

REDISCOVERING COFFEE IN YEMEN

UPDATING THE COFFEE VALUE CHAIN AND A MARKETING STRATEGY TO RE-POSITION YEMEN IN THE INTERNATIONAL COFFEE MARKETS



AUGUST 2013

The views expressed in this report do not necessarily reflect the views of the United States Agency for International Development or the United States Government. Creative Associates International prepared this report under the Community Livelihoods Project (CLP). Cooperative Agreement No. 279-A-00-10-0032-00

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This report was prepared under the overall guidance and direction of Tamara Halmrast-Sanchez, USAID/Yemen.

COMMUNITY LIVELIHOODS PROJECT

The Community Livelihoods Project (CLP) is a program of the USAID/Yemen. CLP is improving the lives of people who are most in need by working with communities, the Republic of Yemen Government (RoYG), and local companies to create a more stable and resilient society. The program works in areas of economic development, agriculture, health, education and governance. The CLP agricultural sector works with the Yemeni Government, partners and beneficiaries to boost food security and improve incomes in project governorates.

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ACRONYMS AND ABBREVIATIONS

AOTR	Agreement Officer's Technical Representative
CLP	Community Livelihood Project
CFC	Common Fund for Development
CREATIVE	Creative Associates International Inc.
COTR	Contracting Officer's Technical Representative
EGAT/AG	Bureau of Economic Growth, Agriculture, and Trade/Office of Agriculture
EOF	Economic Opportunity Fund
EU	European Union
FAO	Food and Agriculture Organization
FOB	Freight on Board
GDP	Gross Domestic Product
GI	Geographical Indications
GOY	Government of Yemen
GTZ	Gesellschaft für Technische Zusammenarbeit (German Society for Technical Cooperation
ha	hectares
ICO	International Coffee Organization
IFAD	International Fund for Agricultural Development
ISFD	Islamic Social Fund for Development
Kishr	Arabic word for husks or peels. Coffee husks used to brew "Yemeni Coffee"
kg	kilograms
lb	pound
MAI	Ministry of Agriculture and Irrigation
MOT	Ministry of Trade meters
m mm	millimeters
NGO	Nongovernmental organization
qat	Catha edulis forssk, a mild narcotic shrub chewed. Also known as Khat.
SFD	Social Fund for Development
SMEPS	Small & Micro Enterprise Promotion Services
USAID	United States Agency for International Development
WAT	Women's Association of Talooq
WTO	World Trade Organization
YR	Yemeni Rials
YSMO	Yemen's Standardization Metrology and Quality Control Organization

EXECUTIVE SUMMARY

INTRODUCTION

This report presents an assessment of the coffee value chain in Yemen and proposes concrete short- and medium-term interventions to improve the livelihoods of rural coffee producers. Through such an approach it is anticipated that food security can be enhanced and extreme hunger reduced in Yemen. In 2012, nearly half of the population in Yemen was food insecure, and 22 percent were "severely food insecure, unable to produce or buy the food they need... with almost half of the children under five in the country—two million children—chronically malnourished and one million acutely malnourished" (WFP, 2012). ¹ The findings and recommendations of this report point towards the value implementing development interventions to strengthen the entire coffee value chain in Yemen, from production through to marketing.

PURPOSE AND ORGANIZATION OF REPORT

The report is organized into two main sections that reflect the tasks assigned to the research team. These tasks are aligned with the development objectives of the United States Agency for International Development (USAID) and the priorities of the United States' Global *Feed the Future Initiative*.

Section 1 explores the entire coffee value chain in Yemen;

Section 2 explores export opportunties for Yemeni coffee in the United States, Saudi Arabia, other emerging markets, and proposes a marketing strategy to promote to these markets; and

It is hoped that the findings and recommendations in this report will be of interest to stakeholders in Yemen's coffee sector, the Republic of Yemen Government (RoYG), and donor agencies exploring potential opportunities to support future development interventions that address food security, hunger, and help create a more stable, resilient economy for the people of Yemen.

METHODOLOGIES

The study is based on direct observations during field-visits and consultations with coffee growers in Yemen; interviews with key informants along the coffee value chain, particularly those situated in rural communities; and a comprehensive desk review of conclusions from previous studies.

KEY FINDINGS

Trust and tradition are maintaining high market prices for Yemeni coffee, but the adulteration of coffee products is eroding brand trust. High prices paid to Yemeni coffee are comparable to prices paid for excellent quality coffee in countries like Ethiopia, Kenya, Guatemala, and Colombia. At the same time, the high prices that Yemeni coffee commands in the market are based more on trust and tradition than on independent methods to verify the source and quality of Yemeni coffee. Low internal demand and the rising prices of coffee in the local markets suggests a shortage in the internal coffee supply that may be being filled with coffee from other origins. Exports to Saudi Arabian markets continue to be high, but exports to the U.S. continue to decrease, despite the U.S. market's recent interest in engaging in new businesses with Yemen.

¹ World Food Programme (2013). "Yemen: Overview" [web page]. Accessed on July 31, 2013 at <u>http://www.wfp.org/countries/yemen/overview</u>

Four main challenges face Yemen's coffee sector: (1) productivity and quality, (2) institutional capacity for sector representation, (3) land use and water scarcity, and (4) policy constraints. This study identifies four broad challenges to the Yemeni coffee industry: 1) current productivity and quality; 2) weak institutions to represent the coffee sector; 3) structural limitations, such as fertile land and water scarcity; and 4) policy constraints. Previous studies have recommended a more efficient use of resources to increase production. At the same time, since 2007 production has been almost stagnant. Despite the significance of coffee in the lives of the rural population, small plots and low yields extremely limit farmers' incomes. In addition, the lack of a solid institution that represents the sector continues to be a challenge. Despite the strengthening of the *Yemen Coffee Association*, this organization is still weak and, according to many stakeholders, does not represent the whole industry.

Limited, but notable advances to address water scarcity. There have been some advances including more efficient use of limited resources (e.g., water). Through the construction of water tanks and the implementation of drip irrigation systems, some areas are now suitable for coffee. This is especially important because different studies have identified the lack of water as one of the main limiting factors to rural development and sustainable agriculture (CFC, 2013; WB/SMEPS, 2009; USAID/ARD, 2008; GTZ, 2008; Roche and McCarthy, 2006; USAID/ARD, 2006).

Implementation of previous policy recommendations are strengthening the sector. The cofffee sector in Yemen seems to have advanced the most in implementing the policy recommendations of previous studies (USAID, 2005; GTZ, 2006; USAID, 2008). For example, in 2007, Yemen became part of the ICO, and the country is ready to join the WTO in the coming months.

There is presently broad involvement of women in the coffee sector. Another finding in the coffee value chain assessment is the role of women in coffee's agriculture labor force. Women provide three fourths of the total labor required for agriculture in Yemen. Therefore, these women's groups deserve closer attention.

RECOMMENDATIONS

There is no one-size-fits-all solution to the complex challenges facing the coffee sector in Yemen. Consequently, after reviewing the findings and in-depth discussions with stakeholders, this study proposes a overarching and specific recommendations to strengthen the future prospects for the cofee sector.

OVERARCHING RECOMMENDATIONS

There is a need to focus on productivity and quality. Any programs to increase productivity and quality must focus on more efficient use of resources and best agricultural practices (BAP) and not on using more water or land, which are limited in Yemen. Therefore, the RGoY and international community efforts should focus on more efficient agronomical practices, such as implementing pruning techniques, fertilization using organic fertilizers, efficient processing, and renovation programs. In the end, this will lead to more and better quality coffees.

Promoting best agricultural practices in husbandry, harvesting, and post-harvesting will increase the availability, quality, and consistency of supply in Yemen in the short term. International BAP-compliant trainings in low-productivity areas will help farmers collect sufficient coffees to have leveraging negotiation power with collectors and traders, thereby capturing better prices along the value chain. The implementation of drying systems, and post harvesting and handling management can be implemented in the

short-term, along with upgrading of depulping systems; adoption of these suggestions will increase quality in a very short timeframe.

Appropriate densities should be consistent with local practices based on best agricultural practices (BAP) and should be implemented when planting new seedlings. New nurseries should be used to both disseminate good practices and to create additional sources of income for farmers' associations. Implementation of densities may vary depending on the area of production (e.g., valleys or terraces). Effective densities will increase yields and reduce losses. The construction of water harvesting tanks and efficient irrigation methods such as drip irrigation systems will contribute to the efficient use of the scarce water resources. This should be part of any efforts to renew plantation to increase productivity and yielding under strict environmental conditions.

Working with local partners and government institutions will be key to support future interventions.

The international community is investing the requisite resources, and the RGoY has small ongoing programs that could be leveraged with other investments to maximize projects, particularly to upgrade the processing method for Arabica Naturals so that it meets quality standards and is in compliance with the best practices of the international markets. Some farmers' organizations have already established a system of price differentials paid to farmers meeting certain criteria. Nevertheless, the criteria used to pay for quality needs be upgraded to meet international quality standards from specialty coffees.

A body that represents the coffee stakeholders is the foundation for a successful industry. A plan to either modify or create a new coffee body should be established in the short term so that the industry can: 1) speak with one voice to the international buyers, 2) understand international standards for quality coffee, and 3) have access to the latest advances in the industry. This board would also be able to establish effective communication with the RGoY, international donors, and farmers' organizations and their members in order to leverage their resources and build a common agenda. Supporting agriculture as an income generation activity will increase jobs available for more than half of the population living in rural areas.

Partnering Yemen with the US Feed the Future Initiative. This study finds considerable support for taking steps to bring Yemen into the United States' Global Feed the Future Initiative as a partner and focus country. There are several reasons: Yemen's role in the Middle East region in recent years; established, strong partnerships among donors and the Yemeni Government; pressing food security issues; wide spread hunger, cross-cutting issues (i.e., gender, climate change, environment); and the complexity of issues facing the coffee sector.

SPECFIC RECOMMENDATIONS

10 specific recommendations to boost Yemen's coffee sector. The following ten recommendations are intended to complement and bolster the broad recommendations outlined above.

- 1. Organize workshops with Yemeni traders and exporters with the goal of developing a strategic outlook for the coffee sector, focusing on strengthening the international competitiveness through collaboration and cooperation.
- 2. Modernize and strengthen the domestic consumption of Yemeni coffees. In cities like Sana'a, modern style coffee bars have been established by a younger generation of entrepreneurs who open these cafes with the objective to provide their clientele not only a genuine specialty coffee experience but also

to provide them a multitude of options for coffee drinks from a well assorted menu. Baristas² must be trained and certified through hands-on workshops and barista-jams. Domestic barista and coffee brewing competitions will elevate the skills of these coffee artisans further.

- 3. Furthermore, to provide the domestic industry additional support, **organize training sessions** educating the (new) business owners in roasting techniques and specialty coffee quality procedures, like cupping and grading practices.
- 4. Establish an industry work group to drive the process of preparing a competition and auction. It has been proven that specialty coffee competitions and auctions help develop, strengthen and expand the competitiveness of the producing country. In addition, competitions will help accelerate the process of rejuvenation of the industry and it is very likely, these events will facilitate a renaissance of the Yemeni coffee industry.
- 5. Prior to this first official Yemen auction, a pilot coffee competition and/or a coffee caravan should be organized. The invitees for this pilot should include key importers and traders from around the world, and a selected number of roaster/ retailers from Japan, Europe and North America. A cupping caravan or competition should include opinion makers, bloggers, a videographer and mainstream press (e.g., National Public Radio).
- 6. **Modernize and streamline the supply chain to specialty roasters and retailers around the world.** Research and develop options to transport small lots directly to roaster retailer buyers using international airfreight. Utilize modern styles of packaging (e.g., GrainPro, vacuum, etc.).
- 7. Create coffee maps and explain the unique differences between distinct areas of the country. Design and launch a website with detailed information about Yemen's coffee regions, the morphology of the beans, the people, and the flavor profiles offered. Write and publish articles about Yemeni coffee, the culture of the people, the history of Yemen Mocha, the unique varieties, and the coffee sector in the country.
- 8. Launch a plan to **register a brand for "Yemen Mocha" or "Genuine Yemen Mocha" coffee and set up protocols for the certification of these coffees.** Launch a feasibility study to identify the requirements, timeline and cost budget for a trademark registration initiative, which will allow the country to reclaim the ownership for the "Mocha" name and all the variations on that name. Establish a process for the validation of "Genuine Yemen Mocha" coffee through a stringent grading and cupping protocol.
- 9. Create a plan for international promotion and quantify the potential revenues of such a plan for the coffee industry in Yemen. Participate in events of the SCAA and SCAE through a booth, organize cupping events at these tradeshows and participate in Roasters Guild events. Invite the Roasters Guild for a Yemeni coffee exploration with a selected group of specialty coffee roasters. Participate in international food fairs and competitions, for example "Fancy Food" (USA) and "SIAL" (France, Canada). Organize a Yemeni coffee booth or pavilion at international tradeshows like SCAA, SCAE, SCAJ and Gulfood (Dubai).

² A person who serves in a coffee bar.

10. Develop an internet-based system to track prices paid for domestic coffee prices and for export transactions. Transparency of prices paid for Yemeni coffees internationally, and for coffee domestically, will provide important and necessary encouragement for farmers and intermediary traders to support the specialty coffee culture.

