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**MOLOKA‘I ECONOMIC DEVELOPMENT ISSUE PAPER:  
2015 UPDATE**

***Part 2: Overall Summary and Potential Economic Futures for  
Moloka‘i***

March 31, 2015

**Prepared for:**

Moloka‘i Community Plan Advisory Committee,  
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## 1. INTRODUCTION

In late 2010, John M. Knox & Associates, Inc. (“JMK Associates”) completed an extensive “Moloka’i Economic Development Issue Paper” for the Moloka’i Community Plan Update process. That process is actually getting under way at the community level only in early 2015, nearly five years later, and the Maui County Planning Dept. has asked JMK Associates to update selected parts of the original paper.

The update is being done in two parts, each of which incorporates:

1. New **data** in most of the tables and charts of the old report’s Chapter 2, with summary comments about what may have changed (the 2015 “Part 1: Economic Profile”).
2. New **information about issues, events, and conditions** in Moloka’i since 2010 (particularly updating the old report’s Chapter 4, “Moloka’i Economic Issues, 2010”) – which, combined with the new data in the “Economic Profile” document, helps shape a final assessment of different broad economic development scenarios for Moloka’i’s future. That is the purpose of this “Part 2” document.

Both these update documents are being prepared for the Moloka’i Community Plan Advisory Committee (CPAC), the Maui Planning Dept., and its original overall consultant for this effort, Chris Hart & Partners, Inc. Both updated documents in some ways refer back to the full original 2010 report, which remains part of the package of technical studies being delivered to the CPAC, although that original 2010 report is (a) very long, and (b) in some ways outdated without these newer studies.

The current document is very similar to the “Summary” of the full 2010 report, except for:

- Appropriate tweaks to the summarized “Chapter 2: Economic Profile of Moloka’i” in order to include recent findings in Part 1 of the update;
- One or two additions to the summarized “Chapter 3: Past Economic Development Plans and Studies;”
- More extensive language changes to “Chapter 4: Moloka’i Economic Issues, 2010 (Updated to Early 2015)” in order to reflect changed circumstances; and
- At County request, addition of another section on “Broad Alternative Economic Directions for Moloka’i.” (The original 2010 report includes a section with the same name – this current document takes modifies that language to reflect the current situation.)

The latter two points represent the main changes since 2010.

## **2. UPDATED 2015 SUMMARY**

This is an “Economic Development Issue Paper” written as input to the Moloka‘i Community Plan Update Process. It is intended to **surface issues** – through statistics, the *mana‘o* of Moloka‘i interviewees, and past reports – and **is not in and of itself an economic development plan for the island**. Rather, it leads to consideration of some broad alternative economic futures, which the Maui County Planning Department and community stakeholders may use as a basis to come up with their own final language about economic goals and actions for the new Moloka‘i Community Plan.

This summary generally follows the outline of the full report. Readers interested in more details can go to the indicated chapters/sections, at least for the 2010 situation.

### **Chapter 1: Introduction**

- 1. Different Understandings of “Economic Development:”** Economic development planning for smaller communities such as Moloka‘i can involve tension between (1) what we will here broadly call “Mainstream,” and (2) place-based “Alternative” philosophies (such as Community-Based Economic Development, or CBED). Community-based approaches are important on Moloka‘i, because people who choose to move to or remain on an economically troubled island are more likely to put a higher value on non-economic goals than do the people who choose to live on islands with better economies. A number of past studies have looked at Moloka‘i community values, and some of them are acknowledged and summarized.

However, CBED goals are usually as much or more about empowering community stakeholders as they are about jobs and cash incomes. The County asked us to focus on economics. Therefore, we take more of a conventional or “Mainstream” economic approach. We trust that the Community Plan process will allow residents to weigh lifestyle, cultural, and natural resource goals against the more specific economic focus here.

- 2. Basic Concepts of Economic Systems:** The core idea is simple – money “leaks” away from the island when people have to buy imported goods. Moloka‘i has almost no manufacturing, so “imported goods” means absolutely everything that has to be bought rather than gathered from the land or the sea. If a local business person sees a way to sell something on-island that people now have to buy off-island, economists call that **import substitution**, and it is one aspect of economic development.

But **export enhancement** (a phrase that just means getting more money to flow in) is usually more important. Moloka‘i tends to prefer small locally-run businesses sensitive to community values, but sometimes larger businesses are more likely to pull in the off-island money needed to support these smaller business. So this report looks more at “export” sectors like commercial agriculture and tourism.

## **Chapter 2: Economic Profile of Molokaʻi**

Most of the original chapter (along with the separate 2015 “Part 1” report updating most exhibits in that chapter) is a sort of “data book” that shows how Molokaʻi compares (when possible, over time and not just today) to other islands or the state as a whole.

- 1. Population and Demographics:** Other than Lānaʻi, Molokaʻi has had the lowest population growth of all islands over the last 60 years. Following the pineapple plantation closings of the ‘70s and ‘80s, the Filipino population dropped sharply, and by 2000 Molokaʻi was the only major island (other than Niʻihau) with a majority Native Hawaiian population. The 2010 population fell slightly; average net out-migration was about 48 people/yr.
- 2. Indicators of Economic Distress/Well-Being:** Even before 2008 (Molokaʻi Ranch closures and Great Recession), Molokaʻi incomes in the 2000s were just 67%-77% of the statewide average. Molokaʻi has typically had the state’s highest unemployment rate, percentage of population on food stamps, percentage below poverty level, etc. Some indicators have improved since 2008-09, but generally not back to what they were in the early to mid 2000s, and the unemployment rate started climbing back up in 2014.
- 3. Workforce Characteristics:** Molokaʻi has a small workforce compared to the size of its population – lower percentages than other islands in the 18-64 prime working years and lower percentages of people over 16 actually working or seeking work. The average educational level is relatively low. State figures indicate the number of workers fell even more sharply in the early 2000s than they did after 2008. Molokaʻi has led the state in percentage of workers employed in government jobs (29%).
- 4. General Business Statistics:** The number of non-ag Molokaʻi businesses and nonprofits fell from 142 in 2007 to 119 in 2012 (most recent number). Types of businesses hardest hit were accommodations, retail, and construction.
- 5. Agriculture:** The 2007 Agricultural Census (most recent numbers) counted 134 Molokaʻi “farms” (including animal operations), mostly in Hoʻolehua and the East End. Few were large (only 22 over 50 acres) or reported making much money (just 16 with more than \$50,000 in sales). But that’s true for Hawaiʻi agriculture in general.
- 6. Scientific/Technical Sector:** There is almost no such sector on Molokaʻi, but was explored because energy (and, in 2010, *wind*) development was a new focus in Hawaiʻi. Molokaʻi and Lānaʻi have the state’s highest electricity rates and the only power plants still fueled entirely by diesel oil. Very few work in technical jobs.
- 7. Tourism:** Daily visitor counts and total expenditures have improved the last few years but are still far below levels of the late 1990s, due to shorter stays and hotel closures. The island now essentially has only condos and a few B&Bs. Molokaʻi visitors have the lowest average daily spending in the state. Molokaʻi (and Lānaʻi) tourists have the relatively lowest reported satisfaction, and Molokaʻi visitors report engaging in fewer activities, even cultural ones, than visitors to most other islands.

### **Chapter 3: Past Economic Development Plans and Studies**

This chapter summarizes economic development plans and/or studies from the past 30 years, either for Moloka'i alone or the Moloka'i parts of overall Maui County documents:

Title	Author	Year
<b>MOLOKA'I</b>		
1. An Economic Development Strategy and Implementation Program for Moloka'i	Decision Analysts Hawai'i, Inc. for Dept. of Planning and Economic Development.	1985
2. Moloka'i Enterprise Community Strategic Plan	Ke 'Aupuni Lōkahi - Moloka'i Enterprise Community	1998
3. Community-Based Master Land Use Plan for Moloka'i Ranch	Townscape, prepared for Moloka'i Ranch	2005
4. Moloka'i Responsible Tourism Initiative: A Community-Based Visitor Plan	McGregor, Davianna Pōmaika'i PhD.; Ke 'Aupuni Lōkahi - Moloka'i Enterprise Community	2006
5. Moloka'i: Future of a Hawaiian Island	Attributed to "Moloka'i Community"	2008
6. Entrepreneurship and the Future of Moloka'i	Maui Economic Development Board, Inc.	2009
7. Island of Moloka'i Regional Plan	Department of Hawaiian Home Lands	2010
8. Agriculture Needs Assessment*	Sust'ainable Moloka'i	2012
<b>COUNTYWIDE, WITH MOLOKA'I SECTIONS / ELEMENTS</b>		
• County of Maui Comprehensive Economic Development Strategy (CEDS) 1999	Office of Economic Development, County of Maui	1999
• Focus Maui Nui (process and report)	Maui Economic Development Board, Inc.	2003
• Hawaii Statewide Comprehensive Economic Development Strategy (CEDS) 2005	Office of Planning, DBEDT, County of Maui	2005
• (Draft) Hawaii Statewide Comprehensive Economic Development Strategy (CEDS) 2010	Office of Planning, DBEDT, County of Maui	2010

\* Added since 2010 report. Sust'ainable Moloka'i also did a general "Energy Assessment" in 2014.

