ZANZIBAR CLOVE GROWERS ORGANISATION (ZACPO)

FINAL CLOVE ADVOCACY REPORT

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1. INTRODUCTION

Cloves have been a major foreign exchange earner in Zanzibar for the last hundred and fifty years. Its production has however registered a significant steady decline over the last four decades from an annual average of about 16,000 tonnes in 1970's to a current average of between 1500 to 3500 tonnes in 2000's. Declining production has been attributed to climatic variations, insecurity of the three-acre land tenure system, diseases, poor management, limited replacement, ageing of clove trees and ***State Monopoly*** in clove marketing systems that put off private sector investment and participation in clove industry. The clove marketing hitherto is dominated by the Zanzibar State Trading Corporation (ZSTC), a state agency which was established by Government decree in 1968 and further reinforced by Zanzibar Clove marketing law in 1985. The ZSTC overriding role and impact in the clove industry have been perceived differently by various clove stakeholders. The Government has struggled to maintain ***the status quo*** of marketing cloves through ZSTC to be able to maximize outputs from the cloves, the once only main revenue contributor of Zanzibar economy. Most of the farmers and the business community on the other hand, has been displeased by the ZSTC role and hold on clove marketing and have persistently called for drastic structural changes of the sector especially on ***deregulations*** that will pave the way for ***revival of the clove industry*** through private sector participation.

In an effort to rehabilitate the Clove industry, the RGoZ commissioned a study in 2004 to review the existing structure of the Zanzibar clove industry and proposes strategies for revamping the sector. The study submitted recommendations that were discussed through by Government and widely ***accepted and opted in*** as important steps towards clove rehabilitation. Due to the fact that it is now more than five years since these recommendations were submitted to the Government, the need was felt to undertake an advocacy project to accelerate endorsement of structural and regulatory changes foreseen in the 2004 clove study. The project was set to determine the extent to which various recommendations have been implemented, the reasons behind inadequate implementation and the proposed actions to be taken by stakeholders in accelerating the pace of implementation. The advocacy project was also put to undertake a deep economic analysis of the sector and establish both economic and social impacts of deregulation of the clove industry so as to inform the Government and the general public on the urgency to accelerate the implementation of the proposed changes that will save the clove sector from further deterioration.

2. GENERAL OVERVIEW OF THE CLOVE SECTOR

Global Clove Supply

Historically, Indonesia was the major producer of Cloves in the World until the beginning of the 19th Century. The entrance of Zanzibar in the world clove market in 1830s transferred the dominating position of World Clove supply from Indonesia to Zanzibar. In 1834 Zanzibar produced 35,000 metric tons of cloves and controlled 90% of the world market. This virtual monopoly of the world clove market by Zanzibar continued to be maintained until the 1940s. Thereafter Indonesia regained its lead in the world clove market both in terms of production and imports. Currently the major producers of cloves include; *Indonesia, Madagascar, Zanzibar, Comoro, Sri-Lanka and Brazil*. Indonesia produces between 50,000 and 120,000 tons of cloves, which are mostly consumed domestically. Zanzibar, Madagascar and Indonesia account for over 90 per cent of the world output. The current level of the World clove production is presented in Table 1.

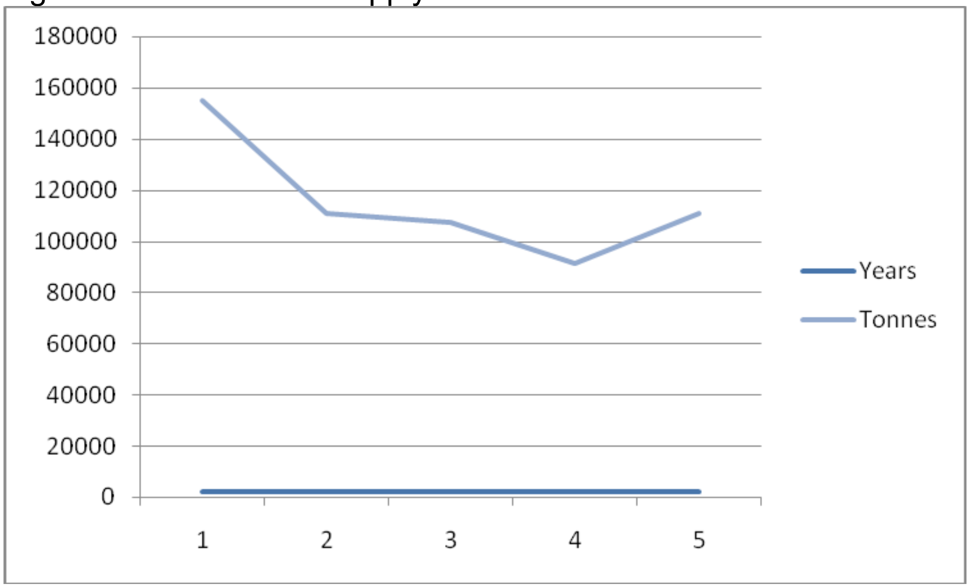
Table 1: Global Supply of Cloves by country (MT) for 2003-2007

