first to purchase his book from Oxford University Press in Ibadan in 1966. I was personally so impressed by his Harvard education – that this Nigerian was able to get a PhD at the time he did, and coming from King's College, Lagos myself to study at the University of Ibadan, I had become quite fascinated with graduates of elite institutions. For his lecture delivery, Oluwasanmi lectured from his well-prepared notes, but he hardly ever used the blackboard. So we had nothing to copy from the blackboard – we simply had to listen attentively.

Unfortunately, his deep involvement in advisory work for the Western Nigeria Government, and especially his reported role as advisory elder of the Action Group Party, which ran into deep crisis in Western Nigeria, took him for away much of the time and we were robbed of his continuous teaching. But my class benefitted immensely from the limited time we had with him.

Professor Oluwasanmi was the Head of Department of Agricultural Economics, University of Ibadan between 1962 and 1966. He was also the Dean of the Faculty of Agriculture, University of Ibadan from 1963 to 1966. In combining two administrative positions, as was then allowed, Oluwasanmi became very powerful across the University campus. During this period, he published two books, many seminal papers in leading journals, and over twenty other publication, including the highly influential book *Agriculture and Nigerian Economic Development* (1966) and (co-authored with Dema and others) *Uboma. A Socio-economic and Nutritional Survey of a Rural Community in Eastern Nigeria* (Oluwasanmi *et al*. 1966). He clearly had established a promising and brilliant academic career with the publication of his articles in leading scholarly journals, such as "Land tenure and agricultural improvement in tropical Africa" (*Journal of Farm Economics*, 1957); "Agriculture in a developing economy" (*Journal of Agricultural Economics*, 1960); and (with Alao) "The role of credit in the transformation of traditional agriculture: The western Nigeria experience" (*Nigerian Journal of Economics and Social Studies*, 1965).

At the social level, Oluwasanmi was a very good dancer. As Hall Master of Azikiwe Hall, my Hall, it was his duty to open the floor and we all marvelled and applauded as this tall figure danced so effortlessly and gracefully to juju highlife music. The memory of his dance performance that night is still fresh in my mind.

In 1966, he was appointed Vice-Chancellor of the University of Ife (now known as Obafemi Awolowo University) – a position he held until 1975. It was as Vice-Chancellor of the University of Ife that Oluwasanmi's considerable foresight, experience and leadership skills came to the fore. He has been described as the "legendary master-builder of the University of Ife", as he literally built a world-class university from scratch. Apart from overseeing the building of a campus that has been variously described as "aesthetic" and "an architectural masterpiece", the university under his watch established "a reputation for providing its students with a liberal education that goes beyond the

strict confines of specific academic disciplines and produces well-rounded graduates with distinct advantages to make their way in life". He advocated academic excellence and worked towards this goal. He showed an abiding interest in the development of the university library as a centre of learning and research, and he gave personal, official and moral support to the library, especially in the early years. For his many contributions, the university library was named Hezekiah Oluwasanmi Library on 12 December 1980. In his vision to build an architectural masterpiece, Oluwasanmi became my teacher and influence one more time. From 1984, when our first child enrolled at Ife as a student of Computer Science, my wife and I became frequent visitors to Obafemi Awolowo University and I came to admire the grand physical beauty of the campus. When I was appointed Pioneer Vice-Chancellor of the University of Agriculture, Makurdi in 1988, with responsibility for implementing the master plan for the physical development of the university, I sent my Director of Physical Planning to find out the particulars of the contractor that had built those magnificent structures at Ife under Professor Oluwasanmi's inspirational leadership. I am very pleased to report that the most beautiful buildings at Makurdi today were built by the same contractor at my invitation, including the University Library, which coincidentally was also named after my humble self.

But Oluwasanmi, like all pioneers and builders, was not without his detractors. When, as a result of a structural defect, one of the buildings constructed by a minor contractor collapsed, the government set up a probe in which spurious charges were levelled against the Vice-Chancellor and his management team. It was to his great credit and honour, and the pride of all of us, that he was completely exonerated. He must have found it a humiliating experience after the many years of selfless service he rendered to build a university of global stature and standards. The lesson I learnt from that experience was that, as a pioneer leader and master builder with a solid legacy of unparalleled achievements, you will attract your own share of detractors from vested interests. Oluwasanmi triumphed over them all.

Professor Oluwasanmi served humanity in various capacities, both locally and internationally. He was a member of the Western Nigeria Economic Planning Committee from 1961 to 1962 and, from 1966 to 1967 he was a member of the Western Nigeria Economic Advisory Council. He was a member of the inaugural board of governors of the International Development Research Centre (IDRC) – a Canadian Crown corporation that works in close collaboration with researchers from the developing world in their search for the means to build healthier, more equitable and more prosperous societies. He was a member of the University of Ghana Council and a member of the University of Zambia grants committee, all in the late 1960s and early 1970s.

For his various contributions he received honorary doctorates from Morehouse College in Atlanta, Georgia, USA (his alma mater, in 1974); from the University of Wisconsin-Madison, USA (in 1974); and from Obafemi Awolowo University, Nigeria (in 1980).

Professor Oluwasanmi was a member of many professional associations, including the Nigerian Economic Society, the Agricultural Society of Nigeria and the International Association of Agricultural Economists (IAAE).

After leaving the vice-chancellorship position, Oluwasanmi established a thriving modern farm in Ipetu-Ijesa to put into practice what he had professed, taught and advised individuals and institutions alike for so many years.

Oluwasanmi died in 1983 at the age of 64 years, leaving behind a rich legacy of service as an educator, administrator, adviser and farmer.

As a fitting tribute to the memory of this great, pioneering agricultural economist, who was also a pioneering advocate and adviser to government, I have chosen to share a few thoughts with you on the role of the agricultural economist as preacher and policy advocate, and on the policy impact of his work. The title of my lecture is, *The Agricultural Economist as Preacher: From Policy Advocacy to Policy Impact.* At a conference on Marketing Boards in Tropical Africa at the University of Leiden, The Netherlands in 1982, I stumbled upon a book by Professor George Stigler (1982), then the most recent Economics Nobel Laureate, entitled *The Economist as Preacher and other Essays*[1]. This provided the inspiration for my forthcoming publication in two volumes: *The Agricultural Economist as Preacher. Essays on Nigerian Agriculture, Food Security and Rural Development* (Volumes 1 & 2). I have structured my address as follows. Section II presents an analytical framework that suggests new approaches for looking at the policy process, while Section III presents some case studies from Nigeria, using my own role as agricultural economist as that of a preacher and advocate. It is my hope that some of the lessons from experience in Section IV may be applicable to other African countries represented here. Section V identifies some elements of the unfinished agenda, while Section VI contains my concluding remarks.

2. Analytical Framework

Policy process analysis has traditionally been dominated by political scientists (see, for example, Sabatier 1991; Schlager 1996; Sabatier 2007). In a review of theories of the policy process, Sutton (1999) identifies political science, sociology, anthropology, international relations and management as sources of key ideas in her description of what she calls the "linear model". Neither economics nor agricultural economics was identified as a source of key ideas in policy process analysis. Since agricultural economists do important policy work, and especially since policy continues to be a constraint[2] on African agriculture, our suggested framework is meant to be a contribution towards filling the gap[3]. Nelson's earlier review dealt with policy analysis – a phase of the policy process, but not the policy process itself (Nelson 1991).