**Common Elements:** All of these envision a rural economy with a significant agriculture sector. Most were informed by abundant community input (though it is unclear how representative that input was for any one document), and as time went by there has been, on average, more and more effort to reflect community input – at least such input as can be gathered at public meetings. None apparently involved follow-up efforts to be sure the wider community agreed with the proposed plan, and most were stronger in regard to listing community desires than in regard to exploring barriers and doing other "reality checks." None of them have been completely implemented, though some specific and important projects reiterated over time (e.g., the community kitchen and the slaughterhouse) did eventually happen.

**Differences:** As time has gone by, the plans indicate increasing community ambivalence about tourism and/or recreational real estate development. On Moloka'i in the 2000s, some were written by groups that saw ways that community-level businesses could work in combination with more tourism or even real estate development; others focused more strictly on community-based initiatives. The County's early CEDS efforts – more of a listing of desired projects than a coordinated plan – had probably the weakest community input, but the 2010 CEDS process was seen as a particularly strong effort to get widespread input.

## **Chapter 4: Moloka'i Economic Issues, 2010 (Updated to Early 2015)**

This chapter comprises the largest part of the report. It is based, first, on interviews with roughly 50 Moloka'i economy stakeholders in 2010 (and in 2015 with nearly 50, some duplicates, some new, as listed on final pages) – mostly residents but some from Maui and O'ahu with topical expertise and/or ties to Moloka'i. Second, where possible and appropriate, additional information and analysis is provided for issues that surfaced.

### **General Economy and Factors Affecting All Sectors**

**Recent and Imminent Economic Events:** The original report reflected views and facts available as of Dec. 31, 2010. The island was still absorbing the effects of the 2008 shutdown of virtually all Moloka'i Ranch activities in response to the failed Lā'au Point luxury subdivision proposal, as well as the Great Recession. Unemployment on Moloka'i in 2010 varied between 12% and 15%. Controversy over genetically engineered seed crops was present but had not resulted in any political actions – more controversial at that time was a possible “Big Wind” development (now likely dead). There were concerns about possible reduced shipping services and/or rate hikes, and some discussion about whether Moloka'i Ranch might be acquired by community-based buyers or broken up and sold to various corporate purchasers, though both options seemed unlikely.

Since then, there have been few dramatic economic events on Moloka'i itself, other than a number of small-business failures. However, a countywide 2014 initiative was aimed at a “temporary moratorium” on all genetically engineered crops until studies could be done of various farming practices, such as pesticide use. While strongly outvoted on Moloka'i (63% “No”), the proposed moratorium passed by a slight majority countywide, then was promptly challenged by seed crop companies, who were in turn counter-sued by moratorium proponents in federal court. The next hearing is scheduled for June 15, 2015. Given previous federal court rulings that counties lack authority to regulate health/safety aspects of agriculture, and given lack of apparent action in the 2015 State Legislature to assert stricter State limitations on GMO at this time, the future of Moloka'i's largest employers is probably going to be affected less by this particular set of Maui County actions than by the cumulative effect of anti-GMO initiatives throughout the state: Will one or more of the companies eventually decide it is in their long-term interests to relocate, leading to what has been estimated to be potential 25% to 30% unemployment rates on Moloka'i (if both Monsanto and Mycogen-Dow leave)?

On other fronts, as suggested by various economic indicators previously summarized (page S-3), Moloka'i's overall economy has shown some modest improvement the past few years (and some internet-based “cottage industry” is providing limited new artisan work), but unemployment remains generally high and most economic indicators are still problematic. Large landowner Moloka'i Ranch has thus far taken limited steps to re-introduce economic activity – primarily resumption of cattle ranching and some steps toward solar energy development. However, its website currently talks in general ways about intentions to further build on animal husbandry and energy projects, as well as a desire to re-open closed hotels and lease more land for commercial agriculture.

**Socio-Political Context:** Divisions in the Moloka'i community have often been fierce, and now likely affect the island's ability to attract outside investment, if desired. In 2010 and to an extent again in 2015, on-island business interviewees believed "activists" were targeting any Moloka'i business activity that did not fit a specific model of small-scale (possibly just subsistence) agriculture controlled by Hawaiians or others living on Moloka'i for generations. Some of those on the other side said certain business interests were ignoring community "consensus" on limited development goals as reflected in some of the documents listed on the previous page. Thus, there was a tendency for each side to believe it represents the majority. Still other interviewees took middling positions (saying *they* were the real majority) and talked about efforts that have been made to heal the disputes, which grew particularly bitter over Lā'au Point, and about the willingness of residents to accept new ideas if shared openly and respectfully.

Part of this divide involves the actual extent and importance of subsistence agriculture, hunting/fishing, and bartering to the Moloka'i economy. These things are definitely valued parts of the Moloka'i lifestyle, but there are sometimes deep differences in perception as to how many residents can and/or *prefer* to substitute cash-economy income/activities with truly significant amounts of non-cash subsistence goods/activities. What some view as critical family farm production is seen by others as "a little gardening." At a more basic level, there are differing attachments to "Modern" vs. traditional Native Hawaiian values of overall social organization (including but not limited to the economy), with a substantial but yet-unrealized desire to find ways to integrate the best of both.

The 2014 Moloka'i vote supporting seed crop companies against the anti-GMO initiative showed a strong majority on that issue (though some people said many "no" voters were supporting jobs rather than the companies), but it's not clear whether/how that vote reflects community sentiment on other economic or growth issues. Our 2015 interviews suggested Moloka'i is now more open to large- as well as small-scale development, but mostly to the point of restoring something like the economy as it was in about the 1990s, or perhaps just enough to provide jobs for the unemployed and Moloka'i out-migrants.

In both 2010 and 2015, there was actually ***broad, across-the-board consensus*** on some points: (1) Moloka'i should remain rural, quiet, and small-scale in whatever development occurs. (2) Jobs and income are welcome (though the question of "who benefits?" immediately arises). (3) Moloka'i must develop or retain leadership capable of bridging community divisions (and in 2015 there seemed to be more optimism about that). Past that, however, fault lines remain on sensitive issues of ethnicity, local vs. "outside" control, and acceptability of corporate employment vs. smaller businesses.

**Overall Strengths, Weaknesses, Opportunities, and Threats (SWOT):** The usual neat SWOT analysis is hard to do for Moloka'i, because some things can be both a strength/opportunity and also a weakness/threat – e.g., strong winds threaten agriculture in some areas but also could someday provide wind energy if ever desired. The island's most obvious assets include (1) Natural resources and scenery, most of them little affected by physical development or the presence of many people; and (2) lifestyle and cultural resources (both living culture and historical sites). Its most obvious challenges include (1) small population, meaning limited on-island markets and limited

economies of scale for business; (2) high costs for everything, and (3) low skill levels. In 2015, some interviewees also noted effects of limited part-time starter jobs for *youth*, who have little chance to develop skills or work ethic before seeking jobs as adults, and some of whom are regarded as increasingly alienated and angry. There was also a very strong sense of interviewee frustration with Maui County – (a) perceived insufficient resources/assistance, and (b) unhappiness about long permit processing times.

Other important factors do not fit neatly into boxes marked “strength,” “threat,” or the like. Three given particular attention in the report are Inter-Island Transportation, Water, and Economic Incentives/Disincentives for the workforce.

**Inter-Island Transportation:** While totally outside County control, this affects not only tourism but also all other sectors of the economy because of its impact on the prices of things brought in – both consumer goods and also supplies for businesses, which in turn affect the competitive prices of whatever products Moloka‘i may try to export to off-island markets (including tourism). Average inter-island *airfares* to Ho‘olehua in the 2000s have *mostly* been in line with fares to other islands, but frequency and availability of service suffered as larger airlines withdrew service over the years. Hawaiian Air re-entered the Ho‘olehua market in early 2014 with small jet service (and relatively higher fares), but Island Air then withdrew and left Mokulele Airlines as the primary small propeller-driven carrier from Honolulu and Kahului (though Makani Kai Air and Paragon Air also provide regular service and/or tours). Fares to Kalaupapa fell greatly since 2010, when the federal government awarded Makani Kai a subsidy to serve that area, but the round-trip cost is still \$276 for visitors with permission to stay with residents and \$349/person for a Damien tour.

Twice-daily *ferries* to and from Maui are important to tourism and to residents shopping or commuting to off-island jobs, but fares have risen (standard round-trip adult fares are now \$124, about 50% more than in 2010) and a County subsidy has been requested.

