

ASSESSMENT OF NILE CROCODILE (*CROCODILE NILOTICS*)  
MARKETING: THE CASE OF ARBAMICCH CROCODILE RANCH IN  
ETHIOPIA



BY:

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## EXECUTIVE SUMMARY

*Convention on biodiversity Conservation (CBD) on which our country is signatory objectives such as Conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding at all levels. To ensure these objectives another convention Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which regulate trade of endangered species such as with the coordination of governments. In this paper our country crocodile farm Arbaminch Crocodile Farm and international crocodile market and marketing system was assessed product mix demand such as skin, meat, bone, teeth, urine and its ecotourism in the crocodile industry, importing country and exporting countries. The price of raw skin was found to be on average \$ 9/ cm and the price of a kilo of meat was found to be between \$20 and \$ 30 per kilogram in Europe and USA. Using crocodile ecotourism large amount of money can be obtained. For example in July, August, and September 2014, 3 months period, Ethiopia Arbaminch crocodile ranch collected \$ 24, 000 (Birr 480,000). Crocodile farm are bone of some countries such as Cambodia. The opportunity that Ethiopia has wide and diversified agro ecology especially in the Ethiopian rift valley areas where it is crocodiles are observed in rivers and lakes new crocodile farm should be established with the same objective of Arbaminch crocodile farm such as To develop commercially viable crocodile skin industry suitable for export and thereby increase foreign exchanging earnings of the country; to reintroduce crocodile into areas where they used to occur, and to provide compensatory restocking in these areas where eggs/ hatchlings have been collected. In both cases, crocodiles should be adequate size to ensure survival in the wild; to provide job opportunity for the local citizen; To provide local tanners with adequate raw materials and ;to provide training and experience sharing in wildlife utilization techniques and crocodile farm management the then the Ethiopian wildlife conservation organization staff. In addition, current prevalent problems related to Arbaminch Crocodile Farm including technical capacity building, strategic plan including marketing strategy, budget and logistic problems and the support of the stakeholders at all levels*

*of performance. In addition, wildlife population status at national level should be survey with scientific procedure and precession.*

## **ACRIMONY AND ABBREVIATIONS**

AMCF	Arbaminch Crocodile Farm
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
EWCA	Ethiopia Wildlife Conservation Authority
FAO	Food and Agricultural Organization
SPNNRS	South Peoples National Nationalities and Regional State
USA	United State of America

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# 1. INTRODUCTION

## 1.1. Background of the Study

Convention on biodiversity Conservation (CBD) on which our country is signatory objectives such as Conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding at all levels. To ensure these objectives another convention Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) which regulate trade of endangered species such as with the coordination of governments.

Crocodiles are large, carnivorous reptiles of the order Crocodylia, found in tropical and subtropical regions. Crocodiles live in swamps or on river banks and catch their prey in the water. Of the 23 species of living crocodylians, in some 100 countries, 14 species are in commercial international (UNCTAD, 2012). At global a total of 14 species present ranging from the 2 m long dwarf crocodiles of Western Africa to the huge man-eating 7.5 m long Indo-Pacific crocodiles.

Among the 14 species crocodiles, the Nile crocodile (crocodile nilotics) is the only species widely distributed in Ethiopian rivers such as Awash, The Webishebele, Dawa parima and Ganale Doria, Omo, Baro , Gilo , Akobo Blue Nile and Gibe rivers. In addition it is also found in most rift valley Valley Lakes such as Baska, chamo, etc.

All populations of Nile crocodile were listed in Appendix I on 1 July 1975, when the Convention came into effect. When acceding to the Convention, 7 Parties (Great Britain (on behalf of Hong Kong), Botswana, France, Italy, Zambia, Zimbabwe and Sudan] entered reservations against the Appendix-I listing of Nile crocodiles, but all reservations had been withdrawn by 1990. Between 1983 and 2004, 15 African countries including Ethiopia had transferred their national populations of Crocodile niloticus from Appendix I to Appendix II by regulatory body based on the Convention on International Trade in Endangered Species of Fauna and Flora (CITES), which is a multilateral institution.

