

A Collaborative Writing Model

Workshop session at I-TESOL 2014, Led by Robb Mark McCollum
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BENEFITS

This approach to writing provides benefits to students and teachers:

- Requires learners to exercise all four language skills to complete writing tasks
- Supports students with a range of proficiency levels within the same class
- Encourages audience awareness and student-to-student interdependence
- Places focus on language development and practice (by minimizing time spent on source finding, genre teaching, and content/vocabulary learning)
- Reduces plagiarism through extensive practice with summarizing and paraphrasing

BACKGROUND

This model has been developed and revised continuously over the past ten years:

- Initial development at BYU, English Language Center
 - Eckstein, G., McCollum, R., & Chariton, J. (2011). Multi-draft composing: An iterative model for academic argument writing. *Journal of English for Academic Purposes*, 10(3), 162-172.
- Adaptation at University of Virginia, Center for American English Language and Culture
 - McCollum, R. M. (2012). Working together towards excellence through the cumulative writing model. In K. Hunzer (Ed.), *Small Group Collaborative Learning & Writing: A Practical Sourcebook*. McFarland Press.
- Continued revision at BYU-Hawaii, English as an International Language (EIL) program

CURRENT CONTEXT

The EIL program is a set of credit-bearing EAP courses for matriculated students. Most students take one or more EIL courses in addition to general education or major program courses. The collaborative writing model is used in the highest-level course in the program, EIL 320 Academic English II. EIL 320 has the following characteristics:

- 4 credits (students meet for 1 hour/day, 4 days/week)
- Integrated skills (R/W/L/S plus grammar, vocabulary, and learner autonomy)
- Single theme-based instruction for the whole semester (Water, Food, Energy, Chocolate)
 - Allows for depth over breadth, recycling of content in order to focus on academic language

Curriculum Overview

UNIT 1: SCIENCE OF... (EXPLAINING PROCESSES AND DEFINITIONS)

The first unit focuses on diagnosing students' skills and providing a foundation in process and definition writing. Students also begin their semester-long weekly meetings with their Listening/Speaking tutors. Major assignments include:

- Process Paragraph
- Unit Test

UNIT 2: ECONOMICS AND ECOLOGY OF... (ANALYZING PROBLEMS)

The second unit is where the collaborative model is most extensively used. Major assignments include:

- Effects Paper: what is the problem and how serious is it?
- Causes Paper: which factors are most responsible for creating the problem?
- Solutions Paper: which solutions would be most effective at resolving the problem?
- Unit 2 Test

A **research matrix** (attached) is a graphic organizers which is used to help students take notes from various sources and compare information related to specific research needs. When students write the Effects Paper, they generally only use two columns (Source and Effects), but as they write more complicated paper, they use more sources and more columns (including Causes and Effects). Not only does the research matrix help avoid problems when a student cannot remember what information came from which source (attribution errors), it also serve as an important step in the summary/paraphrase process.

In class, students regularly meet in research groups to compare and share information from sources. They also work in partners to practice oral drafts of their paper using **speed conversations**. Student who use the research matrix effectively are more prepared for group and partner discussions, and those students tend to produce higher quality papers with little-to-no plagiarism issues. As students compose their paragraphs orally, they build confidence to express concepts in their own words, and are less reliant on source wording when they begin writing (which helps prevent patch writing problems).

As students progress from Effects to Causes and then Solutions, their research groups also studies a new region of the world that is experiencing the same problem. For example, in the Energy theme, a group may study energy shortages in Japan first, then Pakistan, and finally Brazil. Although the problem remains the same, the context and specific details differ, and so students have to rely on papers written by other groups to “get them up to speed” on the newly assigned context. Because of this rotation of contexts, students are able to develop better **audience awareness**: classmates from different groups may ask one another for clarification on their papers which can have a positive impact on future drafts.

Over the course of 5 weeks, the students write three papers on three different contexts, and each paper is increasingly complex and longer in length.

UNIT 3: DEBATE AND POLITICS OF... (INVESTIGATING POINTS OF VIEW)

In the third unit, collaborative learning is also used, but to a less intensive extent. Major assignments include:

- Research Report
- Persuasive Presentation
- Unit 3 Test

In the final unit, students are presented with two debate topics related to the course theme. For example, in the Food theme, students read about Junk Food Bans and Genetically Modified Organisms (GMO) Farming. In the Water theme, they read about Water Restriction Policies and Bottle Water Bans. The main purpose of this unit is to help students more critically evaluate sources and arguments in order to present an objective analysis of a controversial issue.

After an introduction to each debate issue, students are assigned to groups that have to write an objective summary of the key perspectives. This becomes the foundation for their Research Report, which is written in the style of an **empirical research study** (Introduction, Method, Results, and Discussion). Then, teams design a interview survey that will solicit the opinions of campus students about the debate topic. Teams collect their data, analyze it, and eventually complete the remaining sections of their report.

