

**BRINGING STAKEHOLDERS INTO AGRICULTURAL EXTENSION REFORM  
AGENDA: A PARTICIPATORY SWOT ANALYSIS OF THE TRINIDAD  
NATIONAL AGRICULTURAL EXTENSION SERVICE**

**Adewale J. Alonge**

Executive Director, Africa-Diaspora Partnership for Empowerment & Development, Inc. &  
Agriculture Programs, Miami-Dade County Public Schools, Miami Florida  
Telephone: 786)-556-5283; Fax: 305-247-1098  
Email: alongeaj@yahoo.com

**Abstract**

*The author advocates a major shift in the current top-down, externally-imposed approach to the institutional reform of public sector extension, to a more participatory and stakeholder-empowering framework. The study uses a participatory qualitative instrument of SWOT analysis to identify the perceptions of extension personnel in Trinidad regarding the institutional strengths and weaknesses of the national extension services and of the new opportunities and threats that would impact its survival and relevance in the future. Factors identified as strengths included a well-endowed human capital base, use of information technology, strong farmer organizations and regional collaboration. Institutional weaknesses included inadequate funding, poor government policy, and surprisingly decentralized training, which was the major extension reform platform in Trinidad in the 1990s. New opportunities were identified in youth program, expansion of clientele base to non-traditional commodity groups and on building the capacity of farmer organizations. Finally, privatization and the loss of public sector extension personnel to the private sector were listed as threats to the institutional survival of the national extension system. The paper concluded by noting that the public sector would probably remain a major player in the delivery of extension at least for the foreseeable future. It recommends that in order to remain relevance, public sector extension service must become more strategic-thinking, learning organizations, attuned to changes in its operational environment and nimble enough to adapt to these changes.*

**Introduction**

The operational landscapes for extension services worldwide in the past two decades have been turbulent. In the less developed countries (LDCs), the seemingly intractable problems of endemic poverty, environmental degradation, food insecurity, and the devastating impact of the AIDS pandemic have caused a major rethink in the management of the global development agenda, and of the role of governments and their agencies in it. Hence, given the general perceptions of public sector extension services in the LDCs as being inefficient, under-funded, under-staffed and poorly managed bureaucracies which have failed to achieve their institutional mandate to serve as change agent for agricultural development, many of these institutions have in the past two decades, come under intense pressure to reform or otherwise lose their institutional relevance. Further compounding the institutional reform environment for extension service is the fact that the last two decades have witnessed a global shift away from using the public sector as the institutional framework for service delivery. Consequently, multilateral assistance for the expansion of the public sector, including extension services, has declined dramatically.

Under the general umbrella of the global public sector reform (PSRP) program, which is under girded by what (Kiiza, 2003) described as the marketization policy-the belief that the key to enhancing the efficiency of the public sector agencies is to infuse them with private sector standards of accountability, budgetary restraint, and customer-orientation. Many extension systems worldwide have been forced to undertake fundamental and systemic institutional reform, including outright privatization. Others have implemented other forms of reform decentralization, contracting-out, voucher programs, and competition from non-traditional providers such as farmer organizations and the civil society (Rivera & Alex, 2004). No longer can extension managers take their continued institutional survival for granted. Many in fact have raised serious issue with the very notion of continuing to rely on the public sector to deliver extension services, arguing often from a public choice perspective that the public sector have become too much of a bureaucratic behemoth to be amenable to any reform mechanism (Source).

While there is a general consensus that many national extension systems in the LDCs are indeed long overdue for major institutional restructuring if the goal of sustainable agricultural development was to be achieved, many however have raised issue with the high-handed, top-down, externally imposed, and one-size fit-all approach that has largely driven the whole extension reform agenda (Alonge, 2004; Kizza, 2003; Beijer & Holtland, 2001). Relying on a prescriptive menu of reform programs, the so-called Washington Consensus, imposed on national systems using the promise of multilateral assistance, in a “carrot or stick” manner is simply courting failure.