However, *shipping* is particularly important for business. Weekly service to and from Honolulu was cut from three times a week to just twice after pineapple plantations closed, and direct Moloka‘i-Maui service ended. (Moloka‘i still receives two sailings a week – one less than Kahului but the same number as Kaua‘i and Big Island ports – less because the volume justifies it than because of limited warehouse space on Moloka‘i.) Among interviewees, there was a near-universal belief that Moloka‘i pays more for shipping than other Neighbor Islands. On an intra-state basis alone, this is not strictly true. In fact, under the Young Brothers’ tariff, Moloka‘i and Lāna‘i currently pay about 7% less than other Neighbor Islands for many types of goods, and agricultural products are given further discounts (30% - 35%) on all islands. Most Moloka‘i farmers thus receive a double discount and are effectively subsidized by Young Brothers, as the sole water carrier serving Moloka‘i, and/or by its customers on other islands.

The real price (and logistical) problems involve shipments to or from the Mainland, as this involves transfer of all goods from one shipping company to another at Honolulu. The U.S. Maritime Commission approved a “common fare” for shipments to all the larger Hawai‘i ports, even if transferred at Honolulu. But this excludes Moloka‘i and Lāna‘i, and so customers on those islands pay separately for both legs and must also

arrange (at additional cost) for transfer between docks at Honolulu. Several Moloka'i agricultural interviewees said the current arrangement costs them about \$1,500 more for large containers to or from the Mainland than other Hawai'i farmers would pay. This Moloka'i/Lāna'i "premium" is on top of general Hawai'i-Mainland shipping costs, which have been rising faster than cost of living in recent years.

Note on Shipping Changes Since Original 2010 Document: In 2010, Moloka'i and Lāna'i were potentially affected by the prospect of a new inter-island shipping company, Pasha, that did not serve these two basically unprofitable routes but would have affected the economics of the Young Brothers system – however, the Public Utilities Commission (PUC) did not extend Pasha's permission past 2013, and Young Brothers (YB) again has a regulated monopoly on intrastate shipping (though Mattson also delivers cargo originating from outside the state to some islands). Since 2010, the PUC has granted YB three further rate increases – 16.6% in late 2011, 5.5% in late 2013, and 2.21% in late 2014. YB has sought and gained from the PUC authority for a three-year pilot program called the "annual freight rate adjustment" ("AFRA") program, which allows YB one annual rate increase or decrease capped at 5.5 percent, based on a formula approved by the PUC.

**Water:** As transportation is the key external factor affecting the island's economy, water is the key internal factor. It is also very complex, as Moloka'i has six different water system operators – the County, the Dept. of Hawaiian Home Lands (DHHL), Kawela Plantation, Kalaupapa National Park Service, Moloka'i Ranch's owner Moloka'i Properties Ltd. (MPL), and the State Dept. of Agriculture (DOA), which runs the aging Moloka'i Irrigation System (MIS). They even overlap – MPL produces its water for the West End in Central Moloka'i and runs it through the MIS over DHHL land, treating it again on the West End to make it drinkable.

At least for today's demands, Moloka'i actually has a sufficient amount of water. Current issues have more to do with where and to whom it is being made available, and the cost of transporting it. However, water supply is a critical question for future economic development decisions, as continuous drawing of water from the Kualapu'u aquifer (from DWS, DHHL and MPL) could harm the integrity of the water. Decisions may ultimately need to be made about allocation among different types of agricultural uses, tourism, and residential demands.

A study by the U.S Geological Survey is currently underway to assess the groundwater recharge and availability in eastern and central Moloka'i. Models developed as part of that study will be used to assess how to effectively manage groundwater withdrawals from the area and plan for long-range future development of resources. The results of this study will be critical for decisions about future water allocation among the island's largest current and potential future consumers – DHHL Homesteaders and large West Side residential and commercial users (Kaluako'i Resort and seed crop companies).

**Cost of MPL water** is a major issue for West End residential and tourism areas (and any revival or expansion thereof (such as for any rehabilitation of the Kaluako'i Hotel). After withdrawing the Lā'au Point proposal, MPL said it could no longer justify

subsidizing water service to the West End and asked for PUC permission to more than triple the rates for West End users. The PUC granted an increase of 126.5% in 2009, such that West End rates are among the highest in the nation. This increase was appealed to the PUC by the County of Maui in 2012 but denied that same year.

In 2010, we reported that MPL was expected to explore alternatives to its use of the MIS but that it seemed intuitively obvious constructing new pipelines would be more and not less costly to users. Since 2010, steps have been taken towards legitimately resuming the less costly alternative. A 2012 Environmental Assessment (EA) was in fact submitted to the Office of Environmental Quality Control (OEQC) for continued use of the MIS. It is unclear at this point when the Final EA, which was a requirement prior to establishing the terms for a water transmission lease with DOA, will be published. An application to the State of Hawaii's Commission on Water Resource Management (CRWM) has also been submitted by MPL for continued water withdrawal from Well 17 (MPL's well, sited on lands just east of DHHL lands). The application is currently under review but is expected to trigger a contested case hearing – which could again put the feasibility of stable, affordable long-term transmission of water through the MIS in limbo.

The **right to water** is also an ongoing issue. By law, Hawaiian Homestead farmers have a right to two-thirds of MIS water. There is no challenge to this right, but its application has raised some issues and uncertainties about the future among seed crop and DOA Agricultural Park users, who represent the bulk of Moloka'i's commercial agricultural employers today. The Homesteader right is based on actual need, usually determined by metered use. In times of drought, non-Homesteaders must reduce usage to conserve water. At the time this report was initially drafted (2010), mandatory non-homestead water conservation was set at 30% over a baseline level. Currently (March 2015), this has dropped to 10%. More abundant recent rainfall is believed to have improved water flow through the aging MIS system. Homestead farmers have historically used, and continue to use, about 20% (not the allotted 67%) of MIS water. While some perceive this to mean the Homestead farmers are only being *given* 20%, at present it actually means the farmers are only *taking* 20%. Thus, the real issues are the economic trade-offs required to preserve future rights to the 67% use level and the likelihood of that level of demand actually materializing in the foreseeable future.

**Financing** is another issue. Non-Homesteaders are using water that Homesteaders have not claimed through active use. Non-Homesteaders – such as seed crop companies, private State Agricultural Park farmers, and MPL – are important subsidizers of the Moloka'i Irrigation System. MPL pays a rental fee to the DOA to transmit its water through the MIS. Analysis in the original report shows how these non-Homestead revenues have directly and indirectly subsidized Homestead MIS users. Declining non-Homesteader use of the MIS without concurrent increased revenue-generating use by Homesteaders will create financial hardship for Homesteaders themselves through higher fees and system deterioration, and for any State of Hawaii irrigation system user statewide (because MIS revenues flow to the larger system).

MIS **management** has also been a source of contention, because poor system conditions are believed to have contributed to reduced flow. A 2008 State Auditor report

found MIS management practices endangered agriculture on Moloka'i. The Auditor also found the DOA did not plan effectively for Homesteaders to exercise their full two-thirds right to the MIS water, concluding – as per the foregoing discussion – that Homesteaders and non-Homesteaders have become competitors under DOA management.

**Economic Incentives/Disincentives:** Some interviewees talked about negative implications for the private-sector workforce from a mix of perceived factors, such as over-reliance on short-term grants, availability of low-cost DHHL housing for some, and particularly the ease of getting public assistance on Moloka'i. However, research determined that the island is one of *many* rural Hawai'i areas exempt from time limits and work requirements for some programs, because the State only imposes those requirements in areas with lots of jobs – in effect assuming that areas with few jobs will remain that way. Nevertheless, Moloka'i has unquestionably had the highest proportion of population on food stamps of any island, and as of 2013 that had likely reached 1 out of 3 people. Then for 2015, the federal government did grant Moloka'i at least a one-year special exemption (the only one in Hawai'i) from the food stamp work requirement for able-bodied people, which may further increase the rate. Welfare of course does bring money to Moloka'i, but in small amounts compared to business activity.

Interestingly, concerns about work ethic on Moloka'i co-exist with a sense that the island has a strong entrepreneurial spirit, held back by a lack of business expertise and start-up capital. Several organizations are now trying to help prospective entrepreneurs, but the poor economy and limited understanding of business planning have led to many failures.

### **Commercial Agricultural Sector**

**Overview of Current Conditions:** While everybody wants Moloka'i to have a strong diversified agricultural economy, and the island's per-capita agricultural production is likely the highest in the state, at present its commercial success is spotty at best. Seed crops have proved the most stable, and are the largest employer – but, as previously noted, health/safety concerns and voter initiatives in Maui County and other parts of Hawai'i are raising questions about the future of those operations. There are a few potential bright spots at the other end of the spectrum with some small organic farmers willing to work hard and take risks. Otherwise, significant economic success seems limited to a relatively few operations growing niche products and/or to “value-added” processed goods, and even some of these told us they were unsure of the future in 2010 (though higher food prices in 2015 seemed to generate a little more optimism).