PREVIOUS STUDIES AND COMMON FINDINGS

Over the past decade, several studies have been conducted about the coffee value chain in Yemen, including USAID/ARD 2005, Roche and McCarty 2006, GTZ 2008, USAID/ARD 2008, World Bank/SMEPS 2009, and Common Fund for Commodities 2013. All of these studies highlight the Yemeni coffee industry's low productivity, and the difficulties and inconsistencies in quality and differentiation. CFC 2013 and GTZ 2008 further explore market access limitations and suggest some interventions. The description of previous studies is grouped in different categories, which includes productivity, access to markets and quality, creation of the coffee entity, structural problems (such as water scarcity and limited fertile land) decreased internal consumption, and policy issues including: joining the ICO, policy dialog amongst coffee stakeholders, and accession to the WTO.

The challenges and the current status is described as follows:

Productivity issues: despite the fact that various studies suggest an intervention in these areas, the MAI data shows minimal increase in productivity; coffee has hovered around 300,000 bags since 2007.

Access to markets and quality improvement: some efforts have been undertaken by various organizations, however, such efforts have not resulted in the development of new markets particularly in the U.S., in fact exports to the U.S. have declined to 120 MT since 2005. The overall value of exports has decreased to slightly more than 10 million dollars.

Creation of a coffee entity: a coffee entity was created in 2007/2008 with a mission and formal structure. However, the lack of commitment from the private sector and the rejection by some in the coffee industry has resulted in minimal influence of such organization.

When analyzing new market opportunities to generate sustainable income for rural communities, the World Bank/SMEPS 2009, USAID 2008, GTZ 2008, and USAID 2005 studies recommend working towards differentiated high quality markets. However, there are some other constraints such as the limited capacity of local institutions and lack of a common language between producers, collectors, processors, and exporters that have impeded steady advances in the industry.

Structural conditions such as water scarcity and limited fertile land available, which have also been identified in previous reports, have received less attention, as they require relatively higher investments. Recovering areas once planted in coffee would require a strategy to lure producers away

from planting qat (see image 1).



Picture 1: Field in Taiz showing qat and coffee intermingled. Few coffee plants left (in the center of the picture).

Recommendations to enable the environment for a more competitive industry have been effective. These include joining the International Coffee Organization, ICO as recommended by USAID ARD in 2008 and 2005, and GTZ 2008, and the upcoming accession to the World Trade Organization, WTO as mentioned by the CFC 2013, and proposed by USAID, 2008 and 2005.

Finally, the political situation and security factors impact any efforts made to enable the economy to enter the competitive path of open markets by threatening or disrupting the economy, particularly in the country's rural areas.

Below is a list of the most relevant studies and their findings. It includes the challenges, name of the entity that performed the assessment, and current status and progress.

TABLE I: PREVIOUS STUDIES

Identification of challenges/ Entity conducting study/ Current status

CHALLENGES STUDY CONDUCTED BY		CURRENT STATUS and progress		
		and progress		
	050.0010			
	CFC 2013 WB/SMEPS 2009			
Productivity	USAID/ARD 2008			
	GTZ 2008 ROCHE/McCarthy 2006	Productivity has been almost stagnant since 2007 @300,000 bags		
Access to	CFC 2013	No new markets developed in the Quality Market in the U.S. Marked		
markets	GTZ 2008	dropped since 2005 from 700 to 120 MT		
Quality	WB/SMEPS 2009 USAID/ARD 2008	No improvement in quality. Differentiation based on the origin and not on		
Improvement	ROCHE/McCarthy 2006	the quality		
	USAID/ARD 2005			
Water scarcity	ALL STUDIES ALL STUDIES	Some work related to water harvesting tanks and drip irrigation		
	ALL STODIES			
Lim. Fertile	CFC 2013			
land Sust. Income	USAID/ARD 2005			
Sust. Income	ALL STUDIES			
Internal		Decreased internal consumption to 15%		
consumption				
Need to	USAID/ARD 2008	Joined ICO in 2008 (see annex)		
access ICO	GTZ 2008			
	USAID/ARD 2005			
Policy dialog	USAID/ARD 2008			
Folicy dialog	GTZ 2008	None		
	USAID/ARD 2005			
Access WTO	CFC 2013			
_	USAID/ARD 2005	Request WTO in review and to be approved in 2013		
	USAID/ARD 2005			

THE YEMENI ECONOMY

Yemen is a low-income country and one of the poorest in the Arab world. It is highly dependent on its declining oil resources for revenue. Oil accounts for roughly 25% of GDP and 70% of all government revenue². Yemen has tried to counter the effects of its declining oil resources by diversifying its economy through an economic reform program initiated in 2006³. The country's stability and security constraints, along with the natural resources limitations such as scarce water, and limited productive land challenges the nation's ability to progress. However, Yemen is committed to boosting non-oil sectors of the economy and foreign investment. The upcoming



Elevation Map

accession to the World Trade Organization, an example of Yemen's commitment, will result not only in clear economic opportunities but also in great challenges for agricultural sectors that are currently not competitive such as the domestic production of staple crops. High quality coffee represents one of Yemen's few competitive advantages in the agricultural sector. This advantage is based on coffee's tradition, history, and unique flavor profile, which allows for its clear differentiation in the international markets. This crop represents a real opportunity to contribute to sustainable growth, social

development and governance strengthening, and offer an economic alternative that could help contain the spread of *qat* in rural areas.

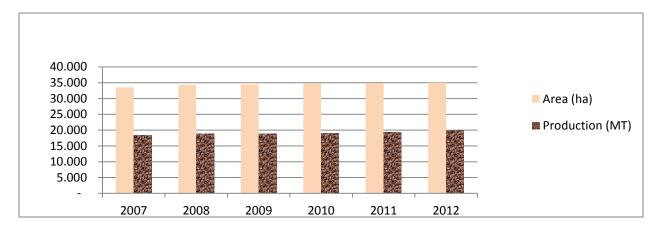
Agriculture and the Current State of the Coffee Sector

Second to extractive industries such as the oil sector, agriculture is the backbone of the Yemeni economy. Agriculture accounts for 17.5% of the national GDP. About 74% of the population lives in in rural areas. When combined with relevant services like the transport, processing, and trading

² Revitalization of the Coffee Industry in Yemen. The common Fund for Commodities (CFC). 2013 3 World Fact Book. 2013

sectors, direct employment in agriculture is estimated at 54%.⁴ Despite agriculture's modest contribution to the GDP, it is the sector that generates the most employment in rural areas.

Coffee is produced in 17 out of the 21 Yemeni Governorates, benefitting more than 600,000 people,



Graph 1: COFFEE PRODUCTION AND AREAS IN YEMEN 2007-2012

and covering close to 35,000 hectares (Ha). Since 2007, coffee production in Yemen has been almost stagnant at approximately 300,000 bags⁵ (empirical data accounts for 385,000 bags). As seen in the total coffee production there was a small increase in production, from 18,788 Metric Tons (MT) in 2008 to 19,828 (MT) in 2012 which correlates with the slight increase in area planted.

While the Yemeni coffee trade enjoys some of the highest prices in the world, it also has some of the lowest yields. The official average production by smallholders is 550kg/ha. However, interviews with various local farmers lower this estimate to around 350kg/ha.

The demand for specialty coffee in the U.S. continues to grow, offering a great opportunity for Yemeni coffee to recover its share in the U.S.—a share that has plummeted by half since 2005. The specialty coffee sector in the U.S. accounted for total retail sales of roughly US \$13.5 billion annually by 2009. By volume, specialty coffee accounts for between 15 to 20% of the overall coffee trading volume in North America (Boot, 2011).

	2005	2006	2007	2008	2009	2010	2011	2012
Value in Dollars	17,584,341	12,649,065	12,966,621	12,558,640	14,481,551	12,761,178	16,014,065	10,381,619

CHART 1. Value of all Coffee Exports in US\$ 2005-2012

⁴ National Agriculture Sector Strategy. MAI 2012-2016

⁵ Ministry of Agriculture and Irrigation, MAI data 2012

In the case of Yemen, the country's positioning and competitiveness specifically depends on its ability to successfully compete in the specialty category. Specialty coffee in the U.S. market is sold through various channels through which Yemen might access a share. Coffee shop chains (Starbucks, Caribou, Coffee Bean & Tea Leaf) are responsible for approximately 13% of sales, independent retail roasters 2% of sales, gourmet food retailers (Whole Foods, Trader Joes) 17% of sales, supermarkets and price Clubs 60% of sales, mass market food service companies (Dunkin Donut's, McDonald's etc.) 8% of sales6. With a consistent supply of differentiated coffees, Yemen could access a share of these U.S. market channels. Also, obtaining certifications such as Certified Organic, certified Fair Trade, certified Rainforest Alliance, or Utz Certified –consistent with the production of Natural Coffees - could also present additional opportunities for sales of Yemeni coffee to the U.S.

⁶ Boot 2012

I. SECTION ONE: THE VALUE CHAIN

During this analysis, CQI reviewed previous studies on the coffee value chain in Yemen. Although many of the limiting factors still remain as challenges (water scarcity, limited fertile land, competition for arable land by qat), this analysis centers on key points along the value chain that are limiting the consistent supply of high quality coffees. These factors are: 1) the limited supply of coffee, 2) lack of standards and differentiation systems, 3) absence of a leading coffee institution capable of identifying and advocating for the whole industry and 4) a U.S. and local marketing strategy. The analysis will describe the different stages of the value chain with special emphasis on the factors mentioned above. The consistent supply, one of the weakest points along the value chain, could be improved with the implementation of Best Agricultural Practices (BAP). Farmers' low supply of coffee creates additional transaction costs along the value chain resulting in the capture of minimal value in the



Picture 2. Step_farming 1

transaction. Moreover, there is little information flow, price info or quality requirements; in addition, transactions are based more on trust and tradition than on quality or differentiation. An institution that advocates for the industry would help establish a common language for quality and standards that is understood and trusted in the international market, encourage new or existing policies, and carry the message of a legendary product: Yemeni coffee.

Value chains focus on value creation—typically via innovation in products or processes, as well as marketing—and also on the allocation of incremental value⁷. Differentiation, as a tool to add value, can benefit the lower part of the value chain, particularly the farmer. The coffee value chain in Yemen is relatively simple it extends from farmer to local collectors or sub-traders, processors, local

⁷ Building Competitiveness in Africa's Agriculture: A GUIDE TO VALUE CHAIN CONCEPTS AND APPLICATIONS. World Bank 2010

traders, local markets, to traders (exporters) (see Value Chain diagram below). A collector requires several transactions with numerous farmers to collect enough coffee for the processor, which creates additional transaction costs and diminishes the quality of the final product. In Taiz, the Talooq Women's Association collects coffees from its members to later sell to a larger collector. The association pays between 28000 YR to 37000 YR per Sadh⁸ of cherry. This translates in a value of approximately US \$2.0 to 2.5 per pound of green coffee, which seems to be high when compared with international prices. However, the minimal density, small plots, (between 100 to 800 trees), and poor yield per farmer make it hard for producers to achieve a sustainable income. According to the Ministry of Agriculture and Irrigation (MAI), average producer holdings are generally between 0.25 to 1.0 hectares, which in a low yielding and poor production environment means that the income of smallholding farmers is extremely limited even if their product is bought at relatively high prices. Currently prices are comparable to some of the top priced and more exceptional specialty coffees from places like Ethiopia, Kenya, Guatemala and Colombia (Roche and McCarthy, 2006). While this price structure seems favorable to the producer, poor production techniques, limited natural resources, low yields and competition of the narcotic qat have hindered coffee expansion.

Quality or differentiation is not considered in the transaction. Smallholders, the lowest part of the value chain, typically harvest their crop, dry it and then market it to local collectors, sub traders, or merchants. Traders—in the mid and lower levels of the value chain—in Sana'a and Bajel have established rudimentary differentiation systems. They use a 3-grade differentiation based on visual assessment, hand stripping, and sometimes size sorting⁹. However, there is minimal, if any, transfer of extra premiums for quality to the farmers. For instance, Mr. Sowaid of Sowaid Trading, pays a premium price of 3% for certain characteristics. Such quality differentiation is based mainly on origin and size, but not quality. Mr. Sowaid is the largest exporter of green coffee in Yemen. He used to export approximately 200MT a year, but because of the relatively stagnant production and an aging planting area, he now exports approximately 60 tons per year.

On the other hand, there are a few farmers' organizations that have created a system to pay for certain differentiation criteria. Mr. Shabbir Al Ezzi of Al-Ezzi Industries has been implementing a model for differentiation based on local differentiation factors such as quality, amount of moisture, and absolute density, that allows his organization to pay price differentials directly to producers. His organization does not allow qat producers to join the group. Producers meeting the quality criteria could get up to 12 cents per pound as premium price. Other traders differentiate based primarily on origin, but these differentiations are not consistently applied throughout the value chain and the benefits of the premium prices, if any, are not realized by small producers.