I wish to highlight two features of biological, chemical and mechanical inputs typically represented in the production function. One, each input represents the culmination of a development process. The seed variety goes through a development process, from the breeder's seed through foundation seed to commercial seed ready for adoption in a production function. The breeder begins with his germplasm collection, taxonomy and characterisation of promising lines. Each phase requires the investment of resources in scientific man-years and materials. Of great importance for the prospects of any variety is the phase of field trials, when a variety is subjected to genotype-environment interactions in different environments to test the tolerance of the new variety to environmental stress (moisture stress, temperature stress, edaphic stress, etc.). Many candidate varieties are discarded at the varietal trials (adaptive trials) stage because they succumb to one form of environmental stress or the other. The path from one phase to the other is not linear, as findings from the seed varietal trials phase, for example, are fed back to the breeder for further refinement of his seed variety (see Sutton (1999) for one characterisation of a linear model). Two, the breeder strives for a variety that possesses a certain bundle of desirable characteristics, such as plant height, colour, quick maturing, resistance to pests and diseases, taste, etc. By the rules of the game, varieties that have not gone

[1] Stigler worked extensively and very impressively on industrial organisation, the regulatory environment and the economics of information, receiving the Nobel Prize (1982) for the latter. For a generalisation of some of Stigler's results on economics information, using a combination of the uniform probability distribution, beta function and gamma function, see Idachaba (1976b).

[2] For earlier subsidy pricing policy constraints, see Idachaba (1974, 1976a, 1977, 2009, 2010).

[3] In a rough count of on-line issues of AfJARE, the journal of the AAAE, between December 2006 and June 2010, only one article has "policy" mentioned explicitly in the title (Nkamleu *et al*. 2007).

through the varietal trials phase will not be released for adoption by farmers. In the case of pesticides, toxicity levels must satisfy stipulated codes before recommendation and adoption.

However, when it comes to food or agricultural policy, both theory and practice are different from these biological, chemical and mechanical input development processes. The perennial food and agricultural policy failures – especially implementation failures – in most sub-Saharan African countries may be rooted in serious defects in both the theory and practice of food and agricultural policy. Quite often, policy is characterised by so-called policy mistakes, unintended consequences and the emergence and dominance of unintended beneficiaries of policy. In a novel approach to food policy analysis (e.g. Idachaba, 2000), I suggested that we should view policy not just as policy, but as having policy varieties with certain defined characteristics, the same way that a maize seed is not just a maize seed but a particular maize seed variety with well-defined characteristics that distinguish it from any other maize seed variety.

Our inherited analytics treats the policy input very differently. It fails to treat policies as varieties in the same way that a seed has several varieties with different characteristics. A fertiliser subsidy policy is not just a fertiliser subsidy policy. It has several varieties: a fertiliser subsidy policy that is accompanied with credit facilities and a subsidy policy that has no credit element; a fertiliser subsidy policy that operates a pan-territorial uniform pricing policy and a fertiliser subsidy policy that allows different subsidised prices to reflect differential transportation costs; and a fertiliser subsidy policy with government monopoly of fertiliser imports and distribution, with all the usual bureaucratic snarls that accompany government involvement in such activities; or a fertiliser subsidy policy that relies completely on private sector importation and distribution of fertilisers. Broken down in this way, the characterisation of policy varieties becomes explicit, in the same way that seed varieties are characterised by the plant breeder, the plant geneticist and the agronomist all working together. Unfortunately, no such characterisation disaggregated to the level of policy varieties takes place in policy work. In the same way that inadequate seed varietal characterisation will lead to seed varietal failures in the development process, the absence of characterisation of policy varieties will lead to policy failures along the line. The agricultural production and growth effects depend not on the general rubric of policy, but on the specific policy varieties that define the architecture for farm-level production and cost functions.

I also suggested that the inherited analytics fail to recognise that policy varieties, if they are to avoid or minimise policy failures, must undergo a development process over several phases, similar to the developmental phases of the seed variety, from the breeder's seed to foundation seed to commercial seed production that is recommended for mass adoption by farmers. Our inherited analytics more or less treats policy as an "exogenous given" involving no conscious commitment of resources to the development of the policy variety, in ways analogous to what goes on with the development of the seed variety or the pesticide variety. This explicit treatment of the development phases of the policy variety can be seen as an effort in "endogenising" the "exogeneity" normally associated with policy.

The biological, chemical and mechanical inputs into farmers' production functions used in our analysis of the sources of growth are the end product of systematic developmental work by plant breeders, agronomists, engineers, etc. Biological and physical scientists have completed the required developmental work that ends up in the inclusion of inputs with desirable characteristics in production functions. These scientists do not have the capacity to do the required developmental work on policy varieties. This is work that needs to be done by agricultural economists, economists, sociologists, political scientists and other behavioural scientists for the required characterisation of policy varieties. While the developmental process for seed varieties involves observations and required modifications on characteristics based on interactions between physical inputs and soils,

water, temperature and pests, the developmental process for policy varieties involves observations and required modifications for characterisation based on interactions of human elements: policy makers, institutions, implementers, intended beneficiaries, unintended beneficiaries, etc., that are far more complex than the interactions in the physical world.

A policy variety is postulated to have six distinct but interrelated phases: policy analysis and design, policy advocacy, policy varietal trials, policy implementation, policy monitoring and evaluation, and policy impact assessment.

Policy varietal analysis and design. Activities in this phase include policy varietal accession and taxonomy, characterisation in terms of goals and objectives, programme elements, required inputs, costs, institutional arrangements and expected outputs, overview of the six phases of the policy process, and identification of promising lines and crosses to get varietal hybrids. Other activities include clear specification of the actors for all the phases of the policy process, *a priori* identification of possible policy varietal side effects or externalities, and proposals for internalising such externalities.

Policy advocacy. I have singled out "policy advocacy" as a distinct phase to emphasise its critical role in the policy process. The agricultural economist is a policy advocate based on his analysis and the subsequent results of policy variety trials for the acceptance and adoption of the recommended policy variety by the policy maker on a national scale. The agricultural economist doubles up as preacher and advocate, but he needs partners because he cannot do it alone. Potential partners include intended beneficiaries, policy and decision makers, political scientists, the media, government budget officials, the legislative arm of government and industrial unions, to name a few. Much of the advocacy group analysis has been done by political scientists (Sutton 1999; Sabatier 1991).

Policy varietal trials. This is arguably the most critical and yet the most neglected phase of the policy process, both in the inherited analytics and in actual policy work. In the policy varietal trial phase, policy varieties are subjected to trials for their resistance to four types of environmental stress: political stress, funding stress, bureaucratic stress and socio-cultural stress. Policy varietal trials can be spatial, in which trials are conducted in different parts of the country, they could be temporal, in which trials are conducted over time, or they could be a combination of spatial and inter-temporal trials, in which trials are conducted in different parts of the country over time. A policy variety comes under political stress when a change in political regime results in the denial of political support for the policy variety. The loss of political support is equivalent to the loss of political nutrients for the policy variety, resulting in eventual policy atrophy and death. A policy variety comes under political stress when, under conditions of political or general macro-economic instability, or even in stable political regimes, there are frequent changes in the political leadership of the ministry that has the portfolio responsibility for the policy. The political stress under which a policy variety comes may be due to genuine policy priorities of the new regime that are at odds with inherited policy varieties, or because of cosmetic changes in policy as a legitimising exercise by the new regime wanting to show that it is different from the previous regime (Idachaba 2000).

A policy variety comes under bureaucratic stress when it is denied administrative support by the public bureaucracy, either because bureaucrats want to sabotage the policy or because new administrative heads have no interest in the policy variety. Where changes in the political regime, particularly in presidential systems, bring in a new batch of public servant-political appointees, policy varieties become particularly vulnerable to bureaucratic stress. A policy variety comes under bureaucratic stress when administrators and bureaucrats do not agree with the policy priorities of

their political bosses. Under these circumstances, a policy variety is denied administrative nutrients, resulting in the stunted growth and eventual death of the new policy variety.

A policy variety comes under funding stress when, for a variety of reasons, it is denied needed funds for effective implementation and impact. Causes of the funding stress include declines in the financial resources of government, reductions in the budgetary allocations to the parent (supervisory) ministry of the policy or programme, and unfavourable exogenous developments in world markets for the country's main exports. Sometimes a policy variety comes under funding stress from plain bureaucratic obstruction, or even sabotage aimed at frustrating a given policy variety. Funding stress can come from grossly inadequate levels of funds, or from funding instability as a result of frequent, uncontrollable and disruptive fluctuations in funding levels. Particularly disruptive for effective policy implementation is uncertainty over what levels of funding the policy implementer can expect to receive, and whether or not funds will even be released. When funds are released by government as binary events, policy outcomes also become binary outcomes. Under such hit-or-miss circumstances, funding becomes a random variable with a binomial probability distribution[4] with unknown means and variances.