Country	2003	2004	2005	2006	2007
Indonesia	116,415	80,404	78,350	62,027	80,404
Tanzania (Zanzibar)	9,500	9,900	10,200	9,800	9,900
Madagascar	18,950	10,000	9,873	9,900	10,000
Comoros	3,013	3,500	1,500	2,500	3,500
Sri Lanka	3,350	3,070	3,260	3,140	3,070
Kenya	1,000	1,000	1,000	1,000	1,000
China	600	800	700	700	800
Malaysia	200	200	200	200	200
Grenada	20	20	20	20	20
Total	**155,051**	**110,898**	**107,108**	**91,293**	**110,901**

Source: FAOSTAT; www.//faostat.fao.org

The data presented in Table 1 above shows a general decline of global clove supply by an average of 6% over the five years. The short increase in 2007 is not expected to continue albeit at short pace as the Indonesia crop emerges from the low cycle. The next shortfall is expected in 2010 when Indonesia crop will be in the low cycle again. Figure 1 shows the trend of the global clove supply over five years period.

Figure 1: Global Clove Supply Trend 2003 - 2007:



Global Demand of Cloves

The largest buyers of cloves are in Far East mainly Indonesia. The new demand for kretek cigarette manufacturing in Indonesia led to increased local production. On the other hand however, the quality demand of kretek cigarettes rendered importation of cloves from other producing countries and especially Zanzibar inevitable. Statistics on volumes and values demanded requires significant resources for an international market research and are hard to find. However, there are other importers all over the world, notable Holland and Middle East whose annual demand for cloves stands at about 10,500 tons.

Generally, clove demand also emanates from demand of clove products. Clove contains 11% - 17% essential oils, which is mostly eugenol, an effective unaesthetic. Clove buds essential oil is used in perfumery and though less frequently in pharmaceuticals. The essential oil is also used in food industry in meat products, sauces and pickles, confectionery and bakery products. Less expensive stem oil, pale yellow, obtained after distillation is used in the massage-market products and in meat seasoning. Less expensive leaf oil is used as main source for production of eugenol, which is used in analgesic and raw material for other chemical products such as vanillin.

The global demand for clove oils was estimated at 52,500 tonnes in 2008. The global market for clove oils is expanding. A conservative estimate puts it at an annual growth rate of 5%. The projected demand for clove oil is as shown below

Table 2: Projected Demand for Clove Oils (Tonnes)

Year	Quantity Demanded (tons)
2008	52,500
2009	55,125
2010	57,881
2011	60,775
2012	63,814
2013	67,005
2014	70,355
2015	73,873
2016	77,566
2017	81,445
2018	85,517
2019	89,793
2020	94,282
2021	98,997
2022	103,946

Source: Internet

According to FAO statistics in 2007, clove oils prices had gone up in last six years from USD 2500 to USD 3800 per tonne a significant 52% increase showing that the clove oil is a global lucrative business. According to FAO, Indonesia produced around 70% of world clove oil in 2005 followed by Madagascar. Tanzania and Comoros share was 10% and 2.4% respectively. Singapore and India are the leading importers. In 2005 Singapore share was around 39% or 21,416 tonnes of total world demand while India represented 13% or 6,945 tonnes. During the same year, EU share was 5% or 2,739 tonnes. ***These new market developments are favourable for the Zanzibar Clove industry*** with her large underutilized essential oil distillery which under ***proper liberalized arrangements*** could be put under maximum utilization and significantly contribute to ***increased production of essential oils for export***.