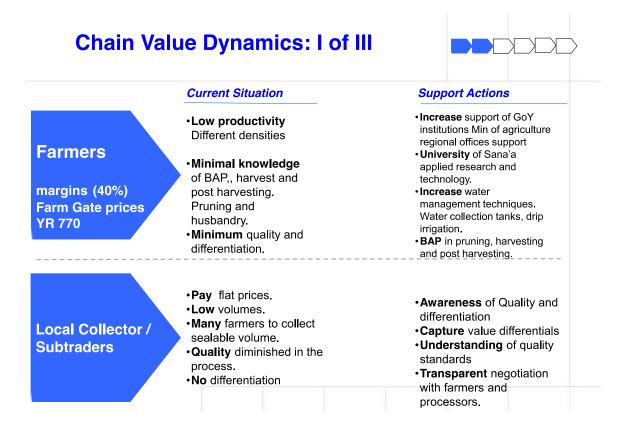
At each stage of the value chain, the number, names and proportion of the quality grades change (see value chain diagram below). Moreover, limited production increases the number of transactions needed to allow for and export in volume by larger collectors. These collectors sort the beans based more on regional or geographical attributes, than on quality. Finally, the beans enter the domestic or export market as Yemeni Coffee. Although the estimates of illegal imports are not clear, some interviews reveal that up to 30% may come from external sources such as Ethiopia, and in some cases Brazil and Vietnam. In discussions with industry experts, they estimate that the amount could be around 2,000 MT or 10% to 15% o total production. Whether these import a re-exported as

⁸ Sadah: measure of volume ranging from 27 to 30 Kg

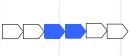
⁹ CQI' coffee expert. Manuel Diaz, Sana'a presentation. April 2013

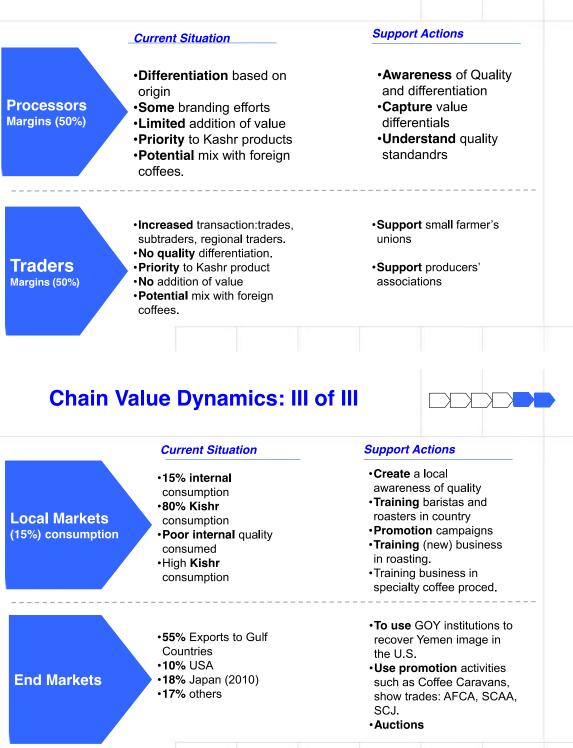
Yemeni Coffee, or sold for the internal market is unclear. Current dynamics and support activities are shown below:

Chart 2: The Yemeni Coffee Value Chain



Chain Value Dynamics: II of III





1.1 Farmers' Coffee Supply

The supply of coffee is one of the weakest points in the value chain. The low production per farmer and smallholdings increase the number of transactions between the farmer, local collectors, and small processors of the value chain that have to collect the proper amount of coffee to be sold. Because of the limited availability of land, a constraint placed by the country's environment, the productivity of coffee must be boosted by increasing the productivity per area, instead of increasing the hectares planted in coffee. Other serious challenges to the coffee supply are Yemen's limited water resources, and its increasing *qat (khat)* production that competes for land and other natural resources¹⁰.

Adding value to the process could be quickly achieved through the implementation of Best Agricultural Practices (BAP). This is an effective tool to increase productivity in the short term, both at the level of crop yield and at post harvesting. These practices, which are becoming common in Arabica coffee producing countries such as Brazil, Ethiopia, India, Uganda, Ecuador, Mexico, etc., could increase the product and its quality. With the implementation of BAP, Yemeni coffee could be marketed as high quality coffee. Implementing a fast track approach to increase the yield of quality coffees could help meet U.S. buyers' increasing interest in Yemeni coffee.

Some national initiatives may help increase the productivity and availability of Yemeni coffee for export to the U.S. The Yemeni Ministry of Industry and Trade, through the Enhanced Integrated Framework Program (EIF)11, is currently providing support for agriculture focusing on increasing productivity and improving quality. This program could be leveraged with a national effort to upgrade processing methods of Arabica Naturals so that they meet quality standards and best practices. In addition, the Ministry of Agriculture and Irrigation has regional offices in all the governorates and the coffee department is willing to provide support for future interventions.

Prices in rural markets are relatively high at approximately U\$7/kg (3.5/lb) for year 2012. The real prices in Yemeni Rials (YR) in rural markets have increased from their 2008 price of 812 YR/kg to 1,583 YR/kg suggesting that there is less available coffee in the internal markets. This fact seems to indicate that to catch up with the internal demand some local traders source some coffees from other origins. However, it is not clear whether these coffees are later exported to

Local collectors and marketers in Taiz and Sana'a acknowledged that some of their suppliers provide them with coffees for external origins. A trader in Sana'a attested CQI that they source around 30% of their coffee from Ethiopia.

international markets, left for internal consumption, or both. This fact is also supported by some testimonials in the local markets of imports12 from other origins such as Ethiopia, Brazil, or Vietnam. In interviews, local collectors and marketers in Taiz and Sana'a acknowledged that some of their suppliers provide them with coffees from these origins.

¹⁰ 2012-216 National Agricultural Sector Strategy. Ministry of Agriculture and Irrigation. Yemen

¹¹ The EIF is a multi-donor program, which supports LDCs to be more active players in the global trading system by helping them tackle supply-side constraints to trade.

¹² GOY through the MAI and MOT issued a ministerial decree under the law 154/2004 to ban imports of coffee.

Year	2008	2009	2010	2011	2012	
Average	812	1,231	1,481	1,733	1,769	
Inflation	11.8	5.4	11.2	16.39	11.75	
Real Price	812	1,168	1,332	1,489	1,583	
ER (YR/U\$)	199.78	202.85	219.59	213.8	214.35	
U\$	4.06	5.76	6.07	6.97	7.38	

Table 2: Coffee prices in rural markets in Yemen (Real Prices) Source: Agricultural yearbook 2011/12

1.1.1 Food Security and Coffee

By creating quality standards for specialty Arabica and Robusta coffees Yemenis could diminish the impact of food insecurity. Industry accepted specialty coffee standards stimulate rural economies in coffee producing countries, and communities develop sustainable livelihoods because of the increased incomes due to improved coffee quality and production. Moreover, coffee farmers who benefit from increased income based upon improved coffee quality and production gains are also able to increase production of staple and orphan crops, which increases food availability and bring down food prices in local markets. Value added products such as Specialty Coffees could be an excellent source of cash income for a number of reasons. First, there is a growing international demand for the coffee, making it easily convertible into cash. Second, coffee production is low-tech agriculture that is well within the capacity of the smallholder farmer to understand and initiate Best Agricultural Practice (BAP). Third, coffee does not require outside labor beyond the capabilities of the family unit to prune, harvest, pulp, and dry. Fourth, with proper training the small holder farmer can often produce a high quality, value-added product. Fifth and final, the coffee plant, which produces an annual crop, does not have an especially high demand for soil nutrients and has adapted well to Yemen's soil conditions.

Food security is a foundation for building social and economic development. According to the World Health Organization, The World Food Summit of 1996 defined food security as existing "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life". Commonly, the concept of food security is defined as including both physical and economic access to food that meets people's dietary needs as well as their food preferences. Food security is based on three pillars. 1) Food access¹³ 2) Food availability¹⁴ and 3) Food use¹⁵. Improved agriculture provides sustenance, income and livelihoods for Yemen's rural poor. Prompted by rising food

President Barack Obama called upon Congress to double U.S. support for agricultural development in developing countries to more than \$1 billion as part of the strategy to solve food insecurity

¹³ Food access: People must be able to regularly acquire adequate quantities of food, through purchase, home production, barter, gifts, borrowing or food aid.

¹⁴ Food availability: Food must be available in sufficient quantities and on a consistent basis. It considers stock and production in a given area and the capacity to bring in food from elsewhere, through trade or aid.

¹⁵Food use: appropriate use based on knowledge of basic nutrition and care, as well as adequate water and sanitation.

prices, droughts, economic instability people are unable to access food, or food may not be available. Coffee, as a perennial crop is not only a source of sustainable income, but also provides a long term opportunity for smallholder farmers to remain in their lands enabling environment for a more sustainable development. In addition, small coffee farmers produce other orphan and staple crops alongside their main coffee crop, which improves their nutritional food basket and their incomes.

1.1.2 Women in Agriculture

According to Yemen's Ministry of Agriculture and Irrigation (MAI), women provide about 75% of the total labor required for agricultural activities in general. They perform an estimated 80% of the livestock work, and they are largely responsible for the production of food crops on rain fed land for family consumption16 The Women's Association of Talooq (WAT) (picture below) has played an



Picture 3. Women in Agriculture 1

important role in the production of coffee though renovation of coffee fields in Talooq, Taiz. This organization is producing seedlings to distribute to its members. The WAT sells each seedling at YR100 for its associates and YR 150 for non-members. In addition to providing coffee beans, the nurseries may become an important income generation activity while at the same time providing a service for this community. The role of

women in this association is fundamental. They select the trees to be reproduced, select beans based on appearance and plant them for up to six months in the nurseries before they are sold to the community. They have become the tree providers for the area. The association was founded in 2001 and currently has 164 women members. This association also plays the role of collector, selling to regional collectors or exporters.

1.2 Internal Consumption

Estimations form MAI account for about 15%¹⁷ in internal consumption of coffee beans. However, some exporters emphatically mention that exports in Yemen account for about 50% of the total production. This complicates the equation and suggests that there may be some coffees filling the gap of this increasing demand.

¹⁶ Yemen: Agricultural Support Program (YASP), Tetra Tech 2007

¹⁷ MAI calculations 2009-2012

The local markets play an important role in the coffee value chain for coffee beans and their byproduct, the coffee husk or kishr¹⁸. The markets value a drink beverage made from coffee husks (kishr), thereby transforming what is elsewhere considered a by-product into a product of value. Estimates from different sources indicate that approximately 11,000 tons of kishr are exported to international markets, particularly the gulf countries. Kishr prices are around half of what is paid for green coffee (U\$3.5/kg). In some markets coffee beans are considered almost a by-product of Kishr.

1.3. Coffee Exports and Competitive Advantage

Since last year the value of coffee exports has decreased sharply. This could be due to factors such as aging low productive plantations, and slightly flat production (19,000 tons) since 2009. However, the competitive advantage of Yemeni coffee relies more on its tradition, history, and unique flavor profile than on its quality. Yemen, as the first place where coffee was traded, preserves its unique reputation and its name well regarded in international markets. Protecting this tradition could become the primary tool to preserve its competitive advantage. Geographic Indications (GI) and protecting names such as Mocka¹⁹, Matari, Hirazi, Haimi or Ismaili are strategies that may advance the nation's coffee industry. Moreover, its production system with minimal dependence on fertilizers, its relative adaptation to harsh conditions and tolerance to some common diseases already positions Yemeni coffee ahead of other origins. However, this has to work in tandem with production and quality strategies.

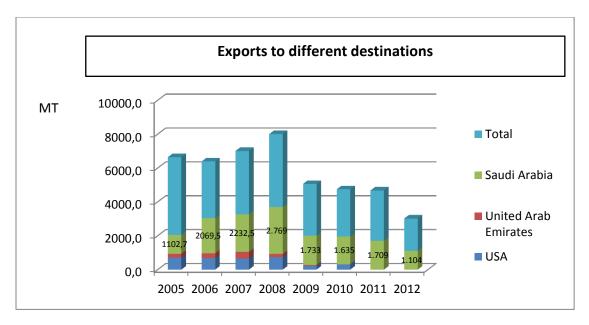
Upcoming accession to the World Trade Organization, an example of Yemen's commitment, will result not only in clear economic opportunities but also in great challenges for agricultural sectors that are not as competitive such as the domestic production of staple crops. Value added crops can address food security through increased incomes from premium prices. Quality coffee is one of the few cash crops in which Yemen has a competitive advantage.

1.3.1 Exports to the Middle East and the US

Yemen's greatest export market is Saudi Arabia; it accounts for more than 55% of the export share of Yemeni coffee. (see graph 2).

¹⁸ Kishr. Coffee husk prepared as an infusion

¹⁹ Al-Mocka or Mocha, a port in the Red Sea, is famous for being the major marketplace for coffee from the 15th century until the 17th century where coffees where shipped to the world.





The MAI's data shows that there has been an increase in coffee exports to the Saudi market since 2005. The exports to the U.S., on the other hand, have been plummeting, reaching their lowest point in 2012 at just 179 tons. This seems to indicate that the quality of coffee available to U.S. importers and roasters is inconsistent and unreliable. As noted above, interviews with local coffee industry experts and importers in the U.S. suggest that some coffees are imported from other origins and some fear that they may be re-exported as Yemeni coffee. All of this creates wary buyers in the U.S.

As a result, exports to the U.S. have declined steadily. In 2005 Yemen exported more than 700 MT but this had significantly dropped by 2012 when the country exported less than 180 (MT) to the U.S. at a current value of less than a million dollars.