In the final stage, teams are required to deliver an oral presentation that persuades the audience to accept the team's chosen stance on the debate issue. The twist, of course, is that **teams swap debate topics**: So, for example, students in the Energy theme class who conducted a survey on Electric Vehicle Subsidies will be required to prepare a presentation based on the reports of their classmates who studied Wind Energy Farms. Once again, students are reminded of the importance of clear writing since their classmates will depend on their work to help them complete their presentations.

In this unit, there are fewer assignments so that greater depth and analysis can be achieved. Collaborative activities are used extensively including group discussions of research matrix note-taking, speed conversations about the debate issues, and pilot testing of survey instruments.

This collaborative, cumulative model builds confidence and language proficiency in students as they work together to complete individually graded assignments.

A NOTE ON GRADING

The majority of the course grade is based on assessments that measure language proficiency (80%). The remaining 20% is earned through assignment completion, attendance, and participation. This means that **students receive full credit for completing any of their writing assignments** (Effects Paper, Causes Paper, Solutions Paper, and Research Report). They only receive a grade for their writing on the unit tests and the final portfolio. However, each time an assignment is submitted, **the teacher indicates the grade the assignment would have received** if it were submitted for grading. This lowers student anxiety as they work through the collaborative process, but it also gives them a realistic measure of their current ability so they can make the needed improvements to reach their expected grade by the end of the semester.

Here is a quick summary of the course grading scheme:

- Proficiency (80%)
 - Unit Tests
 - Final Oral Presentation
 - Final Portfolio (consisting of one timed writing sample and one worked-on writing sample of the student's choosing—usually the Solutions Paper or the Research Report)
- Citizenship (20%)
 - Weekly tutor logs (complete/incomplete)
 - Writing assignments (complete/incomplete)
 - Attendance and participation

UNIT 2 SELECT RESOURCE LINKS FOR CHOCOLATE THEME

Here is a list of sample resources that I provide students during Unit 2. Students are always welcome to use additional sources, but providing them with a list helps them to focus more on language practice and waste less time on find (or NOT finding) relevant sources.

General Videos:

1. Effects (mostly) CNN:
https://www.youtube.com/watch?v=RbYAG_B75x0
2. Causes (mostly) Animation:
<https://www.youtube.com/watch?v=oQixGQgmYs>

General Reading - Effects

3. <http://www.mirror.co.uk/news/world-news/chocolate-could-run-out-2020-2913505>
4. <http://www.nbcnews.com/business/consumer/choc-horror-cocoa-shortage-rising-prices-threaten-chocolate-bars-f8C11418435>

West Africa

5. <http://www.businessweek.com/articles/2013-02-07/higher-chocolate-prices-may-follow-africas-cocoa-shortfall>
6. <http://www.latimes.com/opinion/opinion-la/la-ol-ebola-chocolate-cocoa-production-20141003-story.html>
7. VIDEO: Al Jazeera:
<https://www.youtube.com/watch?v=WoQMU8mw1Jk>

South Asia

8. <http://www.sunstar.com.ph/davao/business/2014/04/13/rediscovering-cacaos-potentials-338159>
9. <http://www.reuters.com/article/2012/03/14/us-food-summit-indonesia-cocoa-idUSBRE82D0TF20120314>
10. VIDEO: IFAD: <https://www.youtube.com/watch?v=0mMPzu891ok>

Central America

11. <http://www.guardian.co.tt/news/2014-04-20/disease-looms-over-tt%E2%80%99s-cocoa-dreams>
12. <http://www.worldbank.org/en/news/feature/2014/05/06/chocolate-nicaragua>
13. VIDEO: Kickstarter
<https://www.kickstarter.com/projects/396727700/indigenous-innovation-revolutionizing-cacao-in-bel?ref=recommended>

UNIT 3 ROUGH LIST OF RESOURCE LINKS FOR CHOCOLATE THEME

Here is a quickly collected list of links related to the Unit 3. Debate issues (Fair Trade Chocolate and the Health Benefits of Chocolate).

Unit 3: Debate and Politics of Chocolate

- Labor Issues
 - The dark side of chocolate documentary
 - <https://www.youtube.com/watch?v=7Vfbv6hNeng>
 - <https://www.youtube.com/watch?v=ZNpwlzeyiKQ>
 - BBC report on cocoa plantation labour conditions (Bitter Truth, parts 1-5)
 - <https://www.youtube.com/watch?v=LD85fPzLUjo>
 - <https://www.youtube.com/watch?v=75E54D4z3fl>
 - https://www.youtube.com/watch?v=2L_rOjwfQgl
 - <https://www.youtube.com/watch?v=V2cukoeMrA>
 - <https://www.youtube.com/watch?v=9UQJWGO65PM>
 - NPR article on child labor:
 - <http://www.npr.org/blogs/thesalt/2011/11/29/142891462/nestle-to-investigate-child-labor-on-its-cocoa-farms>
 - NPR article on direct trade versus fair trade
 - <http://www.npr.org/blogs/thesalt/2013/02/13/171891081/bean-to-bar-chocolate-makers-dare-to-bare-how-its-done>
 - Pro Direct Trade (comparison with Fair Trade)
 - <http://www.fearlesschocolate.com/direct-trade-vs-fair-trade-can-you-trace-your-chocolate/>
 - Ethical issues in chocolate industry
 - <http://www.yesmagazine.org/issues/the-human-cost-of-stuff/a-sweeter-deal-for-cocoa-farmers>
- Health Issues
 - VIDEOS
 - Xocai Promotional video:
 - <https://www.youtube.com/watch?v=Sep6O52nVag>
 - Weather Channel health news report:
 - <http://www.weather.com/health/resveratrol-red-wine-chocolate-does-not-help-your-health-20140512>
 - HealthiNation video:
 - <https://www.youtube.com/watch?v=KJSzXO95uNc>
 - Everyday Health news report:
 - <https://www.youtube.com/watch?v=6yh5w5MEQKo>
 - VOA report on chocolate and health:
 - <https://www.youtube.com/watch?v=zTC80e7GdHE>
 - Video about Cacao by a raw foods diet enthusiast:
 - <https://www.youtube.com/watch?v=rfr0HEs44BU>
 - Video from a doctor about chocolate and health:
 - https://www.youtube.com/watch?v=QS1W-5mQ_HI
 - Short academic lecture about chocolate:
 - <https://www.youtube.com/watch?v=4S2aGGpKF2A>