Different literature tells us that, the current estimated population of Nile crocodile is 250,000 to 500,000 individuals occur in the wild in Africa. Successful and sustainable-yield programs focused on ranching crocodiles for their skins have been successfully implemented in Africa. In Ethiopia, Systematic survey and monitoring of crocodile has been infrequent over the past two decades and there is no strong scientific based national area coverage survey to show the real status of crocodile which helps to know the Status of the wild population with sufficient precision to allow recognition of changes in due to different reasons.

Crocodiles are hunted for their skins, meat, oil and claws. Over catching of this animal has led to the decline of this species in wild populations. Although it is not a new idea, breeding this animal under captivity is a developing industry in some parts of the world. Crocodiles have been bred in farms since early 20th century. The majority of these farms were tourist attractions with wild caught alligators or crocodiles under captivity. Decline of the wild populations led to the prohibitions around the world. In crocodile farming operations, the idea is to obtain skins, meat and other products without stressing wild populations. This animal has its own characteristics and they should be learned well before any economic investment. This prohibition is ensuring sustainable utilization of the crocodile species. To help this aim different multilateral organization were established. CITES is one of the organization in which Ethiopia is signatory its convention.

Ethiopia is a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Populations (*Crocodylus nilotica*) are listed in CITES Appendix II, which includes species not necessarily threatened with extinction, but in which trade must be controlled in order to avoid utilisation incompatible with their survival. The CITES Appendix II listing requires any international trade of the abovementioned species to be regulated through the issue of appropriate documentation such as CITES import or export permits

All populations of Nile crocodile (*Crocodylus niloticus*) were listed in Appendix I on 1 July 1975, when the Convention came into effect. When acceding to the Convention, 7 Parties [Great Britain (on behalf of Hong Kong), Botswana, France, Italy, Zambia, Zimbabwe and Sudan] entered reservations against the Appendix-I listing of Nile crocodiles, but all reservations had been withdrawn by 1990. Between 1983 and 2004, 15 African countries including Ethiopia had transferred their national populations of *C. niloticus* from Appendix I to Appendix II.

Countries that are a party to CITES have also agreed to accept export and re-export permits or other applicable CITES certificates for trade in crocodilian skins and parts only if they are tagged in accordance with a tagging system that complies with the provisions of CITES Resolution Conference 11 and 12 or any subsequent revisions to the resolution as they occur during the term of the plan. Crocodiles in Ethiopia are protected wildlife and cannot be taken, kept or used without the Ethiopia wildlife conservation authority permission in accordance of CITES convention.

Crocodile farming in Ethiopia for commercial purpose was established in 1983 when Food and Agricultural Organization (FAO) signed an agreement with the Ethiopian ministry of agriculture to provide financial and technical assistance with the crocodile management; this was subsequently extended into a farming program based on stock from the Lake Chamo population. Construction of Arbaminch Crocodile Farm (AMCF) commenced in the 1984 and the first hatchling were collected from the wild in 1985. AMCF was established for the following objectives:

1. To develop commercially viable crocodile skin industry suitable for export and thereby increase foreign exchanging earnings of the country;
2. To re-introduce crocodile into areas where they used to occur, and to provide compensatory restocking in these areas where eggs/ hatchlings have been collected. In both cases, crocodiles should be adequate size to ensure survival in the wild;
3. To provide job opportunity for the local citizen;
4. To provide local tanners with adequate raw materials and ;
5. To provide training and experience sharing in wildlife utilization techniques and crocodile farm management the then the Ethiopian wildlife conservation organization staff.