From Rostow’s Stages of development model of the 1960s, to Structural Adjustment in the 1980s, and other development theories in between, one unshakeable lesson of international development experience learned over these many decades, is the fact that there are no universally applicable pathways to economic development or institutional reform. In order for any development program, including institutional reform, no matter how theoretically or fundamentally sound it is, to achieve sustainable result, it must be grounded in the unique historical, social, cultural, economic and political antecedents of the client nation, and it must also confer a sense of ownership on the stakeholders. Another unfortunate reality of development work is how often, in the rush to find quick-fix solutions to the monumental and complicated challenge of development assistance, this lesson about the importance of participation and stakeholder ownership is forgotten. More often than not when stakeholder participation is mentioned as a key benchmark in program development and implementation, it is limited to the end of program design or consultation meeting to inform stakeholders. Effective participation, on the other hand is the process through which stakeholders (those affected by the proposed reform or capable of affecting the outcome of the reform) influence or share control over setting priorities, making policy, allocating resources, and ensuring access to public goods and services (World Bank, 2003). Based on this definition, very few of the extension reform programs that have been implemented in the past two decades can claim to have met the mark.

With the benefit of hindsight from two decades of experience with public sector reform, the realization seems to be finally hitting home that the challenge of providing extension services for sustainable development, poverty reduction, and human empowerment in the less developed countries is too monumental and complicated to be amenable to a simplistic and rigid set of policy prescriptions. It is also gradually becoming apparent that the New Public Management prescription of organizing the institutional and organization contexts of the public sector to mirror key elements of private sector as a means of enhancing institutional efficiency (Economic

Commission for Africa, 2003) is overly simplistic and not properly attuned to the realities of a poorly developed private sector infrastructure in the less developed countries. In a revision of the exuberance of the early days of the public sector reform program, when many were predicting the demise of public sector extension services and praising the invincibility of the private sector to provide service in a more efficient manner, even in the most difficult terrain, some sense of proportion seems to have settled in. It is now fairly well accepted that, at least for the foreseeable future, and especially in the most difficult terrain where resource-poor producers will most likely be cherry-picked out of access to any extension service in a full privatized mechanism, the public sector will still remain a major provider of extension services, although in a less dominant manner and within a more competitive multi-institutional framework of service providers, including the private sector, farmer organizations, and the civil society (Mulhall and Garforth, 2000).

This paper makes a strong case for the infusion of more participatory approaches, including stakeholder analysis, to the extension reform agenda. It also argues that in order to remain relevant to the overall agricultural development agenda, extension services in the LDCs must become learning and strategic thinking organizations, continually realigning their organizational structure and culture to take advantage of changes and opportunities in their operational environment. The reality is that extension systems in the LDCs with all the talk about their institutional inefficiency, are by and large, staffed by village extension workers, ill-trained and ill-equipped as many are, who are dedicated to their clientele. Often working in the most inhospitable environments, for many resource-poor farmers, the local village extension worker is the only face of government they ever see. Using data from the Trinidad national extension service, this paper will make a strong case for bringing into the extension reform agenda the institutional wisdom, unparalleled contextual knowledge, and the insights possessed by extension personnel. These professionals who day in day out work in the trenches when highly paid experts and consultant would have long gone, and having to deal with the consequences of badly conceived and poorly implemented reform program, deserve a seat at the table when the future of their organization is at stake.

### **Purpose and Objectives**

Adopting a participatory SWOT (Strength, Weakness, Opportunities and Threat) analysis approach, the purpose of this study was to identify the perceptions of extension personnel regarding the institutional strengths and weaknesses of the Trinidad extension service and the opportunities for and threat to its continued survival and relevance in the challenging operational environment of the 21<sup>st</sup> century. Finally, the study sought the input of the extension personnel regarding the strategic options for capitalizing on the strengths and opportunities available to the national extension service, and for mitigating the impact of its institutional weaknesses and threats to it. The study focused only on Trinidad, the larger of the twin island nation of Trinidad & Tobago. It has the following specific objectives:

1. Identify the perceptions of agricultural extension personnel in the Island of Trinidad regarding the institutional strengths of its national extension service.
2. Identify the perceptions of agricultural extension personnel in the Island of Trinidad regarding institutional weaknesses that may constrain the effectiveness of its national agricultural extension system in the 21<sup>st</sup> century.
3. Identify the perceptions of agricultural extension personnel in the Island of Trinidad

regarding the opportunities for improving the effectiveness of the national extension system in the 21st century.