- Long academic lecture about Chocolate:
 - <https://www.youtube.com/watch?v=jVPKiH4aWpE>
- ARTICLES
 - New brief on academic article research:
 - <http://www.acs.org/content/acs/en/pressroom/presspacs/2014/acs-presspac-april-2-2014/key-chocolate-ingredients-could-help-prevent-obesity-diabetes.html>
 - University of Michigan article about chocolate:
 - Part 1: http://msue.anr.msu.edu/news/chocolate_superfood_or_not
 - Part 2: http://msue.anr.msu.edu/news/chocolate_myths_and_facts
 - NPR article on brain boost from chocolate:
 - <http://www.npr.org/blogs/thesalt/2013/08/07/209943266/can-chocolate-boost-brain-health-don-t-binge-just-yet>
 - Food blog article about chocolate:
 - <http://www.bonappetit.com/trends/article/is-chocolate-good-for-you-or-bad>
 - NPR article on chocolate gut bacteria
 - <http://www.npr.org/blogs/thesalt/2014/03/18/290922850/chocolate-turns-into-heart-helpers-by-gut-bacteria>
 - Newspaper report about whether chocolate milk should be banned in schools:
 - http://www.huffingtonpost.com/jeanne-ponessa-fratello/the-great-chocolate-milk- b_698950.html
 - Article questioning the eating of raw cacao
 - <http://stirringchange.com/raw-cacao-hype-vs-science/>
 - NPR audio on chocolate making people leaner
 - <http://www.npr.org/blogs/thesalt/2012/03/26/149407484/does-a-chocolate-habit-help-keep-you-lean>
 - NPR article on chocolate and blood pressure
 - <http://www.npr.org/blogs/thesalt/2012/08/14/158761362/daily-dose-of-dark-chocolate-may-help-lower-blood-pressure>
 - NPR article discounting resveratrol as the health agent in chocolate
 - <http://www.npr.org/blogs/thesalt/2014/05/13/311904587/resveratrol-may-not-be-the-elixir-in-red-wine-and-chocolate>
 - Newspaper article about chocolate:
 - <http://www.telegraph.co.uk/health/healthnews/8306796/Chocolate-is-the-new-super-food.html>
 - NPR article with sidebar of science study summaries
 - <http://www.npr.org/templates/story/story.php?storyId=5053576>

Research Matrix Topic: _____

SOURCES	EFFECTS	CAUSES	SOLUTIONS

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Choc horror! Cocoa shortage, rising prices threaten chocolate bars

BY ALICE TIDY NBC NEWS ONLINE OCTOBER 18TH 2013

Chocolate is changing as raw material prices rise along with demand from emerging markets. Candy bars of the future could contain more fillers and fats and the real thing could be for the rich only.

Willy Wonka didn't see this coming -- crisis in chocolate-land. The humble candy bar could soon change beyond recognition as palm oil, chemical flavorings and fillers replace increasingly scarce cocoa beans and expensive ingredients. And that means real chocolates will become a luxury item -- for the wealthy only.

"People are prepared to pay 70 pounds (\$113) per kilogram (2.2 pounds) for chocolate" said Angus Kennedy, a former chocolate taster for major manufacturers. And he warned that if chocolatiers continue with "business as usual", the world could find itself with a shortage of cocoa beans within seven years. "The industry is keeping it fairly quiet at the moment, but they're all looking very carefully at the situation over the next few years," Kennedy said.

According to research by Mintec, the raw material costs involved in producing a generic milk chocolate bar weighing 100 grams, or 3.5 ounces, have increased 28 percent in the year through to October. The price of cocoa butter, the vegetable fat extracted from cocoa beans which makes up about a quarter of every chocolate bar, rose 63 percent in the past 20 months, reaching a four-year high. Whole milk powder, another major component, rose over 20 percent. These hikes more than offset the prices for cocoa powder and white sugar dropping over 50 percent and 15 percent respectively since January 2012.