Performance of Indonesian Clove Industry and Lessons for Zanzibar

Indonesia has been dominating the clove industry over the last 70 years. In 2007 alone, Indonesia produced 73% of total world production. Planted in 1960s, the current generation of clove trees is gradually becoming productive and it's unclear whether farmers are replanting new plants to replenish the volumes. The biggest consumer of cloves is the cigarette – kretek industry. After tobacco, cloves are the most important component of kretek cigarettes. The industry itself needs approximately 90,000 tons of cloves annually hence there are no exports of cloves in the country. Clove production is dominated by smallholders , some producing as little as 150kg per season from perhaps 10 trees only, with approximately 1.5 million clove farmers spread all over the country.

The supply of cloves is governed by price. While not perfect, the Indonesian government have realized that ***free market*** is the most effective mechanism to achieve a sustainable medium between buyers (kretek manufacturers) and seller's (farmer's) interest. For most of the 1990s, the clove market was controlled by the government. ***The government pulled out in 1998***, but the effect of its meddling are still felt today. When the kretek industry gained popularity, the government supplied farmers with seeds and encouraged production. The goal was to reduce dependence of clove from Zanzibar and Madagascar. Initially the strategy worked, with the country attaining full self sufficiency in the 1970s. Government support backed by strong demand, encouraged farmers to grow more cloves every year which eventually lead to over production. After a bumper harvest in the late 1980s, the price collapsed and many farmers suffered great financial loses. The government reacted by establishing a Clove Support and Trading Board or BPPC after its Indonesian initials with the objective to protect clove farmers from market fluctuations and to ensure the cigarette – kretek manufacturers receive constant supply of cloves. In reality, BPPC bought cloves at prices far below their market value and consequently overcharging cigarette manufactures for their supplies – with BPPC officials pocketing the difference.

Discouraged by bad prices, many farmers neglected their trees and switched to lucrative crops such as cacao and vanilla. To keep supply tight, BPPC even paid farmers to uproot their clove trees. Then there was a succession of poor harvest brought by adverse weather, which combined with loss of production led to a jump of prices to $9/kg. This pushed kretek manufactures out of business. ***Indonesia disbanded the BPPC*** in the wake of Asian financial crisis in 1997.

Recovering the lost production proved a challenge to the government mainly due to slow nature of the tree to regenerate. It took the initiative of the kretek manufacturer to work diligently to restore production. Kretek manufacturers also assisted farmers with agronomic advice. This and other support initiatives turned round the clove industry. ***After the return of the free market mechanism***, growers started to reinvest in clove production. Due to vastness of the archipelago, kretek manufacturers buy cloves from traders rather than farmers. Traders also serve as buffers. If kretek manufacturer's needs are fulfilled, they will keep buying from farmers and store the cloves for the next season. Rivalry is fierce and they compete on more than trade alone. They compete to offer best services such as fair weighing and speed of payment

Indonesian experience on the management of clove industry should provide lessons to Zanzibar. ***The process of deregulation of clove industry*** that involves regulatory and structural changes should be accelerated to respond to the needs of main actors in the national effort to rejuvenate the industry. As was the case in Indonesia, ***the Government should disband the ZSTC*** and allow the free market mechanism with ***private sector participation*** to flourish. Efforts should also be made to ***activate local demand for cloves*** especially industrial demand for production of essential oils. The main instrument for rejuvenation of Indonesian clove industry was high local demand of cloves from kretek –cigarette manufacturers. As a matter of priority, the Government should workout and endorses complete ***privatization of the essential oil distillery in Wawi***, Pemba, so as to pave the way for industrial and commercial production of essential oils that on one side ***will trigger local demand for cloves*** and its products and on the other side ***will increase the share of Zanzibar*** in the flourishing global essential oil markets.

Overview of the Clove Industry in Zanzibar
History
The history of Zanzibar cannot be separated from its position on Cloves World Market. Similarly when you take a look to the history of Cloves in all Agronomy books, there is always a mention of Zanzibar islands. Conclusively therefore, Zanzibar and Cloves are inseparable historical twins. This position need to be capitalized for the benefit of this and future generations of Zanzibar

Status
The clove industry has been declining in recent years. The industry has been facing various problems in areas of production, marketing and processing. There is also a problem of clove smuggling in and out of Zanzibar. Despite the fact that the production of cloves has gone down in Zanzibar and the number of clove producers has increased in the world, the export of cloves provides Zanzibar with a large share of her foreign earnings.