Furthermore, recent meetings with the Ministry of Trade, Ministry of Agriculture and Irrigation, and some private exporters suggest that by implementing a systematic training program designed to improve quality awareness, production and marketing of specialty coffees would help meet the U.S. industry's rising interest in this product. This was in evidence during the 2013 Specialty Coffee Association Trade and Exhibition (SCAA) in Boston when Yemeni government officials and private sector representatives participated at the event. The manifest interest on the part of the U.S. industry offers an opportunity to make real progress in the immediate future. Efforts to organize the industry through a new national coffee board that can coordinate projects in growing areas, as well as function as a central point of communication and representation for the industry, are of particular importance to those interested in increasing Yemeni coffee's presence in the U.S. 20.

Producers and exporters are currently unaware of marketing tools such as the Cupping Caravan (see support activities in the value chain diagram) and Cup of Excellence Auctions, highlighting the geographical identity of production zones such as Geographic Indications, and use of cup profiles as tools to generate trust in U.S. investors in the coffee trade.

²⁰ 2013 Boston SCAA breakfast leadership meeting.

1.4 Strategy development with local partners

Working with different partners and coffee stakeholders in Yemen is extremely important, as they will become the local forces and long term sustainability entities of the strategy. For instance, the Ministry of Trade's EIF, a multi-donor program, which helps Least Developed Countries become active players in the global trading system is willing to be an investment partner with other programs in coffee related activities. In addition, the Economic Opportunity Fund²¹, which is investing close to \$40 million for three value chains including coffee, could partner with USAID to maximize the return for investment in the areas of coincidence. Amongst these partners, there is the need for the creation of a coordination unit or coffee body, led by the Yemeni government, which combines the efforts of different groups and international organizations working to promote the coffee industry in Yemen, so that these efforts are effective and leverage each other. Some of the potential partners are receiving resources from international organizations and could be a partner to develop joint programs. For instance, the Women's Association of Talooq is currently working to provide coffee seedlings to their communities and could become and important partner for a fast track approach to establish BAP and renovate coffee plantations in the area. Furthermore, some private sector exporters or processors such as Fee Coffee, Al Hamdani, or Shabir Al- Ezzi offer an opportunity to develop Public Private Alliances (PPP) with USAID in the coffee sector. Al Hamdani, one of the largest associations is willing to work jointly with the program to establish some demonstration plots.

A map chart of some of the partners and their potential roles are described below.

Organization	Role	Proposed actions
Women's Association of Talooq	Women in coffee and association development	Represent leadership roles for women. Demonstration plots. Nursery preparation. Application of Best Agricultural Practices (BPA) and sharing of knowledge.
Al Shabi Ezzi Haraz	Model of coffee differentiation and incentives to producers some of whom abandon qat to plant coffee crops.	Work with his farmers to create demonstration effect. Opportunity to replicate and improve his differentiation and payment model. This model can be replicated with small producers and attempted in other areas that produce coffee. It can offer an income substitution scheme to qat producers.
Al Hamdani	Largest association and willing to establish pilot projects.	Work on quality and standards. Offer land to do demonstration activities. Opportunity to develop Public Private Partnerships (PPP)
Min. of Agriculture	Policy and coordination of efforts in the coffee Value Chain. Regional offices in 22 governorates.	Strengthen the coffee department and use of its extensions in the 22 regional offices. Very supportive of quality and differentiation.
Min. of Trade	Coordination on trade efforts. Promotion of exports and competitive programs. Close interaction with other GOY organizations, particularly with the MAI.	The EIF is a multi-donor programme, which supports LDCs to be more active players in the global trading system by helping them tackle supply-side constraints to trade. Leverage this program to advance the coffee trade in Yemen.
Fee Coffee	Largest producer and owner of coffee farms. Leading investment efforts in the coffee industry promoting local consumption through it coffee shops.	Training and demonstration plots for the program. Potential to develop Public Private Partnerships (PPP). Key partner to develop a pool of professional baristas that can help educate local consumers about quality coffees.

Chart 3. Map of potential act	ors or partners

²¹ Economic Opportunity Fund receives funding from IFAD, EU, and Islamic Fund for Development

Economic Opportunity Fund (EOF)	Largest investor. Investing up to US \$40 million in the Economic Opportunities Program	Largest investor and perfect resource to leverage work with USAID Yemen. Work jointly with USAID in increasing production in common geographic areas. Leverage efforts in the production side of the value chain. Apply similar Best Agricultural Practices to farmers. Potential organization to lead a Coffee Body or an association.
Mr. Sowaid	Trader with extensive knowledge of the market.	Work in coordination with other projects and lead efforts to bring together the industry.

2. SECTION TWO: U.S MARKET ANALYSIS AND A MARKETING STRATEGY

2.1 Yemen Coffee - The Market Perspective

This section aims at providing a market perspective on Yemeni coffee; for that reason we interviewed more than 30 representatives²² from international trading companies and specialty roasters and requested that they share their opinions of Yemeni coffee.

The heritage and legacy of Yemeni coffee has been well known for centuries and almost any coffee professional who we interviewed for this marketing study reiterated his/ her appreciation for the flavors and stories that surround Yemeni coffee.

Since more than 15 years, the proliferation of the specialty coffee industry has generated substantial additional export revenues for countries like Ethiopia, Honduras, Brazil, El Salvador and many other countries around the globe. Due to a myriad of reasons, which have been investigated and discussed extensively in a series of well documented studies ²³ that have been performed since 2005 by various NGO's and international organizations, Yemen has not been able to take advantage of the vast monetary opportunities that can lie ahead for coffee producing countries that export coffee with a recognized differentiated flavor profile. The Coffee Exporters Guide²⁴ categorizes Yemeni coffee as a coffee with "Exemplary Quality":

2.1.1 Exemplary Quality

Exemplary quality coffees have a high intrinsic value with a fine or unique cup, and are usually of quite limited availability. They are mostly retailed under straight estate or origin names. These are usually very well presented washed coffees, including some superior washed robustas, but also include some naturals (Ethiopian Harars, Yemeni Mochas, some Indonesian arabicas) and top organic coffees. They are true niche coffees.

Lindsey Bolger, a well-known industry expert²⁵ commented:

"For many people, Yemen is mythical in its place in the pantheon of specialty coffee. There's certainly a high degree of interest in Yemeni coffee for the cognizance within the coffee community".

In general, there is little doubt amongst coffee professionals that Yemeni coffee is some of the most unique coffee in the world. A range of factors contribute to this situation:

 The existence of unique heirloom varieties, resulting in the ability of the Yemeni coffee trees to yield unparalleled flavor profiles; 2). Excellent elevations, which can exceed 2,000 meters (6,562 feet);
Centuries old traditions in the cultivation and processing of the coffee; 4). Challenging growing conditions, resulting in stressed coffee beans with an unusual complex concentration of oils that yield precious aroma and flavor constituents.

²² At least twenty coffee professionals were interviewed and more than ten professionals participated in a strategic discussion during the 2013 Boston conference of the SCAA.

²³ See Section One, Table I

²⁴ The Coffee Exporter's Guide, Third Edition, International Trade Centre, 2012

²⁵ Lindsey Bolger, director green coffee procurement, Green Mountain Coffee Roasters, VT, USA

The review and analysis of the marketing opportunities and challenges for the Yemeni coffee industry require a systematic approach of its coffee sector.

Chart 4 identifies the elements for a structured discussion about Yemen's coffee market potential.



Chart 4: Fundamental Parameters for Understanding the Market Performance of Yemeni Coffee

2.2 Product and Production Management

Tom Owen, founder of green bean distribution companies "Sweet Marias" and "Coffee Shrub" identifies the production system of Yemeni coffee as follows:

"To get yourself a pile of Yemeni coffee is much like building an anthill; it's a microscopic operation. Every Yemeni coffee farmer produces a miniscule amount of coffee per year. If you aren't aware, a coffee tree on a modern technified farm in Brazil produces about 1 Lb. of coffee per season. In Yemen...their plants produce much less, and the average for a Yemeni coffee farmer is 300 trees on less than 0.2 hectares of land; it's more of a backyard garden really. The coffee farmer does not market their coffee. They pick their coffee cherries, dry them whole and intact and then they sell to a local collector who blends the dried coffee cherries from multiple farmers, resulting in a few bags of dried cherry pods".

In Yemen, as in almost all coffee producing countries, the productivity of the trees varies with a range of factors:

- The biological alternation of the coffee trees (a good year after a bad year);
- Farming methods (irrigation techniques, mulching practices);
- Planted varieties (indigenous heirloom genotypes);
- Soil conditions and climate conditions.

Besides the production of coffee and qat, there are limited additional alternatives available to farmers. In Yemen, coffee trees grow in relatively poor, stony soils, and coffee cultivation can have a positive environmental benefit (fixing and stabilizing the soils, enriching the biodiversity). The country has a highly fragmented production infrastructure (a large number of micro sized small holder farmers) and the socio-cultural aspects of coffee cultivation, production and trading contribute to the fact that coffee is a way of life for a certain part of the Yemeni people.

The aforementioned aspects contribute to Yemeni coffee not being perceived as a 'regular' commodity.

Shabbir A. Ezzi, Managing Director of Ezzi Industries, a well respected Yemeni coffee processor and exporter emphasizes the necessity of developing and emphasizing the value of quality rather than building the competitiveness of the coffee on price.

"Considering the growing conditions, the geography of the country, the inaccessibility to farms, we have to realize that Yemen coffee can never be a commodity. That's the reality. It will never go down to price levels compared to other mass producing coffee nations, so the key to the success is to extract the best quality of what nature has given to the country already. To be able to identify those, and accept that Yemeni coffee is going to be expensive so we must develop the value of the quality to meet the price. Not reduce the price to the existing quality."

Craig Holt, founder and president of Atlas Coffee Importers summarizes how the characteristics of the fragmented and traditional Yemeni agricultural production system can be utilized as a potential selling tool for the coffee and how the features of the industry can actually be utilized as communication tools.

"One of the solutions is by talking about Yemeni coffee with the emphasis on the individual growers and the beauty of the landscape in which they work and the amount of tradition and energy that they put into it. These aspects always resonate really well with the consumers. Creating the perception is really essential. Establishing the "pull through" is absolutely critical.

Tom Owen refers to coffee farmers in Yemen as "locked in a time warp and growing their coffee in exactly the same way as their fathers and forefathers did before them".

Other experts also refer to the fact that farmers seem to remain completely divorced from the needs of the market, which creates a challenging condition for making structural changes to the coffee's quality.

2.3 Yemeni Coffee Purchasing Trends

During the past fifteen years, new concepts in trading coffee have become steadily more embedded in the structure of the specialty industry. If we observe trendsetting coffee roasters like <u>Intelligentsia</u>, <u>Stumptown</u> and <u>Kickapoo</u>, the impression is created by these companies that their coffee buyers directly and exclusively interact with the (cooperative) farmers of the coffee beans. Any apparent contribution of a facilitating trading partner like an exporter or importer is carefully hidden under the polished language and pictures displayed on the websites of these companies.

Initially, the trend of "direct trade" started with the desire of roasting companies to develop direct relationships with their ultimate suppliers, the farmers of the coffee. With the evolution of these

innovative buying strategies, it became necessary to leverage the direct relationship into a situation where the roasting company could also request or dictate special processes for the production process of the beans. As a result, pro-active roasters have become very successful in locking in exclusive relationships with their coffee suppliers. In the case of Yemen, direct relationships appear to be quite challenging, at the least because of the fact that so many participants can be involved in the trading process. Chart 5 displays a simplified version of the subsequent transactions involving Yemeni coffee beans. In many cases, additional traders or brokers can partake in the process. It is obvious that the risk of blending and/or adulteration of coffee lots increases with the number of occasions where aggregation of coffee lots takes place. On top of that, with every additional participant, the likelihood increases that unique information about the coffee gets lost in the process.

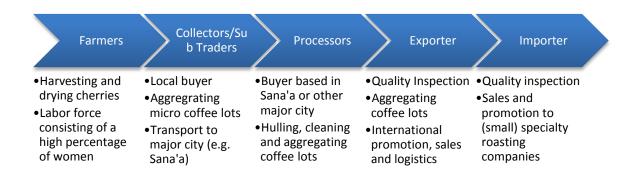


Chart 5: Yemeni coffee trading process with key participants

The application of Geographic Information Systems (GIS) could provide a very useful solution to the possible lack of transparency of Yemeni coffee. An increasing number of specialty roasters select their more precious coffee beans by multiple parameters like flavor profile, cultivar and the ecosystem and origin of cultivation, which -like in wine- can be a major decision factor in the marketability of the coffee. Geographic Information Systems (GIS) can facilitate the marketing of specialty coffees by delivering spatial data in the form of maps to the target buyer and consumer who has also become increasingly more socially-minded with a growing interest in agriculture and the environment.

Lindsey Bolger emphasizes the fundamental aspects of quality consistency, on time delivery and especially the need to be able to make connections with the producing communities.