This situation reflects national and statewide conditions. The national and global demand for food is so vast that large multi-national companies have responded with very efficient large-scale production and distribution systems. For most food staples, even Hawai'i-based farmers cannot always compete in the Hawai'i market. Successful Hawai'i operations, like those on the Mainland, tend to have hundreds of acres and are managed in a very businesslike way. Most are on O'ahu, the primary market, where no shipping is needed. Despite pressures from urbanization, there appears to be enough farmland on O'ahu to meet much of the state's needs for the foreseeable future. However, there is also a national trend for smaller “hobby farms” or “gentleman farms,”

which sometimes have a measure of economic success by supplying specialty foods to the growing organic market. Some on Moloka'i and other islands are more serious efforts, at least in spirit, than the "hobby" or "gentleman farm" labels would suggest.

Cattle operations on Moloka'i were devastated after bovine TB (still a lingering threat) led to the eradication of most herds in the 1980s and 1990s, though the recently re-opened new slaughterhouse now allows some on-island meat sales. Moloka'i Ranch, as its first major economic initiative since the 2008 closures, has now re-introduced cattle operations, with an eye to providing finished grass-fed beef to the larger O'ahu market as well as to Moloka'i. As of March 2015, it is slaughtering about ten head a month, though its goal is to quadruple that in the next 12-18 months. Following that, the Ranch wants to explore piggery and venison operations. It also hopes to lease more of its lands for large commercial agricultural operations, though not to farm itself.

To date, fishponds are run more for cultural/educational purposes, not food production. However, the State now (2015) can certify commercial bi-valve (oysters, clams, etc.) farming, providing more sales opportunities for fishponds throughout the Islands, and at least one Moloka'i fishpond is currently applying. More conventional commercial aquaculture on Moloka'i is represented by two shrimp broodstock operations. A County-initiated USDA-inspected deer harvesting operation is now functioning on the East End. Fishing is primarily subsistence; falling stocks have led to fights with O'ahu fishermen.

**Future Prospects:** There are few current indicators that diversified commercial crops on Moloka'i will soon expand in any substantial way. The DOA says it rarely gets inquiries about the Moloka'i Ag Park (though the park is fully leased). With limited exceptions, DHHL ag lots are used more for subsistence and supplementary income than for primary cash crops. Subsistence farming is a legitimate "import substitution" activity that may also meet non-economic goals – but it is not expected to bring in much outside cash to circulate through the island economy. Under existing policies, substantial additional DHHL agricultural leases are unlikely to be awarded in the near future. DHHL's 2005 *Moloka'i Island Plan* (MIP) identified residential development as the main priority, in line with the results of a beneficiary survey conducted for the plan. That survey also found most agricultural/pastoral applicants and lessees were interested in subsistence rather than commercial farming. The MIP says DHHL is willing to generate revenue by leasing General Agricultural lands to non-Homesteaders, "but some areas may not be leased out immediately due to low demand for land for farming and ranching." The MIP does include long-term plans to provide some 9,000 more acres, mostly in Ho'olehua, for subsistence and supplementary farming. In 2010, the development of such ag leases was rated "low" priority.

However, DHHL is now (2015) entertaining the idea of giving agriculture initiatives more priority – though no specific actions have yet been taken, nor is there yet any clarity about whether emphasis would be given to subsistence or to commercial agriculture.

**Commercial Agriculture-Specific SWOT:** Moloka'i has a number of advantages – excellent soils, available lands, a labor force that is generally viewed favorably by employers, and a mystique to the name "Moloka'i" for Hawai'i's organic foods market. It

has escaped the “gentrification” of other islands, where “gentlemen’s estates” have sometimes replaced true farming in agricultural subdivisions and driven up land costs. Its isolation has kept it mostly safe from viruses affecting much of the state’s papaya and banana crops, and it now actually exports some organic papaya to the Mainland. Key factors with mixed impacts include the previous topics of transportation (some effective inter-island subsidies but logistical issues and high costs for inputs shipped in from the Mainland), and water. For recent past years, until 2011, MIS water was cheapest in the state, though Hawai’i irrigation water overall is pricier than on the Mainland. But other problems with the MIS remain, and some residents believe future DHHL needs should trump any non-DHHL uses, including commercial agriculture.

Moloka’i agricultural disadvantages are mostly those shared with the overall state, especially other Neighbor Islands, as mentioned above. These are exacerbated by the very small size of Moloka’i’s on-island market (now even smaller due to reduced visitor counts), as this requires commercial farmers to focus even more on exporting to survive. Commercial farming, like other businesses, requires start-up capital, risk-taking, and business knowledge – and it is physically harder work than most other businesses, so few new people actually try. Moloka’i’s controversial past history of “third-party” DHHL leases is blamed by some for disrupting passage of farming knowledge from one generation to the next, though in fact the chain of multi-generational family farms has eroded throughout the whole country. Whatever the cause, interviewees generally agreed the current small number of qualified, willing, and able full-time farmers is a major issue. Agriculture is woven into Moloka’i’s identity, but now often as a part-time activity requiring farmers to have other types of jobs to survive.

A more Moloka’i-specific weakness pointed out by a few 2015 interviewees involves lack of on-island **marketing expertise**, which becomes increasingly critical for export crops in an age of internet-based sales for small producers. There may be opportunity for Moloka’i to work more closely with Maui or other small farmers in cooperative marketing, if the system permits each island to retain and capitalize on its own identity.

**Seed Crops:** These mostly involve developing new varieties of corn (but a few other crops as well) by large agri-business corporations trying to improve things like yield, drought resistance, speed of growth, etc. It is agricultural research rather than direct food production. Moloka’i was the first site of this activity in Hawai’i back in the 1960s, but seed crops are now on three other islands as well, and formed the fastest-growing part of the state’s agricultural sector (and provided the most ag jobs) in the 2000s. On Moloka’i today, Monsanto and Mycogen/Dow Agro-Sciences together operate on 2,700 acres (many of them owned following land purchases over the last five years) and comprise the largest private-sector employer (about 230 full-time and seasonal jobs).

Since our original 2010 report, there has been growing concern in parts of the state and the nation about genetic engineering (“Genetically Modified Organisms,” or GMOs) and whether these are safe. Related issues have to do with alleged poor farming practices (herbicide/pesticide health threats and soil erosion); envisioned future competition with food crops and/or DHHL farmers; and the presence on Moloka’i of large corporations owned by “outsiders” with a perceived weak commitment to Hawai’i and a management

style seen as “like another plantation.” In Maui County, these issues (especially health) culminated in the Nov. 2014 vote to impose a moratorium, despite Moloka‘i opposition. Whatever the legitimacy of these issues, if seed crop companies do decide to relocate – and it is not clear how likely that is, or if they might be replaced by non-GMO seed operations – the immediate economic effects would be particularly difficult for Moloka‘i. In addition to the 230 direct jobs noted above, more jobs and business sales would be lost as those direct workers and the companies themselves stop spending money on Moloka‘i. The March 2015 issue of *Hawai‘i Business* quoted several well-known local businesses as saying substantial parts of their sales are to seed crop companies. Beyond that, small farmers would find supplies increasingly expensive as cooperative buying power is slashed for fertilizer, seed, irrigation supplies, and water. Some Moloka‘i businesses reportedly are already delaying capital expenditures to see what happens.

Seed crop spokesmen interviewed for this report (in both 2010 and 2015) said they are committed to Hawai‘i and to Moloka‘i, but they did have concerns about political support and ongoing availability of land and water – for present use or possible future expansion. One idea being slowly explored by Mycogen (and to which Monsanto described itself as “open”) is the potential for “private grower contracts” with small farmers. This would involve hypothetical contracts with a collective of farmers. One or both companies might work with independent farmers to help with technical training, loan of needed equipment, proper use of irrigation, business management aspects, etc. Thereafter, the farmers would become independent, devoting a part of their lands to corn raised to sell to the seed crop companies, and using their training and equipment to grow other crops on the rest of their property.

**Tourism Sector**

**Overview of Current Conditions:** As of 2000 (prior to the closing of the Kaluako‘i Hotel and golf course), Census figures indicated the tourism industry provided significantly more Moloka‘i jobs than did agriculture. The new averaged 2008-12 Census numbers centered on 2010 showed job losses in both sectors, but those in tourism were clearly steeper, as indicated by the following percentages of workers.

<b>Industry</b>	<b>2000 (2,687 Workers)</b>	<b>2008-12 Avg. (2,711 Workers)</b>
<b>Farming, Fishing, Forestry</b>	11.2%	7.7%
<b>Accommodations/Food Service</b>	13.4%	8.6%

In addition to updated tourism statistics in the Part 1 report (page S-3), interviewees said the remainder of Moloka‘i’s lodging units, mostly condos, were seeing some slow recovery from the Great Recession – in 2010, an estimated 60%-65% islandwide occupancy, a little less at Hotel Moloka‘i (and in 2015 perhaps 8 points higher, with the recent return of more part-time “snowbirds” also helping the economy somewhat).