As Simona Gambarini, research analyst at ETF Securities tells CNBC the price of the cocoa bean -- from which the powder and butter are made -- is up 22 percent in the year to date, hitting a two-year high in early October due in part to dry weather in West Africa "coupled with Ghana's decision to gradually reduce fertilizer subsidies and phase out pest and disease control". The West African region, with Ivory Coast and Ghana in the lead, is a major global producer of cocoa beans so as Gambarini explains, weather dynamics and social tensions there "are likely to have a strong impact on cocoa prices".

One factor that could have an important influence on the supply and demand of cocoa is the emerging markets' increasing appetite for sweet treats. Currently, the world's biggest eaters of chocolate are in Europe. On average, each European will eat 8 kilograms (17 pounds) of chocolate a year, whereas in China the yearly consumption per capita is less than 4 ounces, according to Euromonitor International.

For the global market research and consulting company TechSci, the Indian chocolate market's compounded annual growth rate should be around 21 percent from 2013-2018 to reach \$3.2 billion in 2018. Other markets with huge expected increases include Russia and China. In its "The Chocolate of Tomorrow" report released in June 2012, consultancy KPMG forecast that the Russian market should grow 45 percent by 2016 to reach \$8 billion, and that Chinese sales had grown by a yearly average of 40 percent since 2009.

Kennedy warns that world production is not equipped for the emerging markets' growing appetite for the sweet. "If the industry doesn't do anything, with the increased appetite in Asia, then we'd see a shortage of cocoa butter," he says. Farmers need a lot more money to invest in pesticides and new trees, he adds. "They don't have a lot of money, so there are lots of diseased trees or the trees are very old. Each newly planted tree needs four to five years to produce beans".

An increase in the cost of the chocolate bar's raw materials either means the manufacturers will have to absorb the price rises or the final product would have to become more expensive. The bulk of chocolate products' sales takes place in supermarket (42 percent according to KPMG), so analysts forecast mass market manufacturers will introduce other ingredients to keep their products within reach of low-income earners.

Therefore, there will be more imitation flavorings, argues Kennedy, and cocoa butter will be used less in favor of other sources of vegetable fat such as palm oil. Confectionary products will increasingly be filled with nuts, almonds and raisins. And the 100g chocolate bar will have "loads of inclusions and less cocoa content".

Paul Young, founder and master chocolatier at Paul A. Young Fine Chocolates told CNBC that "the key is sustainability". Chocolatiers need to buy their cocoa straight from the grower as the grower is more likely to invest back into his plantation. He also points that that the average Ecuadorean grower is 62 year-old and by buying straight from the grower would attract younger people.

"The growth is massive, but for really good quality and creative products," says Young, "It's huge, affordable luxury, some of it is reassuringly expensive" and people love that "luxurious feeling".

Chocolate could run out in 2020 due to worldwide shortage of cocoa

RUKI SAYID MIRROR.CO.UK DECEMBER 11TH 2013

Industry expert Angus Kennedy says the treat will be transformed from a melt-in-the-mouth pick-me-up to a “sludgy” imitation

A worldwide shortage of cocoa by 2020 could threaten the future of chocolate bars, a confectionery expert has warned.

The nation’s best loved treats could become choccy horror slabs of palm oil and vegetable fats packed with raisins and nougat to bulk them out and make them taste better.

According to Angus Kennedy, editor of industry bible Kennedy’s Confection magazine, diminishing cocoa supplies could see chocolate transformed from the melt-in-the-mouth pick-me-up to a “sludgy” imitation.

Mr Kennedy - who has been given a sneak preview of a futuristic chocolate bar - revealed it was a far cry from Cadbury's Dairy Milk.

“I have tasted the chocolate bar of the future and it’s nothing like the chocolate we know and love,” he said.

“It will be much sweeter as sugar is the cheapest ingredient and can be used to hide the fact that there is less cocoa powder.

“Cocoa Butter and cocoa are the most expensive ingredients in the product and will be replaced with cheaper ingredients like raisins and nougat.

“High quality chocolate snaps because of the level of cocoa butter.

“But in the future it won’t as more vegetable fat will be used - the product will be more bendy and sludgy in texture.”

With cocoa crops being chopped down to make way for more profitable rubber plantations, Mr Kennedy predicted we would run out of beans in seven years.

Figures show cocoa beans have rocketed in price by 63% in the last two years while whole milk powder has soared by 20%.

According to Mr Kennedy futuristic “Chocolight” bars will shrink to around 50g but shapes will be funkier to attract shoppers.

He said: “Shapes are already starting to change - Dairy Milk have rounded the corners of their bars. It makes people think that they are getting something exciting and completely new.”

Rediscovering cacao's potentials

BY HENRYLITO D. TACIO

SUNSTAR.COM.PH

SUNDAY, APRIL 13, 2014

THERE'S no person in this world who may not like chocolates at all. "Any sane person loves chocolate," declared Bob Greene. In fact, "nine out of ten people like chocolate. And the tenth person lies," said John Q. Tullius. Chocolate consumption worldwide has been growing at 3 percent annually, recent studies have shown. "Though the majority of cacao is consumed in North America and Europe, demand is growing more rapidly in Asia where strong economic growth, particularly in India and China, is resulting in more people being able to afford luxury foodstuffs such as chocolate," according to a position paper written by Adam Keatts and Christopher Root.