"If you can't repeat and consistently deliver the flavor that brought people to the table to begin with and if you can't deliver the product on time, with the coffee arriving in the condition that the roaster expected than it will become a major challenge. The marketing features of Yemeni coffee offer a huge potential. If we can't deliver on quality and if we can't work internally to strengthen infrastructure to make the connections with groups of farmers at a community level (to help them understand about the pull on the market side), then we might have moments of opportunistic success but if you're really looking for a way to sustain and grow an industry in Yemen, there obviously has to be a tremendous amount of activity at origin and through the supply chain in order to continue on that promise of exciting and delivering on those expectations that we're all eager to create."

Vertically integrated supply chain models are –at an increasing rate- essential for the sustenance of the coffee buying strategies of roasters and importers. The survey included this following question: *In your purchasing of green coffee, do you have an active relationship with any other players in the value chain?* (e.g. involved in processing experiments or in special relationship coffees or direct trade).

The majority of buyers (13 out of 20) indicated that they are involved in some type of vertically integrated supply chain model, indicating that it is very important to collaborate closely with stakeholders who participate early on in the supply chain.

Once the relationship with a buyer has been established and the first order is confirmed, then it's essential to deliver as promised on the contracts. Producers and exporters in certain parts of the world have developed a reputation for inconsistently supplied coffee. Specifically in Eastern Africa and in many other remotely located countries in the world, the risk increases that some part of the contract is not fulfilled. Craig Holt explains:

"Contract performance is absolutely critical; delivering on time, complying to the specifications, lot after lot, year after year. Where do you start? If you do a great promotion and there's no contract consistency backing it up, everything falls apart. If you do all this capacity building but if you don't have the market implementation built into that process, then people on the ground are very frustrated. One of the key questions is going to be the timing and merging those two necessities together in a thoughtful manner."

2.4 Target Markets

The current export markets for Yemen coffee have been outlined in section one. Most apparent is the growth of coffee exports to Saudi Arabia and the declining sales to traditional export markets for Yemeni coffee including the U.S. and Europe.

2.4.1 Saudi Arabia

The largest export market for Yemeni coffee is Saudi Arabia and it accounts for approximately 55% of the export volume of all Yemeni coffee beans. Obtaining import data from the Saudi government has proven to be very challenging; the data that are used for this report are estimates. In addition to Yemeni coffee, the Saudi importers have also been buying increasing volumes of Ethiopian natural sundried coffee, specifically from the Harar and Lekempti regions.

Like the rest of the Persian Gulf region, Saudi Arabia saw an explosion in consumer spending over the past decade due to the expanding global energy demand. Per capita income is about US\$15,000. GDP has grown a robust 16.9% in the past year and is expected to grow 8.8% next year. Saudi Arabia's population is about 25 million, and it is expected to double within the next 20 years. Per capita food consumption through 2015 is forecast to grow 7.31%, outperforming other Gulf countries which have relied heavily on expatriate consumption. While consumption trends are positive, it is important to note that Saudi consumers are fairly price sensitive compared to most of their regional peers, and therefore products at the low end of the price range are likely to remain particularly popular. Despite the enormous growth opportunities, Saudi Arabia is a difficult market to enter. All products must have Arabic text on the packaging, follow a rigorous import licensing procedure, and must be Halal²⁶. Many manufacturers obtain halal certification which assures Muslim customers that the product is permitted.

Saudi coffee buyers utilize vastly different purchasing criteria for the selection of Yemeni coffee beans than a specialty coffee buyer in Japan or North America. In Saudi Arabia, the appearance of the beans is weighed heavily in the purchasing process and other essential factors, like the flavor profile or the age of the coffee beans is of lesser importance. On top of that, western buyers utilize the Anglo American liquoring technique to perform the cupping of the coffee, and Saudi traders mostly test the coffee using a traditional Saudi preparation.²⁷

2.4.2 U.S. and Europe

Exports to the USA and Europe have been stagnant during the past ten years. Nevertheless, basically all U.S. based and European companies that we interviewed for this research expressed interest to procure (more) coffee from Yemen. The lack of availability, the inconsistent delivery from lot to lot and the poor grading practices seem to have impacted the purchasing volumes from Yemen.

The Annex I contains the results of the "Yemen Market Research" for which we interviewed twenty different coffee buyers (roasters and importers), all predominantly from the USA and Europe.

The grand majority of these companies prefer the Yemen Mattari over the other popular Yemeni bean types: Hirazi, Haimi and Ismaili. According to these companies, the main improvements necessary for Yemen coffee are, (in order of importance): 1) Price is too high and pricing must become more reasonable versus the quality provided; 2) Quality of the produced coffee must improve; 3) Traceability is lacking; more information must be provided about the coffee.

Appendix II contains an illustration of the fact that Yemeni coffee is currently not on the radar screen of some of the most famous specialty coffee buyers and roasters in the US. Companies like Starbucks and Peets Coffee feature "Mocha Java" blends which contains a Mocha "wannabee" from Ethiopia. Trendy roasters like Intelligentsia and Stumptown don't make any reference to Yemen. Importers in the US, with the exception of Knutsen Coffees Ltd, don't carry any Yemeni beans either. It is likely that the seasonality of the coffee has a lot to do with the current lack of availability.

2.4.3 Japan

Exports to Japan have remained at least consistent and probably increased during the past years. Export numbers of the ICO and of other sources are quite contradictory however. We currently estimate that up to 12% of Yemeni coffee exported is sold to Japan. The structure of the Japanese specialty coffee market is multi-layered. Japan's coffeehouse and roasting/retail segment has three dominant sub-segments: traditional coffeehouses (Kissaten), cafe-type coffeeshops (Seattle-style), and self-serve (Teikakaku). Away-from-home and in-home consumption dominate the market, with value shares of 43% and 41.5%, respectively, although volume shares are divided almost equally at 1/3 among each of the segments are highly structured and traditional with about ten trading firms

²⁶ Halal: Is an Arabic word meaning lawful or permitted.

²⁷ "Saudi coffee, or "Al-Qahwa" (Arabic: فو qahwah), is made from coffee beans roasted very lightly or heavily from 165 °C (329 °F) to 210 °C (410 °F) and cardamom, and is a traditional beverage in Arabian culture.

(shoshas) controlling the vast majority of green coffee imports, which is then sold primarily to five roasters who purchase at least 75% of the country's green coffee imports. The remaining 25% of the Japanese imports is roasted by 500 medium sized roasting companies and at least 3,000 micro roasters.²⁸

2.5 Emerging Markets

Steven Ford, CEO of the MTC Group, a specialty coffee import conglomerate in the Pacific Rim, comments on the considerations an importer uses to select specific origins in the portfolio of his company.

'In Australia, as importers, we are dealing predominately with smaller café or shop roasters, roasting 1000 to 2000 pounds per week. These guys are making their buying decisions on a week to week basis, based on an offer sample that they have tasted and selected from a huge selection of high value coffees. Right now, in Australia, these roasters can choose between at least 50 different high quality coffees at very high prices and in this case the role of the importer becomes really challenging because we need to take the risk and the buyers won't commit and unless we have a unique quality that we can trust and that our buyers can trust, the risk is not worth the reward."

2.5.1 Distribution

Currently, most Yemeni coffee is exported from Hodeida; not from the old city of Al Mokha, which led to the creation of the names of Yemen Mocha coffee and of the famed Mocha Java blend. Hodeida is a hot and humid port, which is detrimental to the quality of the coffee. For this reason, alternative packaging protocols, e.g. GrainPro or vacuum packaging, must be considered. These packaging styles will definitely provide important protection to the coffee quality, also given the long transit times (45 days or more) for sea freight from Hodeida to the USA. In order to obtain a more distinct positioning for the top-grade Yemeni beans, it is recommended that exporters explore the options for air-freight.

2.5.2 Promotion

Countries like Guatemala, Brazil and Panama have been very successful in launching a collaborative, industry-supported effort to create, strengthen and utilize types of branding for marketing of green coffee beans. Despite the legacy of Mocha coffee, the industry stakeholders of Yemen haven't been able to launch a unified marketing and branding initiative.

John Rapinchuk, President of Knutsen Coffee Importers, talks about the benefits of organizing a coffee competition and auction event and about the importance of changing the dynamics in coffee promotions; from a 'push' to 'pull' approach.

"We have worked in Kenya for many years through the auction system and there are many small lots offered. We have worked with our exporter to consolidate small lots so that in one container we might have coffee from five different cooperatives. This has proven to be very effective in promoting added value for Kenya coffees over the years. We have been judges in the Cup Of Excellence program in countries like Guatemala, Brazil, Colombia and Nicaragua and I realize that geographic constraints. In each of these countries where the CoE has been held, at least a thousand or more

²⁸ A Regional Strategy For The Specialty Coffee Value Chain In Eastern Africa; A Practical Approach To Driving Greater Value Capture In The Region, Usaid, 2010

smallholder farmers submitted samples and on top of that these events were broadcasted through the national TV and in some cases the (vice) presidents of these countries have been present at the award ceremonies. It makes national news and it raises awareness both within the country as well as abroad, in the US and Europe, of the availability and variability as well as variety of any of the coffees. In addition, the auction that follows after the competition, on the internet an in some instances the coffee receives ridiculous prices if, for example, a South Korean and a Japanese micro roaster decide to bid against each other."

2.5.3 Pricing

Annex I indicates the pricing of Yemeni green beans. At least half of the interviewees admitted paying more than \$5.00 per pound. Most buyers that were interviewed indicated that the price of Yemeni coffee is too high versus the quality that was provided (11 out of 20 buyers). According to most buyers, the special flavor characteristics of Yemeni coffee justify a higher price point than other coffees but the quality of the coffee must improve (9 out of 20 buyers) in order to maintain these price points. In this regard it is obvious that quality preparation and price realization go hand in hand.

Graciano Cruz, a coffee farmer from Panama and a processing innovator with many "direct trade" relationships around the world provides some perspectives about the necessity of raising quality in order to be able to command consistently high prices.

"I come from a small origin, Panama, where the scarcity of the beans is the main factor to push producers to increase quality because of the fact that our pricing structure is a lot higher. Hawaii is another example in this context. We need to train farmers and all the professionals involved in processing to come with tangible quality improvements that are marketable to buyers. The consistency of quality of the coffee in the market must become the leveraging tool to realize consistently high prices in the market."

Mohamed Moledina, President of Moledina Commodities Inc., a coffee trading company based in California, USA as a subsidiary of Rashid Moledina & Co. (MSA) Limited of Mombasa, Kenya comments on the pricing of Yemeni coffee in light of the production process and the consistency of quality.

"The availability of Yemen coffee is reduced, the majority is exported to Saudi Arabia and the rest is going to Japan and very little comes to the USA. An additional problem is the consistency of the quality and of course this can be improved over time by upgrading the method of production and other quality protocols. I have travelled to Yemen about seven times and I have seen the way the coffees are produced. Our family is in the production and export of coffee in Kenya. What I observed in Yemen? I found the production process very primitive compared to what we have been used to. I respected that at the same time because of the history. Over time I have been able to help out some of the producers in Yemen as far as grading the coffee, selecting the coffee, hand sorting the beans etc. We have to do a lot more as far as production is concerned. Once the level of supply is increased and once we get the consistency, then the next point of course is the price. I am afraid that the price of Yemen coffee is at times too high for what it is worth, specifically compared to Jamaican Blue Mountain or Kona coffee. We must be realistic about the pricing as well."

2.5.4 Industry Structure

The international trading and export of Yemeni coffee shows some distinct oligopolistic features with a limited number of exporters competing for a relatively miniscule market share. It is reasonable to assume that this phenomenon also causes the relatively high internal and export prices of Yemeni coffee.

Tom Owen of Sweet Marias shares some interesting observations about the structure of the Yemeni coffee industry and the importance of the presence and participation of manual laborers in the production, sorting and grading of the coffee.

"In a growing region like Bani Mattar (Mattari coffee) there are thousands of farmers, as many as 100 collectors who sell to a hundred collectors in Sana'a, selling to 6-10 exporters. The formation of -for example- farmer cooperatives, a common and popular phenomenon in other origins, makes little sense when it would result in the sudden unemployment of thousands of collectors, hand-sorters and screeners."

As has been suggested during past years, the formation of a coffee association focusing on quality improvement and on specialty coffee exports, will greatly increase the capacity of the coffee industry to successfully develop high value coffee exports. It is necessary for all Yemeni stakeholders to cooperate rather than compete against each other.

2.5.5 Key Issues Prohibiting the Competitiveness of the Yemeni Coffee Sector

1. The Yemeni coffee industry lacks direction, cohesion and purpose relative to its international competitiveness.

As discussed before, multiple strategic value chain analyses have been performed and various industry experts have written proposals. Despite all this focused brainpower, very little has been accomplished so far for the development of the coffee sector. Instead of defining theoretical models, practical action plans must be adopted and executed in order to establish a brighter future for the coffee sector. Yemeni coffee traders and exporters tend to compete fiercely against one another and as a result, the chances to strengthen Yemen's positioning in the international specialty marketplace are weakened. If Yemeni traders and exporters start reaping the benefits of collaboration by establishing a joint focus on the rejuvenation of the image of Yemeni coffee, then they will soon realize that the total market for Yemeni coffees will increase, rendering many more economic opportunities for the entire sector.