4. Identify the perceptions of agricultural extension personnel in the Island of Trinidad regarding the threats that are likely to constrain the effectiveness of the national agricultural extension system in the 21st century.
5. Identify strategies for enhancing and capitalizing on the institutional strengths and opportunities available to improve the effectiveness of the national extension service.
6. Identify strategies to mitigate the institutional weaknesses and threats that may constrain the effectiveness of the national extension services.

### **Theoretical Foundation**

Trinidad and Tobago, a twin island nation located between the Caribbean Sea and the North Atlantic Ocean, northeast of Venezuela, is slightly smaller than Delaware. Trinidad & Tobago is one of the most prosperous in the Caribbean, with GDP per capita (purchasing power parity) estimated at \$12,700 (CIA, World Factbook, 2005). With its roots in the colonial era, the national extension service in Trinidad is organized along the British public sector model and attached to the Ministry of Agriculture. With oil-dominated economy, the agriculture sector has witnessed a dramatic decline in its contribution as a percent of the GDP and workforce employment, which in 2005 were estimated respectively at 0.7% of GDP and 9.5% of labor force (CIA, World Factbook, 2005). While the sharp decline in the agriculture's contribution to GDP might be accounted for due to the recent spike in global oil market price, the decline in the proportion of workforce employed in agriculture is particularly troubling due to its implication for an already declining extension clientele base.

These data definitely raise serious issues regarding the continued institutional relevance of the extension services in the face of the sharp decline in the agriculture sector. It definitely calls for a thorough institutional analysis with a view to reassessing and realigning institutional mission, structure, and resources to a rapidly changing operational environment. Although the Trinidad and Tobago implemented a nation-wide institutional decentralization of extension services in the 1990s, Seepersad and Douglas (2002) in their assessment of the reform program concluded that though well-intentioned, it has not achieved some of its envisaged goals due in part to what they described as ambiguities in the design and implementation of the reform program, and also in coordination between central and regional extension levels. More significantly, they noted that the reform which was geared toward placing farmers as the focal point of the Ministry's services, was however, initiated by the central government and not from explicit demands from the public.

It is a well known fact that stakeholder participation is often the key to successfully implementing complex policy and institutional reforms. Effective stakeholder participation-which implies that stakeholders are able to influence or share control over setting priorities, making policy, allocating resources, and ensuring access to public goods and services, contributes to reform success by helping to build alliances for change, enhancing sense of ownership, and in turn project sustainability and finally accountability, a key ingredient for improving governance and public sector efficiency (World Bank, 2003).

A very useful tool for strategic planning which also incorporates the element of stakeholder participation is the SWOT (Strength, Weakness, Opportunity, & Threats) analysis. A widely used tool in the business management field, SWOT analysis seeks to address the question of strategy formation from a two-fold perspective of an external appraisal of threats and

opportunities in an environment, and an internal appraisal of strengths and weaknesses in an organization (Mintzberg 1994, 36-39). The role of strategic management as encapsulated in the SWOT analysis was best enunciated by Ansoff (1980) who noted that strategic management is to a great extent an exercise of adjusting an organization's internal behavior to bring about necessary changes in its interaction with the surrounding environment. Perhaps, indicative of a natural progression of the trend toward infusing private sector management culture into the public sector, the SWOT analysis tool has, in the past two decades, become a tool of choice for analysts and consultants working on public sector reform programs, worldwide.

In their work in the Scandinavian, Karppi, Kokkonen, & Lähteenmäki-Smith (2000), defines *strength* as the resource or capacity an organization can use effectively to achieve its objectives, a *weakness* as a limitation, fault or defect in the organization that will keep it from achieving its objectives, an *opportunity* as any favorable situation in the organization's environment and a *threat* as any unfavorable situation in the organization's environment that is potentially damaging to its strategy. This conceptualization of SWOT was adopted for this study.

In the agricultural and extension education field various authors have reported using the SWOT analysis as a strategic planning for analyzing different national extension systems and the agricultural knowledge system. These include Piggin, (2003) analysis of agricultural development challenges in newly independent East Timor; Hayami, (2002), comprehensive analysis of the pluralistic extension systems in Zimbabwe, and Warner, (1995) participatory rural development planning in Belize. In his work in Zimbabwe (Hayami, 2002) conducted a strengths, weaknesses, opportunities and threats (SWOT) analysis of the various organizations providing extension services in the country, including AGRITEX the public sector providers, multilateral and bilateral projects, farmer organizations and NGOs. A SWOT matrix of findings reported by Hayami (2003, 19) indicated the presence of a highly qualified, competent and experienced personnel, good in-house training, extensive grassroots coverage, and strong institutional collaboration as strengths of the AGRITEX. Identified weaknesses included limited financial resources, poor logistical support, bureaucracy and long channels of communication, and high staff turnover.

