



United States Virgin Islands Comprehensive Economic Development Strategy 2020-2025

Prepared by: University of the Virgin Islands Center for Excellence in Leadership and Learning (UVI CELL)

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Executive Summary

The United States Virgin Islands' Comprehensive Economic Development Strategy (CEDS) is a continuum report that builds on the past findings of previous economic development reports within the United States Virgin Islands. This report provides an overview of economic and fiscal conditions in the U.S. Virgin Islands (USVI) and a framework for understanding and correcting fiscal and economic challenges facing the Territory. In so doing, the report seeks to understand the challenges that have impacted the US Virgin Islands by placing heavy emphasis on the Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis to better understand existing and future economic trends. To accomplish this task, an in-depth analysis was conducted looking at the following frames:

- Government of the USVI's Economic Impact – The direct, indirect, and induced effects of GVI spending on the local economy between 2015 and 2020.
- State of the USVI Economy – An analysis of current economic indicators that reflect a clear representation of existing conditions in the Territory.
- Economic Competitiveness – A review of the strengths, weaknesses, opportunities and threats facing the Territory and suggested ameliorative strategies to chart a resilient and sustainable future for the USVI.
- Economic Resilience Factors – A group of indicators that when present and active lend credence to the establishment and maintenance of a resilient island territory.
- Hazard Mitigation – Due diligence requirements that must be adhered to in an effort to stave off the degree and extent of unfavorable impact prior to, during, and after disasters.
- Sustainable Development Goals – Internationally accepted norms that enhance the livelihood of humankind while maintaining balance in the natural environment.

- Economic Nexus – Strategic links between existing economic conditions and the demonstration of need for resources to improve situations and circumstances while building a stronger and less vulnerable future.
- Territorial Resilience Framework – Representation of goals, objectives, strategies, resources, timeframes, and project leads that lay out the path for an enhanced resilient future for the Territory.
- Framework Implementation Tracker – An electronic based program used to manage and monitor the progress of the framework for reporting purposes
- Future USVI Impact – Projections of the estimated economic impact resulting from the implementation of the resilience framework

In establishing the CEDS report, the taskforce scheduled a series of townhall meetings throughout the USVI, held interviews with key stakeholders' groups, conducted surveys and used the information gathered to build consensus around the common themes for a resilient future as expressed in the Territorial Resilience Framework. It was found that a common trend of priorities essential for economic growth and sustainability for the USVI economy was articulated as follows: Government support systems; quality education and health; strong business attraction, retention and expansion environment; infrastructure, environment and quality of life; economic competitiveness; diversification and growth of the economy with quality well-paying jobs; workforce development; and enhancement, management and conservation of natural resource.

The USVI Comprehensive Economic Development Strategy is built around the Island Resilience Model that emphasizes Leadership and Strategy, Society and the Economy; Health and Well-being; and Infrastructure and the Environment. The vision and mission are supported by performance goal, measurable objectives, strategic actions, resources, timelines, and project leads. Once well implemented, it is projected that CEDS 2020-2025 will have an estimated economic impact of \$8.3B on the economy of the USVI.

Island Resilience Framework





View of Fort Christiansvaern

Part I: USVI Situational Analysis

GVI Economic Impact 2015-2020

Prior to the storms of 2017, the USVI enjoyed a robust \$3.2 billion economy consisting of a dynamic yet overweighted mix of hospitality services, manufacturing, and financial services. The Territory's natural beauty and resources, azure waters, and strategic location attracted many visitors and companies from the US mainland and the rest of the world. Of late, the main technology and agriculture clusters have been boosted in light of the BVI's closure due to the pandemic and the passing of agriculture production legislation.

The following tables summarize the cumulative impact of General Fund, Federal and disaster relief spending on employment, earnings, value-added and output in the U.S. Virgin Islands during fiscal years 2015 through 2019. Using the IMPLAN input-output modeling system

– an analytic tool commonly used in economic impact studies – CELL estimates (as shown in Table 4) that during this five-year period, spending from these sources directly and indirectly accounted for:

- 110,022 person-years of employment in the U.S. Virgin Islands, with more than \$5.788 billion in earnings (2017);
- More than \$8.815 billion in Territory-wide economic output; and
- More than \$7.735 billion in value-added.

In annual terms, these five-year impacts translate into an annual average of:

- 22,004 jobs in the U.S. Virgin Islands, with approximately \$1.158 billion in annual earnings (in 2017 dollars);
- More than \$1.763 billion in annual Territory-wide economic output; and
- More than \$1.547 billion in value-added.¹

Table 1: Direct, indirect and induced impact of USVI General Fund spending, FY2015-FY2019 (employment in person-years; income, value-added and output in thousands of 2017 dollars)

	Employment	Earnings	Value added	Output
Direct Effect	48,377	\$2,916,851.8	\$3,317,350.5	\$3,608,506.7
Indirect Effect	976	75,750.0	116,628.3	136,272.5
Induced Effect	10,818	554,125.1	1,127,714.2	1,337,784.6
Total Effect	60,171	\$3,546,726.9	\$4,361,893.0	\$5,082,563.8

¹ In this context, value added is equivalent to the combined contribution of spending from these sources to the Territory's gross domestic product (GDP). We estimate that during the five-year period General Fund, federal and disaster relief spending accounted for an average of more than 39 percent of the Territory's GDP.

Table 2: Direct, indirect and induced impact of USVI Federal project spending, FY2015-FY2019 (employment in person-years; income, value-added and output in thousands of 2017 dollars)

	Employment	Earnings	Value added	Output
Direct Effect	24,877	\$1,064,054.1	\$1,315,085.2	\$1,485,957.4
Indirect Effect	580	44,631.0	72,885.3	87,161.0
Induced Effect	4,000	204,928.2	417,054.6	494,743.5
Total Effect	29,457	\$1,303,613.6	\$1,805,025.1	\$2,067,861.9

Table 3: Direct, indirect and induced impact of USVI disaster relief spending, FY2015-FY2019 (employment in person-years; income, value-added and output in thousands of 2017 dollars)

	Employment	Earnings	Value added	Output
Direct Effect	16,791	\$727,247.3	\$986,860.4	\$1,218,912.3
Indirect Effect	765	55,153.6	85,952.9	103,846.2
Induced Effect	2,838	145,392.0	295,891.0	351,009.6
Total Effect	20,394	\$927,791.9	\$1,368,704.3	\$1,673,768.1

Table 4: Combined direct, indirect and induced impact of USVI General Fund, Federal and disaster relief spending, FY2015-FY2019 (employment in person-years; income, value-added and output in thousands of 2017 dollars)

	Employment	Earnings	Value added	Output
Direct Effect	90,045	\$4,708,153.5	\$5,619,495.9	\$6,307,376.4
Indirect Effect	2,321	175,534.6	275,466.5	327,279.7
Induced Effect	17,656	904,445.3	1,840,659.3	2,183,537.7
Total Effect	110,022	\$5,788,133.4	\$7,735,621.7	\$8,815,193.8

According to the Bureau of Economic Research, the USVI's economy performed better in 2018 and 2019, with strong indicators showing positive real economic growth, higher revenues, decreasing unemployment, and improving fiscal balances and liquidity positions for the central government. In 2020, amidst the pandemic and significant economic reduction, the Territory still fared well especially in the areas of revenue collection in government and the measured yet constant uptick in the number of overnight visitors to the Territory in the absence of cruise ship visitors. The improvement in economic performance was primarily due to an infusion of Federal disaster relief assistance and the incremental advances in financial services being made through USVI EDA and UVI RTPark economic incentives programs that attract established businesses and start-ups of the Territory.

While the Territory continues to advance with the influx of federal resources, global economic adjustments coupled with the local high costs of energy and the prospect of a failing pension system overshadow the economic strength of the USVI until those concerns could be adequately addressed. The implementation of recommendations in the Resilience Framework should help to offset shortfalls and create a rebounding effect for the economy in the foreseeable future. The global impact of the pandemic is resulting in an unfavorable domino effect on economies including that of the USVI. Containment and mitigation efforts are straining economies and significantly reducing the movement of people and in turn, the hospitality industry, which is heavily weighted in the USVI. Populations are diminishing, mental health and other social issues have exploded, and humankind is wary of the impending long-term effects of the economy and the possibility of a further recession. The revised annual growth rate for the US shows a downward annual growth rate of 1.9% compared to 2.1% before the COVID-19 economic impacts were deemed to be substantial (OECD, 2020). Internally, the main challenge for the Territory is to continue to improve the capacity to manage, disburse, and supervise the execution of programs supported by Federal disaster-relief and mitigation grants.

Economic Base Analysis

The United States Virgin Islands' economic situation started to gradually recover late 2018 to early 2019 after years of slow growth in economic output, high unemployment, per capita income growth, and challenging weak financial conditions. In 2019, the economy recorded more tourist arrivals, registered lower unemployment rates, and witnessed a spike in tax revenue that is helping to improve public finances, and realized improvements in the delivery of essential public services. Real economic growth was projected to be positive in 2019 and continued in 2020. According to the Bureau of Economic Research, the recovery process, started in 2018, was expected to continue into the first quarter of 2020, with the inflow of up to \$6.08 billion allocated in Federal disaster-related relief in the Territory obligated and expended. Nevertheless, the economic sustainability faltered in the remaining quarters of 2020 due to external environmental threats brought on by the global pandemic. As of Dec. 31, 2019, according to the Office of Disaster Recovery, \$1.82 billion out of \$3.98 billion or 45.7% of Federally obligated funds were expended.



View of Magens Bay

Background

About the US Virgin Islands

The Territory of the US Virgin Islands (USVI) is an area of 135 square miles. The region became a US Territory in March of 1917 when regional control was transferred from Denmark to the United States. Prior to the transfer, the islands were known as the Danish West Indies. The Territory is comprised of three primary islands (St. Croix, St. Thomas, and St. John) and two smaller islands (Water Island and Hassel Island). The Territory has a combined population of 105,080. The Territory lies 1100 southeast of Florida and 40 miles east of Puerto Rico. St. Thomas and St. John are located three miles apart while St. Croix is located approximately 40 miles south of St. Thomas. (UVI, 2012).

Figures 1, 2, and 3 show the total visitor arrivals for the period 2015-2020. After two strong years of travel and leisure to the USVI, the number of persons traveling to the Territory shrank significantly as a result of the storms of 2017. The numbers rebounded steadily in 2018 and 2019 until 2020 when travel restrictions, due to the pandemic, were implemented. Overnight visitors, however, have rebounded seeing that cruise ships are moored, and those passengers are unable to utilize such means of travel.