Table 3: Zanzibar Clove Export figures (Quantities and Values)

YEAR	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
QUANTITY(tons)	4,097.6	3,266.7	3,156.7	1,085.6	4,3I3.9	2800
VALUE TSHS (mls)	6,237	7,306.5	8,160.2	2,893.8	12,902.6	8,249

Source: OCGS, 2009.

Although the production is declining, cloves still contributes significantly to the GDP and export earnings (An average of 6 billion Tshs per year). This shows that there are opportunities in clove industry for reduction of poverty and food insecurity if constraints to local production and marketing are addressed.

Performance of the Zanzibar Economy and Clove Prices
There has always been a close association between performances of the Zanzibar economy with the performance of clove prices in the world market. During periods of rising clove prices in international markets, the economy benefited and was able to generate substantial foreign exchange earnings, increase the share of agriculture in GDP ,generate employment in clove related activities and improve the welfare of the rural based community. During periods of price falls, the reverse occurred. The share of cloves in GDP tended to shrink

and the government revenue generated from cloves declined. In general the welfare of clove farmers declined as well. An additional negative effect also accrues. Clove farmers neglect their farms with consequential poor tree husbandry and poor harvesting practices precipitating the prevalence of clove tree diseases such as die back and sudden death. These have ultimately resulted into significant decline in the output of cloves in Zanzibar. Clove marketing mechanisms that will stabilise prices such as the one proposed under the tripartite arrangements as proposed in the 2004 clove study will do a lot good in the clove rehabilitation process.

3. STUDY OBJECTIVES AND METHODOLOGY

Objectives

This advocacy project was set to determine the extent to which various recommendations of the 2004 clove study have been implemented, the reasons behind inadequate implementation and the proposed actions to be taken by stakeholders in accelerating the pace of implementation. The project was also put to undertake a deep economic analysis of the sector and establish both economic and social impacts of deregulation of the clove industry so as to inform the Government and the general public on the urgency to accelerate the implementation of the proposed changes that will save the clove sector from further deterioration.

Methodology

The project was implemented in two phases. The first phase involved stakeholders assessment that was conducted through person to person interview that aimed to determine the extent to which various recommendations of the 2004 clove study have been implemented, the reasons behind inadequate implementation and the proposed actions to be taken by stakeholders in accelerating the pace of implementation. Phase 1 also involved the conduction of Validation workshop to verify the interview findings from all stakeholders who participated in the assessment; and stakeholders' workshop to create awareness among key stakeholders on the implementation status of the Clove Development Strategy of 2004 and build general consensus on the way forward. The second phase targeted the economic analysis of the clove industry and was set to determine both economic and social impacts under two different scenarios; the status quo without change of the policy and under liberalized market mechanisms.

In both two phases the respondents included farmers, private sector entities, NGO representatives and senior government officials from Ministry of Agriculture, livestock and Environment, Ministry of Tourism Trade and Investment and Zanzibar State Trading Corporation (ZSTC). The stakeholders were chosen to participate in the study (assessment and analysis) based on their participation in production, clove marketing and trade and in their experience in the provision of clove support and extension services. Based on these criteria, the stakeholders were drawn from following categories:

(i) Government Officials

These officials were mainly from two key ministries, namely: Agriculture, and Trade including ZSTC. It was important to hold consultations with these stakeholders because they are the principal supervisors of the clove industry in Zanzibar and they know the status of the industry in terms of production, processing, marketing and the constraints facing it.

(ii) NGOs and Private Sector

The purpose of consultations with this group of stakeholders was to get their opinion on how the industry can be revived and diversified in terms of production, marketing, uses and value addition. NGO's sector is also useful in provision of support services and farmers empowerment through education and advocacy related activities

(iii) Clove Farmers

Consultations were held with clove farmers in both Unguja and Pemba in order to get their opinion on the status of implementation of the clove study recommendations and register their opinion on the relevancy and importance of these recommendations in the clove rehabilitation efforts.