### Methods

The setting of the study was a 2004 national workshop on extension reform organized by the Trinidad Branch of the Association for International Agricultural & Extension Education (AIAEE) in St Joseph, Trinidad. Approximately seventy-five participants representing all the major regions and a broad spectrum of the rank and file of extension personnel participated in the workshop. The author was the invited guest speaker and seminar leader at the three-day workshop, including field visits. At the end of the seminar, which discussed the challenges inherent in the global reform program for extension services, a participatory SWOT analysis study using open-ended qualitative-type instrument was conducted. Because of the exploratory nature of the study and also a manageable sample size, no sampling was deemed necessary. Hence, all the participants in the workshop took part in the SWOT analysis. Data collection and analysis were underpinned by the qualitative research methodology developed by Miller & Hubberman (1984). They recommended an iterative approach including data collection, data reduction, data display, drawing conclusions and verifying (Miller & Hubberman, 1984). An open-ended SWOT analysis survey was adapted from a SWOT matrix developed by the Internal Center for Management & Business Administration, Inc. (2004). Using the three major themes

of human resources, policy, and institutional structure, each respondent was required to identify the institutional strengths and weaknesses of the national extension service in each of the three themes and also of the environmental opportunities and threats to the Trinidad Extension service.

The initial stage of individual data collection was followed by an interactive group-based data reduction activity. Participants were assigned into small groups and were then required to come up with group consensus from their individual responses. At the conclusion of the activity, the data display stage was implemented when each group was required to present its group consensus to the entire group. The group activity and presentations that followed were very useful in helping the researcher to clarify the meanings of concepts that would otherwise have been ambiguous. Individual and group data were then collected for content analysis, counting, and ranking based on the frequency of occurrence of different concepts and themes. Additional data verification was accomplished through interaction with extension personnel and farmers during visits to district offices and a farmer field school site.

### Findings & Discussions

The main goal of this study as itemized in objectives 1-4 was to identify the perceptions of extension personnel regarding the institutional strengths and weaknesses of the Trinidad national extension system and the environmental-based opportunities and threats that confront it. The findings from context analysis and frequency of occurrence of major themes elicited by the respondents are presented in Table 1. Perhaps the most revealing and most important from a reform policy perspective is the appearance of the same set of themes and concepts across the strengths, weaknesses, opportunities and threats columns.

**Table 1. Strengths, Weaknesses, Opportunities & Threats (SWOT) Matrix for Trinidad National Extension Services.**

STRENGTHS		WEAKNESSES	
• Highly Trained Staff	18	• Inadequate Funding	7
• Information Technology	10	• Poor Agricultural Policy	7
• Strong Farmer Organization	5	• Poor Incentive/ Pay	5
• Regional Collaboration	2	• Poor Infrastructure	4
• Youth Program (YAPA)	2	• Decentralized Training	4
• Public Sector Model	2	hampers Fieldwork	
• Decentralized Structure	1	• Poor Communication and	4
• Farmer Field Schools	1	time lag in Implementation	
• Focus on Commodity	1	• Inadequate Personnel	3
• Farmer Incentive Program	1	• Poor Access Road	3
• Subject Matter Specialist	1	• Poor Research/Extension	2
		Linkage	
		• Poor Farmer Incentive	2
		• Poor Technology	1
		• High Cost of Advanced	1
		Training	

OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• Youth Program (YAPA, 4-H YFC)- 9</li> <li>• Use of IT to link Rural, Regional Knowledge Centers 7</li> <li>• Build Capacity of Farmer Organizations 3</li> <li>• Training 3</li> <li>• Regional Collaboration 2</li> <li>• Focus on Non-traditional Commodity- ex. Vegetables 2</li> <li>• Crop Insurance 2</li> <li>• New Clientele (Caroni Workers) 1</li> <li>• Include NGO-Public Sector Collaboration 1</li> <li>• Expand Farmer Field School 1</li> </ul>	<ul style="list-style-type: none"> <li>• Loss of Personnel to Private sector 8</li> <li>• Diminishing Clientele Base 8</li> <li>• Low Government Priority for Agriculture 7</li> <li>• Pests and Disease 3</li> <li>• Chemical Company 3</li> <li>• Aging Extension Worker 2</li> <li>• Globalization &amp; Free Trade 2</li> <li>• Poor Program to Strengthen Farmer Organizations 1</li> <li>• Removal of 4-H &amp; YFC from National Program 1</li> <li>• Youth Lack Interest in Agriculture 1</li> </ul>

For instance, human capital, expressed as the presence of a highly trained professional staff, was ranked as the number one strength of the Trinidad national extension service, and at the same time, as a weakness expressed as poor pay and incentive structure to retain this highly professional staff. Similarly, in the threat column, the loss of staff to the private sector was ranked as the number one threat coupled with the threat of privatization. Similarly, training/professional development showed up as an opportunity, though it was ranked low in term of priority. This finding has significant implications for determining where the Trinidad national extension service should focus its institutional reform effort. It is quite obvious that human resource development is a priority area since the quality of an organization's human capital is by far the most important determinant of organizational success.

Based on the high ranking assigned by respondents to the use of information technology (IT) as both an institutional strength and opportunity, (Use of IT was ranked second on both criteria), it would appear that the Trinidad national extension service has broken the mold of the general perception that extension services in the less developed countries do not use IT. While this may come as a surprise to people not familiar with Trinidad, Miller & Slate (2000) have reported a surprisingly higher than expected internet usage in their household survey in Trinidad, noting that while one in 20 households in the country have access to internet in their home, close to one-third of households include a regular Internet user. They expressed pleasant surprise that even at very low income levels, people purchase top of the line computers equipped with modems (Miller & Slate, 2000). This fact was borne out during the post-workshop interaction with participants, most of whom indicated having internet and email account. In fact this author has established several email line of communication as a result of the workshop.

In addition to the significance of this finding from the perspective of the immense opportunity for expanding information technology as a tool for extension service delivery, even more significantly it points out the inherent danger in painting extension services in the less developed countries with the same brush as is commonly done even in academic publication and discourse. The simple truth is that there is such wide variability in the institutional capacity of

public sector extension systems in the LDCs to be appropriately serviced by a neatly packaged set of institutional reform template. While some are frankly speaking, fit for a complete institutional deconstruction and rebuilding, others might just need some tweaking to get them up to speed. Hence, the reform agenda must focus more effort on carefully analyzing each national system on a case-by-case basis, devising appropriate reform instruments, of course within a truly participatory framework.

Other significant findings that bear special mention include the perception expressed by the respondents that the incursion of the private sector, including chemical companies into “extension service” and the whole privatization movement constituted serious threats; the recognition of the need to build the capacity of farmer organizations, and of the importance of regional collaboration in the technology development and extension service across the Caribbean. Also significant in terms of their implications for tapping into niche clientele base was the recognition of new opportunities to expand the clientele base to include youth program (YAPA), non-traditional commodity producers in the horticulture field, including vegetable and ornamental production, and the newly privatized Caroni workers. Other included the need for collaborative partnership between the public sector extension service, non-governmental organizations (NGOs) and farmer organizations in service delivery, and the expansion of the Farmer Field Schools model, all seen as new opportunities to sustain institutional relevance. Not surprisingly, respondents identified poor funding and the lack of truly participatory approaches to policy-making as constituting both weaknesses of and threats to the national extension system.

Finally, it is noteworthy that decentralization, which was the bedrock of the extension reform agenda in Trinidad in the 1990s, was among the four lowest ranked factors considered as strengths. Converse, the perception that decentralized training hampered fieldwork was ranked third highest among institutional weaknesses. This finding merits further study to illuminate the mechanism by which decentralized training could constitute an impediment to field work as it runs counter to the generally accepted principle that decentralization should enhance efficiency. As strange as this finding might appear, it is noteworthy that Seepersad and Douglas (2000), in their assessment of the extension decentralization in Trinidad, indicated that the reform did not achieve the envisaged results. Perhaps in a small island such as Trinidad, decentralization might not be much of a big deal, and might in fact be counterproductive.