2. The failure to adequately investigate and categorize the multitude of unique Yemeni coffee varieties has affected the uncertainty of the growing process and the inconsistency of grading protocols as well as the marketing and exporting process. "Farmers are consequently unable to select varieties that are most adequate to their needs (e.g., drought resistant), and to prevailing market requirements since it is not altogether clear what the characteristics of the varieties are and what variety a farmer is getting from government nurseries. Inadequate coffee cultivation technologies and largely ineffective extension services leave the farmers unable to capture considerable additional value from their crops."²⁹

3. As described in section one, domestic consumption consists of a large percentage of traditional "coffee-tea" or "kishr". The younger generation in major cities is interested in "western styles" of specialty coffee.

Countries like Brazil, Colombia and El Salvador have proven that strengthening the domestic market will benefit the international competitiveness of the country, specifically in developing the quality awareness of the sector.

²⁹ Moving Yemen Coffee Forward - Assessment Of The Coffee Industry In Yemen To Sustainably Improve Incomes And Expand Trade, USAID, 2005

4. Lack of availability of Yemeni top lots. Internationally, it is challenging to procure Yemeni coffees. Coffee importers complain about a lack of supply of Yemeni coffees. Yemeni coffee traders and exporters are neglecting the business development to and relationships with buyers overseas.

5. Lack of information about Yemeni coffee in general. It is currently very challenging to find any reliable sources of information about Yemeni coffee. Nowadays, international coffee buyers seek in depth information about the origin of their purchased coffees, about the specific background of the producing country and about the suppliers of their (specialty) coffee lots.

6. Coffee companies around the world abuse Yemen specific brand names. As a result major confusion exists about these names and as long as this situation continues, Yemen will never be able to command top premiums for the for the most revered coffee types such as Mocha, Harras or Matari. Various options are available to initiate legal proceedings to reclaim the intellectual ownership to distinct Yemeni Geographical Indications like "Mocha". In 2009, the International Trade Center published a well documented "Guide to Geographical Indications" providing various examples of "GI's" that were successfully registered for Jamaica, Kona and Guatemala; these countries or regions have been able to formalize and legalize the registration of geographic indications for their coffees.

7. Lack of transparency in domestic and international pricing of Yemeni coffee. To buyers it is often a mystery how Yemeni exporters or sellers set their pricing. It is usually not clear how the farmers benefit and what part of the price goes to middlemen. Specialty coffee buyers nowadays command transparency about pricing structures and they require the ability to trace coffee lots back to the production region or preferably to the community where the beans originate.

8. Adulteration of Yemeni coffee with East-African and other sundried coffees. The extent of this problem is not clear; worst case scenarios talk about the massive illicit imports of 2,000 tons or more. Very likely, a significant part of these imports are re-exported as Yemeni coffee. Top priority must be given to establishing 100% trust with clients overseas and gaining their absolute confidence by certifying they get what they pay for is.

9. International buyers consider Yemeni coffee as a relic of the past. During the past ten years, a new community of roaster/ retailers has emerged around the world. These companies typically purchase the high quality, high priced coffee lots offered by discerning specialty producers or through auctions like "Cup of Excellence". The rejuvenation of the Yemeni coffee industry is an absolute must. Instead of polishing up the relic, priority must be given to rebuild the coffee sector altogether.

2.6. Marketing Strategy Chart

Maketing Strategy Chart

Objectives	Proposed Action Plans
Develop a domestic consumption campaign to promote the consumption of	Organize barista training and certification programs.
specialty coffee drinks in Yemen.	Organize Yemeni barista competitions.
	Support the establishment of specialty coffee
	businesses by training (new) business owners in
	roasting techniques and specialty coffee procedures.
Increase the variety and volume of supply of	Establish an industry work group to drive the process
Yemeni coffee. Review the feasibility for a	of preparing a competition and auction.
auction (like Cup of Excellence).	Create a business plan for a 2014 Yemen coffee
	auction.
	Organize a pilot competition and auction with the
	support of key importers around the world and a
	selected number of roaster/ retailers in Japan, Europe
Create practical solutions to address the lack	and USA. Develop options to transport small lots directly to
	roaster retailer buyers using international air freight.
Yemen coffee.	
	Develop a domestic consumption campaign to promote the consumption of specialty coffee drinks in Yemen.

Key Issue	Objectives	Proposed Action Plans
Fundamental lack of information about Yemen coffee in general. It is currently very challenging to find any reliable sources of information about Yemeni coffee.	Establish multiple channels and options to provide detailed information about Yemen coffee. Coffee buyers need to know where to purchase Yemeni coffee and what the purchase process entails. Roasters and retailers must be able to know about the unique selling points of Yemeni coffee. Roasters, baristas and coffee aficionados must know about the preferred methods of roasting and preparation of the beans.	Create a Yemen Coffee handbook with specific information about regions, varieties, overview of traders, exporters, importers and roaster/retailers. Create coffee maps and explain the unique differences between distinct areas of the country. Design and launch a website with detailed information about Yemen's coffee regions, the morphology of the beans, the people, and the flavor profiles offered. Write and publish articles about Yemen coffee, about the culture of the people, about the history of Yemen Mocha, about the unique varieties and about the coffee sector in the country.
Coffee companies around the world abuse Yemen specific brand names. As a result major confusion exists about these names and as long as this situation continues, Yemen will never be able to command top-\$\$ for the most revered coffee types. Think of Jamaica, Kona and Guatemala; these countries or regions have been able to formalize and legalize the registration of their geographic indications for their coffees.	Claim ownership of the geographical indication "Yemen Mocha". Establish an international trademark initiative to register the historically recognized brand names "Mocha", "Mokka" and "Moka".	Launch a feasibility study to identify the requirements, timeline and cost budget for such a trademark initiative. Create the outlines of an international promotion plan and quantify the potential revenues of such a plan for the coffee Yemeni industry.

Key Issue	Objectives	Proposed Action Plans
Lack of transparency in domestic and international pricing of Yemeni coffee. To buyers it is often a mystery how Yemeni exporters or sellers set their pricing. It is usually not clear how the farmers benefit and what part of the price goes to middlemen.	Publish prices for coffee transactions, both nationally, in Yemen, as well as internationally.	Develop a system to track prices paid for domestic coffee prices and for export transactions.
Adulteration of Yemeni coffee with East-African and other sundried coffees. The extent of this problem is not clear; worst case scenarios talk about the massive illicit imports of 2,000 tons or more.	Establish a "Genuine Yemen Mocha" certification mark to provide quality assurance to international coffee buyers. Such a mark would allow the Yemeni industry members to upgrade the value of their exports provide that this "Genuine Yemen Mocha" is supported by an effective branding and promotion strategy.	Establish a process for the validation of "Genuine Yemen Mocha" coffee through a stringent grading and cupping protocol using the structure of the "Q" tailored to the needs and specifications of Yemeni coffees. Create a pilot project to certify "Genuine Yemen Mocha" Q-coffees and market these coffees to overseas buyers.
International buyers consider Yemen coffee a relic of the past. During the past ten years, a new community of roaster/ retailers has emerged around the world. These companies typically purchase the high quality, high priced coffee lots offered by discerning specialty producers or through auctions like "Cup of Excellence".	Launch an international campaign to re- establish the connections with specialty importers around the world. Engage with specialty roaster/ retailers around the world.	Organize a cupping caravan for selected specialty importers and distinct roaster/ retailers. The cupping caravan should include opinion makers, bloggers, a videographer and mainstream press (e.g. National Public Radio)
	Connect with the specialty coffee communities around the world.	Participate in events of the SCAA and SCAE through a booth, cupping events, participation in Roasters Guild sessions etc.
		Sponsor barista's to compete with distinct Yemeni coffees in international competitions.
Yemeni coffee is not recognized in the culinary world.	Gain a reputation and recognition with culinary experts and professionals.	Participate in international food fairs and competitions, for example "Fancy Food", and "SIAL".

Key Issue	Objectives	Proposed Action Plans
The Yemeni coffee industry lacks direction, cohesion and purpose relative to its international competitiveness.	amongst Yemeni traders and exporters.	Organize a workshop with Yemeni traders and exporters with the goal of developing a strategic outlook for the coffee sector, focusing on strengthening the international competitiveness through collaboration.
	Strengthen the export performance of Yemeni exporters and traders.	Organize trade missions to key export countries.
		Organize a Yemeni coffee pavilion at SCAA, SCAE, SCAJ and Gulfood (Dubai).

RECOMMENDATIONS

The competitive advantage of Yemeni coffee is its unique quality, ancient history and reputation in international markets. Nonetheless, low productivity, lack of consistent quality and differentiation, weak institutional support, inconsistent access to quality, a market driven strategies are pressing constraints. If these obstacles are overcome, the coffee industry could rapidly turn into a sustainable income generation activity for rural farmers.

Challenges

Lack of productivity is one of the limiting factors that has yet to allow Yemen to meet the increasing demand for its coffee. The natural limitation of fertile land, the inefficient use of scarce water resources, low density plantings, along with old plantations, and small plots per family—between 100 and 800 trees—hinder producers' ability to achieve a sustainable income even at the currently relatively high prices paid for Yemeni coffee. The overall production potential is limited principally by its natural resources and secondarily by poor cultivation and lack of application of Best Agricultural Practices or other techniques that are more efficient in the use of limited resources.

Poor productivity mostly explains the very low earnings of small holders. With average plots of less than a quarter of a hectare, the gross revenue figures are not promising. Smallholders are faced with extremely low earnings. The total gross earning per year on a 0.25 ha plot can be around US \$700/year³⁰ at current prices, which makes a daily salary close to US \$2 a day, pushing cultivators towards other income generation activities. Collectors, with similar margins but reduced risks, fare somewhat better in the value chain. In addition, the number of transactions required to gather saleable volume is high and gives farmers less leverage and negotiation power with respect to small collectors and middlemen along the value chain.

Lack of standards and compliance with international parameters, endanger the Yemeni coffee industry's capacity to respond to the increased demand for quality coffees in the international markets, particularly in the U.S. Irregular harvesting practices, minimal post-harvesting methodologies, and deficient drying and depulping techniques decrease the uniformity and quality of coffees. Also the minimal flow of information, and lack of familiarity with international market standards diminish farmers' negotiation leverage and the premium prices that they could potentially obtain.

Water is still one of the structural limiting factors in Yemen, and has been so since ancient times. With an average of 10-20 in/year, lack of water is a major impediment for agriculture in Yemen. Compounding this issue, most plots' lack drainage systems, effective collection systems, or effective management of running water. Rainwater can also cause problems because it washes out nutrients and erodes fertile land.

Due to deficient post-harvesting techniques, old de-pulping machines, and uneven drying practices, the coffee's quality is inconsistent and unreliable. Quality and consistency are the principle factors needed to access a differentiated market such as the high quality coffee market.

Currently, coffee groups or organizations, government institutions, and exporters do not speak a common language in terms of standards, priority interventions, or policy dialogue. In addition, according to various producers' organizations, the current entities do not represent the interests of the industry as a whole.

³⁰ Internal calculations based on MAI data on average farm gate price 2012.

Opportunities

There have been initiatives that have had little or no influence in the coffee industry and organizations that require a reorganization of their roles and responsibilities to effectively convey a common message. Furthermore, in many cases, security has impeded the efforts to access rural areas making it difficult to implement programs. Yet, in various interviews the GOY expressed its firm interest in supporting agriculture as an income generation activity, allocating—in conjunction with international donors—resources to promote the most promising value chains, including coffee, thereby boosting other sectors of the economy. In addition, the recent broad-based national dialogue and the inflow of international resources, indicate that this may be a propitious time to boost production, quality and differentiations, and implement a sustained institutional strengthening to move the industry into more sophisticated markets.

Promoting Best Agricultural Practices (BAP) could increase both availability, and consistency of supply. In addition, instituting training compliant with international best practices in quality standards, and encouraging group development in low production areas may help farmers to collect significant amounts of coffee thereby providing them with more negotiation power, better prices and, in some cases, diminishing the number of transactions. Improving post-harvesting practices such as drying systems and post-harvest handling management is achievable in the long term. Also, upgrading de-pulping systems is essential as it will diminish losses and increase quality in a very short cycle.

The sector should implement appropriate standards based on BAP for densities according to the areas of production e.g. valleys (wadis) or terraces. Effective densities should be established according to the type of production in order to increase efficiency and production. Furthermore, small producers' organizations— such as the ongoing nursery program by the Women's Association of Talooq that provides new seedlings for farmers in the area—could assist the renovation efforts. This could become not only a source of planting material, but also an additional source of revenue for the whole community, particularly for women's groups.

There are methods that better use Yemen's scarce water resources, such as water harvesting tanks combined with drip irrigation systems. Their implementation will provide a more efficient use of water. Efficient management of the nation's limited water resources should be part of any effort to increase productivity, consistency of supply, and achieve quality standards in the short term.

Any effort from a coffee body, the GOY, or the international community must focus on more intensive and more resource-efficient practice, and on reclaiming some of the land previously dedicated to coffee that is currently being used for other crops like qat, instead of on expanding to previously uncultivated land. Cooperation and collaboration with GOY institutions, research organizations, private investors, and other donors is of paramount importance to ensure the success of any improvement in the coffee industry.

The Ministry of Agriculture and Irrigation has expressed its commitment to support coffee interventions through its regional offices in all the governorates, and the coffee department is willing to provide support for future interventions. Moreover, the Yemeni Ministry of Industry and Trade, through the Enhanced Integrated Framework Program (EIF) is also willing to collaborate. This program could be leveraged with a national effort to upgrade processing methods of Arabica Naturals to meet the quality standards and best practices of the international market.