Chocolates come from cacao, which was first cultivated by the Mayans around the 7th century A.D. They carried the seed north from the tropical Amazon forests to what is now Mexico. In the 16th century, the Spanish planted cacao across South America, into Central America, and onto the Caribbean Islands. In the 17th century, the Dutch transported the cacao to other places around the globe like Java, Sumatra, Sri Lanka, New Guinea, and the Philippines. "In 1670, Spanish mariner Pedro Bravo de Lagunas planted the first cacao in San Jose, Batangas," reports The Philippines Recommends for Cacao. After that, cacao growing flourished in various parts of the country – until pod rot wiped out plantations of it.

In the 1950's, the imposition of Import Control Law resulted in efforts to revive the industry by inter-governmental agencies and by private sector for self-sufficiency and export. By the time the industry was blooming, pod borer infestation surfaced. Control of the disease was quite expensive. As a result, established plantations were again wiped out; others were abandoned. This particularly happened in Mindanao, where most of the cacao crops were grown. In 1990, about 18,388 hectares were planted to cacao, according to the Department of Agriculture.

By 2006, the area declined to less than 10,000 hectares. During this period, production fell from 9,900 tons to about 5,400 tons, with two-thirds of the production coming from Davao region alone. As production plummeted in the Philippines, demand for cocoa beans in the international continues to grow. In 2010, the annual world market needs was 3.6 million tons of cocoa beans. The demand was growing annually by 90,000 tons. The European Union and the United States are the two biggest finished chocolate product consumers, accounting for three-quarters of total chocolate consumption, reported Keatts and Root. Other significant chocolate consumers are Russia, Japan, and Brazil.

Although cacao grows readily in the Philippines, the country has a hard time joining the international market. In fact, it imports about 30,000 tons cocoa products (in the form of beans, powder, butter, and liquor) every year. The reason for this importation: Filipino farmers can only produce about 6,000 tons of cocoa beans every year. "The problem of the market is there's not enough beans," commented Nicolas K. Richards, who was then the chief of party of Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance (ACDI/VOCA), an economic development organization that specializes in food security, agribusiness, community development, financial services, and enterprise development.

Although the country imports cocoa beans, it was able to ship 250 tons to other countries in 2010. This contribution was lamentable since the Philippines is ideal for cacao growing. Mindanao, for instance, is best for cacao production – except those areas 1,400 meters above sea level like the higher places in Bukidnon.

Cacao can be grown anywhere in the country, but Mindanao has two advantages: good rainfall and good soil. Studies have shown that the potential expansion for cacao growing is huge: about 2,000,000 hectares of coconut lands are "highly suited" to be interplanted with cacao. "Cacao is highly suitable to intercropping and mixed farming systems, and can add more than US\$1,500 per hectare of income from 500 mature trees per year," Richards said.

Val Turtur, executive director of the Cacao Development Industry Association in Mindanao, urged farmers in Davao region to plant more cacao to meet the global demand of cacao beans. According to studies, at least two hundred million cacao trees should have been grown by 2020 to reach the target volume of 100,000 tons of cacao beans. That's two times the annual domestic demand of the country. Currently, only about 20,000 hectares are planted to cacao in five Davao provinces (Davao del Sur, Davao Oriental, Davao del Norte, Compostela Valley, and Davao Occidental) and the city of Davao. The region contributes 70 percent of the total cacao production in the country. "The Davao region has to plant seven million trees to meet the 2020 target," Turtur told a national daily.

In Davao City, Councilor Leonardo Avila III is encouraging farmers and entrepreneurs to plant cacao. "I urge farmers and agribusiness sectors to invest in cacao because it's a wonderful opportunity," said Avila, when he was still the chief of the city agriculture office. "It's a suitable crop in diversifying the existing tree crops and in making more money. And there is already a ready market."

Indonesia Q1 cocoa output to slump 60 pct on heavy rains

BY MICHAEL TAYLOR REUTERS.COM MARCH 14, 2012

Heavy rains in the first quarter will lead to a 60 percent slump in Indonesia's cocoa bean output compared to a year ago, an industry group said on Wednesday. Wet weather wreaked havoc on the crop last year and brought back Vascular-streak Dieback (VSD) disease to plantations across the main growing island of Sulawesi, killing trees and curbing exports in the world's third largest producer. "The big problem is wet weather and some farmers convert the plantation to rubber and palm oil," Zulhefi Sikumbang, chairman of the Indonesian Cocoa Association (Askindo).

Indonesia the world's third largest producer of cocoa beans after Ivory Coast and Ghana, usually begins its main cocoa crop in April or May, with peak production in June or July. "Last year the weather was not too good, but this year the weather will be good," he said. Cocoa producers in Southeast Asia's largest economy will cover 1.5 million hectares this year, down from 1.6 million hectares last year, Sikumbang said, as farmers switch to more profitable crops such as corn, rubber and palm oil. "Some areas in west Sumatra, Lampung and in Sulawesi, they convert to rubber plantations and corn," he said. "In Sumatra, normally they switch to palm oil and rubber."