Total Visitor Arrivals FY 2015-2020

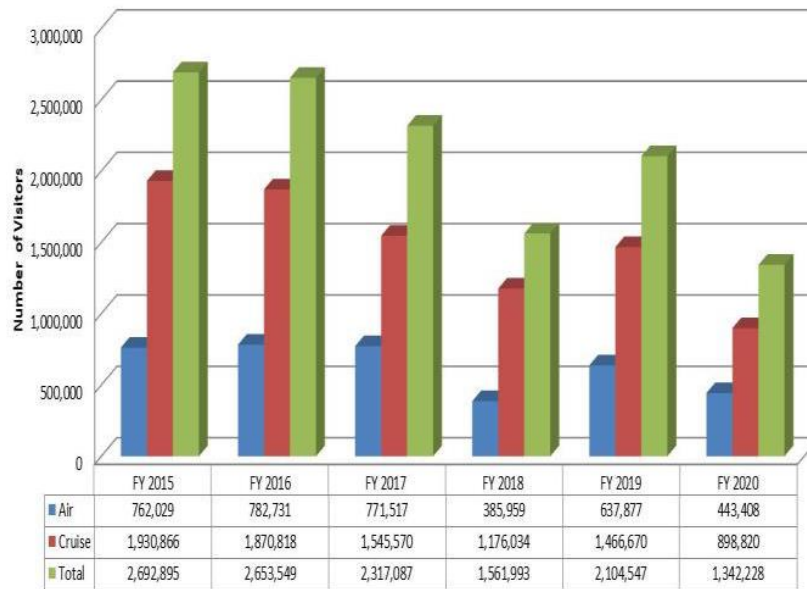


Table 4 shows the demographic data for the Territory (DeGazon, 2020). Of note is the 53.9% level of internet users. This use level puts the Territory in the bottom third of internet users among Caribbean island states. The Caribbean region, in turn, is in the bottom half of the world connectivity (Internet, 2019). This has significant implications regarding workforce readiness for most globally-competitive economic sectors. Also noteworthy is the Territory's 2017 per capita income (\$22,924), which is significantly less than half that of the US average for the same year (\$59,928) despite the Territory's significantly higher cost of living with respect to housing, food and power (GDP, 2020).

Table 4. USVI Demographics

SIDS Data	USVI
Population	96,815 (2017)
Ethnic Groups	76% Black, 15.6% White, 1.4% Asian, 17.4% Hispanic or Latino, 10.3% Puerto Rican, 5.4% Dominican
Religions	Protestant 65.5%, Roman Catholic 27.1%, other Christian 1.8%, unaffiliated 3.7%, other religion 1.9%)
Languages	English, Spanish, French, French Creole
Literacy Rate	94.9% (adults)
Internet Users	53.9% (2017)
Income per Capita	\$22,924 (2017)

Economy of the US Virgin Islands

The US Virgin Islands' economy grew at an annual rate of 1.5% to \$3.2 billion while per capita income increased 1.8% to \$30,336 in 2018. (Source: Bureau of Economic Analysis 2018) The number of private sector employees in the US Virgin Islands increased 0.8% to 29,823 in 2017. (Source: County Business Patterns 2017). Figure 1 displays private sector employment for establishments with fewer than 500 employees from 2008 to 2017. Establishments with 1 to 19 employees have the largest share of small establishment employment. (Source: CBP 2017) Table 1 provides additional details on US Virgin Islands' employment by industry. (Source: CBP). Figure 2 displays the evolution of US Virgin Islands' imports, exports, and trade balance from 2002 to 2018. (Source: BEA 2018). In 2018, US Virgin Islands' total exports decreased 19.6% to \$1.4 billion, while its total imports increased 1.8% to \$2.4 billion. This resulted in a 2018 trade deficit of \$989.0 million. (Source: BEA 2018). Exports and imports reflect trade between US Virgin Islands and the rest of the world, including the US.

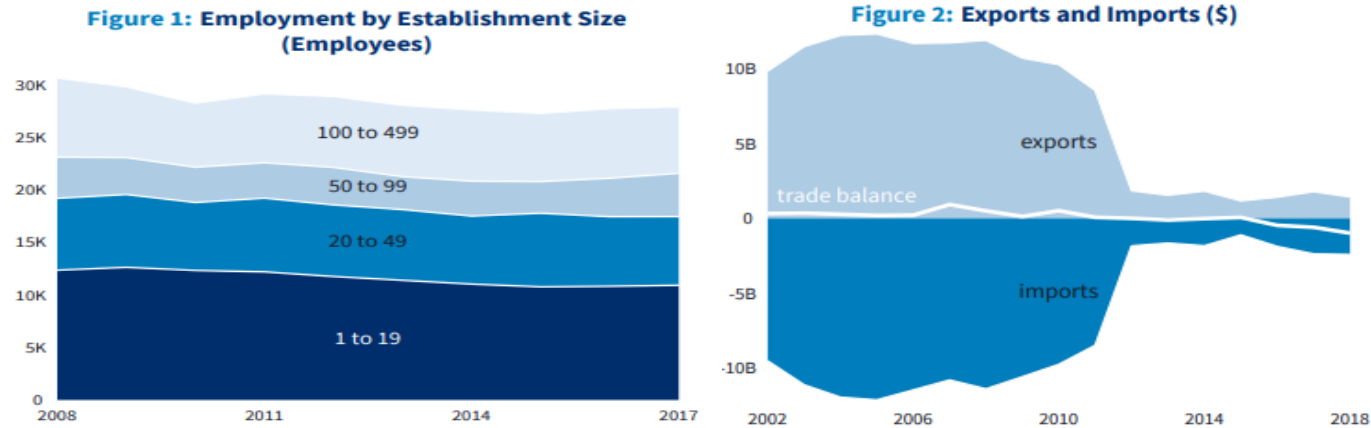
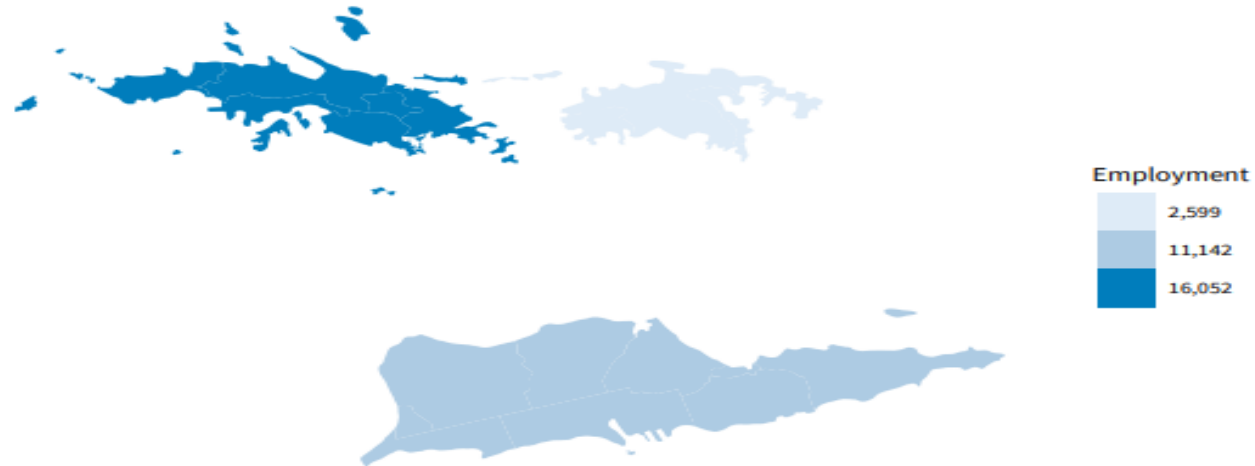


Table 1: US Virgin Islands Employment, Establishments, and Payroll by Industry, 2017. (Source: CBP)

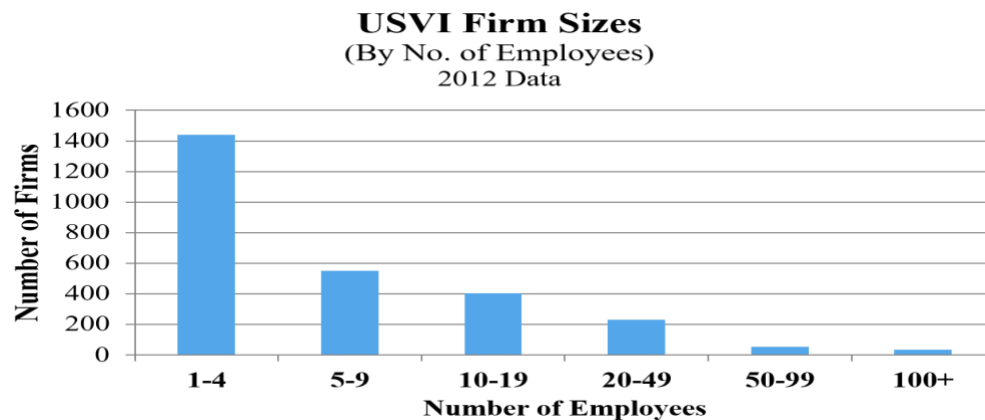
Industry	Total Private Employment	Total Private Establishments	Annual Payroll (\$ Thousands)	Annual Payroll per Employee (\$)
Accommodation and Food Services	7,157	315	169,139	23,633
Retail Trade	6,222	499	130,704	21,007
Health Care and Social Assistance	3,268	239	136,205	41,678
Administrative, Support, and Waste Management	1,889	161	53,848	28,506
Transportation and Warehousing	1,787	115	54,768	30,648
Construction	1,401	150	66,491	47,460
Professional, Scientific, and Technical Services	1,205	229	80,213	66,567
Other Services (Except Public Administration)	1,123	228	31,011	27,614
Finance and Insurance	1,090	120	64,828	59,475
Real Estate and Rental and Leasing	1,052	196	41,759	39,695
Information	741	46	32,488	43,843
Arts, Entertainment, and Recreation	686	48	13,921	20,293
Wholesale Trade	675	60	29,471	43,661
Manufacturing	650	46	37,243	57,297
Educational Services	637	32	18,127	28,457
Management of Companies and Enterprises	88	7	4,991	56,716
Industries not Classified	54	17	887	16,426
Utilities	43	5	2,828	65,767
Mining, Quarrying, and Oil and Gas Extraction	5	3	5	-
Total	29,823	2,517	971,148	32,564

Figure 3: US Virgin Islands Employment by Municipality, 2017. (Source: CBP)



Given that the US Small Business Association defines “small businesses” as having 500 employees or fewer, the US Virgin Islands’ economy is driven by micro-businesses as firms with fewer than 50 employees comprise 95% of the more than 3000 businesses in the Territory. In fact, nearly 80% of USVI businesses have 10 employees or fewer and nearly half have fewer than five (USVI BER, 2016). (See distribution illustrated in Figure 4.)