Even though the arm is established for diversified objectives in the long term plan; in its 30 years it is unable to meet most of its objectives because of different reasons. Some of the reasons are lack of specialized technical expert at the farm, less attention from the government in allocation budget and resources, lack of research and development in the crocodile industry, lack of developed strategic plan especially business and marketing strategic in which farm is followed to achieve and son. Because of this farm is unable to expended being an example for new farms to enter in to market. AMCF is administered under by the Southern Nationals Nationalities and Peoples Regional State (SNNPS).

This report deals with crocodile marketing in Ethiopia based on the data collected from AMCF and international crocodile marketing from different literatures to show where the crocodile industry is and



how the country can be utilized the having he crocodile resource in wide habitat in the country with wide international crocodile and its product demand. In addition how the country can be competitive in the sector and succeeded with the establishment objectives.

## 1.2. Statement of the Study

As can be seen from the Arbaminch Crocodile Farm establishment objectives, the objectives of developing commercially viable crocodile skin industry suitable for export and thereby increase foreign exchanging earnings and other objectives success is based on the based on complete international marketing planned marketing strategies and continuous marketing promotion activities. On the other hand, even though Ethiopia has wide destitution of crocodile Nilotic in different lakes and rivers, there is no continuous scientific based assessment at national level since the Ethiopia crocodile of Ethiopia has shifted from appendix I to II. There is no documented research from research for the reason why Ethiopian crocodile farm is limited to a single, some of the reason may be lack of periodical marketing information related to crocodile and its product mixes, price, target market, product quality standards, market structure, market regulation and its procedures, competent market and Ethiopia's investment competitive advantage over other countries to inform for investments and its stakeholders including government.

Ethiopian Wildlife Conservation Authority ( EWCA) has developed different polices and strategies that attract investors to invest in the wildlife sector such as lodge construction in protected areas, civet musk production and exporting and other related activities. To facilitate this, the authority is generating and providing wildlife and their product marketing information which was observed to be currently lacking.

### 1.3. Objective of the Study

#### 1.3.1. General objectives

The objective of this Arbaminch Crocodile Farm marketing assessment is in general to assess the current crocodile and its product marketing strategies and to identify observed marketing limitations which may help improve its marketing strategies in the future.

#### 1.3.2. Specific objectives include;

1. To identify crocodile product and marketing mix, price, target market, marketing strategy and identify marketing limitation the ranch in relation to the existing international crocodile market;
2. To identify marketing structure, regulation and product quality standards; and
3. To identify Product development and promotion strategy of the farm

### 1.4. Significance of the Study

As marketing is an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders (Robert ,1988). This research is important in organizing pertinent information related to crocodile and its product marketing strategies, target market, international demand and supply gap, the share of Arbaminch Farm, competent suppliers, the opportunities of Ethiopian crocodile farm in relation to its competent and related information to its stakeholders and investors and cooperatives who needs to involve in the crocodile industry for which the crocodile farm established.

This marketing assessment is important in compiling important information related to national and international crocodile marketing in the wildlife policy prescription or revision, in strategic plan development, resource and human resource allocation for the best improvement of the existing farm and to attract new entrant farms in different parts of the country.

## 1.5. Scope of the study

This study is limited to crocodile marketing in Ethiopia in comparison with the international demand and supply. It is limited to information related crocodile target market, crocodile price and its product prices at and international markets. The data for this assessment was collected from Arbaminch Crocodile Farm and different crocodile marketing literatures. In addition, since there was no adequate financial data from the farm it doesn't consider the financial analysis to show for new entrant individual investors or other may enter to the market organized as share holder to create job opportunity.

## **2. RESEARCH METHODOLOGY**

### **2.1. Location of the Study**

Crocodile is Crocodylians are poikilothermic; they do not regulate their body temperature. They warm themselves by basking in the sun which takes up much of their time (Banerjee, 1989; Wallace et al., 2008). It needs tropical and sub-tropical regions. Ethiopia is found in the tropical has diverse agro-ecology. Ethiopia has diverse and wide agro ecology in nature. In these agro ecologies, it has diverse wildlife “biodiversity”. Nile crocodile is one of the aquatic animals in breed arminch crocodile farm, in Southern Nations and nationality regional state in Gamogofa zone in our country. The farm is the only crocodile farm in Ethiopia established for diverse objectives. The region is found in the Ethiopian central rift valley with abundant lakes and rivers full of crocodile even though there is no recent population data with strong scientific national crocodile survey data. Some of the reason may be it needs the attention of highly qualified technical experts with important logistics and funds.