4. KEY AREAS OF ANALYSIS

Clove Market Law

Amendment of the Clove Marketing Act of 1985 was seen as an important pre-requisite for liberalization of Clove marketing which is an important component of the clove development strategy. According to the 2004 clove study, this was to be facilitated by Ministry of Tourism Trade and Investment in close collaboration with Attorney Generals Office and House of Representatives

ZSTC Restructuring

It was clearly identified that there was a need for transformation of ZSTC to facilitate an efficient marketing of cloves under a liberalized environment. To this effect, the Clove study (2004) recommended an assessment be conducted on ZSTC staff levels in conjunction with efforts to determine staff with the right kind of skills and qualifications to fill the remaining identified employment at the transformed ZSTC

Production Support Services and Extension

It was generally felt that the declining clove output is partly caused by limited and inadequate support and extension services to clove farmers. This has lead to improper management of clove plantations and general poor husbandry practices during planting and other field operations. The analysis looked closely on this aspect and registered stakeholder's views on ways to improve production support and extension services to clove farmers.

Research and Development

There is has been very limited effort on clove research and development over the last two decades. With increasing challenges of climate changes, diseases and internal and external clove marketing problems, the need was felt to look on the research and development issues and prompt stakeholder's responses on how best this could be promoted on sustainable bases.

Farmers Organization

Existence of the Zanzibar Clove Farmers Association (ZCFA) was seen as an important step towards enhancing participation of stakeholders especially farmers in provision of clove support services including appropriate and targeted extension services, credit facilities, market and price information. According to the 2004 clove study, this activity was supposed to be facilitated by Ministry of Agriculture, Livestock and Environment in collaboration with other stakeholders

Traders Organization

Having an effective and capable trader's organization is an essential step in articulating the interests of the business community. This private sector organ will serve the national interests in strengthening and diversifying clove markets and maintenance of the quality reputation that Zanzibar had enjoyed for her cloves for more than hundred years. The private sector organ will complete the required tripartite arrangement for clove marketing that also include farmer's organization and the Government's Clove Marketing Board. According to the 2004 clove study, the existence of Zanzibar Clove Traders Association (ZCTA) was to be facilitated by Ministry of Tourism, Trade and Investment in collaboration with other stakeholders.

Economic Analysis and Impacts under Different Scenarios

The study was set to determine the prospect for the clove industry in terms of total production and revenue for the sector with focus on the average revenue to the Government and income for the farmers based on (1) scenario 1: the current trends/growth rates without change of policy based on the data from OCGS and FAO (2) Scenario 2: the expected trends after liberalization based on projection using the growth rates of the sector before the clove monopoly was instituted between 1960 and 1964. It was not possible during this analysis to come up with the profit and loss statement of ZSTC due to inadequacy of data from ZSTC. The

ZSTC Management refused to give the required data to enable the conduct of the analysis for reasons best known to themselves.

5. ACTION SUMMARIES AND RECOMMENDATIONS

Clove Market Law

Analysis

The clove market law of 1985 has not been repealed. Accordingly, the ZSTC is the sole legal buyer and exporter of cloves in Zanzibar. There have been efforts since the 2004 clove study towards the amendment of this law. The cabinet paper has been prepared, discussed and passed through the Committee of Principal Secretaries and tabled for discussion in the Cabinet; the Revolutionary Council, but the final decision has not been reached.

Recommendations

- Government leaders should be adequately sensitized to appreciate the importance of the amendment of this law
- Mass media approaches should be engaged to enlighten general public on the presence of this law; its negative impacts on the clove industry and importance of its amendment to pave the way for private sector participation in the clove marketing and development of the sector.

- A specific institution should be identified and mandated to guide the deregulation process. To this effect a stakeholder committee comprising members from private sector and the Government should be created for the follow up of the amendment of the clove law through procedures of the Zanzibar Business Council.
- Deliberate steps should be taken to facilitate tabling of this issue to the House of Representatives for discussion.

ZSTC Restructuring

Analysis

It was difficult to get through the assessment of ZSTC through this study because of the difficult to access adequate information and data. The ZSTC Management refused to collaborate with researchers on this aspect.