**Tourism-Specific SWOT:** Most interviewees agreed Moloka‘i has much to offer visitors – tremendous natural resources and scenery; living culture and historical sites such as fishponds; an authentic “old Hawai‘i” sense of place; personal interactions. Yet there has always been a hesitation to use these assets very heavily for fear of changing and spoiling them. Transportation (particularly limited airlift) and water (particularly for

the West End) as usual present key challenges, and lack of sufficient car rentals in the peak winter season has become an increasing concern (Moloka'i now has only one major franchise on the island). The number of experienced trained service workers has dwindled. Community attitudes are also a mixed bag – Moloka'i still is (usually) the "Friendly Isle," with unparalleled opportunities for visitors to meet residents one on one, but media coverage of past protests against proposed development and occasional signs or bumper stickers telling visitors to "Go home" remained a concern in 2015 as in 2010. In 2015, concerns about liability also raising questions for the island's most popular attractions, including the Kalaupapa mule train and Hālawa Valley hiking tours.

The 2006 *Moloka'i Responsible Tourism Initiative* is the most comprehensive effort yet to envision a small-scale visitor industry with minimal impacts on the Moloka'i lifestyle, though it remains an open question whether all parts of it could be achieved. However, analysis for this report did show that visitor counts and dollars on Moloka'i are more strongly associated with the number of *hotel* units than with other types, and the lack of such hotel units is a major constraint.

**Conventional Visitor Accommodations:** This means things like hotels and condos. There was a sense among interviewees that there are now sometimes not enough beds to accommodate large events such as ocean sporting competitions or major pilgrimages to Kalaupapa. The actual number of Moloka'i visitor units, primarily condos, has varied greatly in Hawai'i Tourism Authority (HTA) counts, but a 2014 study of vacation rentals (including condos) and B&Bs found 365 units on Moloka'i, compared with a total 601 units – including 375 hotel rooms – in 1997. (The HTA now considers Moloka'i to have zero hotel units because the 54-unit Hotel Moloka'i, the largest visitor property, does not have a 24-hour front desk.) Moloka'i condos are typically individually marketed on Web sites such as VRBO, which listed 162 Moloka'i units as of March 20, 2015.

There was a general consensus – both in 2010 and 2015 – that a re-opened Kaluako'i Hotel would fit well with Moloka'i, but there also seemed to be a general assumption that it would be roughly the same size and serve the same mid-scale market as before, even though this business model met with questionable success. However, rehabilitation or reconstruction would cost tens of millions of dollars, and this raises the question of whether owner Moloka'i Ranch would be able to make a sufficient profit from operations (and/or what market mix would be required) and accelerated sales of resort real estate on the West End. Another issue is whether this would necessarily be a traditional "hotel," as new Hawai'i visitor structures are now much more likely to be condo-hotels or timeshares, which provide faster and/or more certain returns on investment.

In a February 2015 email to JMK Associates, current Ranch CEO Clay Rumbaoa wrote: "We see re-opening both the closed hotels (Kaluako'i and Maunaloa Lodge). We are exploring this with operators as part of the overall attractiveness of Moloka'i. This will be the game changer for Moloka'i and Moloka'i Ranch. I am unable to elaborate more on this, other than all existing entitlements shall remain." (*Note:* In addition to the Kaluako'i Hotel site, the West End has four other vacant, entitled hotel sites. However, most interviewees believed there would be strong opposition to actual development of these other sites.)

**B&Bs/Vacation Rental Homes:** Bed-and-breakfasts and transient vacation rentals (TVRs – now sometimes called “Short Term Rental Homes” or STRHs) are both small-scale activities, but of very different sorts. B&Bs have on-site hosts and are personal experiences. On Moloka‘i, there seems to be less concern than on some other islands about having them in residential areas. TVRs/STRHs are short-term rentals with no on-site hosts; they fit well in resort areas but raise more problems in residential areas, and have also caused controversy in places like the East End near Hālawā Valley, where they are used by upscale second homeowners to help finance purchases that affect local property tax levels. These are also primarily Web-marketed; the Airbnb site had 79 Moloka‘i listings on March 20, 2015.

Maui County regulations – passed in response to problems on Maui Island – were seen by many Moloka‘i interviewees as (a) being so complex and involving so many disincentives (expense, taxation at hotel rate, loss of home exemption) that they are choking off legal B&B/TVR development; and (b) not making sense for Moloka‘i. Despite some revised rules, in 2015 there are still no officially permitted B&Bs and just 12 permitted TVRs/STRHs. Some people have the vision of a small-scale home-stay tourism industry based on a much expanded network of B&Bs (possibly some TVRs), with all benefits accruing strictly to on-island owners. There are questions about the feasibility of this, such as the depth of the market, but further exploration of the idea remains impractical unless and until regulatory concerns are effectively addressed.

**Kalaupapa and St. Damien:** Kalaupapa has long been Moloka‘i’s chief historic attraction, but accessibility, mule ride insurance, and airfare costs were major concerns as of this writing (though airfares from O‘ahu have dropped since 2010). The 2009 canonization of St. Damien – and the later 2012 canonization of St. Marianne Cope – have yet to have substantial impact on topside Moloka‘i tourism, though Makani Kai Air offers a “Damien Tour” package from O‘ahu or Ho‘olehua. Moloka‘i’s new St. Damien Church opened in 2011 and a small “Damien and Marianne Heritage Center” also opened in Waikīkī. However, the Catholic Church and the St. Damien parish are working with the Hawai‘i Alliance for Community-Based Economic Development (HACBED) to develop plans for marketing periodic (rather than year-round) pilgrimage tours that connect the “Topside” Mission churches with ‘āina-based activities at churches (including pilgrims’ help in upkeep of churches), activities connected to historical activities of the saints at various Topside locations, and possible connections with community-based organizations and/or home stays with parishioners. Planning is likely to continue for another year or so, but a scheduled March 2015 visit by a group of Notre Dame students is intended as a first trial to see what activities work well for both sides.

**Other Activities and Attractions:** State visitor statistics suggest visitors don’t find much to do on Moloka‘i (e.g., restaurants are *extremely* limited), though some 2015 interviewees felt many current guests are older and don’t mind. There are several small ocean- or land-oriented activity tour companies that largely serve people who make advance bookings, but the casual explorer may not see much if just driving about. One response is to market Moloka‘i in a way that emphasizes its quiet nature, to attract visitors who seek “serenity.” This is what the Moloka‘i Visitors Association (MVA) and the Maui Visitors Bureau have recently been doing. There are always disagreements

about marketing strategies in the visitor industry, and some tourism stakeholders would prefer a more inclusive strategy with fewer links to Maui – but most 2015 Moloka‘i interviewees seemed comfortable with this targeted approach, which also relies on the growing ability of travelers to research and plan advance activities via the Internet.

Another response is to develop new activities or attractions, with the goal of increasing length of stay for current visitors. A few possibilities – such as more ocean sporting events or the longstanding idea of a “cultural park” and/or visitor welcome center at Mālama Park<sup>1</sup> – were suggested by interviewees. However, there was also some concern that much additional activity would change the nature of Moloka‘i and/or benefit newcomer businesses more than existing ones. One common idea: Better management/maintenance of County parks. (In 2015, some saw improvement, but still a ways to go. There was also some call for development of a quality County park at Murphy’s Beach.)

**Alternative Tourism:** Though with the usual concerns about scale of development and maximizing direct resident benefit, interviewees were generally interested in a wide array of alternative tourism forms – eco-tourism, educational tourism, cultural tourism, agri-tourism, and the newly emerging idea of volun-tourism, which the MVA has now moved forward in cultural restoration projects. All or most of these feature more personal interaction and a greater sense of respect by visitors for local residents, and all could broadly fit under the “Community Tourism” concept outlined in the *Responsible Tourism Initiative*. Further exploration of these ideas needs to include consideration of whether they realistically work best as “alternatives” that would displace more traditional tourism on Moloka‘i or as “options” working in synergy with it. And any network of small local activities would benefit from coordination. The *Responsible Tourism Initiative* called for a “Visitor Coordinator,” but funding for such a position has never developed (though the MVA and some tour companies try to perform many of these tasks).

**Recreational Real Estate:** Conventional Hawai‘i resort developments have made their profits primarily by enticing visitors to buy in second home or condominium projects, but Moloka‘i has been particularly averse to such offshore-oriented developments, at least outside already entitled West End areas. This has become a highly emotional topic, yet it will likely never fade away entirely so long as people from O‘ahu, the Mainland, or elsewhere are attracted to the idea of living in Moloka‘i. There are several indicators that such in-migration is already happening on Moloka‘i. The 2010 population had some increase in the number of Caucasians, and Title Guaranty data for 2013 and 2014 indicate at least 44% of residential or resort-residential real estate transactions for those two years were to non-Hawai‘i residents, though many of these may have non-resident investors selling to other non-residents. (As on Maui Island, non-residents paid an average of about 30% more than residents, but this still means Moloka‘i property is quite affordable to them.) On other islands, offshore-owned units may frequently swing from visitor rental use to resident rental use, but on Moloka‘i such units reportedly rarely go to residential rentals.