### **2.2. Data Collection Techniques and procedures**

The data for this assessment was collected from primary and secondary sources. The primary source was from Araminch Crocodile Farm specifically from the farm manager and from the farm a technical expert with structural questionnaire (see appendix). Both quantitative and qualitative data was collected from the farm.

### **3. RESULT AND DISCUSSION**

#### **3.1. Crocodile Product Mix Marketing**

Crocodile skin and other parts are very expensive and unique although it has very high demand in the international market with unique suppliers with brand. However, Arbaminch crocodile farm has no brand to be unique and known for its customers. For example the crocodile product of Prada, Louis vuitton, Armani and others are expensive brand and has huge demand on crocodile skin because of they are producing Belts, shoes, boots, handbags, purse, wallets, briefcases, jacket, wrist bands, guitar straps, trophy skins, etc are by the crocodile skin. Now a day's crocodile meat has light demand. Lots of international Hotel, Restaurants is serving's crocodile meat. Many international perfume companies are using crocodile bone to produce special perfume. Many ornament company produce royal and unique class ornaments by using crocodile teeth.

Arbaminch Crocodile Farm in Ethiopia has been exporting crocodile raw crocodile skin to different European countries such as Japan, Korea etc. the farm was not exporting other products such as meat, bone and teeth because of different reason including provision of standard product to importing countries.

##### **3.1.1. Crocodile skin marketing**

Internationally, trade in crocodylian skins includes crocodile, alligator and caiman, and forms part of the overall trade in exotic leathers supplying fashion accessories to a variety of market segments worldwide. In the fashion industry, the crocodylian segment is typically associated with sophisticated or luxury tastes along with superior product quality upheld by small family run firms with "traditional" values. In fact, the industry has undergone significant change in the past 20-30 years, particularly in the structure of supply. Regulation and marketplace changes, including market liberalisation and globalisation, technological advances, environmentalism, and fashion trends, have led skin supply to move from unregulated exploitation of wild specimens to increased reliance on ranching and captive breeding.

Crocodile skins have been exported to international markets, including France, Germany, Japan and USA. These countries have ordered 300,000 and 400,000 sets of unprocessed crocodile skins per year, a big quantity compared with other overseas markets. Products and materials made from good quality crocodile skin last for long time and are very popular at the international markets of France, Germany, Japan and USA. Best quality of crocodile skin are used for manufacturing bags and parts of the rest from manufacturing the bags can also be used for making belts, shoes, watch string etc., sold at high price. In addition to the above products and materials, crocodile skin can be used for making the clothes and other valuable furniture.

Crocodile Skin industry is one of the main economic targets in some countries such as Cambodia because it can increase the additional income for the local people and also improve the economy. Traditional slogan says that “Crocodiles die of skins” . This slogan shows clearly that crocodile skins have high value, good quality and popularity.

A significant proportion of skin exports are re-imported in value added form by the original skin producing countries, indicating that tanning and manufacturing activities are occurring offshore. This is evidenced by the exports of alligator skin products from Italy to the United States. Similarly, there is a high flow of salted caiman skins from Colombia to Panama and a correspondingly high volume of finished caiman products being imported from Panama back to the United States (Caldwell 2009).

The most significant importers of manufactured crocodile products are Japan and the United States. Domestic alligator leather consumption is high in the United States, with most popular import items being watchstraps from Sweden (as a European transit port) and shoes from Italy. The US market has been mainly focused towards the male consumer with the most popular items made from exotic skins being boots, wallets and belts. A recent study conducted by the Louisiana State University highlighted the opportunity to diversify the market into women’s apparel and accessories and interior furnishings (Belleau & Summers 2010). Japan sources the majority of manufactured leather product imports from Italy, followed by Germany, Spain and the United States, most of which are made from caiman or American alligator. In 2010, Japan

imported over 45 000 manufactured crocodile products, with the most popular items being watchstraps and handbags (Caldwell 2010).