Access to high quality and sophisticated markets could be encouraged through activities such as the Coffee Caravans, Auctions, and Cup of Excellence contests that will help create a common understanding of quality, connect producers to markets, and reward winners of these contests. These support activities will also improve the communication with roasters in the U.S., providing communities the opportunity to establish direct relationship arrangements.

High value crops, like quality coffee, can play an important role in providing income substitution opportunities that would enable the environment to recover fertile lands currently in qat production. To contribute to Yemen's sustainable growth, small organizations can play a key role. For example, Shabir Al

Ezzi's association has established basic systems of differentiation that pay price differentials to farmers meeting certain criteria. One condition for these differential payments is that the farmers are not allowed to grow qat. Both the MAI, and some private exporters have expressed the need to implement training programs aimed to improve quality, awareness, production, and marketing of specialty coffees.

A strengthening plan should be developed, to either modify an existing coffee organization, or create a new inclusive coffee body that represents all of the coffee community. It is key that government institutions such as the MAI or the MOT be involved with some of the efforts of such a group. Supporting or strengthening a coffee body, would help the coffee sector develop a collective language for quality and standards, which is both understood and trusted in the international markets.

By coordinating funding options as well as becoming the central point of representation for the industry, the coffee organization will be able to: provide its members with technical standards, establish an effective coordination with GOY or international donors to leverage their resources, initiate a policy dialogue agenda, and, finally, carry the message of this legendary and well regarded product to international markets.

Efforts to organize the industry through a national coffee board could improve coordination and resource allocation for projects in in growing areas. It could become the central point of communication and representation for the industry by allowing the world to rediscover Yemeni coffee. With the implementation of these recommendations the coffee value chain will have an opportunity to create resilient communities by maintaining rural employment, and increasing the income of the rural poor.

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ANNEX I.Surveys

Yemeni Coffee Research



1. Tell us about you

	Response Percent	Response Count
Name:	100.0%	20
Company:	100.0%	20
City/Town:	100.0%	20
Country:	100.0%	20
Email Address:	100.0%	20
	answered question	20
	skipped question	0

2. What is your key business activity?		
	Response Percent	Response Count
Roaster	55.0%	11
Importer	45.0%	9
Retailer	15.0%	3
Wholesale Retailer	15.0%	3
Cafe	10.0%	2
Other (please specify)	10.0%	2
	answered question	20
	skipped question	0

3. Did you ever purchase Yemeni coffee during the past 10 years?		
	Response Percent	Response Count
Yes	90.0%	18
No	10.0%	2
	answered question	20
	skipped question	0

4. Based upon your past experiences with Yemeni coffee, would you consider buying Yemeni coffee again?

	Response Percent	Response Count
Yes	100.0%	18
No	0.0%	0
	answered question	18
	skipped question	2

5. Can you share with us the price level you paid for the Yemeni coffee?

	Response Percent	Response Count
less than \$3	6.3%	1
\$3 to \$4	0.0%	0
\$4 to \$5	25.0%	4
\$5 to \$6	25.0%	4
\$6 to \$7	12.5%	2
more than \$7	31.3%	5
	answered question	16
	skipped question	4

6. In your purchasing of green coffee, do you have an active relationship with any other players in the value chain? (e.g. involved in processing experiments or in special relationship coffees or direct trade).

Response Count	Response Percent	
12	66.7%	Yes
6	33.3%	No
10	what is this relationship? Can it be expanded to help grow your business?	if YES,
18	answered question	
2	skipped question	

7. Who do you think in the coffee value chain has the greatest impact on your business ?

Response Count	Response Percent	
7	46.7%	Farmer
2	13.3%	Exporter
0	0.0%	Shipper
6	40.0%	Importer
5	Other (please specify)	
15	answered question	
5	skipped question	

8. What type(s) of Yemeni coffee did you purchase?	
	Response Count
	16
answered question	16
skipped question	4

9. What is the current indicative volume of your Yemeni coffee purchases per year?		
	Response Percent	Response Count
up to 100kg (220 pounds)	25.0%	3
between 100kg (220 pounds) and 1t (2 200 pounds)	25.0%	3
between 1t (2 200 pounds) and 10t (22 000pounds)	16.7%	2
over 10t (22 000 pounds)	33.3%	4
	Other (please specify)	6
	answered question	12
	skipped question	8

10. Which coffees do you see as a substitute for Yemeni coffee? (multiple answers can be given)

	Response Percent	Response Count
Ethiopian Sundried Natural	93.3%	14
Other African Sundried Natural	46.7%	7
Central American special process coffee	0.0%	0
Indian cherry	0.0%	0
Other, please specify	13.3%	2
	Other (please specify)	5
	answered question	15
	skipped question	5

11. Which regions in Yemen are your preferred regions? (multiple answers can be given) Response Response Percent Count Mattari 83.3% 10 Hirazi/Harasi 41.7% 5 Haimi 25.0% 3 Saihi 0.0% 0 Ismaili 33.3% 4 Sharasi 0.0% 0 Dhamari 0.0% 0 Rimy 0.0% 0 Can you tell us why? 9 answered question 12 skipped question 8

12. What is your preferred preparation of Yemeni coffee? (multiple answers can be given)

	Response Percent	Response Count
Turkish - dzezva	0.0%	0
Pour over style (Hario, Chemex, Walkure)	53.8%	7
Full immersion style (French press, clever drip)	38.5%	5
Moka pot	7.7%	1
Espresso	15.4%	2
	Other (please specify)	3
	answered question	13
	skipped question	7

13. What percentage of purchases is FTO certified versus conventional? Response Response Percent Count 0% 50.0% 8 0%-10% 6.3% 1 10%-30% 18.8% 3 30%-60% 12.5% 2 60%-90% 0.0% 0 2 100% 12.5% Γ answered question 16 skipped question 4

14. How do you rate Yemeni coffee in terms of quality versus other sundried natural coffees you purchased in the past?

	Response Percent	Response Count
You find Yemeni coffee exceptional and unique far above other sundried natural coffee	41.2%	7
You prefer Yemeni coffee over other sun dried naturals	29.4%	5
Yemeni coffee is the same quality as other sun dried naturals	11.8%	2
You like other sundried naturals better then Yemeni coffee	17.6%	3
You do not like Yemeni coffee	0.0%	0
	answered question	17
	skipped question	3

15. How do you rate the price/quality ratio of Yemeni coffee versus other sundried natural coffees?

	Response Percent	Response Count
Yemeni coffee is cheap comparing to other sundried natural coffees	0.0%	0
Yemeni coffee is affordable comparing to other sundried natural coffees	5.9%	1
Yemeni coffee is at the same level of price/quality ratio as other sundried natural coffees	0.0%	0
Yemeni coffee is more expensive then other sundried natural coffees	52.9%	9
Yemeni coffee is very expensive comparing to other sundried natural coffees	41.2%	7
	answered question	17
	skipped question	3

16. What percentage of your green beans do you typically buy from importers?

	Response Percent	Response Count
I do not buy green coffee	6.3%	1
I buy coffee directly from the farmers and producers	25.0%	4
up to 10%	6.3%	1
between 10% and 40%	12.5%	2
between 40% and 60%	18.8%	3
between 60% and 90%	6.3%	1
I buy green coffee only from Importers	25.0%	4
	answered question	16
	skipped question	4

17. What are the key benefits of your most important suppliers? (multiple answers can be given)

Response Count	Response Percent	
12	75.0%	Quality
6	37.5%	Pricing
10	62.5%	Logistics
1	6.3%	Marketing Support
1	6.3%	Sales Support
3	Other (please specify)	
16	answered question	
4	skipped question	

18. What do you see as the key logistical and infrastructural challenges to purchase Yemeni coffee? (multiple answers can be given)

	Response Percent	Response Count
Storage	8.3%	1
Transport	50.0%	6
Lacking information	41.7%	5
Lacking availability	33.3%	4
Communication challenges	33.3%	4
	Other (please specify)	5
	answered question	12
	skipped question	8

19. What are the quality challenges with Yemeni coffee? (multiple answers can be given)

	Response Percent	Response Count
Sample is inconsistent with the arrival lot	28.6%	4
Coffee quality is inconsistent in quality from delivery to delivery	71.4%	10
Lacking traceability; difficult to verify where the coffee was produced	42.9%	6
Aging of the coffee; the coffee lacks freshness due to age	42.9%	6
Grading; the coffee has an inconsistent poor grade	64.3%	9
	Other (please specify)	1
	answered question	14
	skipped question	6

20. Do you face other challenges with your possible procurement of Yemeni coffee? (multiple answers can be given)

	Response Percent	Response Count
Financial transaction	9.1%	1
Language barriers	0.0%	0
Pricing	63.6%	7
Reputation of seller	27.3%	3
Lack of communication	45.5%	5
	Other (please specify)	3
	answered question	11
	skipped question	9

21. Given the main market opportunities, what are –in your opinion- the main improvements that need to take place along the value chain of Yemeni coffee? (multiple answers can be given)

	Response Percent	Response Count
Quality of the produced coffee must improve	56.3%	9
Availability must improve; right now it's hard to purchase the coffee	37.5%	6
Price is too high and pricing must become more reasonable versus the quality provided	68.8%	11
Traceability is lacking; more information must be provided about the coffee	50.0%	8
Business practices of the sellers of Yemeni coffee must improve	18.8%	3
Other, please specify	18.8%	3
	Other (please specify)	3
	answered question	16
	skipped question	4

22. Would you purchase more Yemeni coffee if the supply chain is improved? Response Response Percent Count Yes 93.3% 14 6.7% No 1 answered question 15 skipped question 5

23. What volume would you consider buying?			
		Response Percent	Response Count
up to 500kg (1.100 pounds) /year		33.3%	5
500kg (1.100 pounds) - 5t (11.000 pounds)		26.7%	4
5t (11.000 pounds) - 20t (44.000 pounds)		13.3%	2
over 20t (44.000 pounds)		26.7%	4
		Do you have more precise amount? (please specify)	2
		answered question	15
		skipped question	5

24. Do you have additional observations or comments that we have not discussed?			
	Response Count		
	8		
answered question	8		
skipped question	12		

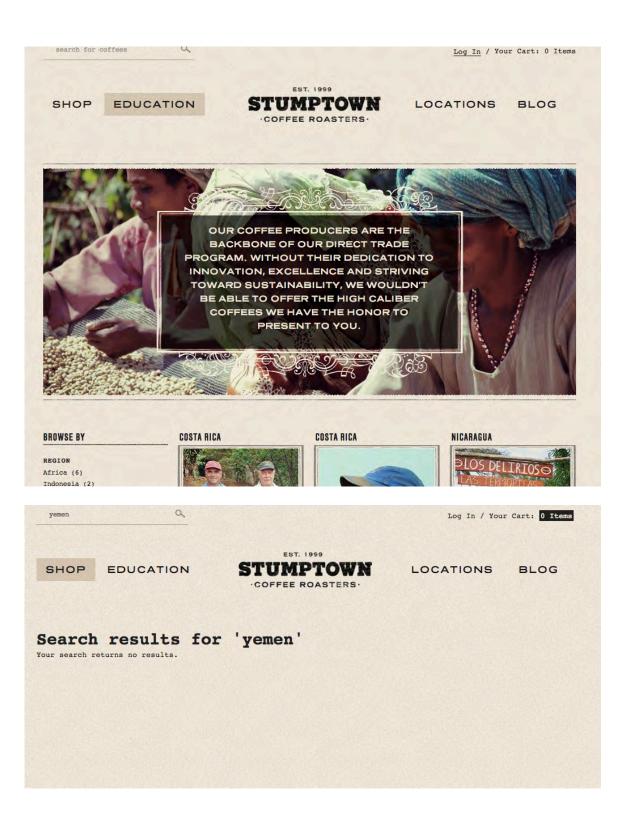
ANNEX II. Searching Yemeni Coffee

ADDENDUM 2: Searching for Yemen Coffee in the US market

Knutsen Coffees Ltd. Website:

YEMEN SANANI HAIMI We all know about the turmoil going on in this part of the world, and Yemen is certainly one of the hot spots. This has done nothing to enhance the availability of great coffees, nor to reduce their prices. We have managed to obtain what we consider the best of the current offerings, YEMEN SANANI HAIMI . This coffee is grown at very high altitude and allowed to dry on the tree. It derives its wild and intense fruity character from this unique harvesting method. Because the land is so arid that most coffee is irrigated, the fruit dries without mold in most cases. The small beans are dense and the cup is intensely flavored. We sampled several lots and this HAIMI was the most complex and without defects. It is expensive but it is worth it!