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<sup>1</sup> Note: Mālama Park has now been transferred to the DHHL, which is currently assessing the many maintenance/logistical challenges there and as of early 2015 has no funds budgeted to revive and update the Mālama Cultural Park Master Plan.

Some types of land use planning try to capture this offshore recreational real estate demand in self-contained pockets where social and environmental costs are minimized (e.g., Kaluako'i), while still capturing economic benefits from expenditures by more affluent retirees or second homeowners. However, there is also a widespread belief that undesired social and economic impacts would eventually "spill over" into the rest of the island, with no clear sense of how likely that is or how powerful the effects would be. All of Hawai'i, not just Moloka'i, deserves a careful assessment of the actual costs and benefits of different types of offshore-oriented real estate development to date. Moloka'i in particular would benefit from a study by County or State planners of recent in-migration trends and the extent to which existing residential areas and subdivisions are likely to attract more offshore buyers as the years go by.

### **Energy Sector and Issues**

At the time of the original report, Moloka'i businesses were challenged by some of the highest electrical power rates in the nation, as they still are today, and some Moloka'i farmers hoped to sell bio-fuels to the Maui Electric Company (MECO) for its all-diesel-powered generator. The highly controversial "Big Wind" idea (to build large turbines on Moloka'i and/or Lāna'i, and install an undersea cable to ship power to O'ahu) was still being debated. The State and federal Dept of Energy were starting a "Programmatic EIS" (PEIS) to evaluate possible cable projects.

As of early 2015, "Big Wind" appears dead on Moloka'i. The PEIS was greatly broadened to address multiple ways, not just inter-island cable projects, to achieve the State's "Hawai'i Clean Energy Initiative Goals," and a draft was completed last year. However, the political resistance to "Big Wind" has been strong on these islands, and there have been some proposals (not yet enacted) in the Hawai'i State Legislature to reverse the State's position favoring inter-island cables to bring energy to O'ahu.

The Lāna'i "Big Wind" proposal is technically still alive, and the Hawai'i Public Utilities Commission (PUC) did open a docket (2013-0169) in 2013 on the State's revised proposal for a cable to connect O'ahu and Maui Island grids. However, there is no announced schedule for a PUC decision on those issues, and nothing at all before the PUC for Moloka'i wind projects. The PUC is instead still mulling the Lāna'i proposal and another proposal to connect the O'ahu and Maui Island grids, as well as the sale of HECO. NextEra, which may be the new owner of the entire HECO system by 2016 or 2017, has been one of the most prominent firms to express interest in building an interisland cable in Hawai'i, but deep political opposition remains a strong factor.

In 2015, according to Peter Rosegg, senior spokesman for MECO's parent company HECO: "Moloka'i electricity generation is substantially what it has been for some years, diesel oil. No bio-fuel option has developed. The big change for Moloka'i, Lāna'i, Maui and the rest of our service territory would be a switch to natural gas, which we hope to achieve by late 2018 or early 2019. That would be a game-changer and result in lower bills. We see natural gas as far better than oil as we transition to more renewable energy, with an overall goal of 65% by 2030." (Email communication, Feb. 11, 2015.) It should be noted that some environmentalists oppose natural gas because it is still a carbon-based fuel, and this statewide issue is not resolved.

As has been true throughout Hawai'i due in good part to tax incentives, Moloka'i has developed a small "energy sector" of photovoltaic (PV) rooftop solar companies, now facing issues of whether the grid can accommodate any more input from these sources at peak load periods. The future of these small companies – and the opportunity for homeowners and businesses to pay smaller utility bills – remains an open issue. Further, Moloka'i Ranch has announced its intention to develop an "Ikehua Moloka'i" initiative to transform Moloka'i "in phases" to 100% renewable energy (primarily through solar arrays, with battery storage also playing a significant part). The Ranch would lease land to an energy developer, who would need to negotiate a Power Purchase Agreement with MECO and obtain PUC approval. The Ranch estimates the finished project would employ 10-15 permanent workers, adding to or replacing the small PV "energy sector" of employment on Moloka'i.

### **Other Possible New Economic Activities on Moloka'i**

**New Export Industries:** Most interviewee suggestions for this report involved the sectors already discussed – agriculture, tourism, or energy. Other proposals were more scattered, and included (1) Education/research/learning centers; (2) Retirement communities; and (3) Forestry. The idea of "education" was particularly appealing on Moloka'i – for some, because any new facility could boost the educational level of island workers and residents; for others, because they envisioned cultural or natural resource studies that would make Moloka'i people the expert "teachers." But even though Moloka'i unquestionably has natural and cultural resources worth study, it would usually make more economic sense to base facilities on O'ahu or Maui and make field trips to Moloka'i. Retirement communities would run into political problems of community acceptance if for upscale people, and into problems of low benefit-cost ratios (because of impacts on public services) if for lower-income retirees. Limited on-island medical facilities are also a challenge for development of retirement communities.

In response to inquiries about the forestry idea, University of Hawai'i Extension Forester James B. Friday saw limited but real opportunities for small-scale "non-industrial" forestry – probably second crops for farmers or secondary incomes for people with other jobs. This would involve growing and harvesting selected types of Hawaiian trees useful for local crafts, interiors, and wood-working – possibly but less likely for bio-fuels.

**Import Substitution:** Again, this is the term for a new business that captures money now going off-island. Interviewees could readily identify many things that Moloka'i "needed" or "wanted," but nobody was certain of what new businesses the community could actually support economically, given the present size of its population and economy. It is hard to identify likely successful businesses through the usual means of looking at "comparable" communities, because Moloka'i as a separate island is not very comparable to most rural areas on Maui or O'ahu. New business requires a local entrepreneur with the sort of experience and expertise that has been hard to implant in people not already operating on Moloka'i. Several agencies are now providing business training and advice, but the greater prerequisite may be getting more cash into the Moloka'i economy to create solid opportunities.

### 3. BROAD ALTERNATIVE ECONOMIC SCENARIOS FOR MOLOKA'I

This is an update of a similar effort in the original 2010 report (Section 4.2.3) to look at possible future scenarios. Some of the futures that then seemed improbable but still worth considering – a Moloka'i Ranch breakup or a "Big Wind" project – now seem even less likely in the near term. The County requested new potential future economic growth scenarios based more on current conditions.

The purpose of these scenarios is to stimulate CPAC discussion on initial steps that might go into a Community Plan, rather than to "choose one" or to create an economic development plan at this time. Note that some of the elements of the following scenarios involve factors over which the County and the community may have limited control – e.g., whether seed companies relocate or whether Moloka'i Ranch proposes particular types of visitor units on the West End.

#### Scenarios and Broad Assumptions

These scenarios represent the outcome of discussions between JMK Associates and the County, with the County providing final definitions:

Scenarios	Definitions
1. Decline	No major hotel development Seed crops eliminated with no replacement
2A. No Growth (Version 1)	Continuation of existing situation, for the most part No major hotel development Agriculture continues to be primarily seed crops
2B. No Growth (Version 2)	Continuation of existing situation, for the most part No major hotel development Seed crops eliminated <u>but</u> replaced by non-GMO small-scale ag (may or may not prove viable over the long term)
3. Medium Growth	Single hotel at Kaluako'i and reopening of Lodge at Maunaloa Continued growth of small businesses, though limited to specific areas Continuation of seed crops or replacement by a new crop that provides similar or greater number of jobs and benefits (to be determined)
4. Full Growth	Significant hotel development at West End over 20 years (addition of several hotels and residential development) Mix of diversified agriculture and/or continued presence of seed companies More growth of small businesses Maunaloa grows and becomes a small town again

The County also specified the following broad assumptions underlying these scenarios and the subsequent discussion/analysis by JMK Associates:

- Some hotel development is key to initial and sustained economic growth;
- Agriculture options are limited until off-island transportation is addressed or non-perishable products developed;
- Molokai Ranch is willing to make at least modest investments on the West End;
- Does not fully consider socio-demographic changes (increase in education or income levels) that could alter economic opportunities; and
- Water availability is not a deterrent to economic growth.

### **Discussion of Scenario 1 (“Decline”)**

**General Description:** Withdrawal of both seed crop companies with no replacement, and no new hotel, would involve an economic crash for Moloka‘i at least as great as, possibly greater than, any of those in the past decades (e.g., end of pineapple, closure of Kaluako‘i Hotel, 2008 Moloka‘i Ranch closures). The immediate result would be some mix of high unemployment, increased out-migration, and more pressure for government grants/relief. Long term, Moloka‘i theoretically could then become a laboratory for the vision of a self-sustaining community focused on subsistence farming, home-based businesses, education and research, environmental remediation, and other projects contained in the 2008 document, “Moloka‘i: Future of a Hawaiian Island.” And/ or it could simply become a refuge for people wanting to live off the land.