Using the same non-structured, open-ended and free-flowing survey adopted in the SWOT analysis, and in the true spirit of stakeholder empowerment, respondents were asked to identify strategies within the human resource, policy, and institutional structure domains that might be used to pursue opportunities that are a good fit to their identified institutional strengths, and on the flip side, strategies to overcome weaknesses and reduce the vulnerability of the national extension service to external threats. The data obtained from content analysis and frequency rankings of suggested strategies are presented on tables two, three and four.

**Table 2. Ranking of Strategies for Improving Human Resource Efficiency.**

Strategies	Ranking
Enhance Professional Development	1
Specialized Training for Diversified Commodity	2
Better Staff Incentive	3
Farmer Organization Capacity Training	4
Better Technology	5
Improve Extension/Farmer ratio	6

In the human resource/capital domain, enhanced professional development, specialized training to take advantage of new opportunities to reach non-traditional clientele and enhancing the organizational capacity of farmer organizations to participate in policy-making were ranked in that order as important strategies to pursue. In the policy domain, increased funding, the institutionalization of participatory approach to policy making (inclusion of farmers and extension personnel), were ranked as priority areas for strategy formulation. Finally, in the institutional structure/culture domain, priority strategies include greater emphasis on institutional linkage and collaboration across the Caribbean, focus on youth program, decentralization, and greater emphasis on the empowerment of stakeholders as integral parts of the institutional culture and structure. Perhaps, not surprisingly, privatization was not one of the recommended strategies for institutional reform of the national extension service. In fact, respondents identified the operation of the Trinidad national extension system within a public sector framework as an institutional strength.

**Table 3. Ranking of Strategies for Improving Policy Formulation.**

Strategies	Ranking
Increase Financial Allocation to Agriculture	1
Greater Involvement of Farmers in Policy Formulation	2
Land Reform	3
Involve Staff in Policy Formulation	4
Improve Incentive Program for Farmers	5

**Table 4. Ranking of Strategies for Improving Institutional Structure & Culture.**

Strategies	1
Institutional Linkage and Regional collaboration	2
Greater Focus on Youth and incentives	3
Decentralization	4
More participatory extension model	5

### **Conclusions**

Despite earlier prediction to the contrary, the public sector will continue to be a major player in the delivery of extension services, at least for the foreseeable future, only in a more diminished role than in the past and within the framework of institutional pluralism. However, managers of national extension systems must wake up to the realization that their operational environment is forever altered with institutional pluralism, including competition from the private sector, the civil society, farmer organizations, and a shift from supply-driven to demand-driven, and efficiency-focused service delivery becoming the norm rather than the exception. If the public sector extension systems are to remain a viable player in the agricultural development agenda, they must become increasingly more nimble, more strategic-thinking, learning organizations, well attuned to changes in their operational environment and constantly adapting their institutional structure and culture in order to capitalize on emerging opportunities that are a good fit to their strengths, mitigate their weaknesses and reduce their vulnerability to environmental threats to their continued survival and relevance.

There is such a wide variability in the institutional capacity of extension systems in the less developed countries, which is why past one-size-fits-all approaches to institutional reform have led to disappointing results. Based on the findings of this study, the Trinidad national extension system, compared to its many of its counterparts in the LDCS, staffed as it by some of the most professional, skilled, and dedicated agents, is poised to remain a formidable force in the Island's drive toward agricultural and economic development, despite the formidable threats it faces. These threats include a declining agricultural sector and the challenge posed by the incursion of the private sector, including agro-chemical companies into the extension service delivery business.

### **Educational Importance**

This paper definitely makes a strong case for the adoption of a more participatory and stakeholder-empowering approach to policy making, including the reform agenda for extension services worldwide. This study, while not denigrating the important function of external agencies in pushing the reform agenda, it clearly demonstrates, based on its findings from Trinidad, that extension personnel with their vast institutional memory and contextual knowledge, when empowered and given the tools to work with, are more than capable to identify the strengths and weaknesses of the institution they work for. Furthermore, they will proffer workable strategies for positioning their institutions to take advantage of opportunities and mitigate threats. Finally, the paper provides a practical demonstration of the applicability of the SWOT analysis as a useful strategic planning and institutional analysis tool for conducting participatory and stakeholder-led institutional reform program.

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