But why has the policy varietal trials phase been neglected both in the inherited analytics and in actual policy formulation and implementation in previous work? First is the inability to hold policy actors constant, the way breeders and agronomists can hold some factors constant for the experimental trials and genotype-environment interactions. Second is the election calendar of politicians, who cannot wait for the results of policy varietal trials in limited spatial enclaves before announcing major policy interventions that demonstrate their concern over some pressing policy problem in exercises in political relevance and legitimacy. Politicians have a need to show policy results on a national scale before the next election, which is why they have zero tolerance for policy varietal trials in restricted geographical areas on an experimental basis before up-scaling to cover the whole country or large sections of it. Third is the induced movement of resources from the "with policy" areas to the "without policy" areas in spatial policy varietal trials. For example, a farm subsidy variety without credit confined to a restricted geographical area in a policy varietal trial phase induces artificial movement of the subsidized input from the subsidy area to the non-subsidy areas; or a guaranteed minimum producer price scheme confined initially to a restricted geographical area to acquire expertise in logistics, transportation, storage and the operation of market forces could lead to an influx of the commodity from outside the trial area, and could result in the eventual collapse of the guaranteed minimum producer price, etc. Whether these are overriding drawbacks is an empirical, not theoretical, question to which we will return in Section 3.

It is unthinkable for a plant breeder to pull out a foundation seed from his pocket and present it to the Minister of Agriculture for adoption by famers without any adaptive trials to test for resistance to environmental stresses. The mass crop failure that follows may cost the plant breeder his job, and rightly so. But this is the normal scenario with policies. A Minister of Agriculture or someone close to him, including charlatans, dreams up a pet policy idea that he has heard or read about and, without any characterisation or policy varietal trials, the policy is adopted. Like the foundation seed adopted without trials, such a policy must fail, which explains why so many policies fail.

Policy implementation. In most sub-Saharan Africa (SSA) countries, this phase records the largest number and scale of failures.

[4] For generalised theoretical results in the case of searching for the lowest or highest price using the uniform probability distribution, see Idachaba (1976b).

Our framework gives us a deeper understanding of the reasons for perennial policy implementation failures in most SSA countries:

1. Poor policy design and formulation, especially with respect to the characterisation of policy varieties, the minimisation of unintended consequences and the emergence of unintended beneficiaries almost to the exclusion of intended beneficiaries, incomplete delineation of the phases of the policy process, failure to erect firewalls around the policy against potential fraud and corruption, and the failure to involve some key stakeholders in policy design;
2. Omission of the policy varietal trials phase, which causes policy varieties to fail during implementation under environmental stresses such as political stress, funding stress, bureaucratic stress and socio-cultural stress;
3. Weak policy advocacy before implementation that often does not go beyond a few government spokespersons;
4. Failure to erect effective firewalls around the policy variety to prevent unintended beneficiaries from cornering the benefits of food and agricultural policy;
5. Choice of implementers with no technical competence, organisational skills or sincerity of purpose, except their special relationship with the political bosses;
6. Weak or non-existent monitoring of policy performance and implementation;
7. Perennial failure of intended beneficiaries of policy to organise in defence of policy intended for them on the grounds of high transaction costs, lack of organisational capacity, scattered distribution of beneficiaries over large land masses, which makes mobilisation difficult and expensive, etc.; and
8. Pervasive corruption and rent-seeking behaviour that sees food and agricultural policy not through the eyes of maximum good for the society, but their morbid need for personal capital accumulation for themselves, their families, their friends, political associates and their bosses, to name a few.

Monitoring and evaluation. The failure to seriously monitor agricultural and food policies can be traced to a pervasive lack of accountability and transparency in public governance. The little monitoring that exists is in the form of internal *ad hoc* task forces that lack jurisdictional independence and integrity. In many countries, most policies are not evaluated beyond episodic probes in cases of serious malfeasance. In some countries, either the reports of such probes do not see the light of day, or the Government White Paper on them is hardly implemented. This is one reason why policies continue to fail from year to year and from one regime to the next, as if policy makers are incapable of learning from their past failures or from the failures of their predecessors. Against this background, policy design must make adequate provision for monitoring mechanisms to concurrently track policy implementation and performance. In addition to measurable and easily verifiable performance indicators, policy design must provide for independent monitoring and evaluation.

Policy impact. The ultimate value of policy varieties is their contribution to the upliftment of the living conditions of the majority of a country's citizens. Policy design must specify policy impact indicators by which the intended policy impact will be measured or assessed. Policy design must erect adequate firewalls to ensure that unintended beneficiaries do not prevent policies from having the desired impact (see Table 1).

Table 1 presents the six phases of the policy process, the key activities in each phase, the key actors, the sources of data and the policy lags between phases.

Table 1: The food and agricultural policy process

Phases of the policy process	Key activities	Key actors	Sources of data	Food and agriculture policy lags
Policy analysis and design	Policy variety taxonomy; database construction; characterisation of promising lines and crosses to form policy varieties; risk analysis	Agricultural economists; economists; policy bureaucrats; farmers' groups; consumer groups; extensionists; policy makers from non-agriculture sectors; intended beneficiaries	Ministry of Agriculture food and agriculture policy database; the Presidency/ Prime Minister's office policy database; Finance Ministry; Budget Office; regional policy networks, e.g. ECAPAPA, FAO, IFAD, World Bank policy database; policy analysts' research results in scientific journals	From problem existence to recognition to diagnosis and prescription
Policy advocacy	Policy networking; partnership matrices	Policy analysts, designers, agricultural economists; economists; media (radio and print); policy makers; intended beneficiaries; commodity associa-tions; farmers' unions	Domestic and international farm lobby groups for comparative lessons of experience on methodologies and organisational approaches and effectiveness; policy analysis and advocacy groups	From analysis and design to selected policy variety
Policy varietal trials	Spatial policy varietal trials; temporal varietal trials; getting "buy-in" of politicians who have electoral calendars and deadlines	Implementers; intended beneficiaries; budget officials; agricultural commodity groups; risk management specialists	Policy implementers; monitoring units; national and global pilot phase policies and project facilitation Teams	Policy makers' decision and acceptance of policy variety
Policy implementation	Resource mobilisation; constitution of management team; inclusive stakeholder participation; up-scaling from policy varietal trials phase; implementation time line	Managers; implementers; intended beneficiaries; budget officials; risk management specialists	National and global evaluation report databanks; NGOs; research publications in scientific journals; funding agencies; World Bank policy reform and policy support evaluation databanks	
Policy monitoring and evaluation	Monitoring and evaluation indicators; tracking and curbing unintended consequences and beneficiaries; tracking costs and intended beneficiaries; management information system (MIS)	Independent management specialists; accountants	National and global M&E report databanks; NGOs; donors and funding agencies	
Policy impact assessment	Construction and use of impact indicators; inputs from intended and unintended beneficiaries of policy; collation of unintended consequences	Policy impact assessors; quality of life and sustainable livelihood indicators	National and global databanks, scientific reports and journals on impact assessment methodologies and results; World Bank; FAO; NGO;	Treatment of policy impact assessment as a residual

The analysis of phases of the policy process deepens our understanding of the reasons why policies fail by moving away from the conventional, narrow focus on "implementation failures" to a much deeper understanding of failures in earlier phases, suggesting a "convolution of failures of phases of

the policy process": policy analysis failures, policy design failures, policy advocacy failures, policy monitoring and evaluation failures, as well as policy implementation failures. The usual cliché of "implementation failures" is incomplete and misleading – incomplete because it omits failures in the earlier phases of the policy process, and misleading because it leads the policy community and the media to focus public attention only on implementation. Conventional, almost flippant, references to "policy implementation failures" are no longer sufficient or acceptable.