Figure 4. USVI Firm Size by Number of Employees



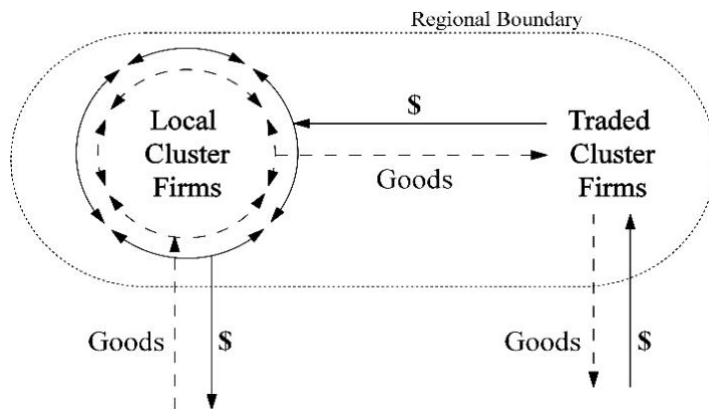
Before the dual hurricanes in 2017, from 2007 to 2017, the economy of the USVI experienced a protracted period of decline, as measured by GDP, associated with the 2008 Great Recession in the United States and the closure of the Hovensa oil refinery in 2012. The Territory's GDP has declined from \$4.46 billion (2007) to 3.73 billion (2017) (USVIBER, 2019). These numbers do not even reflect the devastation caused by two category five hurricanes in 2017.

The Territory's economic vulnerability is heightened by its narrow export-base and the overwhelming dependence on tourism estimated to account for 30% of GDP and another 30% through the multiplier effect (USVIBER, 2019). Tourism is the largest industry, contributing one-third of total employment and the primary source of export revenue (USVIBER, 2019). Such a high concentration of economic activity in a single industry or sector exposes the economy to risks associated with the lack of diversification, including less broad-based and sustainable growth, high prospects of loss of export earnings, and loss of sectoral spill-overs (Acemoglu & Zilibotti, 1997; Briguglio & Galea, 2003; Papageorgiou & Spatafora, 2012). Economic policy also matters. A comparative study analyzed the economic resilience to economic shock of the USVI and Aruba, two similar economies with dissimilar economic policies. In this study, three measures of resilience (initial drop, bounce back fraction, recovery time) were calculated for five economic measures (GDP per capita, Per capita income, Unemployment rates, Exports per capita and income per capita). The US Territory's economy was shown to be statistically less resilient to economic shocks than the Aruban economy (DeGazon, 2020). While the study was not able to state which specific policy made a difference, it did unequivocally demonstrate that regional economic policies matter for SIDS (Small Island Developing States).

Regional Economic Growth

Before assessing how to implement a strategy for economic growth in the Territory, such growth needs to be defined and measured. An economic system grows when it generates monetary value. Regional economic development is typically focused on creating, growing, or attracting what Michael Porter calls "traded cluster" firms (Porter, 2003) into the region. As these firms primarily serve markets outside the region, they bring in monetary value to the region (as illustrated by the "\$" in Figure 5). The "Goods" label in Figure 5, represents physical and intellectual goods in addition to services.

Figure 5. Regional Economic Ecosystem



In contrast to traded cluster firms, “local cluster” firms primarily serve markets within the region. While the local cluster firms create a quality of life for the region and often provide the most regional jobs, from a monetary standpoint they primarily shuffle money around the region. The local-cluster firms also cause the region to dissipate monetary value as they often rely on goods and services (raw materials and supplies) from outside the region. This causes money (and therefore regional economic value) to leave the region.

Measuring Regional Economic Growth

The regional economy can be measured in GDP per capita or per capita income or a variety of other measures. Jobs or unemployment rate is not a particularly useful measure of regional economic growth, however, as negative economic value-added jobs can be created. In an extreme example, the government could employ 100% of the Territory’s workforce, driving unemployment to zero. However, the money required to support those jobs would have to come from outside the Territory, creating a negative economic value for the Territory.

Economic Structure and Performance

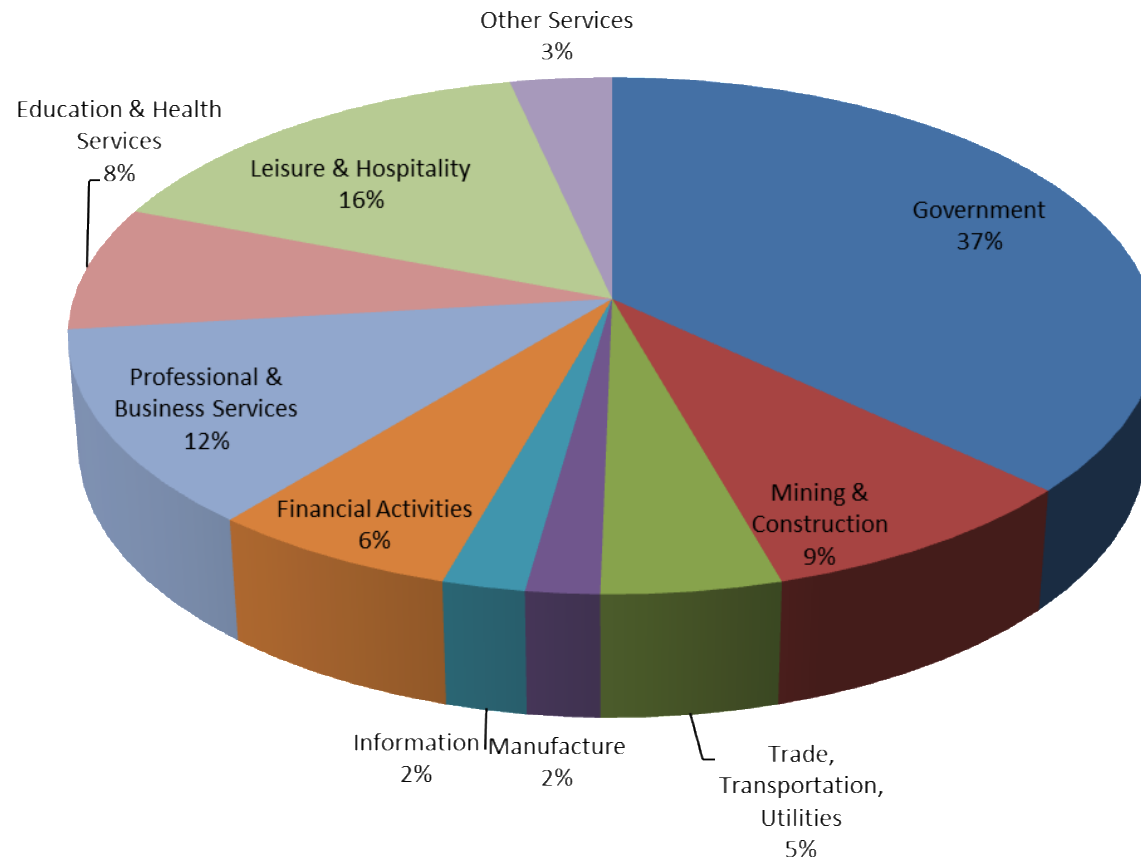
Size of the Economy

The US Virgin Islands' economy is extremely vulnerable to natural disasters such as windstorms, earthquakes, and tsunamis, , as well as external economic shocks due to the high degree of trade dependence and lack of economic diversification in the Territories. As the Bureau of Economic Research asserted, the most recent Gross Domestic Product (GDP), which is the market value of all final goods and services produced in a given period, was estimated by the US Bureau of Economic Analysis (BEA) at \$3.984 billion in nominal terms for 2018. Of the five insular US Territories, the USVI is the third-ranked economy for 2018. The USVI surpassed the Commonwealth of the Northern Mariana Islands (CNMI) (1.5b) and American Samoa (\$684 m) but was dwarfed by Puerto Rico (\$101 billion), and slightly smaller than Guam (\$5.3 b). All of the US insular Territories, except Puerto Rico, are much smaller in terms of GDP than any of the 50 states and the District of Colombia. GDP estimates for 2019 will not be available until the third quarter of 2020. However, it is expected that the Territories will have another year of expansion due to ongoing trends of reconstruction activities.

Structure of the Economy

The USVI's economy is mainly service-oriented with a small manufacturing sector and a largely moribund primary sector (agriculture, fisheries, mining, and extraction). Because of the small market size (approximately 96 to 104,000 persons depending on the source of population estimates used), limited natural resources, small landmass, and high cost of energy, little is produced domestically for internal consumption. Most goods are imported for either direct consumption or for resale, making the trade very critical. Value-added by industry as a percentage of GDP shows that the average contribution for goods-producing industries is 14% and 64.6% for service industries for the period 2015-2017. The contribution of manufacturing to GDP dropped precipitously from approximately \$800 m to \$500 m per year with the closure of Hovensa in 2012 and has not yet recovered. With the commissioning of Limetree Bay Refining, LLC ("Limetree Refinery") in 2020, the contribution of manufacturing to GDP will most likely increase.

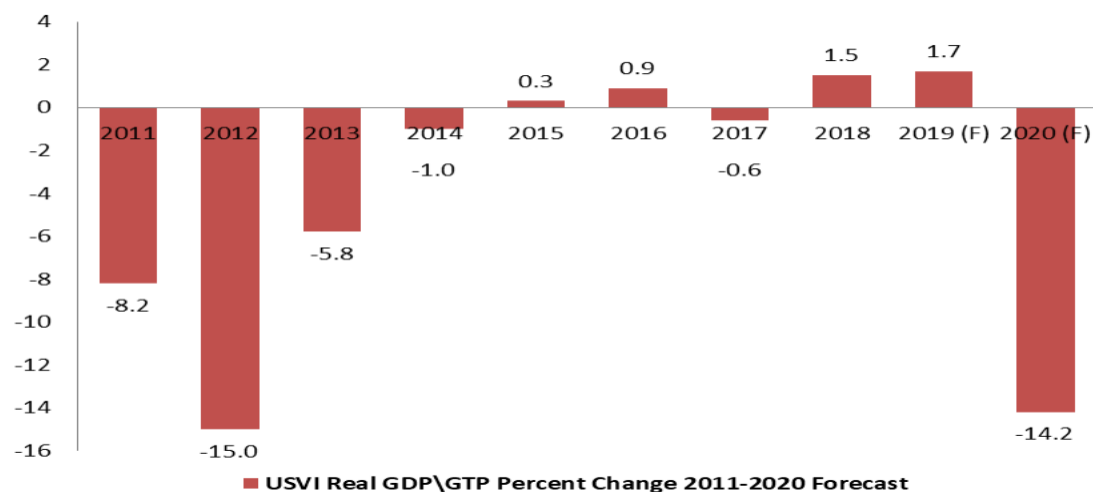
PERCENT OF NON-AGRICULTURAL JOBS, FY 2020



Real Growth Rates

The Bureau of Economic Research reported that the real economic growth rate, that is, the growth adjusted for the effects of inflation, for 2018 was 1.5%. The growth in the overall economy was driven by a 38.7% increase in government spending, a 51.4% increase in private fixed investment, and a 1.4 percent increase in consumer spending. Declines in tourist arrivals in 2018 compared to 2017 help explained reduced net exports. It can be inferred therefore that real economic growth has been volatile over the last decade or so. The coefficient of variation for growth rates (mean divided by variance) is high, calculated to be 1.96. High volatility increases investment uncertainty, contributes to government revenue volatility, which in turn complicates budgeting and heightens the likelihood of fiscal imbalances and the persistence of structural budget deficits. The expand-contract cycle of economic performance is due to large adverse external shocks—Great Financial Recession of 2008-2009 that reduced the number of visitors; the closing of Hovensa oil refinery in 2012 that reduced the manufacturing working force considerably; and the adverse effects of two major hurricanes in 2017 that caused an estimated \$10.96 billion worth of damages, more than twice the size of GDP. The lack of economic diversification that characterizes the economy also amplifies the ill effects of shocks. The pillars of the economy are tourism and government expenditures. Tourism expenditures as a share of GDP averaged 30% annually between 2007 and 2018, and the government as a share of GDP over the same period was 26%, together totaling 56%.