**Key Challenges Posed by This Future:** (1) Even subsistence farming, as well as remaining commercial farms, would likely have higher supply costs and shipping challenges. (2) There would be political pressure for governmental job-creating actions that might or might not make sense – a potential series of frustrations for the island. (3) Long-term, the fundamental question for this vision involves feasibility and just how to make community-based economic development the *sole* driver (not just a valuable supplement to larger-scale activities) of an isolated island economy. How to add, and effectively market, more home-based tourism would likely be a critical sub-question.

**Non-County Factors That May Affect What Happens Under This Scenario:** Such a scenario implies ongoing lack of economic return for Moloka‘i Ranch, making its future (including ownership) a “wild card.” In the meantime, there would certainly be more pressure on DHHL, the State government (including the Tourism Authority and its marketing of Moloka‘i’s current visitor activities), and perhaps Kamehameha Schools to take economic actions that would provide even more nonprofit jobs and grant-based temporary employment. DHHL would likely face two different types of pressure – (1) to create more jobs, even if that involves commercial leases to non-Hawaiians; (2) to support the re-creation of agricultural economies of scale by attracting many more farmers *and* ensuring they are farming more intensively (possibly even commercially for export, though that may contradict the vision of subsistence farming).

**Potential County Policies to Create, or Respond to, This Scenario:** Obviously, the County can help *create* the scenario by discouraging both hotels through the regulatory process and also discouraging continued seed crop presence through moratoriums or – if granted more power over agriculture – selective enforcement of policies that impact large corporate agriculturalists more than independent small farmers.

Policies that *respond* to the scenario if it comes to pass would depend on whether there is more on-island desire to embrace the situation or (as, frankly, has been more common in the past) to view it as a hole that people want to dig out of. If the former, the County would likely step up economic development grants and human services as much as possible; relax regulations on home-based tourism; and possibly partner with the State in a search for national expertise on how to stabilize distressed rural economies without substantially growing them. If the latter (“dig out of the hole”), County options alone would be limited, but any analysis of economic development strategies would likely build on the current “Maui Nui” tourism marketing approach – i.e., are there ways Moloka‘i can piggy-back on Maui Island economic activities or fill niches? That is, Moloka‘i would need to be viewed less on its own terms and more as a Maui satellite in some countywide version of the type of “industry cluster” analyses being attempted (albeit more by the private sector) on O‘ahu’s North Shore and Kaua‘i.<sup>2</sup>

### **Discussion of Scenario 2A (“No Growth,” Version 1)**

**General Description:** Things continue much as they are in early 2015 – the seed companies remain, but Moloka‘i Ranch is unable to re-open or reconstruct traditional hotel facilities, whether due to political opposition or lack of confidence that profitable operations are possible.

**Key Challenges Posed by This Future:** These are the challenges of the present, which are many. But perhaps the most critical are (1) resolving lingering questions about seed crops and establishing more of a sense of partnership between the large companies and small farmers, including anxieties about present/future water use; and (2) optimizing occupancy of the existing visitor plant and adding more home-based units.

**Non-County Factors That May Affect What Happens Under This Scenario:** Again, this scenario implies ongoing low economic return for Moloka‘i Ranch, raising long-term questions about ownership and predictability for the island. Also, the County has no direct involvement in State or private-sector tourism marketing policies for Moloka‘i.

**Potential County Policies to Create, or Respond to, This Scenario:** Again, the County can help *create* the scenario if it decides that any proposed hotel lacks sufficient entitlements and does not qualify for final permits. Given existing entitlements, this seems unlikely for either the Kaluako‘i Hotel or the Lodge, but legal issues might be found and very slow processing of remaining final permits may occasionally cost developers enough money that they quit.

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<sup>2</sup> See [http://nsevp.org/WPnsevp/wp-content/uploads/2014/12/NorthShore\\_PhaseII.pdf](http://nsevp.org/WPnsevp/wp-content/uploads/2014/12/NorthShore_PhaseII.pdf) for North Shore.

If Moloka'i Ranch itself decides not to move forward with hotel proposals, thus leaving agriculture as the primary economic leg, the most important County *response* would be to explore options to further strengthen synergies between the seed crop companies and farmers, as well as to investigate and cope with public concerns. In that regard, some of the studies proposed in the GMO Moratorium initiative might actually still be useful, even without an actual moratorium. For example, Kaua'i County – even though a federal judge overturned the anti-GMO actions there – is proceeding with a “Joint Fact-Finding” effort to determine what the various parties can agree upon about things like pesticide/herbicide use and impacts. To the extent that Kaua'i effort succeeds, Maui County may find ways to build upon it in a proactive way.

### **Discussion of Scenario 2B (“No Growth,” Version 2)**

**General Description:** This scenario is identical to the previous one, except that seed crops are replaced by “non-GMO small-scale ag (may or may not prove viable over the long term).” However, the replacement jobs are unlikely to materialize instantly when seed crop companies withdraw, so a period of economic crisis similar to that described for Scenario 1 would still occur. This scenario effectively assumes that the community, the government, and the private sector would be mobilized by such a crisis to discover some way – not currently apparent – to make small-scale Moloka'i farming much more commercially successful than it currently is.

**Key Challenges Posed by This Future:** The biggest challenges are (1) identifying the commercial crops that can sustain not just a few, but dozens or hundreds of new small-scale Moloka'i ag operations; and (2) attracting the willing, qualified farmers with sufficient capital and business expertise. Perhaps the best hope for this future is continued growth in demand for organic, value-added, and/or farm-to-table products, combined with development of cooperative marketing creating or building on a real “Moloka'i brand.” An alternative to the vision of purely “small-scale” ag could be re-use of GMO seed crop acreage by non-GMO seed crops, though it is far from certain that non-GMO seed crop companies would provide a similar number of jobs.

**Non-County Factors That May Affect What Happens Under This Scenario:** In addition to factors described above for Scenario 2A, the development of substantial new small-scale commercial farms exporting to off-island markets would likely require DHHL to give agricultural development on Moloka'i a higher priority and perhaps work with the State Dept. of Agriculture on special programs to attract and train more full-time farmers. The alternative possibility of non-GMO seed crops would of course depend on private-sector decisions by other offshore corporations.

**Potential County Policies to Create, or Respond to, This Scenario:** These would largely be identical to those discussed above for Scenario 2A, except for working to increase synergies with seed crop companies (unless the scenario involves non-GMO seed crops). Also, depending on resources and confidence in feasibility of new small-scale commercial crops, the County might add additional personnel with expertise in agriculture to its Office of Economic Development.

### **Discussion of Scenario 3 (“Medium Growth”)**

**General Description:** This scenario is implicitly a short- to medium-term one in which a single Kaluako‘i hotel is developed (along with re-opening of the Lodge at Maunaloa) and either GMO seed crops remain or are replaced “by a new crop that provides similar or greater number of jobs and benefits (to be determined).” Small businesses gradually grow but are “limited to specific areas” (presumably mostly Kaunakakai and some in Kaluako‘i and/or Maunaloa).

**Key Challenges Posed by This Future:** The scenario specifies a Kaluako‘i “hotel” and not a condo-tel or timeshare, which would provide fewer on-site jobs. The most obvious (but far from insurmountable) challenge is training or retraining Moloka‘i workers for these service jobs – perhaps especially if the economics of the hotel demand targeting a more upscale market expecting service levels to match higher room rates. There are a host of associated social issues, including the perennial one in lightly populated rural areas of finding managers/supervisors familiar with local culture and able to deal with networks of family or friends at different pay levels and ranks of authority.

If the scenario also involves replacement of GMO seed crops with another crop providing similar/greater jobs and benefits, then another challenge is determining what that crop would be. One candidate previously mentioned is non-GMO seed crops. The current best guess is that these would not provide as many jobs, but withdrawal of current companies would certainly provide some motivation to explore how true that is.

#### **Non-County Factors That May Affect What Happens Under This Scenario:**

Assuming no substantial barriers to reopening the Lodge, the biggest factor for this scenario is Moloka‘i Ranch’s analysis of the economic feasibility of redeveloping a hotel at Kaluako‘i, one that meets the political test of community acceptance. Beyond that, the hotel must have the amenities and marketing savvy to be successful and remain in business. There are very few Hawai‘i examples of stand-alone large resort hotels that have been consistently profitable over the years. The Turtle Bay Resort is doing well at present, but has undergone periods of low occupancy and has always been the presumed anchor point of a planned larger resort. A single hotel on Moloka‘i would have to develop a very unique brand, and that suggests a well-planned program of special environmental and/or cultural attractions actively supported by the Moloka‘i community (and perhaps by the larger Native Hawaiian and environmental communities on all islands with a sense of attachment to Moloka‘i’s resources).

Also, the scenario *may* include some offshore non-GMO corporation providing a “new crop.” Any such new company coming to Moloka‘i must also learn the Moloka‘i culture, and Moloka‘i must also be willing to trust/support such a new offshore company.