Interactions between phases of the policy process give rise to a number of simple propositions that help us focus on actionable areas. From Matrix 1, the poorer the quality of policy analysis and design and the fewer the policy varietal trials, the larger is the degree of implementation failures. The converse also holds: the better the quality of policy analysis and design and the larger the scope of policy varietal trials, the lower the degree of policy implementation failures. Quadrant II, with little implementation failure, is ideal. The goal is to move from Quadrants I, III and IV to Quadrant II.

Matrix 1: Policy analysis-variety trials-implementation typology

	Bad policy analysis and design	**Good policy analysis and design**
Many policy varietal trials	I Some implementation failure	II Little implementation failure
Few policy varietal trials	III High implementation failure	IV Some implementation failure

From Matrix 2, the poorer the quality of implementation and the fewer the policy varietal trials, the lower is the prospect for the desired policy impact. The converse also holds: the better the policy implementation and the greater the number of policy varietal trials, the higher the probability of desired policy impact. Quadrant IV is ideal: the objective is to move from Quadrants I, II and III to Quadrant IV.

Matrix 2: Policy varietal trials-implementation-policy impact typology

	Poor implementation	**Good implementation**
Few policy varietal trials	I No desired policy impact	II Some desired policy impact
Many policy varietal trials	III Some desired policy impact	IV High desired policy impact

From Matrix 3, the poorer the policy implementation and the fewer the policy varietal trials, the greater is the likelihood for many unintended consequences and unintended beneficiaries. The converse also holds: the better the implementation and the more the policy varietal trials, the fewer the unintended consequences and beneficiaries. Quadrant IV is the ideal, while the goal is to move from Quadrants I, II and III to Quadrant IV, along optimal time paths that cannot be determined *a priori*.

Matrix 3: Policy trials-policy implementation-policy impact typology

	Poor policy implementation	**Good policy implementation**
Few policy varietal trials	I Many unintended consequences and beneficiaries	II Some unintended consequences and beneficiaries
Many policy varietal trials	III Some unintended consequences and beneficiaries	IV Few unintended consequences and beneficiaries

From Matrix 4 the poorer the implementation and the weaker the policy advocacy, the higher is the number of unintended beneficiaries. The converse also holds: the better the implementation and the

stronger the policy advocacy, the fewer the unintended beneficiaries. Quadrant IV is ideal. The goal is to move from Quadrants I, II and III to Quadrant IV.

Matrix 4: Policy implementation-policy advocacy-unintended beneficiaries typology

	Poor implementation	**Good implementation**
Weak policy advocacy	I Many unintended beneficiaries	II Some unintended beneficiaries
Strong policy advocacy	III Some unintended beneficiaries	IV Few unintended beneficiaries

From Matrix 5, the poorer the implementation and the weaker the policy advocacy, the less is the likelihood for desired policy impact, while the better the implementation and the stronger the policy advocacy, the more the likelihood for desired policy impact. Quadrant IV is ideal. The goal is to move from Quadrants I, II and III to Quadrant IV.

Matrix 5: Policy implementation-policy advocacy-policy impact typology

	Poor implementation	**Good implementation**
Weak policy advocacy	I No desired policy impact	II Some desired policy impact
Strong policy advocacy	III Some desired policy impact	IV Large policy impact

From Matrix 6, the poorer the implementation and the poorer the policy monitoring, the less is the likelihood for the desired policy impact. The converse also holds: the better the implementation and the better the policy monitoring, the more likelihood for desired policy impact. Quadrant IV is ideal. The goal is to move from Quadrants I, II and III to Quadrant IV.

Matrix 6: Policy implementation-policy monitoring-policy impact typology

	Poor implementation	**Good implementation**
Poor monitoring	I No desired policy impact	II Some desired policy impact
Good monitoring	III Some desired policy impact	IV Large desired policy impact

From Matrix 7, the poorer the quality of policy analysis and design and the fewer the policy varietal trials, the greater is the likelihood for policy implementation failures. The converse also holds. The better the quality of policy analysis and design and the more policy varietal trials, the less is the likelihood for policy implementation failures. Quadrant II is the ideal. The goal is to move from Quadrants I, III and IV to Quadrant II.

Matrix 7: Policy analysis-policy variety trials-policy implementation typology

	Bad policy analysis and design	**Good policy analysis and design**
Many policy varietal trials	I Some implementation failures	II Few implementation failures
Few policy varietal trials	III Many implementation failures	IV Some implementation failures

From Matrix 8, the combination of many policy varietal trials and good policy implementation is ideal for most sub-Saharan African countries. In practice, only a few SSA countries can be found in Quadrant II, and most are to be found in Quadrant III, with few policy varietal trials and poor policy implementation. The goal is to move SSA countries from Quadrants I, III and IV to Quadrant II.

Matrix 8: Policy trials-implementation typology for SSA countries

	Few policy varietal trials	Many policy varietal trials
Good policy implementation	I Some SSA countries	II Few SSA countries
Poor policy implementation	III Most SSA countries	IV Some SSA countries

From Matrix 9, most SSA countries can be found in Quadrant II, with poor policy implementation and many unintended beneficiaries. The goal is to move SSA countries from Quadrants I, II and IV to ideal Quadrant III, with good policy implementation and few unintended consequences.

Matrix 9: Policy implementation-unintended consequences typology, for SSA countries

	Good policy implementation	Poor policy implementation
Many unintended consequences	I Some SSA countries	II Most SSA countries
Few unintended consequences	III Few SSA countries	IV Some SSA countries

From Matrix 10, most SSA countries are in Quadrant IV, with poor policy implementation and bad policy design. The goal is to move SSA countries from Quadrants II, III and IV to the ideal, which is Quadrant I, with good policy implementation and good policy design.

Matrix 10: Policy design-implementation typology, by SSA countries

	Good Policy implementation	Poor policy implementation
Good policy design	I Few SSA countries	II Some SSA countries
Bad policy design	III Some SSA countries	IV Most SSA countries

3. Some Empirical Case Studies From Nigeria

If experience is the best teacher, then I want to share with you my personal experiences as agricultural economist-preacher-advocate in the Nigerian food and agricultural policy scene in the hope that some of the lessons of experience may be applicable to other SSA countries. Only two case studies will be examined in detail. My choice of Nigerian case studies is born out of the consideration that, while we think regionally within the SSA or African context, we act locally at the country level most of the time to move individual food and agricultural economies forward.

On my return from graduate school at Michigan State University to the Department of Agricultural Economics, University of Ibadan in December 1972, I resolved to share my agricultural policy research findings with policy makers in government, especially at the federal government level. In early 1974, I sent reprints of my 1973 article on marketing board crop taxes and input subsidies (Idachaba 1974), with a one paragraph non-technical summary[5], to Alhaji M Liman, then Assistant Director, Federal Department of Agriculture, Federal Ministry of Agriculture and Natural

[5] My summary omitted technical details on the relative magnitudes of the input price and crop price adjustment coefficients in a distributed lag model as the empirical basis for the choice of farm input subsidy over crop price support to attain the goal of increased farm input use (Idachaba 1974).

Resources, but destined to later become a powerful director and permanent secretary of the ministry. My effort to cultivate Alhaji Liman professionally and build partnerships and bridges between the academic policy analyst and the policy maker in government had an immediate and long-term professional payoff. In 1975, I was appointed member of the Federal Government Food and Agriculture Organisation of the United Nations (FAO) Grain Consultation, chaired by Professor T Ajibola Taylor (Federal Ministry 1976). In 1975, the Federal Ministry of Agriculture (Liman) approved the first large grant in support of my proposal, which resulted in the publication of *The Economics of Pesticide Use in Nigerian Agriculture* (Federal Ministry 1976) and "Pesticide input subsidies in African agriculture: The Nigerian experience" (Idachaba 1977). In February 1980, Alhaji Liman appointed me team leader of the powerful Nigeria-World Bank Food Strategies Mission that produced the influential *The Green Revolution: A Food Production Plan for Nigeria* (Federal Ministry 1980).