Sikumbang said a farmer can make a minimum of 20 million Indonesian rupiah (\$2,200) per year from one hectare growing corn, palm oil or rubber, while cocoa trees over the same area would make only 8 million rupiah (\$870). "There will be no more cocoa expansion," said Sikumbang, who sees cocoa bean exports at 225,000 tonnes this year. "In the long run, a lot of cocoa plantations in Java and Sulawesi will switch."

A growing taste for high quality chocolate in emerging markets, especially in Asia, has seen a number of companies announce cocoa grinding projects in Indonesia. The country is attracting companies such as U.S. agribusiness giant Cargill and Barry Callebaut, the world's top chocolate maker.

Indonesia, Asia's second-largest grinder after Malaysia, now has 15 cocoa grinders with a capacity of 650,000 tonnes, Sikumbang said. Eight grinders use old equipment, however, and run at less than 50 percent capacity, he said, bringing grinder output down to 250,000 tonnes per year at present. Cocoa beans are ground into butter and cake, which is later processed into powder. Butter is also used to make spreads, soaps and cosmetics, while powder is used in chocolate-making, beverages and ice cream.

Two new Indonesian cocoa grinders planned for this year, said Sikumbang, are Malaysian firm JB Cocoa's Surabaya plant and Barry Callebaut's Sulawesi project. He said he also heard of two further cocoa processing plants planned by Cargill in Sulawesi and Archer Daniels Midland Co in Jakarta. "The small grinders cannot compete with the big players, and they cannot sell at a good price either because they don't have a brand name on the market," Sikumbang said.

CHOCOLATE GIVES NEW IMPETUS TO NICARAGUA'S ECONOMY

BY THE WORLD BANK GROUP

WORLDBANK.ORG

MAY 6, 2014

With the increase in consumption in China, Central America's biggest cocoa producer wants to become a world leader

The world's soft spot for chocolate could become an economic strength for several Latin American countries, especially emerging cocoa producers such as Nicaragua. The world consumes no less than 20 million kilograms of chocolate a day, a volume that is increasing thanks to the Chinese population's love for sweets. Cocoa exports to China more than doubled in the last decade, surpassing Western Europe, the biggest consumer. This year, cocoa prices have already increased around 25% to US\$2,800 per metric ton.

Nicaragua wants to capitalize on this voracious appetite with a gourmet, organic and top quality product that is better than that of its direct competitors: Brazil and Ecuador, which are among the ten largest producers in the world. The potential for growth in Nicaragua's cocoa production and exports is enormous: the country has 1.9 million hectares of land suitable for cocoa production, although according to data from the 4th National Agricultural Census, only 11,000 hectares are actually being used to grow the fruit.

It is believed that it was in Nicaragua where Christopher Columbus first tasted cocoa, although he did not pay much attention to it. And it is there that cocoa cultivation and chocolate production is currently turning into an economic engine for peasants. Nicaragua is now the biggest producer of cocoa in Central America, harvesting 5,800 metric tons last year, 60% of which were exported while the rest was consumed domestically.

Although cocoa originates in the Americas, the cocoa market is currently dominated by Africa: Ivory Coast is the biggest producer in the world. For its part, Latin America produces more than 15.4% of the cocoa consumed around the world, with Brazil and Ecuador in the lead. Despite strong market competition, Nicaragua boasts several characteristics that turn it into a cocoa-producing paradise.

On the one hand, climatic conditions in most of Nicaragua's territory — humid tropical — are ideal for cultivation. Moreover, it is an excellent substitute for other products such as coffee, given that when it is combined with agroforestry it can help create a microclimate, thus mitigating the abrupt climate changes that have been occurring in recent years. Recognized for its fine aroma and flavor, Nicaraguan cocoa is of high quality and is already in demand internationally, mainly in other Central American countries, where 62% of its exports go, followed by Europe with 37%. Part of this success is due to the 10,500 cocoa producers in the country, 98% of whom are small-scale producers with holdings of between 1 and 7 hectares, which have incorporated crop improvement systems and prioritized organic production.

One of them is Doña Brenda Salazar, a resident of a remote community in Nicaragua's North Atlantic Autonomous Region, who has no doubts when stating that following the introduction of cocoa she has managed to leave her barefoot period behind to become a great businesswoman in a town that used to lack running water. "In the past, my house was my life, I was asleep. With the introduction of cocoa, we learned to negotiate, sign contracts, plant, take advantage of the land," Doña Brenda, who is in charge of the Nuevo Sol cooperative, explains. She is one of almost 7,000 people taking part in a sustainable management project for agroforestry systems that is supported by the World Bank, is aimed at indigenous people, peasants and people of African descent with most beneficiaries being women.