Caldwell (2010), states that overall total number of skins entering international circulation is about 1.2 million. This is a return to the levels of 1999-2005. The amount of skin peaked in 2006 with a number of 1.8 million. During the ten year period between 1999 and 2008 the species composition of the skin trade varied. Diversifications mostly started in 2001 with *Crocodylus acutus* from Columbia and Honduras, *Caiman latirostris* from Argentina and Brazil, *Caiman Crocodylus crocodylus* from Guyana, entering the international trade. *Caiman* acre was first exported in 2005. There is a decrease in alligator *Missisipiensis* exports from United States of America in the last two years. This decrease is linked with two major hurricanes that altered the local conditions. The general global economic crisis might also be reasons to describe this decrease in the exports. *Crocodylus niloticus* is in international trade with 140.000 to 170.000 skins per year since 2000.

The largest concern of buyers of crocodile skins is the high proportion of skins failing the requirements for 1st grade classification (Manolis et al. 2000). Typically, only around 30% meet this grade, although McNamara et al (2003) reported up to 50%. It is essential to improve the average grade to meet market demand.

Ethiopia has been sending on average 3000 raw first grade crocodile skin for the last two decades. The country is exporting very small amount of crocodile skin because the country has only a single farm its breeding capacity is limited to 5000 individual crocodiles on average.

The lack of systematic analysis of global trade in crocodylian skins has been an obstacle to assessing the potential for market-driven conservation, as information fundamental to this approach, such as the transmission of price signals between producers and consumers, has been unreliable or incomplete.

In international market price of 1<sup>st</sup> grade crocodile price is around \$9/ cm. based on the size of the crocodile from a individual crocodile around \$ 260 (Birr 5200) to\$ 315 ( Birr 6, 300). Before

five years ACMF has sold for \$5/ cm or equals to Birr 100/com. Our skin is “A” class free from fangs because of management. This is one of our competitive advantages.

### 3.1.2. Meat product and market status

Crocodile farming is a growing industry. With the growth in this industry, farmers needed more than the skins to be able to profit. Firstly meat was seen as a by product for the farmers but lately it started to find its way as an important economic source for the farmers. A single South African crocodile farm can harvest 20.000 individuals per year and all this meat is exported to Europe and Far East. Meat production resulted in focus to growth characteristics rather than skin yield. Better feeding regimes, feed compositions, studies on chemical compositions, nutritional values and better meat processing techniques are needed for further growth of this industry. Crocodile meat can be marketed as a healthy food for its unsaturated lipid fatty acid profile and its low sodium content. It is accepted as a unique delicacy in luxury restaurants for tourists (Hoffman et al., 2000).

Crocodile meat is the main by-product for this type of aquaculture. Statistics shows that 400 tonnes per year is in circulation since 1990 inter-nationally. The main species used for meat are American crocodiles, Nile crocodiles and Siamese crocodiles. China and Hong Kong are the main importers of crocodile meat. It is known that blood (pharmaceuticals), bones, fat (traditional medicines), teeth, heads, skulls (tourist curios) and others parts of the crocodiles are also used

Crocodile Meat One kilogram of crocodile meat costs \$5 at local market and between \$20 and \$30 at American and European markets. Different types of foods used crocodile meat including soups, fries and roast. It is also used for medicine to cure asthma, teeth problem and other diseases. Besides selling to the tourists, crocodile bone can also be used for the traditional medicine. More importantly, crocodile urine is one of the raw materials for producing the compound perfume.