Recommendations

- There should be a separate detailed economic study to establish the cost benefit analysis of the ZSTC. The study should also undertake the SWOC analysis to determine strengths and weaknesses of ZSTC in the operations and management of clove marketing activities.
- The Government should solicit funds from development partners to undertake retrenchment of ZSTC staff.

Production Support Services and Extension

Analysis

It has been realized that cloves have been neglected for so long, a condition that has precipitated the current level of deterioration. There is a wealth of experiences on clove production, husbandry and management among the peer (old generation), that is not currently shared among the youth and therefore doomed to be lost. Generally, the stakeholders raised their concerns on inadequate education and training for farmers on good practices on clove husbandry and management

Recommendations

- Promote farmers education and awareness including revising curriculum for primary and secondary education to include subjects on cloves history, production, husbandry and management of plantations.

- Use mass media such as radio and television to raise farmer's awareness and prompt actions in clove rehabilitation.

- Facilitate the use of effective and targeted extension approaches such as group training in seminars and workshops, demonstration plots and farmer field schools to promote and arouse interests of various stakeholders on clove replanting schemes and plantation management.

- Establish a major ***clove development project*** that will include research, extension and training on clove development to re- establish and manage clove plantations.

- Introduce and promote provision of incentive schemes/packages for those farmers who plant new clove seedlings and successfully manage them to fruition stages.

Research and Development

On Market exploitation and promotion

Analysis

There has been very little effort if any on the clove market promotion and exploitation at regional and even international levels. This has mainly been caused by ***lack of commercial dynamism and vitality***, a characteristic inherent in the private sector but lacking in the public sector domain. The growing regional economic integration provides the opportunity for the expanded market for Zanzibar cloves and its byproducts.

Recommendations

- Allow private sector participation in the clove marketing to take up an expanded approach of clove markets exploiting opportunities in the regional markets such as East African Common Market and SADEC.

- Exploit possibilities for value addition on cloves that will yield to products that could be used in regional cosmetics, perfumery and medicinal industries.

- Establish Cloves and Spice trade fares in Zanzibar to promote cloves and spice products that could also be attraction to tourists and as such linking the clove industry with the flourishing tourism industry.

On Preparedness for competition

Analysis

It is a well established fact that Zanzibar clove industry is facing increasingly strong competition at world market place. Over the years, however, there has been a generally diminished interest on the part of the Government in Zanzibar on the clove sector save for the final product ***(Cloves)*** that is strongly and even militarily handled through ZSTC. This lack of interest has depleted the sector of the motivational policies, fund allocation for research and development and targeted training of farmers and staff. Records from our competitors showed a completely reverse trend. They are giving the clove sector due priority in terms of appropriate and responsive sectoral policies, motivating farmers, targeted research and development funding and farmers and staff training. In a nutshell our competitors in the world clove markets are adequately prepared for competition while we are not.

Recommendations

- Promote and facilitate investment into the clove sector ***focusing on trained personnel, funded research, motivated farmers and supportive policies*** towards clove development.
- Get prepared for competition by probing and learning lessons from our competitors' strategies. This can effectively been done through ***sending trade missions*** to our competitors on regular bases.

On Documentation on cloves

Analysis

It is widely acknowledged that there are currently inadequate strategies for the knowledge transfer and sharing of information on the clove sector. Majority of stakeholders expressed concerns on the depletion of the knowledge and experience on cloves which goes with older generation with very little being transferred to young generation.

Recommendations

- Deliberate efforts should be made towards clove documentation, knowledge transfer and sharing of information to sustain the long standing ***clove culture*** in Zanzibar.

- Facilitate development of ***"Zanzibar Clove Book***" that will provide detailed accounts of history, customs and traditions associated with cloves, including its economic, social , cultural and environmental aspects.