This initiative managed to consolidate the work of 29 organizations in the region with training in organic production and certification, as well as cost calculation, marketing and business plans. According to experts, the incipient cocoa businesspeople are ready to enter the global market due to the good quality of their product, which is also organic and cheaper, unlike the high costs commonly associated with natural production. "Organic production costs are lower than conventional ones, it increases productivity, improves both the environment as well as the quality of life for producers and offers buyers a healthier product," explains World Bank social development specialist Mary Lisbeth Gonzalez.

DISEASE LOOMS OVER T&T'S COCOA DREAMS

BY WESLEY GIBBINGS

GUARDIAN.CO.TT

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With the increase in consumption in China, Central America's biggest cocoa producer wants to become a world leader

At the centre of expert attention throughout the Americas is a condition known as Frosty Pod Rot, caused by a fungus that has been behind a trail of cocoa plantation failures from Central America right down the north-western shoulder of the South American continent. Its presence in north-western regions of neighbouring Venezuela is now of particular concern to local agriculturalists who fear it may soon arrive.

Food Production Minister Devant Maharaj acknowledged that the disease "is of concern," but gave the assurance that "we would be able to respond in a timely and adequate manner." The experts prescribe an urgent approach. A comprehensive public awareness campaign has been launched and the dedicated resources of Customs, Immigration, Police and any agricultural extension facilities recognised as being important.

Disease serious threat to industry

Ministry-based agricultural scientist Deanna Ramroop describes the disease as a "serious threat to the cocoa industry." "The disease," she told a recent workshop on invasive alien plant and animal species, "can reduce crop yields by 70 to 80 per cent.

"Given the increase in movement of persons and materials, both intentionally and unintentionally, as well the extensive damage this disease causes, it is important that measures be put in place to both prevent the entry of the disease, as well as to successfully manage it should it be detected." The sometimes unhindered flow of people, plants and animals between Venezuela and south-western parts of Trinidad is of particular concern.

Rot easily spread, highly adaptable

Because the fungus is spread via hardy microscopic spores it attaches easily to everything from clothes to the leaves of plants, the fur of smuggled animals and to packaging material. "The scary thing about it is that we have informal trade and people who move back and forth," Ramnanan told Sunday Guardian. He cited the fact that the Black Sigatoga leaf-spot fungus that affects banana trees "came in from Venezuela and was first seen in the Cedros area...and it is a similar kind of disease."

The International Cocoa Organisation (ICO) says in its literature on the disease that "the large amount of spores produced and the genetic variability endows the fungus with considerable adaptability."

Recent initiatives to reposition T&T cocoa under threat

Any chink in the protective armor currently being designed by the Food Production Ministry can spell disaster at a time when efforts are being made to reposition a crop in marked decline. Maharaj said his ministry had successfully courted international chocolatiers prepared to pay up to 50 per cent more than the international market price for the country's prime "trinitario" beans.

Under special agreements with players in the global chocolate industry, farmers can get up to \$30 per kilogramme of cocoa instead of the usual \$20 per kilogramme of beans. An agreement with Artisan du Chocolat of London is due to be signed in T&T next month. "Our approach has been different from the past," Maharaj told Sunday Guardian. "It is now market-driven and focused on the demand side."

He said encouraging discussions have been held with German and California (US) chocolatiers as likely high-end purchasers of T&T cocoa, while "other European operations" may eventually join in the act. "The thing is that while these countries are big on chocolates, they cannot grow a cocoa tree," Maharaj said. The experts fear the arrival of Frosty Pod Rot can significantly reverse the gains of these recent initiatives.

According to Ramnanan, "it will make cocoa production very difficult and render it unprofitable." He, however, said "all the systems are in place" and people have been trained to detect the disease.

HIGHER CHOCOLATE PRICES MAY FOLLOW AFRICA'S COCOA SHORTFALL

BY ISIS ALMEIDA AND OLIVER MONNIER BUSINESSWEEK.COM FEBRUARY 7, 2013

This Valentine's Day, Americans will spend a record \$1.05 billion on chocolate and candy, according to the National Confectioners Association. But while Mamert Kablan Angora helps keep sweethearts sweet by growing cocoa on part of the 15 hectares (37 acres) of Ivory Coast land his family has farmed for generations, his 31-year-old son with the same name prefers an office job in the nation's biggest city. "I have seen my parents suffering in hoping that days will be better in growing cocoa, but the situation is deteriorating year after year," says Mamert's son, who works at an import/export firm in Abidjan, where he can use his master's degree in business. "Cocoa can no longer allow someone to take care of oneself or of a family."

Villagers in West Africa, which produces 70 percent of the world's cocoa, are abandoning the crop because its price is volatile, farms are too small to be economical, yields haven't risen for decades, and alternative crops such as rubber are more lucrative. "Everybody is worried that the farmer is living on the edge of poverty," says Barry Parkin, the head of global procurement and sustainability at Mars, whose products include M&M's, the best-selling chocolate candy in the U.S. "They produce half a ton per hectare of cocoa, and it has been that way forever. All major agricultural products have improved their yields by a factor of 5 to 10 in the last 50 years, and cocoa hasn't."