COFFEE	TEA	BULK TEA	MERCH	
	SINGLE	ORIGIN	BLACK CAT PROJECT ESPRESSO	BLENDS & DECAF
HOP ALL COFFEE	Santuario	Geisha Colombia	Classic	Summer Solstice
SHOP DIRECT TRADE	Tres Santa	os Colombia	Analog	House Blend
HOP IN SEASON	Flecha Ro	ja Costa Rica	Sugar Glider	El Gallo Organic Breakfast Blend
NTELLIGENTSIA AT HOME	Los Inmor	tales El Salvador	Organic	El Diablo Dark Roast
	Matalapa	El Salvador	Decaf	Decaf Organic El Mago
	ltzamna G	Suatemala	El Pino Matalapa El Salvador	Decaf Librarian's Blend
	La Tortuge	a Honduras		
	Yirgachef	ie Ethiopia		
	La Perla d	e Oaxaca Mexico		
	Los Delirio	os Nicaragua		
	Zirikana F	(wanda		Tos
\$18.00	+ BU		+ BUY	+ BUY
PEACH MANC		BROW	APLE N SUGAR ERRY	PEACH APPLE KINT



allegro.

COFFEE TEA DRINKING CHOCOLATE ABOUT SHOP



COFFEE BLENDS



MEDIUM ROAST

Mocha Java

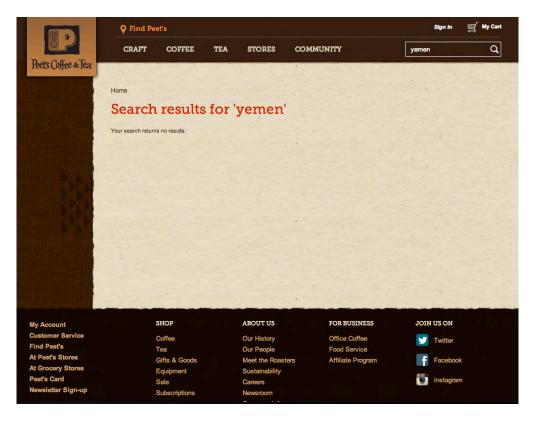
Deep berry and spice undertones and a rich syrupy body.

Lush and syrupy with notes of black cherries, chocolate, and sweet spices. The world's first coffee blend was a combination of Arabian beans shipped through the now defunct port of Moka (in the present day country of Yemen) and beans from the old East Indies colony of Java in Indonesia. In our classic interpretation of this ancient blend we use generous amounts of exotic, fruit-tinged East African and Arabian coffees mixed with syrupy and spicy beans from Indonesia.

ee-blends#cafe-ubuntu

BUY

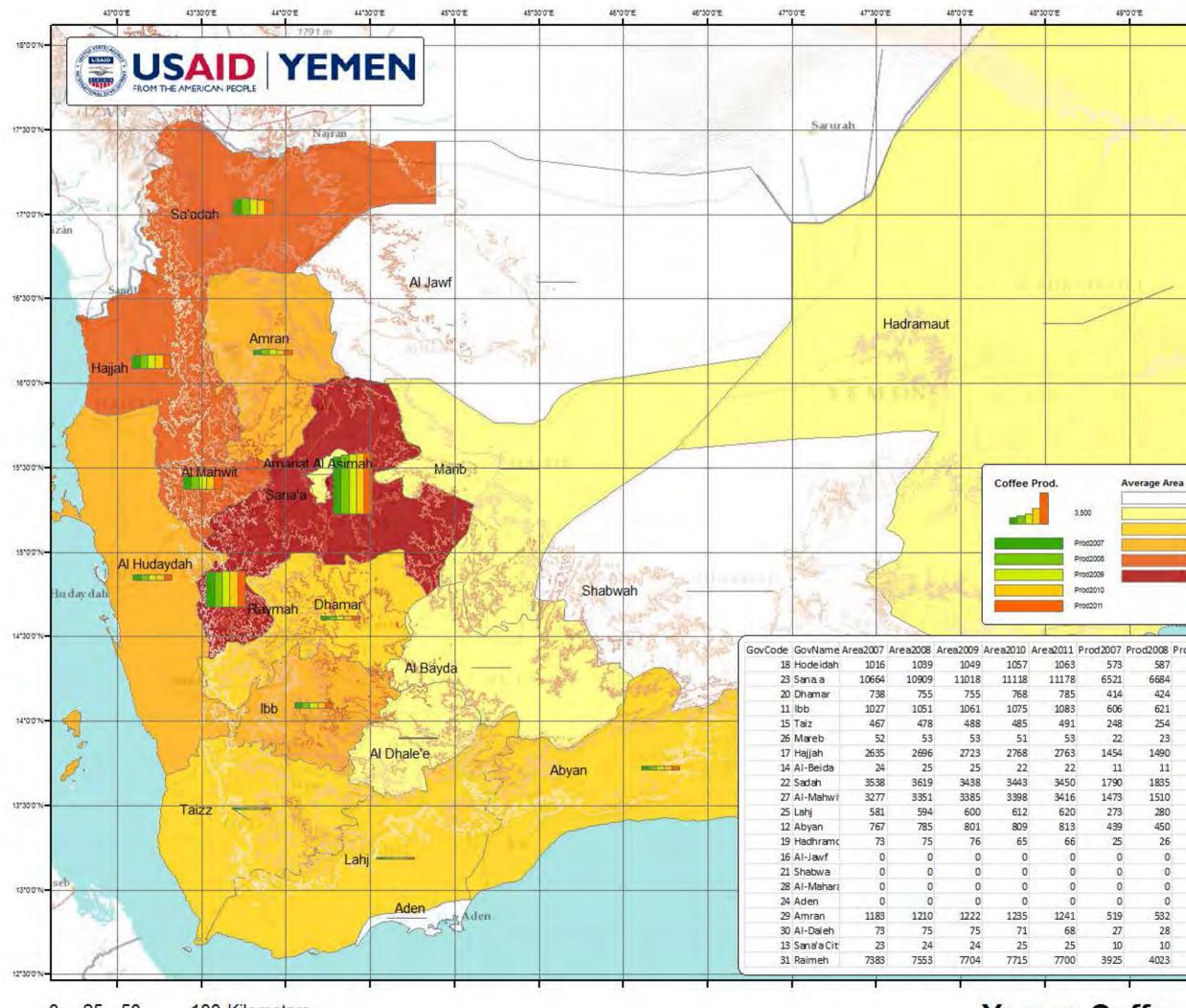
@ ALLEGRO COFFEE COMPANY // PRIVACY POLICY / TERMS



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Cover for pdf	- Starbucks					
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ANNEX III. Areas & Production of Coffee



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Yemen Co

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ffee	Areas	&	Productio	n

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TotalProd	AvgProd	AvgArea	Prod2011	Prod2010	Prod2009	Prod2008			
3013	602.6	1044.8	642	618	593	587			
33801	6760.2	10977.4	6963	6882	6751	6684			
2209	441.8	760.2	489	454	428	424			
3171	634.2	1059.4	666	645	633	621			
1291	258.2	481.8	263	267	259	254			
112	22.4	52.4	23	21	23	23			
7583	1516.6	2717	1569	1550	1520	1490			
54	10.8	23.6	11	10	11	11			
8683	1736.6	3497.6	1681	1652	1725	1835			
7582	1516.4	3365.4	1538	1536	1525	1510			
1432	286.4	601.4	299	294	286	280			
2290	458	795	481	461	459	450			
125	25	71	25	23	26	26			
0	0	0	0	0	0	0			
0	0	0	0	0	0	0			
0	0	0	0	0	0	0			
0	0	0	0	0	0	0			
2538	507.6	1218.2	478	466	543	532			
136	27.2	72.4	26	26	29	28			
54	10.8	24.2	13	11	10	10			
20272	4054.4	7611	4108	4113	4103	4023			

	World Elevation Contours
0.000000 - 1.000000	Meters
1.000001 - 72.400000	600
72,400001 - 795,000000	1200
795.000001 - 1218.200000	1800
1218 200001 - 3497 600000	2400
3497.600001 - 10977.400000	

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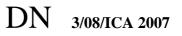
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51'0'0'E

49"30'0'E

ANNEX IV. ICO Agreement





International Coffee Organization Organización Internacional del Café Organização Internacional do Café Organisation Internationale du Café 27 February 2008

Depositary Notification

INTERNATIONAL COFFEE AGREEMENT 2007 CONCLUDED IN LONDON, 28 SEPTEMBER 2007

YEMEN: SIGNATURE

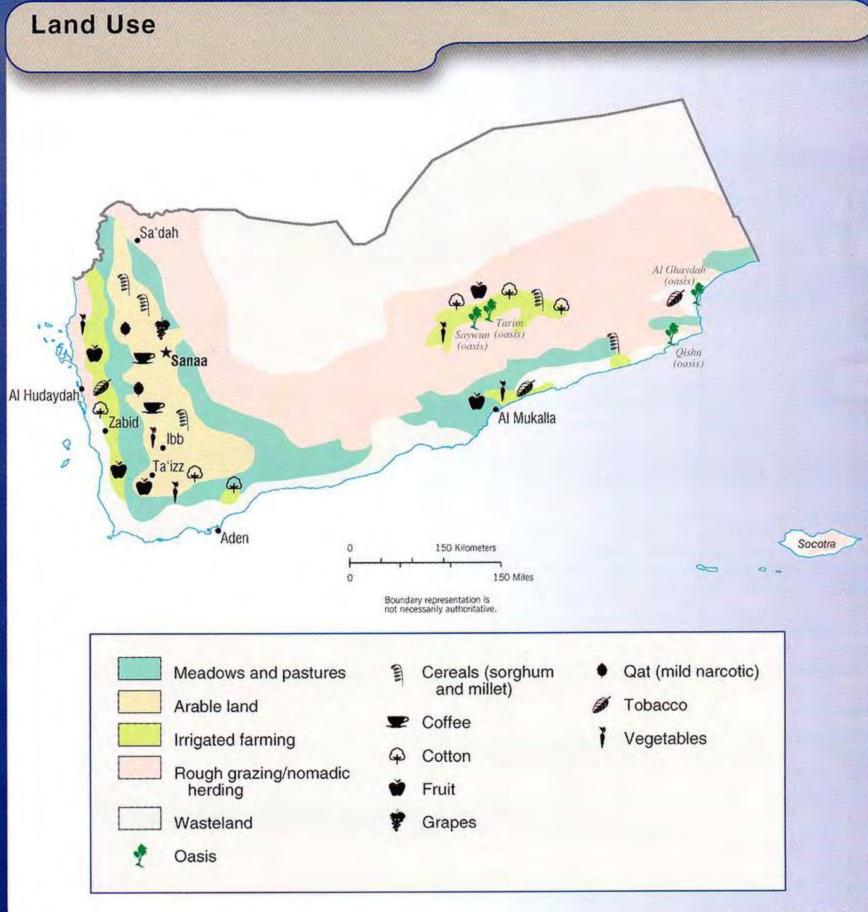
The Executive Director of the International Coffee Organization (ICO), as the chief administrative officer of the Depositary for the International Coffee Agreement (ICA) 2007, communicates the following:

The above action was effected on 27 February 2008.

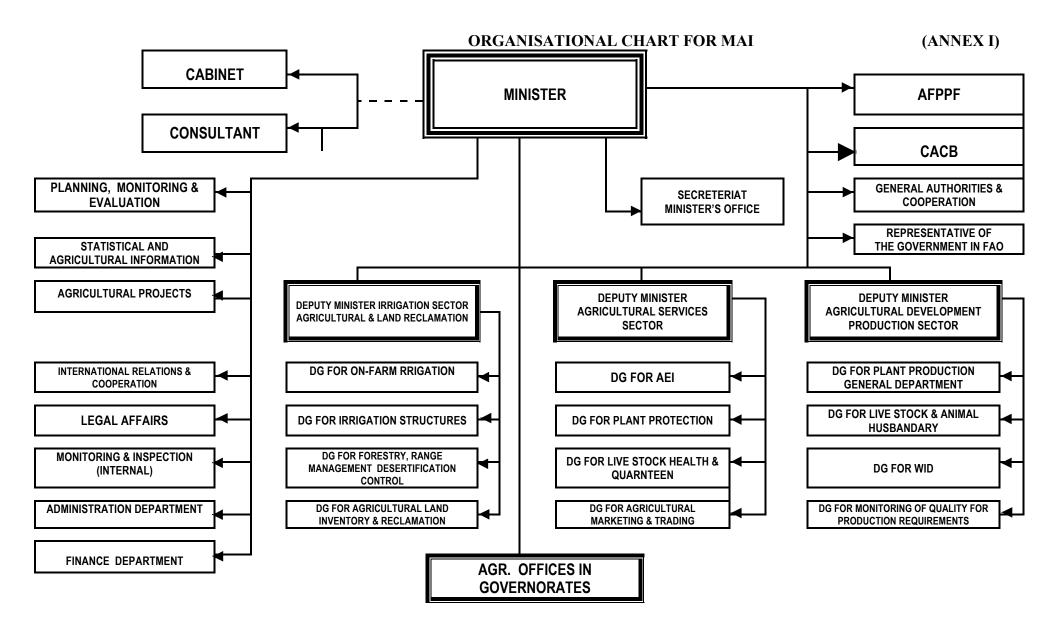
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Attention: Treaty Services of Ministries of Foreign Affairs

International Coffee Organization 22 Berners Street, London W1T 3DD Tel: +44 (0) 20 7612 0600 Fax: +44 (0) 20 7612 0630 Website: www.ico.org Email: depositary@ico.org ANNEX V. Land Use Map



ANNEX VI. MAI structural Organization



ANNEX VII. Yemen Security Map



SOURCE: Graphic News

RICH CLABAUGH/STAFF

United States Agency for International Development USAID/Yemen Sana'a, Yemen