3.1 The Directorate of Food, Roads and Rural Infrastructures (DFRRI), 1986

In 1977, I advocated the establishment of a Supra-Ministerial Authority in a paper at a workshop organised by the Federal Ministry of Agriculture on Agro-Service Centres, held at the International Institute for Tropical Agricultural (IITA). The aim of this would be to provide rural infrastructure nationwide, based on my belief that Nigerian agriculture required rural infrastructural transformation. At an International Conference on Food and Nutrition Security held at the Conference Centre University of Ibadan in 1979, I again proposed the establishment of a Rural Infrastructure Authority by the Federal Government (Idachaba 1983). In 1980, the Nigeria-World Bank Food Strategies Mission, under my leadership and guidance, re-proposed the establishment of a Supra-Ministerial Rural Infrastructure Authority to provide a network of rural infrastructure nationwide (Federal Ministry of Agriculture and Water Resources 1980).

In 1981, at the National Workshop on Rural Infrastructures in Nigeria, which I coordinated, I again re-proposed the establishment of a supra-ministerial authority at the highest level of government with a mandate for the transformation of rural infrastructures in Nigeria (Idachaba 1985). My advocacy over the years did not translate into public policy, in spite of the obvious merit. It was not until I found myself in the Presidential Advisory Committee (PAC)[6] under President Ibrahim Babangida that my advocacy quickly translated into public policy. In 1985, I convinced my colleagues in the PAC to include in the 1986 federal budget the establishment, in the Presidency, of the Directorate of Food, Roads and Rural Infrastructures (DFRRI). I argued that a supra-ministerial DFRRI with the political backing of the President was needed for the structural transformation of agricultural production, and the processing and marketing of food, industrial and export crops. When it came to the name, my colleagues opted for the simpler "Directorate of Road and Rural Infrastructures". I insisted that "Food" should be included in the name to stress the required link between roads, rural infrastructures and food, and the need for the roads and rural infrastructures programme to concentrate initially on those areas with the highest potential for food production. The DFRRI's immediate mandate was to construct 60 000 kilometres of rural roads in the country, as well as rural markets, rural electricity and rural potable water supplies, in addition to support for rural institutions for the mobilisation of rural resources. Babangida quickly appointed his military

[6] Inaugural members of the PAC were Professor Ojetunji Aboyade, eminent economist and former vice-chancellor of the University of Ife (later Obafemi Awolowo University) (chairman); Dr Michael Omolayole, business mogul and former chairman of Lever Brothers; Professor Isawa J Elaigwu, erudite political scientist, University of Jos; Professor Ikenna Nzimiro, unrepentant Marxist anthropologist, University of Port Harcourt; Professor Iz. Osayimwese, former head of the Department of Economics, University of Benin; Professor A Yaya, public administration expert, Institute of Administration, Ahmadu Bello University, Zaria; Chief M Essien, business expert; and my humble self. Dr Rex Akpofure, educationist, served as secretary.

colleague on the Armed Forces Ruling Council as Executive Chairman to run the DFRRI. The new appointee never consulted me as originator and consistent advocate of the DFRRI for over a decade on programme design, and he never sought my views.

The rest of what happened to DFRRI is now history. DFRRI was managed or mismanaged without any sense of programme priorities, as it was quickly turned into the "Father Christmas of Nigeria's rural development" that tried to be "all things to all people", without any programme accountability. My preaching and advocacy for better DFRRI design and implementation amounted to no more than lonely cries in the wilderness (Idachaba 1987a). There were no policy varietal trials, as DFRRI programmes were launched across the country on a state-by-state basis all at once. There were reports of states collecting DFRRI allocations and simply erecting DFRRI signposts on state roads, purporting these to be DFRRI-constructed roads. Rural water supplies were commissioned, with taps reportedly running dry the day after the commissioning. Complaints were rife over the autocratic management of the DFRRI (bureaucratic stress). In spite of the billions of naira allocated, DFRRI quickly atrophied. The exit of Babangida in 1993 rang the final death knell for DFRRI (political stress), as budgetary funds quickly dried up (funding stress). There were loud grumbles over its lack of enduring impact (minus the photo opportunities at commissioning ceremonies), and the DFRRI was scrapped in the early 1990s, after barely seven years. The DFRRI had lost its key political and funding nutrients and, as a policy variety, it withered and died.

It took 10 years (1977 to 1986) for my repeated advocacy and preaching for a supra-ministerial rural infrastructure authority at the highest level of government to translate into a federal government policy decision. I persisted in my policy advocacy at various forums during this period.

3.2 Universities of agriculture in Nigeria[7]

My exposure to the US land grant system at Michigan State University (1970 to 1972) sensitised me to the contributions of agricultural universities to the scientific and commercial transformation of US agriculture. In 1976, I visited leading departments of agricultural economics in the US (all in land grant universities)[8]: Michigan State University, the University of Minnesota, the University of California, Davis, and the University of California, Berkeley[9]. My analysis of the Nigerian national agricultural system, typical of former British colonies (Idachaba 1980), highlighted the near fatal flaws of a structure of national agricultural research institutes, on the one hand, devoted to largely developmental research, and faculties of agriculture of general universities, on the other hand, devoted largely to academic research and training, with little convergence of programmes for most of their history. Further work on the national food gap and information on the contributions of agricultural universities to the success stories of the Green Revolution in India, the contribution of the Wageningen Agricultural University to agricultural transformation in The Netherlands and other countries, stretching from Europe to Japan, convinced me of the urgent need for agricultural universities in Nigeria.

With the success and the loud ovation that greeted the creation of DFRRI, I prepared an originating document that I submitted to my colleagues in the PAC in 1986, outlining the case for the establishment of universities of agriculture in Nigeria[10]. I highlighted the weaknesses of the existing

[7] This section draws heavily on my Convocation Address at the University of Agriculture, Abeokuta (Idachaba 2004).
[8] The number of departments of agricultural economics in the US currently stands at 55.
[9] Other institutions I visited were Stanford Food Research Institute, Stanford University, the humongous United States Department of Agriculture (USDA), Washington DC, Louisiana State University at Baton Rouge, and my other alma mater, University of Chicago
[10] For more details, see Idachaba (2004).

arrangements and stressed the strengths of universities of agriculture, including the following:

- Academic programmes in universities of agriculture would be designed to be consistent with the developmental priorities and challenges as articulated by mainstream ministries of agriculture and other stakeholders.
- Academic programmes in the universities would be problem solving, mission oriented and practical, while at the same time they would be of the highest standards of scholarship.
- Because academic staff would be in families of related disciplines, the universities of agriculture would devise incentive and reward schemes that would encourage career promotions based not just on the length of the *curriculum vitae* (CV), but on the contribution of research to the generation, development and dissemination of problem-solving and practical agricultural technologies. This contrasts with the situation in general universities where, because of the need to find a common denominator for promoting academic staff in unrelated disciplines, there had been undue emphasis on the length of the CV, regardless of the relevance of the research to problems of society. The academic staff of an agricultural university could, I argued, be promoted on the basis of a path-breaking technology, even if it gave rise to only one publication, and such a case was easier to make in an agricultural university setting than in a general university setting, where candidates from unrelated disciplines such as sociology, classics, African languages, agronomy and agricultural engineering would have to be reduced to a common denominator to reach agreement among mutually suspicious members of the university appointments and promotions committee.
- Training in the universities of agriculture would be practical and problem solving, with students having heavier doses of practical exposure – much more than their counterparts in the general universities.