Figure 6. GDP/GTP Percent Change 2011-2020



Income Levels and Growth Rates

Per capita incomes in constant dollars to adjust for the effects of inflation in the Territory have shown some improvement in recent years, but overall, the periods between 2013 through 2015 have been relatively flat compared to the mid-2000s. The per capita levels for the Territory are the highest among insular territories, and superior to all other sovereign independent Caribbean states, and inferior only to the Cayman Islands, a British dependency that relies on Citizenship and Residency by Investment (CBI), offshoring banking, and tourism.

In March 2016, Act No. 7856 authorizes step wage increases to USVI public sector employees and Act No. 7873 raised the Territory's minimum wage to \$10.50 by calendar year 2018. Mullin Associates, Inc. was contracted by the Government to conduct a 2016 update to the 2010 Living Wage Self-Sufficiency Standard prior to signage of Act 7873. During this period, an estimated 14,416 workers—or about 37 percent of the USVI workforce—would receive a pay raise, resulting from the passage of this bill. An estimated increase aggregate of earnings would range from \$16.6 million to \$57.1 million. Act 7873 allowed for the minimum wage to rise to \$8.35 in June 2016, to \$9.50 in June 2017 and then to \$10.50 on June 1, 2018. According to the Virgin Islands Bureau of Labor Statistics, the annual average salary in the Territory in 2015 was \$39,258, a 2.6 percent growth over \$38,252 in Table 1. In calendar year 2018, the average salary rose to \$47,321 from \$40,759 in 2017. Overall, increases in non-agricultural industry wages contributed to a 10.8 percent increase in calendar year 2019.

Table 1

Territory Annual Average Salary CY 2014-CY 2019	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019
Annual Average Salary	\$38,252	\$39,258	\$39,802	\$40,759	\$47,321	\$52,414
Percent Change		2.6	1.4	2.4	16.1	10.8

Source: BLS, DOL

Complied by: DER, OMB

Table 2 illustrates salaries of both the public and private sectors for calendar years 2014-2019. The passage of Act 7873 and residential and commercial rebuilding due to Hurricanes Irma and Maria, partly contributed to growth in the private sector salaries in calendar years 2017 and 2018. Construction and other services related to increases in rebuilding activities, related to the infrastructure damages caused by the 2017 Hurricanes Irma and Maria. A continued uptick in wages of other services and construction in 2019 was attributed to the restart of the Lime Tree Bay refinery's activities.

Table 2

Public and Private Salary CY 2014-CY 2019	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019
Public (Local & Federal)	\$49,915	\$49,858	\$51,133	\$51,128	\$55,086	\$57,875
Percent Change		-0.1	2.6	0.0	7.7	5.1
Private	\$33,916	\$34,088	\$34,443	\$35,495	\$43,771	\$50,371
Percent Change		0.5	1.0	3.1	23.3	15.1

Source: BLS, DOL

Complied by: DER, OMB

Table 3 examines both local and federal public sector salaries. The average federal employee salary in the Territory rose to \$81,801, an 8.7 percent increase over calendar year 2014. Additionally, federal employees working in the US Virgin Islands are also eligible for a “Cost of Living Adjustment” (COLA) A cost-of-living adjustment is an increase in salaries based on the Consumer Price Index (CPI) to counteract the effects of inflation. Recipients of Social Security, Supplemental Security Income, and retirees are examples of persons that are COLA participants. In December 2019, U.S. President Donald J. Trump issued an executive order, allowing federal workers across the board to receive a 2.6 percent salary increase, for the upcoming federal budget cycle. The implementation of unionized salary agreements, partly contributed to the increase of salaries \$46,915 in calendar year 2014 to \$49,858 in calendar year 2015 a growth of 6.3 percent. Additional step increase for both union and non-union salaries, contributed to the 2.9 percent and 5.1 percent respectively for calendar years 2018 and 2019.

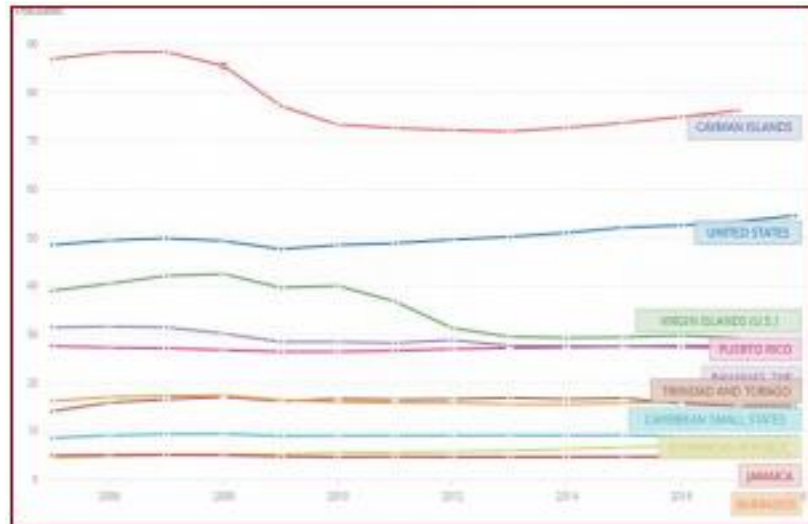
Table 3

Public Sector CY 2014-2019	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019
Territorial (Public Sector)	\$46,915	\$49,858	\$51,133	\$51,128	\$52,593	\$55,252
		6.3	2.6	0.0	2.9	5.1
Federal (Public Sector)	\$75,286	\$81,801	\$82,113	\$82,290	\$81,587	\$84,755
Percent Change		8.7	0.4	0.2	-0.9	3.9

Source: BLS, DOL

Complied by: DER, OMB

Figure 7. Per Capita GDP in Constant 2010 Dollars



Source: World Bank (Available at <https://data.worldbank.org/indicator/NY.GDP.PCAP.KD?end=2018&locations=US-VI-KY-PR-S3-B3-DO-JM-TT-BB&start=2005&view=chart>)

Figure 8. Per Capita Real Growth Rates (Constant 2010 Dollars)



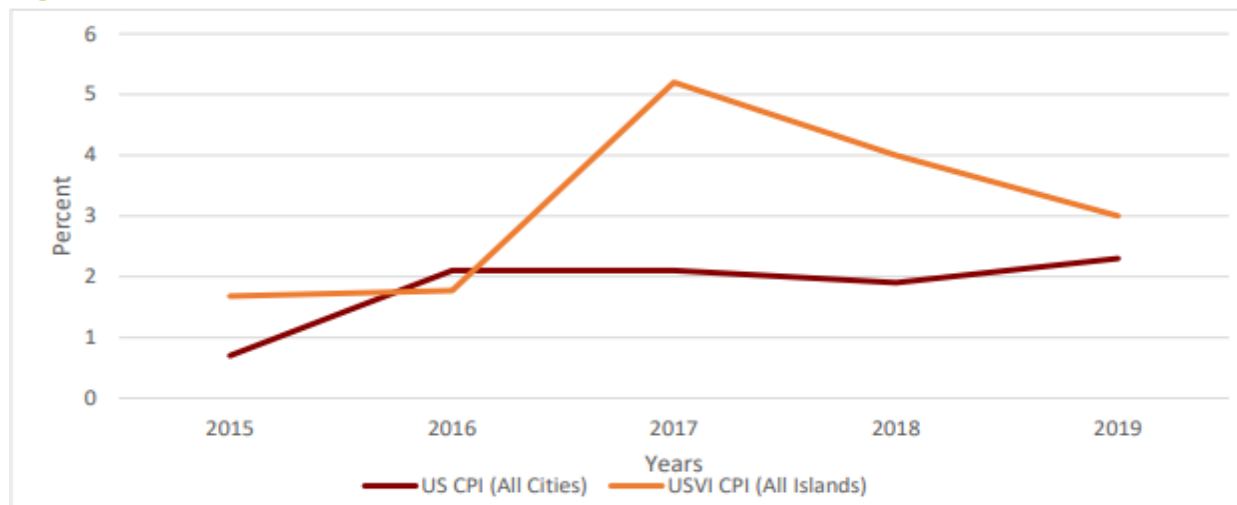
Source: World Bank (Available at <https://data.worldbank.org/indicator/NY.GDP.PCAP.KD.ZG?end=2018&locations=US-VI-KY-PR-S3-B3-DO-JM-TT-BB&start=2005&view=chart>)

Prices and Inflation

The revised CPI for the USVI follows the US Bureau of Labor Statistics' classification system of Goods and Services, which has nine major groups. These are: Food, Alcoholic Beverages, Housing, Apparel, Transportation, Medical Care, Recreation, Education and Communication, and Other Goods and Services and has weights for each island in constructing the all-island index. The rate of annual inflation, as measured by the Consumer Price Index (CPI) for all three islands in the USVI, rose 3 percent from December 2018 to December 2019. This increase was due mainly to the higher prices for food, up 9.0 percent over the year, as well as higher prices for recreation, up 7.3 percent, and alcoholic beverages, up 5.4 percent. Lower prices were recorded for apparel, down 5.8 percent, as well as negligible decreases for transportation and other goods and services. Of the three main islands in the CPI, St. Thomas showed the largest increase over the year, rising 4.8 percent, followed by St. Croix, up 3.2 percent. St. John showed a very moderate annual increase, up only 0.9 percent, although food prices on St. John showed a large rise, up 13.5 percent. Inflation in the USVI exceeds mainland figures consistently, except for one

year in the last five. The USVI showed a spike in 2017 and 2018 and is regressing to trend. The underlying factors explaining larger price increases in the Territory compared to the mainland are high import dependence in the Territory, the high cost of shipping, the high cost of electricity, less competition and more concentration among retail businesses. As expected, In the immediate period after the hurricanes, prices spiked due to the disruptions in normal shipping and trading arrangements, high demand for certain items, shortages, and exercise of market power.