**Potential County Policies to Create, or Respond to, This Scenario:** As the key element here is a successful new Kaluako‘i hotel, the most important County policy for *creating* the scenario is a positive attitude in permit processing. This does not mean “rubber-stamping,” but rather a determination to work hard and quickly with both

developer and community to work out solutions to legitimate problems. It also may mean County efforts to determine the real extent of (and reasons for) any lingering opposition following such efforts to create solutions – i.e., surveys rather than counting highway signs or t-shirts at public meetings.

County *responses*, once a new hotel has final Shoreline Management Area (SMA) and building permits in hand, might include: (a) encouragement of or support for recruitment and training to maximize employment of Moloka‘i residents (or returning former residents) in both construction and operations; (b) perhaps involvement in, but certainly a positive attitude in permit processing for, new cultural and/or environmental attractions shown to have won community acceptance, and new off-site businesses (e.g., restaurants) that fit the needs of both residents and new visitors.

### **Discussion of Scenario 4 (“Full Growth”)**

**General Description:** This is implicitly a longer-term scenario that largely builds on Scenario 3 by substantial additional build-out of already-approved (except for SMA and building permits) West End lodging sites and residential development. Commercial agriculture is assumed to remain constant, or perhaps grow slowly, in terms of net jobs.

**Key Challenges Posed by This Future:** This is about substantial growth, though over time, and that has been something to which Moloka‘i has been historically allergic. Depending on the rate and final absolute size of population growth, it can be anticipated that there would be substantial concerns about demographic changes (including the possibility the Native Hawaiian population would fall below 50%), strains on infrastructure, and pressures on natural resources. So the overall challenge here involves controlling the rate of growth (something easier said than done) and willingness to accept that socio-economic change is hard to engineer to just the right mix of new economic benefit and preserving current social/environmental assets – risk always accompanies the prospect of reward, for communities as well as for companies.

The specific challenges involve ways to reap economic benefits while still “keeping Moloka‘i Moloka‘i” in each individual dimension of concern: infrastructure, natural resources, and culture. The good news is that “keeping Moloka‘i Moloka‘i” is also be in the interests of resort developers/operators and probably of ag corporations as well.

**Non-County Factors That May Affect What Happens Under This Scenario:** Again, this scenario cannot occur without the investment of private capital and development of successful business models. For future “hotels,” these business models might turn out to be condo-tels or timeshares, which would somewhat lessen the demand for labor that could result in population growth through in-migration (some of which might be return of past Moloka‘i out-migrants) or through prevention of future out-migration. But the really important business decisions would involve private or public-private programs to maintain the “Moloka‘i brand” of culture and natural resources. There is of course risk in assuming these would turn out successfully from both the community and the corporate perspectives, but there is reason to be hopeful: A fully-developed Moloka‘i resort still is

unlikely to succeed as “just another Maui-style resort,” so Moloka‘i Ranch and/or future resort partners would need to seriously consider major conservation steps (such as dedication of sensitive lands) and support of community-based cultural attractions. Seed crop companies want to retain labor, and if they remain on the island may well at some point see the public-relations benefits of developing their own visitor centers and supporting positive environmental programs on Moloka‘i, not just defending themselves.

The long-term importance to the Moloka‘i population of continuing as a predominantly Native Hawaiian island is something that remains to be seen, but it is not something the County can constitutionally address. However, DHHL tends to invest more in residential development where there are jobs, and this represents the best practical means for maintaining a high Native Hawaiian proportion of a growing population.

At least two other “wild cards” are beyond either County or private-sector control:

- Will the courts require, as at Turtle Bay, a full “Supplemental” Environmental Impact Statement for resort build-out, and will it be accepted?
- Stemming from the current Native Hawaiian Roll Commission, will a new governing entity be accepted by the Hawaiian community, complete its negotiations with State and federal governments, and perhaps absorb DHHL lands throughout Hawai‘i in this timeframe? Will its policies be governed more by the need for revenue (implying support for economic development) or more by “preservation of traditional lifestyles?”

**Potential County Policies to Create, or Respond to, This Scenario:** To *create* this scenario, the County would simply need to facilitate remaining hotel permits (and, again, do whatever it can to encourage more synergies between large-scale and small-scale farming). However, the County's challenge will be also be to try and manage the pace of development and to foster growth that is appropriate to Moloka‘i. That suggests being able to respond to changing circumstances on an ad hoc basis and so perhaps *not* specifying many firm policies.

To *respond* to this scenario, the County will likely be under pressure to react to a remaining community issue – the sense of dependence on large outside forces and a desire to increase local control as much as possible. Part of an appropriate response could involve continuation of current actions to stimulate internet sales of small businesses. Part could involve initiatives to connect Hawai‘i experts in community-based economic development with large employers willing to help. And part could involve encouragement of the previously mentioned possible countywide economic cluster analyses to determine Moloka‘i niches (p. S-21), though that sort of process is now being primarily led by private-sector consortiums rather than government.

#### 4. INTERVIEWEES, 2015

<u>NAME</u>	<u>AFFILIATION</u>
<b><i>Landowners, Shipping, Key Misc.</i></b>	
Giorgio Caldarone	Director of Real Estate Planning, Kamehameha Schools
Clay Rumbaoa	CEO, Moloka'i Properties Limited
Lavinia Currier, Jann Roney	Owner, Manager, Pu'u O Hoku Ranch
Kaleo Manuel and Nancy McPherson	Interim Director and Planner, Department of Hawaiian Home Lands
Davianna McGregor	Professor, UH-Mānoa Department of Ethnic Studies
Scott Nakasone	Acting Administrator, State Dept. of Human Services, Benefit, Employment and Support Services Division
<b><i>Non-Profits, Social Services</i></b>	
Harmonee Williams	Moloka'i Food Hub Coordinator, Sust`āinable Moloka'i & Markline
Janice Kalanihuia	President, Moloka'i General Hospital
Karen Holt	Executive Director, Moloka'i Community Service Council
Brent Kakesako, Ben Costigan	Executive Director, and Staff, Hawai'i Alliance for Community Based Economic Development (HACBED)
John Harrison	Project Director, Maui Economic Development Board (MEDB)
<b><i>General Business</i></b>	
Jodi Puaoi	Manager, American Savings Bank
Jennifer Hawkins	Small Business Specialist, Kuhao Business Center
Lori-Lei Rawlins Crivello	Owner, Rawlins Chevron Service
Edmund Wond	Owner, NAPA Friendly Isle Auto Parts
Diane Swenson	Owner, Tropical Island Properties
Barbara Haliniak	President, Moloka'i Island Foundation
Rob Stephenson	President, Moloka'i Chamber of Commerce
<b><i>Energy</i></b>	
Peter Rosegg	Senior Spokesman, Hawaiian Electric Company (HECO)
Veronica Rocha	Renewable Energy Program Manager, DBEDT Hawaii State Energy Office
David Parsons	Economist, Hawaii Public Utilities Commission
<b><i>Tourism</i></b>	
Julie Bicoy	Director, Destination Moloka'i Visitors Association
Michael Drew	General Manager, Hotel Moloka'i
Clare Mawae	Owner, Moloka'i Outdoor Activities
Tim Forsberg	Owner, Moloka'i Fish and Dive
Nancy Poland	Owner, Moloka'i Ocean Tours
Leilani Tanaka	Owner, Moloka'i Adventures
Terryl Vencil	Executive Director, Maui Visitors Bureau (MVB)
<b><i>Water</i></b>	
Eva Blumenstein	Planning Program Manager, Maui County Water Department of Water Supply
Charley Ice	Staff, Commission on Water Resource Management (CWRM)
Juanita Colon	General Manager, Kawela Plantation
<b><i>Agriculture</i></b>	
Amanda Lowrey	Sanitarian, Hawai'i Department of Health (DOH), Sanitation Branch
Robert Howerton	Aquaculture Extension Specialist, County of Maui, Office Of Economic Development, Aquaculture & Marine Sciences
Alton Arakaki	Extension Agent- Moloka'i, UH-Mānoa, College of Tropical Agriculture and Human Resources (CTAHR)



<b>NAME</b>	<b>AFFILIATION</b>
Glenn Teves	Assistant County Extension Agent-Moloka'i, UHM College of Tropical Agriculture and Human Resources (CRAHR)
James B. Friday	Extension Forester, UH-Mānoa College of Tropical Agriculture and Human Resources (CTAHR)
Warren Watanabe	Executive Director, Maui County Farm Bureau
Randy Teruya	Agricultural Asset Manager, Hawaii Department of Agriculture (DOA)
Tuddie Purdy	Owner, Purdy's Natural Macadamia Nuts
Jack Spruance	General Manager, Moloka'i Livestock Cooperative (MLC)
Tina Tamanaha	General Manager, Hikiola Cooperative
Steve Chaiken	Owner and Operator, Moloka'i Sea Farms
Dawn Bicoy, Ray Foster	Community Affairs Manager, Site Manager, Monsanto Moloka'i
Adolph Helm, Kirby Kester	Project Manager, Hawai'i Research, and Development Leader, Dow Agro-Science