Farmers Organization

Analysis

There is a general recognition of the role played and to be played by farmer's organization in the clove rehabilitation programme. In particular, stakeholders recognize presence of ZAPCO, as representative farmer's organization in the clove sector. However, there are concerns that ZACPO activities are not yet felt at grass root level and that the issue of involvement of stakeholders in her various activities need to be strengthened

Recommendations

- ZACPO should be strengthened and be supported by the Government
- ZACPO should be nationally recognized as representing clove farmers and be involved in decision making fora related to cloves. To this effect, ZACPO should register and subscribe to the Zanzibar National Chamber of Commerce Industries and Agriculture to streamline its mandates within the national framework
- ZACPO should continue promotion activities and elaborate to stakeholders on its organizational and operational structures
- The amendment of clove market law should be effected to capitalize on opportunities provided by deregulation on strengthening ZACPO operations
- ZACPO should strengthen its advocacy activities especially on clove prices and should develop projects to facilitate implementation of activities at grass root levels especially provision support and extension services

Traders Organization

Analysis

There are no private Clove Traders according to the Clove market law of 1985. However there are some business entities that have been given limited designated permission to export cloves especially organic cloves. On the other hand, there has been increased smuggling of cloves from Zanzibar to the neighboring counties especially Kenya depleting Zanzibar of its revenues and compromising on its quality reputations for cloves. Without a legal clove trader's organization, there is no forum for discussion between the government and traders on this clove smuggling predicament.

Recommendations

- The Clove market law should be amended to legalize existence of private clove traders
- The new clove legislation should recognize the need and roles of Clove traders association. To this effect the Zanzibar clove traders organization should be manned by citizens to promote national interests
- The activities of the organization should be coordinated, monitored and evaluated regularly by the parent institution (Ministry of Trade)

Economic Analysis and Impacts under Different Scenarios

Scenario 1: No change of Policy

Analysis

Growth rate using OCGS data and a comparison of FAO data

The available data from economic survey reports produced by the Office of Chief Government Statistician (OCGS) was used for the analyses of the performance of the clove industry for the last ten years. As a matter of comparison the international import/export figures for cloves were extracted from FAO website (FAOSTAT: www.//faostat.fao.org. to complement the information obtained locally. As previously highlighted it has been very difficult to complete the analyses for benefits obtainable to the government without the data on costs involved in the operations of ZSTC. Table 4 shows the clove exports quantities and values from Zanzibar for the ten year period as sourced from the OCGS and FAO databases.

Table 4: Zanzibar clove exports volumes and values from 1999 to 2009

YEAR	OCGS DATA		FAO DATA		DISCREPANCY
	Quantity (tons)	Value (USD,000)	Quantity (tons)	Value (USD,000)	
1999	8027	5827	8027	5827	0
2000	460	423	9000	8278	7,855
2001	2061.90	5609	9200	25,026	19,418
2002	5959.70	9397	9200	14,507	5,109
2003	5218.80	6016	9500	10,957	4,935
2004	4097.60	5,717	9900	13,812	8.095
2005	3266.70	6478	10,200	20,227	13,749
2006	3156.70	6502	9800	20,186	13,684
2007	1085.60	2321	9900	21,163	18,842
2008	3968.60	10,751	-	-	-
Total	33,334	48,290	84,727	139,978	91,688
Annual Average	3,730.25	5,904	9,414	15,553	10,188

Source: OCGS Economic Survey reports 2000 – 2009,
FAOSTAT; www.//faostat.fao.org

As shown in the table 4 above, there is a significant discrepancy between the two data sources regarding the quantities and values of Zanzibar clove export for the whole period with exception on the year 1999. ZSTC management seems to disagree with the analysis done from data that is sourced from OCGS, which clearly suggests that the ZSTC is making a huge loss and is an unprofitable enterprise. On the other hand, from discussions with the ZSTC management, it seems that they are making profit, are able to pay their creditors, are investing in government securities and are able to pay their due accruals to the government. Based on these discussions and the discrepancies in the data between OCGS and FAO, one can rightly speculate that there is significant data and information on clove marketing that is not yet shared from ZSTC even to the official institution that is legal custodian of all socio economic data of Zanzibar.

As shown on the table 4 above, the data from OCGS represents only 44% of an FAO estimates on quantities exported and only 42% of the value of clove exports over the nine year period. Again, it is difficult to validate the two sources without having the whole picture of what is happening within ZSTC. A conformist estimation of the annual growth rates of the sector from the OCGS data ***under the current scenario*** without change of the clove marketing policy showed the clove industry is declining on an average of -6% annually. The projection of the export quantities and revenues of farmers using this growth rate and assuming constant farmers price at 2.5 USD per kg is as shown in table 5 below:

Table 5: Projected clove export quantities and farmers revenues without change of Policy with growth rate of -6%.