Figure 9. Annual Inflation Rates – US vs. USVI



Sources: Bureau of Labor Statistics and DER/OMB

Educational Programs

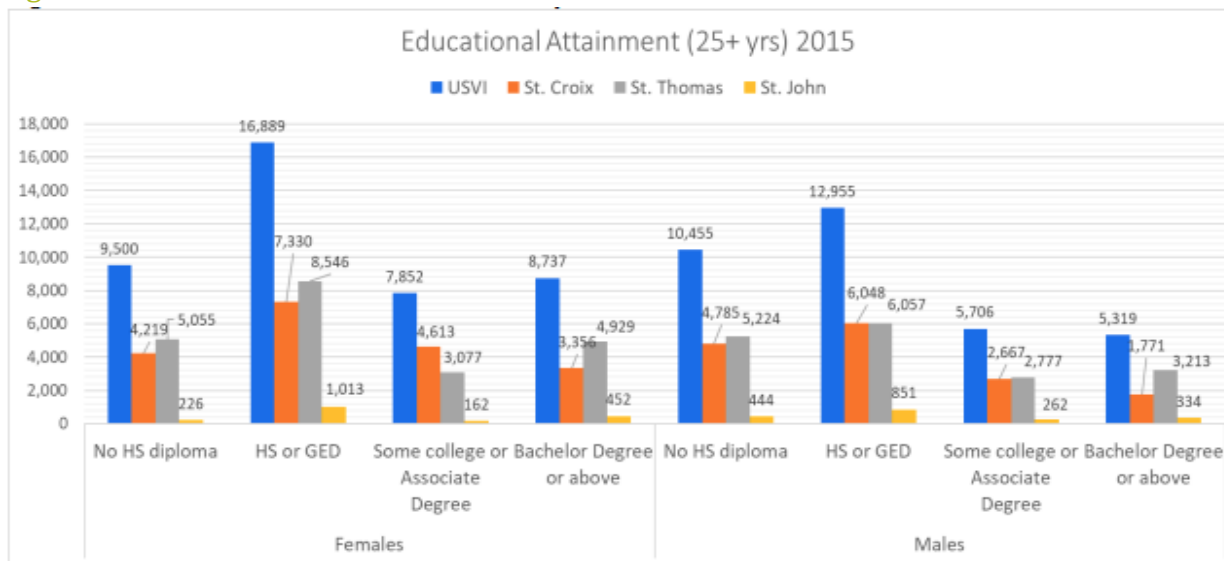
An Educated Workforce

The USVI Division of Economic Research (2019) indicated that when there are good matches between what employers want and what employees have to offer, all parties benefit, and the economy grows faster. When there are mismatches, employers' slow hiring contributing to higher unemployment rates, lower incomes, lower productivity, less innovation, and less growth. Also, employers may be forced to demand more of existing workers leading to more stress and less job satisfaction for those workers. If employers cannot find the skill sets and aptitudes they need, they may suffer productivity losses and less dynamism. To compensate, employers may have to invest

heavily in on- the- job training that implies higher cost of doing business and places smaller or startup firms that do not have the financial wherewithal to bear the additional cost of such training at a distinct disadvantage.

Figure 10 indicates that St. John has the highest level of educational attainment and that across the Territory females over 25 years have earned the most education credentials, with 18% having a bachelor's degree or higher. The level of higher education credentials in the Territory is considerably lower than the 1 in 3 (33%) of higher education graduates at the national level (US Census 2016). Educational attainment in the USVI is influenced by the flow of students and credentialed adults out of (and into) the Territory for various reasons, including natural disaster disruptions, employment opportunities and economic downturns. Large-scale demographic or economic changes are likely to require the VI Government and the community to make decisions about education infrastructure and incentives for retaining qualified professionals to support community development goals.

Figure 10. Educational Attainment



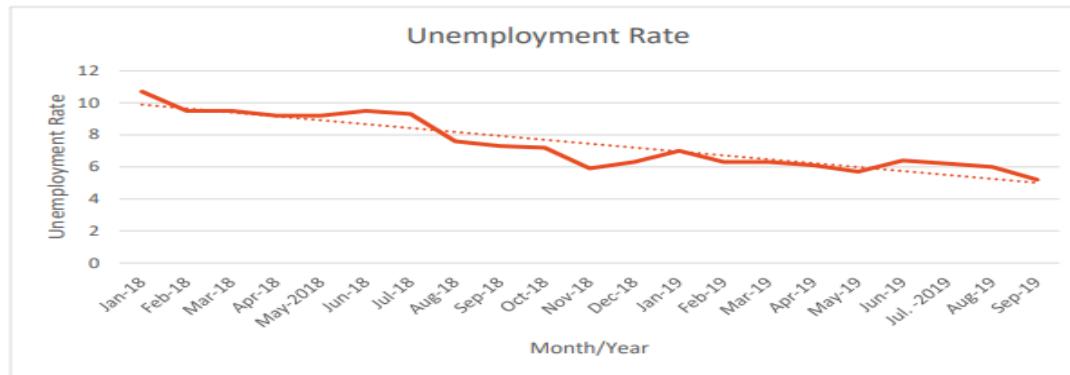
UVI offers a variety of degrees including 47 undergraduate and graduate programs through five schools and colleges: Business, Education, Liberal Arts and Social Sciences, Nursing, and Science and Mathematics. Four undergraduate certificates are also available: Entrepreneurship, Music Industry, Psychology, and Teaching English as a Second Language. In addition, there are four special programs: Honors Program, Secondary Teacher Preparation Program, Early Medical School Selection Program, and Senior

Reserve Officers Training Corps (SROTC). Classes are offered in the fall, spring, and summer. Academic advising and learning assistance including tutoring and supplemental instruction are available in UVI's Center for Student Success. In addition to local residents, The University of the Virgin Islands graduates more than 330 students each year from its associates, bachelors and master's programs. The nationally accredited university also delivers graduates from its five schools and colleges: Business Administration, Education, Liberal Arts & Social Sciences, Nursing, and Science & Mathematics. It is common for local USVI high school graduates to return to the islands after travelling to the mainland for post-secondary training and education.

Employment and workforce

The Bureau of Economic Research pointed out that as of September 2019, an average of 35,079 persons are employed in non-agricultural payroll positions in the USVI. Of that number, 10,622 (30%) are in the public sector and 24,457 (70%) in the private sector. Manufacturing or goods-producing jobs, 3,363, (9.5%) are far less than service jobs, 31,717 (90.5%). Over the last two years, the unemployment rate has plummeted after a spike in initial unemployment claims shortly after the hurricanes (See Figure 11). As of September 2019, the unemployment rate was 5.1 percent. This figure is down from double digits that prevailed after the closure of Hovensa in 2012. The Bureau of Economic Research further stated that the median wage is relatively low (\$33,390 for 2018) compared to the US mainland but higher than many surrounding Caribbean neighbors.

Figure 11. USVI Unemployment Rate

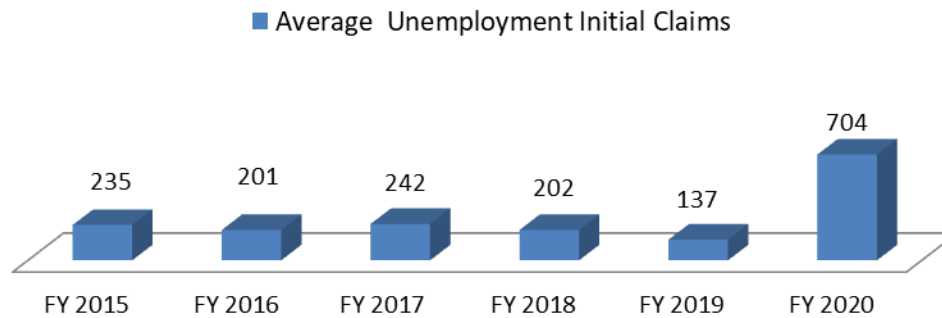


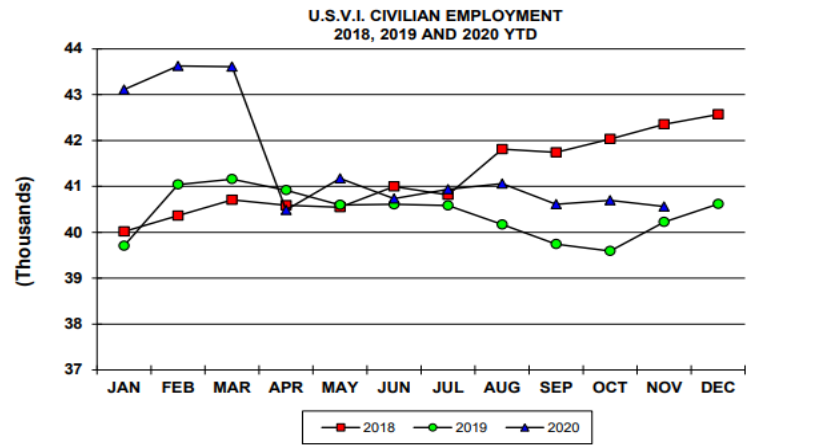
Source: VIDOL

A 2015 Survey conducted by the Bureau of Economic Research found that 38% of employers have difficulties filling vacant positions. They complained of deficient “hard” and “soft” skills in the workforce. They noted that frequently “hard” skills” such as basic reading, verbal,

writing skills (40%), computer technical skills (27%), and math and logical reasoning skills (25%) were lacking. In addition, “soft skills” such as customer service (59%), punctuality and reliability (52%), and time management (42%) were deficient. Furthermore, the pace of employment recovery has not been as strong as in Puerto Rico, which is a much larger, more sophisticated, with a diversified economy compared to the USVI. Whereas the GDP of Puerto Rico in 2018 was \$101.3 billion nominal, the GDP of the VI is approximately \$3.8 billion nominal (26 times smaller). Whereas Puerto Rico has a manufacturing sector consisting of pharmaceuticals, petrochemicals, textiles, electronics, and rum, and a service sector relying on finance, insurance, real estate, and tourism, the USVI’s economy is two legged, primarily dependent on tourism and rum.

Average Unemployment Initial Claims Fiscal Years 2015-2020





However, the labor force participation rate for the USVI is slightly lower compared to typical labor force participation rates in other jurisdictions, suggesting more discouragement in the population. For example, the labor participation rate was 63.3 % for the US (Dec. 2019), 65.2% for Dominican Republic (June 2019), 65.2% for Jamaica (2019), 60% for Trinidad and Tobago (2019), 40% for Puerto Rico (June 2019), 64% for all of Latin America and the Caribbean (2019) (World Bank and ILO). The female participation rate was even lower than the overall rate, implying that fewer females are engaged in the formal workforce or seeking formal employment. The USVI also has a highly skilled and reliable talent. With a population of 112,800, the U.S. Virgin Islands is known for its available, trainable and primarily English-speaking workforce. Due to the Territory's history of industrial and services experience, Virgin Islanders have expertise in a wide array of sectors, including:

- Financial and professional services
- Call centers and back office operations
- Knowledge based and e-commerce activities'
- Shipping and port activities

- Marine
- Tourism and hotel development
- Real estate development
- Energy and renewables
- Rum distilling
- Advanced manufacturing

Since the 4th. quarter of 2017, the first quarter that the hurricane effects were felt and reflected in data, the pace of recovery in terms of employment net gains has been moderate. Some of the categories showed little change from the 4th quarter to the 2nd quarter of 2019, namely government, manufacturing, and information services. The areas that showed consistent improvement were other service (+22 percent increase) and trade, transportation, and utilities (+7.9 percent increase). Areas that showed slight declines were financial services and leisure and hospitality. Areas showing a dip then a rebound were construction affiliated.