These arguments were sufficient to convince my colleagues in the PAC of the necessity to experiment with universities of agriculture in Nigeria. In the design of the universities (new institutional varieties), considerable emphasis was placed on the characterisation of the strengths and weaknesses of existing faculties of agriculture in the general universities, and of the schools of agricultural technology of the universities of technology (benchmark institutional taxonomy). Teams of renowned academics, including products of the US land-grant system and other stakeholders, were brought to Makurdi and Abeokuta to design the curriculum of the new universities for approval by the National Universities Commission (NUC) in 1988/1989.

I suggested to President Babangida during my presentation of the proposal to him that we should establish one university of agriculture to start with for us to learn from the lessons of experience. But President Babangida had a better political sense than I had. He said: *why not start with two universities of agriculture, one in the north and one in the south, to have better political balance?* I agreed. This was how two universities of agriculture came to be established in January 1988 (Abeokuta and Makurdi). In one fell swoop, we were achieving *temporal and spatial institutional varietal trials*, with the establishment of two universities of agriculture in two very different agro-ecological and geopolitical zones. Our idea was to try out this concept of universities of agriculture in these two places and hope that the country would replicate the concept in other zones, as was done in India and other countries[11].

Hope turned into reality when, in 1992, and based on geopolitical considerations and the need for more institutional varietal trials, the Federal Government decided to establish a third university of

[11] As at 1986, when I advocated the establishment of agricultural universities in Nigeria. India's agricultural universities had grown from two in 1960 to 26 by 1986, and all were owned by the state government.

agriculture at Umudike, now renamed Michael Okpara University of Agriculture. My disappointment is that, 18 years after Umudike, we have not established new universities of agriculture in Nigeria.

However, against the record of India, where it was the states that established the agricultural universities, it is a disappointment that, out of the current 25 or so state universities, no state government has established an agricultural university. My expectation that the demonstration effect of the federal agricultural universities would encourage state governments to set up universities of agriculture has turned out to be false. In retrospect, my advocacy was incomplete. I should have advocated a package of incentives that would encourage states to set up their universities of agriculture. The big incentive for states in the US was the grant of large expanses of federal land for use as land-grant colleges and as a source of revenue for the state. This was not feasible in Nigeria, where all land resides in the state governors. I should have articulated an alternative incentive package (for example special financial allocations from the excess crude account) to encourage state governments to establish agricultural universities.

3.3 Universities of agriculture under political stress

The three universities came under political stress at different times. At Makurdi we came under pressure to vacate the temporary site as soon as the state government decided to set up a state university, and government needed the temporary site where we were to house the proposed new state university. UAM was stampeded out of its temporary site to its permanent site by the state governor under very chaotic circumstances in February 1992.

I single-handedly advocated for the transfer of the universities of agriculture from the Federal Ministry of Education to the Federal Ministry of Agriculture, in order to: (i) align academic programming and research priorities in the universities with the agricultural sector developmental priorities of the Federal Ministry of Agriculture; (ii) synchronise the outreach activities of the universities with the extension and technology dissemination work of the Federal Ministry of Agriculture; (iii) make the expertise of staff of the universities of agriculture readily available to the Ministry of Agriculture; (iv) integrate the universities into the annual programming activities of the Federal Ministry of Agriculture; (v) directly expose students of the universities of agriculture to the challenges, constraints and opportunities of agriculture sector developmental work of the Federal Ministry of Agriculture; and (vi) ensure adequate funding of the new universities of agriculture.

I was very particular about the last point on funding, because I felt that if this concept of the universities of agriculture was going to succeed, there must be adequate funding. I was not satisfied with the umbrella presentation of the case of the universities by the NUC, and I pleaded with my colleagues in the PAC, and subsequently with President Babangida, to transfer the universities. President Babangida bought my arguments and the official announcement on the transfer was made in the 1990 budget. Professor Jibril Aminu, Minister of Education, did not like what I did and told me so. But he was very decent in his disagreement with my move. By the time President Babangida formally confirmed the transfer of the universities of agriculture to the Federal Ministry of Agriculture at the inaugural convocation of the University of Agriculture, Makurdi, on 9 March 1991, the universities as institutional varieties had received the necessary political nutrients. It was a major policy triumph for me, because the universities of agriculture truly received more funding under the new arrangement compared with their counterparts of the same age or generation under the Ministry of Education/NUC. This allowed us to build much faster than federal universities of technology of the same age. I want to stress that at no point did the Ministry of Education/NUC ever give up the fight to have the universities of agriculture returned to the Ministry of Education.

The fear of the NUC, as articulated by its Executive Secretary, was that, if the universities of agriculture were allowed to go, the next thing would be that the universities of technology would be clamouring to go to the Ministry of Science and Technology. I would never have won the battle for the transfer of the universities to the Federal Ministry of Agriculture was it not for the consistent support of President Babangida. When the President stepped aside in 1993, it was the end of the life-saving political nutrients for the institutional variety of universities of agriculture. But the universities remained under the Ministry of Agriculture until my colleague in Abeokuta and I left the scene. After our exit, universities of agriculture came under renewed political stress for their transfer back to the Ministry of Education, where they now are. The agricultural universities have lost their competitive funding edge over their counterpart universities of technology of the same age or generation, and possibly their collaborative programming with the Federal Ministry of Agriculture. The absence of political nutrients (support) for the universities of agriculture at the highest level under the Obasanjo administration placed the universities under great stress, which ended their formal affiliation with the Ministry of Agriculture.

In my single-handed advocacy of the transfer of the universities of agriculture from the Ministry of Education, I had over-estimated the capacity of the Federal Ministry of Agriculture to quickly learn how to manage universities of agriculture. The Ministry of Agriculture had traditionally been an operations ministry, concerned with the procurement and distribution of fertiliser, tractors and farm machinery, land clearing, strategic grain reserves, and hosting of meetings of the National Council on Agriculture, which over the years have been dominated largely by discussions on how to share and distribute federally subsidised fertilisers, etc. Some of the ministers of agriculture were bemused by this new responsibility for universities and, in one instance, it was reported that the main thing that excited him was fertiliser. Two of the ministers, Dr Shettima Mustafa and Professor Jerry Gana, both with a university background, had the potential to nourish the institutional variety of the universities of agriculture, but their tenure was inexplicably short. The universities of agriculture will remember Dr Shettima as the only minister who took concrete steps to integrate the universities into the planning work of the ministry (Professor Adedipe and I co-organised the first programme-planning workshop with the Ministry in Abuja under the chairmanship of Dr Shettima).

Being leaders of an operations ministry, these ministers and bureaucrats had little stomach for the development of the analytical capacity required to be able to effectively supervise the universities of agriculture. The three vice-chancellors of the agricultural universities strongly advocated the development of a mini-NUC equivalent, called the Agricultural Universities Co-ordinating Agency (AUCA), and caused this to be statutorily included in the Universities of Agriculture Decree. While the NUC was vigorously presenting the case of the NUC universities on issues such as the funding of the special allowances and packages approved for the universities by the federal government, the universities of agriculture were left without an advocate. The Ministry of Agriculture was not interested in these matters, to the extent that I was almost regretting having single-handedly persuaded President Babangida to transfer the universities to the Ministry of Agriculture.

A major source of the political stress of the universities of agriculture was the high turnover of ministers of agriculture. In my eight years as Vice-Chancellor in Makurdi there were eight ministers of agriculture. In addition to the traditional congratulatory letter to each new minister, I also had to prepare (or re-submit) a detailed brief on the rationale for the universities of agriculture, and the rationale for their being supervised by the Ministry of Agriculture. The end result was high instability in political support (nutrients) for the agricultural universities, and considerable political stress to which they were subjected.