A 1.5m crocodile will yield around 4-5 kg of boneless flesh. Treadwell *et al.* (1991) reported a yield of 7-10 kg, but this is probably based on whole (bone-in) carcasses, the form in which meat



was marketed at that time. The majority of fat is contained in the inner portion of the tail and as a “fat body” in the abdominal cavity (Richardson *et al.* 2002). Fat levels are difficult to measure on live animals, although measuring tail girth has been proposed as a possible selection criterion for future investigation. The quantity of meat produced is also perceived as antagonistic to skin production. However, selection indexes are designed to accommodate such antagonisms.

### 3.1.3. Crocodile tourism marketing

One of the most important characteristics of crocodilian farms is that they can be attractions for touristic purposes. During the farming applications, a farm designed for visitors would easily benefit from economic income other than crocodilian skin and meat. Entrance fee and gift shop sales as well as integrated restaurants highly benefit the farmer with a side income. This type of applications are widely scattered around Asia. Asian crocodile farmer’s integrated eco-park designs in most of the farms closer to the cities. These parks offer crocodile shows (Image 1 and Image 1 and 2), sightseeing, gift shop sales and similar touristic attractions all related with crocodiles as a side income to farming. Some of them even have other animals, making the farm a small zoo for the tourists to visit. Thailand is one of the biggest producers in the world in crocodile farming. A majority of the producers implemented eco-park design in their investment for a greater profit from crocodile farming. This type of design is mostly preferable for touristic nations.



**Image 1.** Crocodile tourism

Entrepreneurs should keep in mind that although crocodilian farming seems to be a farming operation for specific countries, it is possible to achieve successful farming where crocodilians are not a native species and there is a market for the animal all around the world. The touristic attraction part of the farming is a great opportunity for the countries where crocodiles are not native. This would also give the farmer an edge to promote the farm as a recreational eco-park which will provide extra income even before necessary growth of the crocodiles to market size



Image 2. Tourists feeding the crocodilians with a chicken (source: journal 2013).

As Ethiopia is a touristic nation, Ethiopian firms can be benefited from crocodile ecotourism. According to the AMCF, during 2014, July, August and September only \$24, 000 or Birr 480,000 from farm entrance fee for visiting. If the firm is expanded in different parts of the country where there is large tourist flow in the country based on site selection research, the country individual investors and the country can be economically benefited from the industry.

#### **3.1.4. Crocodile live export**

Live crocodiles from small, medium and large farms are sold at the local markets for re-aring until the length of from 1.5 to 2 m, a best size at the market. The crocodiles with this size are killed for skin to export because they are growing so quickly and their skins are best quality. The expenditure for feeding and taking care of the crocodiles to more than 3 years of age are much more expensive than raising to take skin and meat. The skin at the abdominal part is so expensive because it has a small pattern. Crocodiles in Cambodia have been exported to China, Vietnam, Thailand and Singapore in live.

There is a minor trade in live crocodylians between zoos and for pet trade where it is licensed. Live crocodiles are traded between countries as hatchlings for farming purposes in larger numbers (e.g. 268,000 hatchling Nile Crocodiles from Mozambique to Zimbabwe and South Africa in a 7-year period; Siamese Crocodile hatchlings from Cambodia to Vietnam and Thailand) (Caldwell 2010).

### 3.5. Exporting procedure

Globally, crocodile and its product trade are regulated by CITES. CITES regulates international trade by means of a number of trade measures, which include the listing of species on Appendix I, II and III, and the use of export/import permit requirements. The Convention provides for a series of trade regulations according to the level of extinction threat which each species suffers: species threatened with extinction are listed in Appendix I and are protected from commercial trade; species which may be threatened with extinction if their trade is not strictly regulated are included in Appendix II and species which require regulation within the jurisdiction of a Party can be included in Appendix III. International trade in CITES-listed species must be regulated and monitored to ensure that off take is not detrimental to the long-term survival of the species in question.