Figure 12. USVI Employment by Quarter

	Q. 4th 2017	Q.1 2018	Q.2 2018	Q.3 2018	Q.4 2018	Q.1 2019	Q.2 2019
Natural Resources &							
Construction	2,356	2,350	2,206	2,334	2,413	2,452	2,491
Manufacturing	569	523	516	536	546	570	576
Trade, Transport, & Utilities	6,608	6,674	6,765	6,776	7,042	7,091	7,107
Information	625	663	658	631	630	627	618
Financial Activities	1,934	1,804	1,860	1,799	1,832	1,836	1,857
Professional & Business Services	3,352	3,257	3,251	3,268	3,401	3,486	3,584
Leisure & Hospitality	4,716	4,060	4,305	4,093	4,360	4,516	4,520
Other Services	832	878	981	956	981	994	1,018
Government	10,542	10,475	10,329	10,651	10,531	10,481	10,582

Source: VIDOL

Territory Business Opportunities and Threats

The challenges of a remotely located economy are well known. The Territory is not business friendly. It can take months and hundreds of dollars to create a business and set up a bank account for that business, for example, when that can be done in less than an hour and for less than \$100 in many US states. The gross receipts tax, while easy to administer, favors high-margin businesses (like jewelry stores). A value-added tax structure, common in Europe, would create a level tax playing field for a diverse economy. There are many other examples. Table 2 lists a number of pros and cons of doing business in the Territory.

Securing and Training Your Workforce

Through the USVI Department of Labor One Stop Centers, employers will find multiple resources for securing employees, including:

- Employee recruitment and screening
- Receiving and forwarding applicant resumes
- Pre-screening and referral of qualified job seekers
- Tax credit information
- Labor market information
- Labor law compliance information
- Additional resources on issues that affect employers

The One Stop Centers also offer training programs for workforce applicants, including:

- Basic skills training (including GED preparation)
- Occupational skills training
- On-the-job training
- Customized training

- Combined workplace and classroom training
- Skills upgrading and retraining
- Entrepreneurial training
- Readiness training

Leading Sectors

It has been asserted by the Bureau of Economic Research that the most dynamic sector of the local economy for 2020 is construction. Most of the job creation is occurring in this sector due to the inflow of federal mandated projects and rebuilding of major infrastructure sectors after the two severe hurricanes experienced in 2018. According to the Virgin Islands Department of Labor, Federal disaster assistance is spurring reconstruction, infrastructure repair, and several hazard mitigation activities, resulting in high demand for construction workers. For 2019, the USVI construction and extraction category of workers numbered 1,780. It constituted 5% of the employment force (VI Dept of Labor). Installation, maintenance, and repair occupations, a closely related occupation category, numbered 1,350, or 3.8% of the workforce (VI Dept of Labor). When these two categories are combined, the Territory has approximately 8% of its formal workforce in construction and repair. Given the scale of approved and contemplated Federally financed infrastructure projects, the demand for construction workers is bound to continue to increase in 2020. One of the most reliable indicators of construction sector dynamism is the number of building permits issued. According to the Bureau of Economic Research, the average number of building pre-hurricane was 677 per year average for FY15 and FY16. In the post hurricane years, FY18 and FY19, the percentage jumped to 1413. Between FY18 and FY19, permits increased 32%, signaling to continue strong building/rehabilitation activity, after the triple-digit increase in the year following the twin hurricanes FY2018.

Lagging Sector

The agriculture sector is by far the most underdeveloped and neglected sector in the Territory. To complement this moribund sector, the Territory has imported food products valued at \$110.3 million in 2018, with fresh and chilled fruits and vegetables constituting \$4.4 million, or 4% of the total food import. The Bureau of Economic Research stated that the fruits and vegetables category represent an area for possible import substitution. Nonetheless, the number of active farmers is estimated to be a few hundred, with most being part-time, and most household income coming from a non-farm source. For the most recent numbers available dating from 2019, the number of licensed farmers were reported to be 157 (104-crop, 30 livestock, 9 mixed, and 4 honeybees) (VI Dept. of Agriculture). The vast majority

of farmers, as of 2019, were located on St. Croix, some 78%. Agriculture continues to suffer from a set of perennial problems that include limited access to irrigation water, technology, land; high cost of imported inputs and energy, access to capital to invest in more technology or more intensive farming methods, poor marketing, and transportation infrastructure, and a rapidly aging farmer population.

Figure 13. Farms and Farmland

Farms and Farmland, 2007 and 2018

	<u>2007</u>	<u>2018</u>	<u>% change</u>
Number of farms	219	565	158
Land in farms (acres)	5,881	9,324	59
Average farm size (acres)	26.9	16.5	-39

Farm counts increased significantly across most farm size groups. Farms with less than 3 acres experienced the largest change, increasing by 182 farms (212%).

Figure 14. Farm Counts by Size

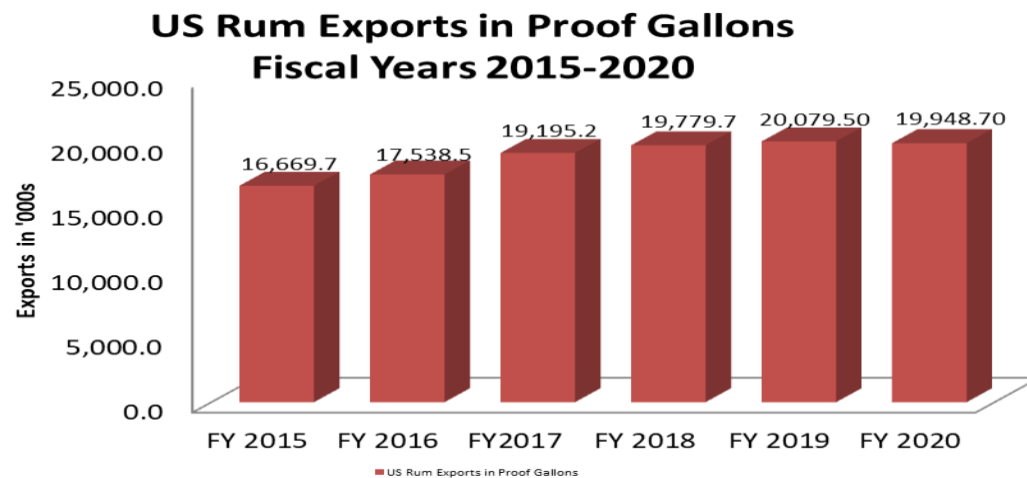
Farm Counts by Size

	<u>2007</u>	<u>2018</u>
> 3 acres	86	268
3-9 acres	63	139
10-19 acres	35	77
20-49 acres	15	44
50-99 acres	12	23
100+ acres	8	14

Similarly, commercial fisheries are in decline with fewer landed catches recorded and declining numbers of active registered commercial fishermen over time. As of 2019, there were 235 licensed commercial fishermen. Several of the commercial fisheries are considered overfished, and coral reef health continues to deteriorate marked by increased algae growth, bleaching events, and the spread of coral disease. Since 2001 there has been a moratorium on the issuing of fishing licenses due mainly to a declining fisheries sector.

Trade Openness, Balance, and Export Concentration

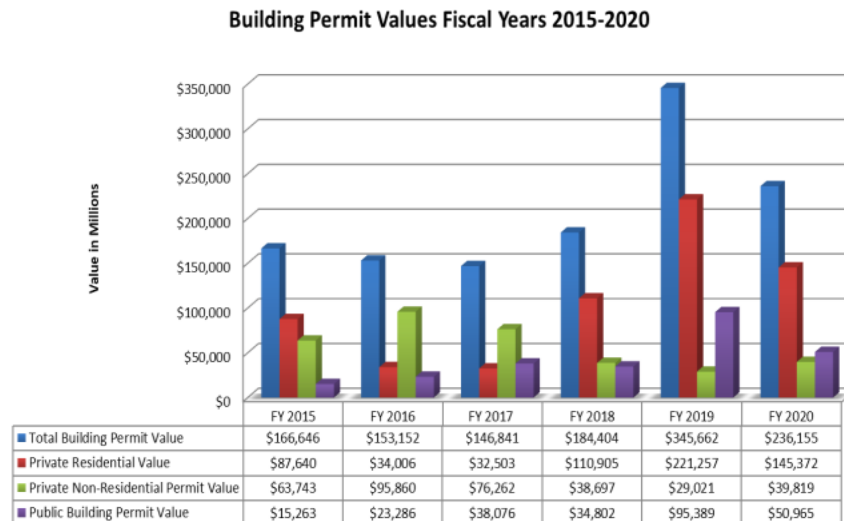
According to the Bureau of Economic Research, a significant feature of the economy is its trade openness. The US Virgin Islands' economy has limited domestic production; therefore, it depends heavily on the imports of goods and the export of services. When openness exists, it means that the economy can take advantage of gains from trade, but at the same time, becomes very sensitive to price volatility, macroeconomic developments, and trade policy changes in its major trading partners and the principal source markets for tourists. The USVI's economy is very susceptible to developments on the US mainland and large regional trading partners, namely Puerto Rico and the Dominican Republic. More than 80 percent of all tourists are from the US mainland, and most goods imported originate either from the US mainland or Puerto Rico. The Dominican Republic is another significant trading partner and serves as a source of food and agricultural imports. What is noteworthy is that since 2016, the trade deficits have been getting steadily larger. The spikes in 2017 and 2018 can be explained by the need to import a large volume of goods to facilitate the rebuilding process in the aftermath of the hurricanes of 2017.