3.4 "Funding stress" on the universities of agriculture

The universities of agriculture came under funding stress during the Abacha regime. As Vice-Chancellor, I came under pressure, like my colleagues, from all the unions on campus to pay all sorts of relief packages and allowances that government had a habit of announcing many months before releasing funds. Government announced grants to workers, got the political accolades, and then delayed the release of funds for upwards of three to six months. The unions always claimed (without proof) that this or that university had already paid the allowances! But the most serious funding stress under the Abacha regime was with respect to delays in disbursement of the capital vote. It came to a head from 1992 to 1994, when the capital vote for the last quarter was never released. What was most frustrating was that university vice-chancellors were kept hoping against hope that the last quarter capital vote would be released right until December 31, when it became clear that the capital vote would not be released after all. This disrupted the orderly physical growth and development of the universities.

3.5 "Socio-cultural stress" on the universities of agriculture

My first crisis in Makurdi (March 1988) was a protest by the engineering students of the defunct Makurdi campus of the University of Jos, which I inherited. They feared that their engineering risked being downgraded in the market place if the market saw that the degrees were from a university of agriculture. They were joined by some elites from the town, who clamoured for a general university offering professional courses such as medicine, law, engineering and pharmacy, instead of a specialist university of agriculture. I was jolted by this development on the part of the elites from the area, because I knew, and had told them publicly on several occasions, that the elites who were now saying they did not want a university of agriculture were the same elites who had pleaded with President Babangida that the proposed new university of agriculture should be sited in Makurdi, capital of Benue State, which they described as the "food basket of the nation". How come, I asked them in public, did they now disown what they had asked for? In the end, all was well: the engineering students were reassured and I am happy to note that UAM has produced some of the best engineering graduates. And the elites have been benefiting from UAM ever since.

One source of socio-cultural stress for the three universities of agriculture was the issue of how the university could take effective possession of their permanent sites and the related problem of land compensation. The universities had to contend with issues of valuation of land and economic trees, multiple and serial claimants of compensation, and authentication of titles to land. At Makurdi I determined that, unless I was able to take effective possession of my permanent site, there was no way the university could take off. From the very first public statement I made in Makurdi, when the Military Governor, Col. Garba Idris, received me in audience on 17 February 1988, until I took effective possession of the permanent site in 1989, I kept this socio-cultural stress on the university constantly in the public mind. Even after all compensation had been paid, some of the recipients refused to vacate university land and it was only when the Military Governor, Lt Col Fidelis Makka, provided the necessary strategic military backup that we were able to forcefully evict the squatters from the university land. The political support (nutrients) from the Benue State Military Governor was able to raise the resistance of the institutional variety to this socio-cultural stress. This suggests the proposition that *the higher the level of political support (nutrients) for an institutional variety, the higher the resistance of the variety to socio-cultural stress*. I would not have made much progress without the strategic support of the Military Governor in the face of socio-cultural stress on the institutional variety.

4. Lessons from Experience for Other African Countries

I wish to summarise the lessons of experience, some of which other African countries may find useful:

1. Policy does matter a great deal, and if policy is not to constitute a drag on agriculture and food security, the agricultural economist must lead the policy community in SSA countries to understanding the characterisation of the policy varieties, the key activities, the actors, the sources of data and the policy lags in the six phases of the policy process. The traditional, narrow focus on implementation failures must be replaced with an understanding of the varying degrees of failure in the different phases of the policy process. Stakeholders need to be sensitised to failures in these other phases of the policy process.
2. The agricultural economist as analyst must be prepared to make the leap from policy analysis to policy advocacy. Such a leap must be based on hard-core empiricism. Sometimes, the empirical basis for the leap from analysis to advocacy is not as robust as we would want it to be, and the leap may be no more than a leap of faith. While agonising over limited hard-core empiricism, the agricultural economist must remember that policy makers continue to make policy decisions based on nothing beyond intuition and heuristics. Sometimes, (s)he makes policy decisions based on fake policy varieties hawked by charlatans and private consultants parading as policy experts.
3. The policy analyst must be able to translate research findings into nontechnical language that the civil servant policy maker can understand. He must forget the idea that the policy maker will leave a busy schedule of memos and meetings to go looking for policy analysis results in journals, think tanks and universities. The policy analyst must proactively take the analysis to the policy maker.
4. The agricultural economist as advocate must continue to preach his policy message to many congregations of policy makers and stakeholders, not knowing who in the audience may make the needed connection for policy acceptance, decision and adoption. The agricultural economist as advocate should never tire of his advocacy, even when it appears that no important member of his many congregations appears to be listening. I preached the message of an agency for rural transformation for over ten years before I found myself in the right place with the right people at the right time. The path from policy advocacy to policy adoption by the policy maker is hardly ever linear. The challenge is to build partnerships with other stakeholders to achieve linear approximations of what is essentially a non-linear path. I have been preaching the message of government disengagement from fertiliser procurement and distribution to remove all well-known abuses for over 30 years. I am still to get a born-again convert at the highest levels of government. Some of my converts have been like the seed planted among thorns – their conversion has ended up withering under political stress! I will continue preaching the sermon until my seed of conversion is planted on good soil. What is important is confidence in the merit of the cause.
5. The agricultural economist as advocate needs partners in government, academia and the media, and among intended beneficiaries and key stakeholders, if his advocacy is to have enduring results. He can never do much all alone, and there is no need to even try. The agricultural economist preacher must realise that policy adoption and acceptance are essentially political, requiring political skills and multi-stakeholder action. The agricultural economist advocate needs networking skills.
6. The policy analyst as preacher-advocate must be guided by sound analytical frameworks to organise and file concepts, otherwise his work will quickly degenerate into policy *ad hockery*.
7. The agricultural economist as preacher must be prepared to lead the team of partners and

stakeholders the same way the architect leads the building construction team.

8. Agricultural economists in SSA countries must educate their stakeholders that the fundamental reason why food and agricultural policies continue to fail is the perennial failure to appreciate and conduct policy varietal trials to test for their resistance to environmental stress. Experience with the World Bank-assisted enclave of agricultural development projects that were subsequently up-scaled to cover entire states after the first five years, and the experience with the universities of agriculture in Nigeria, demonstrate that policy varietal trials are both feasible and useful, spatially and temporally.
9. The agricultural economist as preacher must confront the challenges facing him. His messages, based on respectable analysis and solid empirical work, must be coherent, clear, unambiguous and consistent for all the phases of the policy process. Unlike the pastor and his congregation, the agricultural economist as preacher is confronted with fluid, constantly changing and shifting audiences and, in most cases, the real policy decision makers are not part of his audience at conferences and stakeholder consultations. When powerful policy makers attend conferences, they may not wait long enough after the plenary sessions to hear the messages to be preached by the agricultural economist as preacher. When the agricultural economist as preacher finds him/herself in government, he/she must continue as preacher and advocate and form new alliances to cut the time lag between policy advocacy and policy adoption. He must avoid being overwhelmed by the complexity of government; he must not abandon his advocacy because of fear of his new political bosses or because he has settled into the perquisites of office that he does not wish to lose (in Nigeria, we say he has been “settled”, and silenced).

A key lesson of experience is the dominance of non-linearities in the time path between different phases of the policy process. Most of the time, the relationship between policy advocacy and policy adoption and decision is not linear: indeed, the relationship between policy advocacy and policy decision is mostly highly non-linear. Only by luck and chance occurrence, anchored in solid advocacy work, does policy advocacy translate into government decisions. SSA countries need to develop mechanisms that will convert ministers into *policy ambassadors* within the policy community. If we fail to develop such mechanisms to short-circuit the built-in non-linearities, the path from policy advocacy to policy decision will remain long, winding and frustrating.

The non-linearities between *policy advocacy* and *policy impact* could be even more frustrating, as exemplified by the non-linearity between policy advocacy of DFRRI and the policy impact for DFRRI. The non-linearities between policy advocacy and impact relate not only to the merit of advocacy, but to the modalities for the appointment of those charged with the responsibility for implementation. While the private sector has traditionally exercised more care in the appointment of chief executives of companies, governments have generally exercised less care and diligence in the appointment of chief executives of parastatals. Such public sector appointments have been influenced by politics, personal preferences, trading of loyalties etc., resulting in yawning gaps between the loud promises of new policies and the endless stream of policy failures.