Unlike more recent international Conventions, CITES does not provide explicitly for incentive Measures aimed at ameliorating the costs of implementing the Treaty. However, during the course of its existence, CITES has also adopted a number of so-called "innovative or positive"

trade measures. In the context of this study, "incentive" measures refer to those measures adopted, mainly as the Convention has evolved, to recognise the importance of facilitating in certain cases, carefully controlled trade to provide an incentive for the continued conservation of that resource. It has become increasingly clear that where the possible benefits of controlled trade are not recognised, that wildlife habitat maybe replaced by other resource use inimical to wildlife conservation.

Consequently the term "incentive" does not imply an uncontrolled promotion of trade and is not at odds with the overall aims of the Convention, it simply recognises that in certain circumstances, economic reality dictates that wildlife conservation may be better served by facilitating a controlled limited trade rather than preventing all trade. To effectively regulate illegal trade, CITIES and the government work together.

### 3.6. Distribution situation

We are the producer we directly collect skin from crocodile directly in our farm then we sale it to tanneries and then tanneries process those skin and fashion industry purchase from them and they produced finished goods and those are purchased by the ultimate fashion conscious consumer.



### 3.7. Macro Economic situation

Currently macro-economic situation in Ethiopia is political stable and its policy is highly attractive investors to invest in the country with diverse investment opportunities especially on agriculture, manufacturing and ecotourism which are important in foreign exchange earnings. It has developed different incentive legal frameworks to encourage investors invest in the sectors. urrently the country economic situation in terms of inflation is stable. In addition, the country is

working to be one of the green economy countries in the world providing organic agricultural products as unique competitive advantage. The country is improving its bureaucratic problem in democratic manner and in general investment risk in Ethiopia is very low.

#### 2.7. Promotion status

In business promotion is highly important to inform and influence customers to buy our product in a way that our product is available in Quantity available, price level, quality standard, transportation situation, etc using different communication means depending on the nature and distribution of the customers. Currently on line promotion is becoming. One of the lacks of AMCF has no any web site to promote its product and services for its potential customers and can increase its revenue which in turn improves administration cost fund problems.

## 4. SUMMARY, CONCLUSION AND RECOMMENDATION

### 4.1. Summary and Conclusions

Crocodile industry is very attractive industry for investors especially in our country. Crocodile farm provides skin, meat, bone, teeth, urine, live export and ecotourism activities which are highly demanded in international market. Currently the price of crocodile skin is on average \$9/cm and from an individual crocodile is between \$260 and \$315 can be obtained based on the size of the crocodile. In addition crocodile meat is highly demanded due to its nutritional and medicinal value. It is served in Europe international hotels especially in china. A kilo of crocodile meat is between \$ 20 and \$30 in America and Europe market.

Crocodile industry is highly developed in different countries of the world and there are many farms/ ranches in a country. But in Ethiopia here is only a single farm AMCF which is not well developed well to achieve the objectives of its establishment. The farm has basic constraint related to specialized technical expertise, lack business and strategic plan including marketing strategic plan. It also lacks research and development and for improvement, disease protection. According to the farm manager the budget allocates for the administration and crocodile feed is not sufficient to feed the based on the scientific recommendation which also have implication on the years it takes to grow and to be slaughtered, on the quality of the skin. In addition, there is lack of strong support from different stakeholders such as different government institution including EWCA, higher learning and different NGS. This farm is the model for other farms. The farm is also lacks web sites and other communication media to promote its product and services.

#### 4.2. Recommendations:

- Marketing is part of production. Quality goods have demand and has good price in the market. To improve the current observed production and marketing problems of AMCF the following recommendation were suggested:
- The farm should develop comprehensive strategic plan including business plan and marketing on which it focuses to achieve in consolation with different stakeholders.
- Different support from different stakeholders such as staff technical capacity building, reach and development on management, disease protection, etc.
- To sustainably use the resource, adequate population should exist in the wild. To ensure that, Periodical wild crocodile population monitoring survey at national level with scientific precession should be done.
- The regional government should allocate adequate budget for administration and feed f crocodile.



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