The chocolate market expands by 2 percent to 3 percent a year, according to Zurich-based Barry Callebaut, the world's biggest maker of bulk chocolate. Cocoa supplies, though, have lagged demand in 10 of the past 20 years, according to data from the International Cocoa Organization in London. The ICCO forecasts a shortfall of about 50,000 tons for the annual season, which began in October. And Parkin at Mars reckons demand will outpace production by 1 million tons by the end of the decade.

That means your chocolate kisses may cost more next Valentine's Day. To deal with more frequent cocoa shortages, confectioners have been shrinking the size of chocolate bars and bon bons, adding more air bubbles to chocolate, or simply substituting more vegetable oil for cocoa butter. They also can pull from global stockpiles, which stood at 1.8 million metric tons as of Sept. 30, according to the International Cocoa Organization. But experts say it will be tougher to cope beyond 2020 without improved production.

"You must start with that core fundamental of improving cocoa yields, improving productivity on the farm ... to build sustainable year-after-year strong crops that are more disease-resistant, that provide more pods per tree," says Tim Cofer, European president of Mondelēz International, the world's biggest chocolate company, with a 15 percent market share. Mondelēz sells more than \$1 billion of Milka and Cadbury Dairy Milk bars a year.

Cocoa is hard to grow, and the trees don't start producing until three to five years after being planted. Also, climate change threatens to make farming it even more challenging. The crop needs hot, humid conditions, with temperatures no lower than 18C (64F) and no higher than 32C, according to U.K. risk advisory firm Maple-croft. Temperatures in growing regions of Ivory Coast and Ghana, the second-biggest producer, are forecast to rise as much as 2C by 2050, while the optimum growing altitude will be 450 to 500 meters (1,476 to 1,640 feet) above sea level by then, compared with 100 to 250 meters now, according to the International Center for Tropical Agriculture.

Mondelēz says it will invest \$400 million in the next decade to help growers raise yields and improve incomes. Barry Callebaut will spend 40 million Swiss francs (\$44 million) in the same period to train farmers and help double yields. Blommer Chocolate, the largest U.S. cocoa bean processor, and Singapore-based trader Olam International last year formed a joint venture to invest \$12 million to raise yields by 2015. And candy giant Nestlé will invest 110 million Swiss francs in cocoa science and sustainability initiatives from 2010 to 2019.

Due to shortages and political instability, cocoa prices experienced annual swings of more than 20 percent in 10 of the past "The volatility of cocoa prices is one of the reasons we are facing this situation," says Jean-Marc Anga, the ICCO's executive director. "Some farmers have left cocoa and gone into rubber, palm oil, and other commodities. Unless you find a sustainable solution, you are not going to attract these people back into cocoa and keep them there."

THE SURPRISING EBOLA CONNECTION TO CHOCOLATE

BY CARLA HALL

LATIMES.COM

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Just when you thought you knew all the consequences of the Ebola pandemic, here's another one: it could affect the supply of chocolate. Of course that doesn't rise to the seriousness of illness and death, but it does show how much Ebola affects trade and production.

An estimated 70% of the world's cocoa beans come from the West African countries of Ivory Coast, Ghana, Nigeria and Cameroon. Ivory Coast is the world's largest producer, exporting 37.8% of the world's cocoa, according to the Wall Street Journal. (In fact, Ivory Coast just posted a record harvest and the government increased its minimum price to farmers.)

As with other crops and minerals in Africa, there are human rights and economic concerns about workers (cocoa growing and harvesting is labor intensive) being paid fairly and about children being exploited for their labor.

Now comes the specter of Ebola—which has yet to strike any of these countries. But Ivory Coast borders Liberia and Guinea which (along with Sierra Leone) have been hardest hit by the largest Ebola outbreak in history. (Liberia exports a tiny amount of the world's cocoa—about 0.2%.)

Concerns about human rights and fair pay are probably bigger issues than Ebola when it comes to cocoa production. But there is the fear that if Ebola does spread to major cocoa-producing countries—or if the fear of Ebola spreads to those countries—it will disrupt the cocoa industry. According to a Bloomberg News report that ran in the Los Angeles Times earlier this week, cocoa prices have been rising steadily for six months. Bloomberg quotes an analyst saying the most recent upswing in demand is tied to the Ebola risk. (Consumption is up as well.)

Hedge funds are increasing their investments in cocoa, predicting that prices will continue rising due to a potential Ebola-related shortage, according to the Bloomberg report. (Maybe CalPERS shouldn't have liquidated their hedge fund positions after all...)

But just this nervous speculation and investment fluctuation shows how a deadly epidemic can cripple commodities markets as well. Ebola could also pose a similar threat to gold production in other West African countries which, so far, have not been hit by the disease.

These are part of the socioeconomic concerns that Nkosazana Dlamini Zuma, chair of the African Union Commission, raised when she visited the editorial board of the Los Angeles Times on Thursday. Whether the Ebola fears are real or far-fetched for people in the course of commerce, what happens when it means that when ships stop docking in ports, shipments stop getting delivered, and people stop working in fields? We're not there yet. But it's just more reason for world government and health leaders to set up and staff more treatment centers and trace contacts of stricken sufferers.