Housing and Construction Cost Values

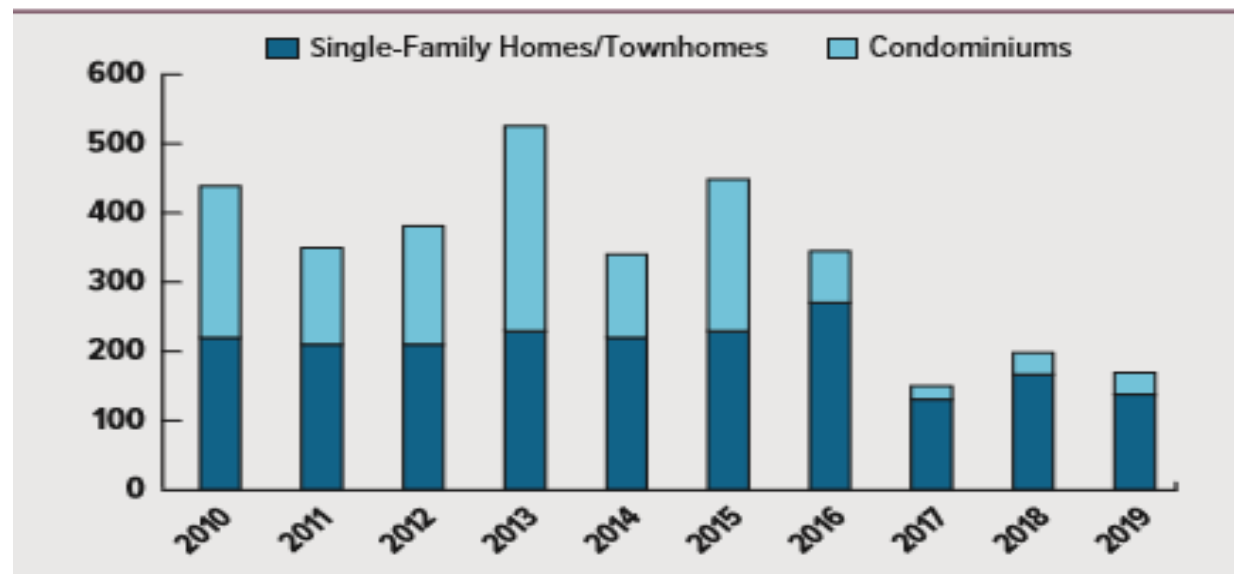
Housing values in the Territory have tended to hover around the \$500,000 mark for single-family homes and \$230,000 mark for condos over the last decade. The Bureau of Economic Research pointed out that after the twin hurricanes of 2017-2018, the sale price and number of houses and condos sold dropped significantly. In 2018, the housing market rebounded, with year to year 5% increase in the number of homes sold. However, the year-to-year average price fell 7.4%. The condo market showed an increase in the number of units sold, moving up from 290 units in 2017 to 392 units in 2018, an increase of 35%. However, the average value dropped from \$225,480 to \$203,633. Actual 2019 figures are not available until May 2020, but the forecast projections average sale price for homes is \$500,439 and for condos is \$194,332. At a disaggregated level, each district in the Territory has distinct market characteristics. St. Thomas tends to be the most active in terms of the number of properties sold, while St. Croix has fewer sales at a lower average house price compared to St. Thomas. St. John tends to have the highest valued transactions but has the fewest transactions.

On the other hand, house construction in the Territory tends to be high, with cost per square foot ranging between \$250 to \$400 depending on the quality of masonry construction and location. Average masonry construction in St. Croix being closer to the lower bound and while high-quality masonry construction in St. John being closer to the higher bound and St. Thomas around \$300-\$302.



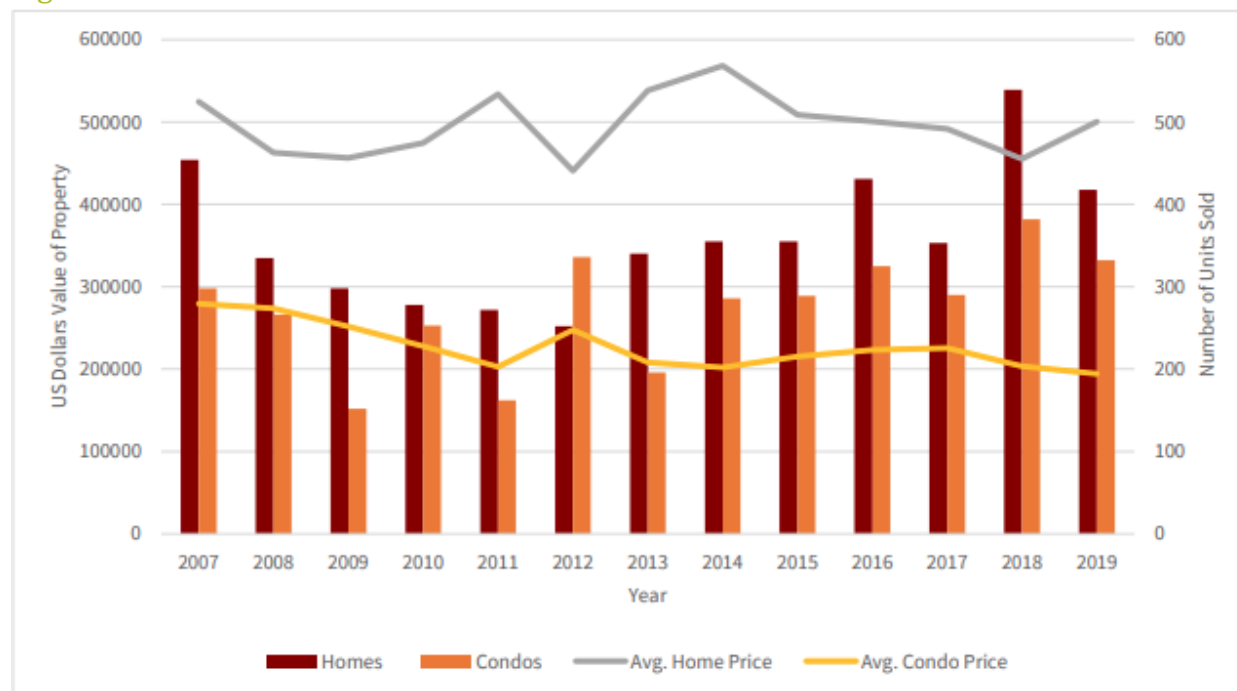
For the sake of comparison, the most expensive real estate market of the 50 states is Hawaii, where construction of a single detached medium quality home in Honolulu, costs \$296 per sq. ft. and a mid-rise condo is \$413, according to Cummings, a leading observer of construction and housing trends in the US. In the greater Caribbean construction cost per square foot ranges from a low of \$93 in Puerto Rico to a high of \$600 in the British Virgin Islands according to Global Property. The United States Virgin Islands Comprehensive Housing Market Analysis (2019) indicated that significant recovery efforts have resulted in increased permitting of sales units in the USVI during the past 2 years, although large-scale development remains difficult due in part to high material costs and geographic limitations. An estimated 190 for-sale units were permitted during the 12 months ending July 2019, up 6 percent from the previous 12 months. Annual totals of 150 and 200 units were permitted in 2017 and 2018, respectively (Figure 15). By comparison, an average of 400 for-sale units were permitted each year from 2010 through 2016, a period when condominiums, timeshares, and duplexes accounted for a relatively high share of the for-sale development activity.

Figure 15. Sales Permitting Activity in the United States Virgin Islands HMA



Notes: Includes single-family homes, townhomes, and condominiums. Data for 2019 are through July 2019.
Sources: Virgin Islands Department of Planning and Natural Resources; estimates by the analyst

Figure 16. USVI Real Estate Indicators



Division of Economic Research-OMB

Banking Sector

According to the Bureau of Economic Research, the financial sector in the US Virgin Islands consists of five commercial banks (Banco Popular, First Bank, Merchants Bank, Bank of St. Croix, and Oriental Bank of Puerto Rico), and several insurance companies. The financial sector is informationally blurred, which makes it challenging to analyze the structure and performance of the sector. For 2018, the most recent statistics available from the Banking, Insurance, and Financial Regulations of the Lt. Governor's Office, total assets in the banking system summed to \$3.2 billion, total deposits amounted to \$3.1 billion, operating income to \$90.9 million, and operating expenses to \$89.3 million, and net income, \$880,000. The banking system is highly concentrated, just two banks controlling 76.2% of the assets. Three out of five banks reported net profits in 2018. The majority of lending is for single-family residential mortgages. Conventional mortgage finance constituted 48 percent as a share of total commercial bank lending compared to 20 percent for commercial/industrial loans and 0 percent for agricultural loans. Remaining lending activity is split between real estate development, FHA-VA housing finance, and personal

consumer loans (vehicles, purchase of other retail items, and student loans, etc.). Moreover, the banks in 2018, did not originate any Small Business Administration guaranteed loans. In 2018, the approximate depth of the financial system (private credit to GDP) was 27.4%, which indicates a relatively lower level of financial development. For example, higher-income countries averaged private credit to GDP ratios of 103% (World Bank, 2016). Higher ratios of financial depth are associated with greater long-term growth and poverty reduction because they indicate that more intermediation is occurring. In the USVI, financial systems, savings and intermediation are suppressed, and access to credit tends to be restricted. Of course, there are limits, countries with extremely high ratios tend to face financial crises due to an excess of risk-taking and poor underwriting policies. Lack of factual information was not available on the number of loan recipients and the number of savers to determine the degree of access and financial inclusion, nor loan delinquency rates, nor liquidity, nor efficiency. Similarly, limited information was available on prudential ratios on 4 of 5 banks from the FDIC database. Additionally, no information was provided on the insurance sector to assess whether homeowners are fully insured or underinsured against windstorms, a major risk threat to the Territory given the increasing frequency and severity of storms as global warming progresses.

Economic Diversification

There have been repeated calls for the diversification of the Territory's economy for decades (Sprauve, 2020). There is also no shortage of opinions of what people would like to see created in the Territory. It is not a question of whether or not the Territory's economy should diversify; it is a matter of how to diversify it. What is required is an analysis of what could be plausible here, followed by a long-term plan to get us there. A strategic plan is not a Sprague series of one-off projects that cumulatively do not amount to much, but rather a systemic design and approach that builds upon itself. That approach would be two-pronged—one prong focused on developing globally-competitive Traded Cluster(s) in the region while the second thrust would be on assisting Local Cluster convert from a linear to a circular business model. Each business cluster type has different needs making it impossible for a single policy or support system to be able to successfully address both. "From training programs and tax incentives to business accelerators and mentoring activities, entrepreneurial support programs must be designed differently" (Aulet and Murray, 2012).

Traded Cluster Development

Multitudes of regions have attempted to create traded-cluster industries (Engel, 2014; Mills, 2019). Most regions have been unsuccessful in this attempt as they need unique differentiations, complementary assets and infrastructure (Faley, 2016), a highly-skilled workforce (Aulet and Murray, 2012; Campbell, 2019) that typically does not exist in the region, in addition to a supportive economic policy environment (DeGazon, 2020). The formation of industry clusters is not all equally possible. Economic diversification needs to be focused on what is plausible in the region, not simply what is desired.

Porter (1990) recognized the difference in competitive advantage among nations and took on the challenge to explain the differences. Faley (2016) developed a high-level multi-variable assessment framework to (a) assess whether a cluster could be globally competitive if formed in a given region, (b) assess the potential impact the formation of said cluster would have on the region, and (c) estimate the plausibility that the region could successfully form that cluster. However, the framework does not provide guidance as to what clusters the region should consider. Mills (2019) assessed the Territory's emerging industries to illuminate what future economic cluster could already have its nascent beginnings in the Territory. An excerpt from that dissertation (Mills, 2019):

This research identified the driver industries that formed the economic base of the USVI—those in which it has the strongest competitive advantage—and emerging industries that could be targeted for innovation cluster development and entrepreneurial activity. To obtain an understanding of the interconnections between the traded sector, an assessment of the potential for innovation cluster development was also the objective of this research. This section presents the main findings on industry specialization and competitiveness.