To be effective, the policy advocate must realise that the grounds for disagreement over policy varieties and the weights to be attached to the different phases of the policy process are mostly empirical, not theoretical. The policy advocate therefore must back up his position with empirical evidence. Where he is making what looks like an extra leap that is not unambiguously supported by available empirical evidence, he should indicate so clearly. In SSA countries, if policy analysis work is to have enduring impact, we should not be too timid in leaping from policy analysis to policy advocacy if this empirical caveat is observed.

The policy advocate should not rest his case until his particular cause is translated into policy decision. This often requires "serial repeated policy advocacy" at different forums, which results in some repetition and overlap of materials. Such repetitions and overlaps are useful for four reasons. One, I advocated variations on themes for different audiences to assure inclusive consultation and participation. Advocacy of a policy or programme before non-overlapping and overlapping audiences contemporaneously and over time assured progressive inclusiveness of different stakeholders and their "buy in" into the advocacy. Two, overlapping audiences presented platforms for the advocacy to "sink in" in the hope that repeated messages to overlapping audiences (intersecting subsets of stakeholders) ultimately come to be understood and accepted by stakeholders. Three, progressive inclusiveness of stakeholders captures new stakeholders, some of whom might have the ear of decision makers, thereby shortening the transformation from policy advocacy to policy decision. Finally, repeated advocacy in different forums provides a validating mechanism by which the advocated policy or programme undergoes revisions or modifications, if any, in response to comments and suggestions made by stakeholders at earlier presentations to make the recommended policy variety robust and resilient to "environmental stress".

5. Outstanding Issues and an Unfinished Agenda

Let me briefly summarise, without further elaboration, some outstanding issues and the unfinished agenda.

Reducing the time lags between phases of the policy process: Knowledge is needed on the determinants of the length of lags between phases and what can be done to shorten the lags.

The challenge of non-linearities in the policy process: We need to increase our understanding of what needs to be done to convert the non-linearities of the time path between phases into linearities, or good approximations of linearities. When key stages of the process are reduced to chance elements, such as policy advocacy being adopted and accepted by policy makers based on the policy advocate being in the right place, with the right people at the right time, outcomes in the policy process become binary outcomes with binomial probability distributions. Or should the policy process operate such that policy outcomes are uniformly or normally distributed?

Transmission mechanisms between phases of the policy process: Knowledge is needed on the partners required to move from one phase to another and the roles of each partner for the movement from phase to phase.

Fractured stakeholder capacity: A common element in the three largest agricultural exporters in the world (USA, France and The Netherlands) is the awesome power of the food and farm lobby. For an industrial superpower, the USA leads in the number and political power of farmers' organisations representing diverse interests in agriculture. Africa is arguably the weakest of all regions in the number of stakeholder groups representing the interests of food and agriculture. A fundamental reason for the weak policy process is the very weak stakeholder capacity in agriculture. The challenge is to drastically revamp food and agriculture stakeholder capacity[12].

Weak policy process capacity of the legislative arm of government in SSA countries: The weak policy process capacity of most African legislatures results in the near monopoly of the policy

[12] For details on the law of unintended consequences in Nigerian agriculture, see Idachaba (2009). For the effect of the low political cost of agricultural neglect in most African countries, see Idachaba (2010).

process by the executive arm of government. African legislatures need to beef up their capacity to participate fully in the food and agriculture policy process.

The problem of unintended consequences and unintended beneficiaries of policy: It is bad enough when food and agricultural policies in SSA countries produce unintended consequences and unintended beneficiaries. It is much worse when the unintended consequences and unintended beneficiaries recur from year to year and from one regime to another, as if African policy makers and stakeholders are incapable of learning from their past mistakes or from the mistakes of others.

6. Concluding Remarks

Let me round up with a few concluding remarks. My choice of the policy theme is born out of my recognition of the huge potential that exists for food and agricultural policy to drive African agriculture and food security going forward. For the sustainability of policy reform, key stakeholders must assume ownership of the food and agricultural policy process. The agricultural economist must not only become preacher-advocate. He must become the leader of policy teams in the same way that the architect leads building construction teams. Just as the pastor preacher does not give up on his congregation because they are hearers but not doers of the Word, the agricultural economist preacher must not give up because policy makers have not yet adopted new policy varieties based on his tireless advocacy. It is bound to happen someday, when the agricultural economist as preacher and policy advocate directly or by proxy finds himself in the right place, with the right people, at the right time. For him to succeed, key stakeholders, and actual and potential policy makers need to have shared values such as honesty, integrity, probity, altruism, zero tolerance for corruption and fraud in governance, the capacity and desire to detect and plug purposefully created avenues in the different phases of the policy process as avenues for rent-seeking behaviour and private accumulation of capital, and sincerity of purpose. Because most food and agricultural policies produce winners and losers, agricultural economists must assist the policy community with the modelling and computation of the welfare gains and losses as tools in the resolution of conflicts between gainers and losers. They need to form partnerships with political scientists, professional arbitrators and others in the design of alternative conflict resolution technologies to resolve conflicts that arise in the normal course of policy making.

Agricultural economists have a long history and tradition of hard-core empiricism, dating back to the statistical estimation demand and cost functions. Agricultural economics earned pride of place when, in his address in 1970 as President of the American Economic Association, Professor Wasily Leontief of MIT, inventor of input-output tables for which he won the Nobel Prize in Economics, singled out agricultural economics as the best and the most advanced of all the sub-disciplines of economics in the use of empirical methods and techniques, pioneered largely by our American forefathers in the discipline. I urge African agricultural economists to continue in this noble tradition of hard-core empiricism, not only for their (rapid?) career development, but also to provide inputs into policy making. Food and agricultural policy making anchored in hard-core empiricism becomes imperative in my belief that the issues over which most policy makers disagree are empirical, not theoretical. They revolve around the signs and statistical significance of estimated coefficients of postulated behavioural relationships. Our American founding fathers of the discipline also pioneered the building of collaborative platforms by which they went on residency exchange programmes in the United States Department of Agriculture (USDA). During these periods of their sabbatical or leave of absence, they hugely influenced the American food and agricultural policy process. This dates back to the late 1930s and early 1940s, when agricultural economists joined other economists in Washington DC to work on food procurement efforts for the

Second World War effort. African agricultural economists need to develop similar collaborative residency platforms to be able to effectively influence the policy process.

Such collaboration will assist in getting good linear approximations of the non-linearities of the time paths between phases of the policy process. Such collaboration and the use of partners will help to minimise or curb perennial so-called policy mistakes, and unintended consequences and unintended beneficiaries of food and agricultural policies in African countries. The collaboration must address the frustrating recurrence of so-called policy mistakes, unintended consequences and unintended beneficiaries from year to year and from one regime to another, as if African food and agricultural policy makers, ordinarily smart people, are incapable of learning from their past mistakes or the mistakes of their predecessors. Agricultural economists can deploy their game-theoretic and other tools for the analysis of gainers and losers, conflict resolution and negotiations within the general framework of the political economy of gainers and losers from policy.

If non-linearities persist, and if so-called policy mistakes, unintended consequences and unintended beneficiaries recur unabated, agricultural economists must consider proactively getting into more appointive political positions. If this fails to improve the policy process, agricultural economists must, as appropriate, brace up for more participation in active politics to get into elective political appointments to influence the policy agenda, provided our new ambassadors are guided by the core values of probity, integrity, accountability and transparency. Am I encouraging more agricultural economists to go into politics? Yes; as Professor Oluwasanmi blazed the trail many years ago, and if they cannot realise the goal of enduring vastly improved policy processes in technocratic roles and appointive political appointments. Consider lawyers and medical doctors as a distant second: they have not shied away from active politics through which they have been able to influence, sometimes dominate, the policy agenda in their respective professions.

Agricultural economists, as preachers and advocates, cannot afford less.

I thank you for your patience and attention.

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