Year	Quantity Exported (Tons)	Farmers revenue (USD,000)
2009	3,766	9,416
2010	3,540	8,851
2011	3,328	8,320
2012	3,128	7,821
2013	2,941	7,351
2014	2,764	6,910
2015	2,598	6,496
2016	2,442	6,106
2017	2,296	5,740
2018	2,158	5,395

The table 5 above shows a significant decline in production of cloves from an annual average of about 4000 tons in 2008 to about 2000 tons in 2018, a 50% drop in output. Farmers will also have significant loss of revenue from USD 10 million in 2008 to about USD 5.4 million over the same period. Calculation of projected losses of the Government revenues cannot be completed without the cost data from ZSTC. The government accrual is estimated at 30% of the ZSTC net profit.

Recommendations

- The government should ***commission a thorough investigation on the actual clove production and export data*** to enable an independent, transparent, complete and authentic economic analysis of the clove industry for informed decisions on the sector.

Scenario 2: Liberalized market arrangements

Analysis

The projected economic impacts under liberalized market arrangements were calculated assuming growth rates of the sector will be similar to the conventional growth rates before the clove monopoly law was instituted in 1965. A four year cumulative growth rate was estimated from production figures for 1961 to 1964 as shown in table 6 below:

Table6:

Year	Quantity (tons)
1961	9,500
1962	9,000
1963	13,000
1964	10,000
ACGR	1.3%

Source: *FAOSTAT; www.//faostat.fao.org*

The general assumption is that the participation of private sector in clove marketing will activate investment in clove replanting and management similar to the scenario before the market control, which will lead to an initial modest Annual Cumulative Growth Rate (ACGR) of 1.3% over the ten year period. It is expected that this growth rate will later improve when the replanted clove trees achieve optimum outputs after about 12 years. Table7 shows the projected clove exports quantities and farmers' revenues using the growth rate of 1.3 and assuming the constant farmers price at 2.5 USD per kg.

Table 7: Clove exports and Farmers Revenues under liberalized market scenario.

Year	Quantity Exported (Tons)	Farmers revenue (USD,000)
2009	4,058	10,552
2010	4,111	10,688
2011	4,164	10,826
2012	4,218	10,966
2013	4,272	11,107
2014	4,327	11,250
2015	4,383	11,395

2016	4,439	11,542
2017	4,497	11,691
2018	4,555	11,842

The table 7 above shows a modest increase in production of cloves from an annual average of about 4000 tons in 2008 to about 4500 tons in 2018, an increase of 12.5% in output. Farmers should also expect an increase in revenue from USD 10.7 million in 2008 to about USD 11.8 million over the same period; a modest increase of about 10%. As clove trees normally reach optimum production after about 12 years, the benefits of the replanted clove trees after market liberalization will be considerably increased after 2020. Nevertheless, the projected modest increase in farmer's returns will provide catalysis for further improvements of the sector performance within the coming ten years. Again calculations of projected gains in Government revenues cannot be completed without the cost data from ZSTC.

Recommendations

- The Government should ***accelerate the pace of deregulation*** of the clove industry to give a new thrust in sector performance as projected under market liberalization.

6. CONCLUSIONS AND WAY FORWARD

The stumbling bloc for implementations of the study recommendations seems to be ***clove market law of 1985*** and the congruent ***existence and mandates of ZSTC***. This means that the amendment of this law and disbanding of ZSTC should be taken as a priority advocacy agenda in all subsequent engagements between the Government and non state actors on this subject area. The Government ***should be reminded of her commitments to implement recommendations of the 2004 clove study*** and urged to take concrete actions that will save the clove sector from further deteriorations. The quantitative and qualitative evidence provided through this study should complement the courteous effort ***to deregulate and subsequently liberalize the clove sector*** for benefits of the people of Zanzibar. A detailed cost benefit analysis of the ZSTC must be urgently commissioned to validate the findings of this study and enable the well established public resolve to rehabilitate the clove industry. As a matter of proceedings, such an effort will require a coherent common national strategy that is clearly articulated and adequately coordinated to be able to influence and ***first track changes*** that the clove industry deserves as fast as it is recommended by the current economic, social and environmental conditions. The experience of major breakthrough in policy changes with Zanzibar Business Council should be guiding the ensuing efforts for accelerating changes envisaged in the clove industry.