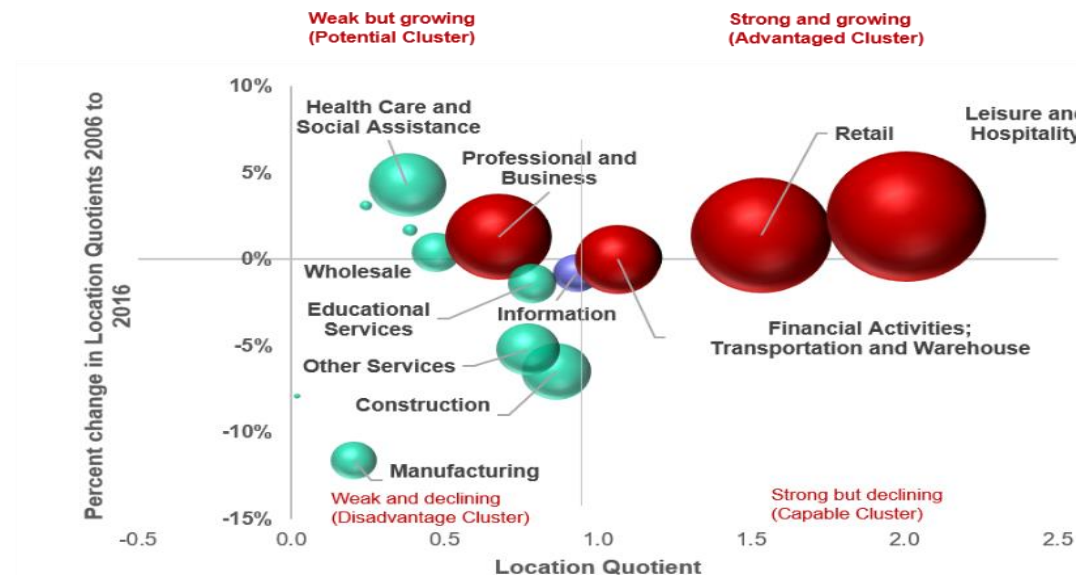
Location Quotient, LQ, is a useful technique to understand the industries that constitute the economic base and can point to industry clusters. An indication of a cluster is a relatively large share of employment in the industry, particularly if the LQ shows an increasing share of employment over time compared to the national average. Location quotients were calculated for each industry (at the two-digit NAICS code level) for the USVI for 2006 and 2016, using the nation as the larger referent area. An LQ of greater than 1 indicated that industry had a higher employment share in the USVI, compared to the industry's employment share nationally. An LQ of 1 indicated that the share of employment in the industry in the USVI matched the comparable share nationally. An LQ that was less than 1 indicated that these industries were not competitive.

In 2016, two tourism-based industries—leisure and hospitality (LQ of 1.83) and retail (LQ of 1.39)—had the highest location quotients of any of the USVI's industries. These industries were the drivers of the economy, and the LQs indicated the prominence of the tourism cluster in the economy. In the case of the leisure and hospitality industry, an LQ of 1.83 meant that the industry was nearly two times more concentrated in the USVI than nationally, thus might reflect a competitive advantage. However, the USVI's economy consisted mainly of industries with LQs close to or below 1, indicating that the USVI was not as specialized in these industries as the nation's industries. Figure 3 presents another way of visualizing the LQs. By considering the change in LQ over time, as well as the size of the industry, as a percent of total employment in the sector, a clearer picture was gleaned of core industries and potential clusters. The size of the bubbles is proportional to the total employment in the industry. The larger bubbles represented more employees, while smaller bubbles denoted fewer employees.

The vertical axis showed the percent change in the location quotient. The horizontal axis represented the LQ for each industry sector and illustrated the degree of specialization. The industries with a high concentration ($LQ_{2016} > 1.25$) were the mature or driver industries in the economy though industries might not have demonstrated significant growth in recent years. As shown in the upper right of Figure 3, these include the leisure and hospitality, retail trade industries, financial activities, and transportation and warehousing. Industries in the top-left experiencing growth, which included health care and social services sector with small LQs, might indicate a potential or emerging cluster, thus warranting further attention. Industries situated on the lower left with low concentrations, such as construction and manufacturing, were growing more slowly or had declined. These industries were considered disadvantaged industries, as evidenced by an LQ of .79 for construction and .39 for manufacturing.

Figure 17. Change in LQ of USVI Industries 2006-2016

US Virgin Islands Location Quotients 2016



This analysis illustrates that Financial Services as well as Transportation and Warehousing sectors could be emerging as Traded Clusters in the Territory. It further illustrates that Health Care and Social assistance is a growing Local Cluster, which is currently not globally competitive. Methods, such as telemedicine, which may make it globally competitive should be researched. All of these sectors need further assessment to address whether they could be globally competitive if based here. Complementary capabilities are crucial. It is not enough to have access to data lines to create a successful data center, for example. The region must also have inexpensive and reliable power, as well as a workforce capable of managing and monitoring such a center around the clock.

Local Cluster Development

In addition to a strategy of creating a traded cluster in the Territory, there needs to be a parallel strategy for developing and supporting Local Cluster businesses. Particularly, there is an opportunity to boost the Territory's economy by decreasing the amount of money flowing out of the region, as the left-hand portion of Figure 16 illustrates. Most business or economies operate on a linear model, as illustrated by Figure 17. There is a specific input (raw materials, capital, labor, etc.) into the business and a desired output of the business or industry. All businesses generate a "waste" stream. Something that is unused and/or undesirable to the business. It could be something as simple as empty cardboard boxes to a retail store, or something as complicated as an undesirable by-product from a chemical manufacturer. Regardless of the nature of the "waste," in the linear model that "waste" is simply disposed. In the circular model, illustrated in Figure 18, that "waste" is considered a resource that can be used as part of the input stream of another business. That "waste" cardboard from the shipping boxes can be used to make paper or be incinerated to generate heat that could drive turbines to produce electricity. Finding valuable local uses for these waste "by-products" increases the regional economic value in two ways. First it reduces the cost of disposing of the "waste," and secondly it eliminates the need to purchase other "raw materials" from outside the region, thus allowing the region to retain economic value.

Figure 18. Linear Economic Model

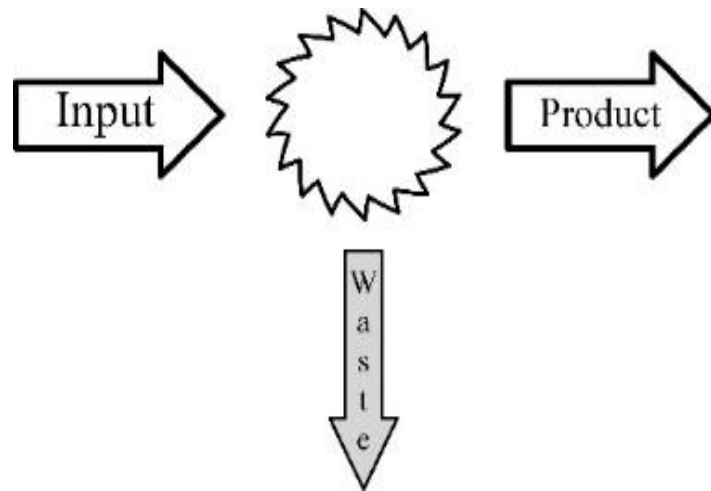
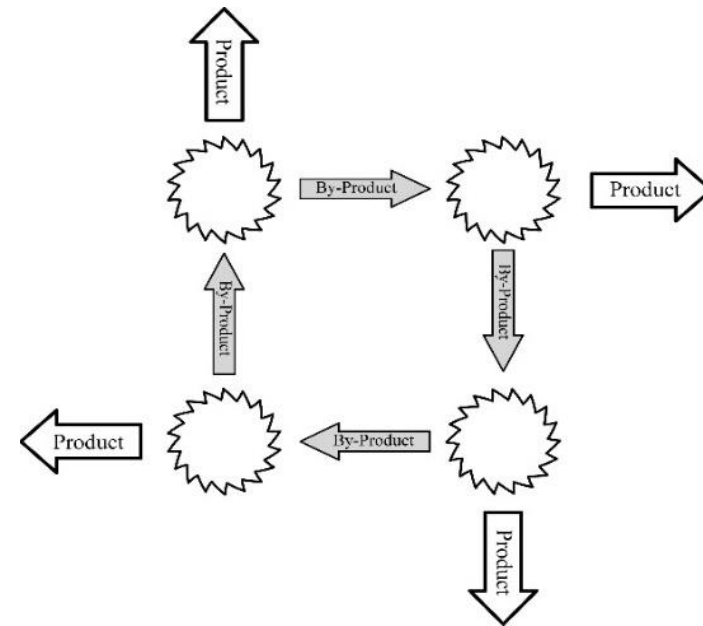


Figure 19. Perfect Circular Model



River Rum in Grenada is a perfect example of a single business that illustrates the circular model on a business-level scale (River, n.d.). The rum distillery uses a slip stream from a local river to turn the mill that crushes the sugar cane, releasing its juices. That juice is fermented, then distilled from heat generated by the burning of the spent sugar cane husks. Recycled bottles are used to bottle the rum. Nothing is wasted. Unlike regional traded-cluster firms, regional business and/or industries that represent links in the chain in the circular model do not have to be globally competitive to be beneficial to the regional economy. This is a significant advantage as SIDS often lack the ability to create economies of scale (Srinivasan, 1985). These SIDS only need to shift the regional status quo, by creating a net positive cash flow into the region. This can be accomplished, as illustrated in Figure 2, by decreasing the money flow out of the region by local-cluster firms. For example, say the region is importing Styrofoam containers for restaurants. The total economic cost of those containers to the region includes the cost of the containers, the cost of their shipping and the cost of their disposal. A net cash flow to the

region would result, in this example, if locally-sourced “waste” cardboard could be regionally collected and manufactured into food containers for less than the total lifecycle cost to the region of the Styrofoam plastic containers.

A second way to decrease the value-dissipation from the regional economy is to decrease the amount of importation by creating regional substitutes. Rather than importing fossil fuels to create electricity, for example, could a combination of solar/wind/garbage-as-fuel work instead? Food supply is another significant opportunity here. What are all the ways that local food production be encouraged/promoted? Appropriate storage capacity is a real issue for both energy and food. A comprehensive plan for economic diversification must include both traded and local cluster development by (1) recognizing their needs are different and (2) creating a supportive environment for each that (3) does not pit one sector against the other.

Challenges

Risk-averse Regional Market Technology can drive the formation of new firms and the growth of existing firms. That’s the opportunity. However, technology must be considered the icing on the cake in that without existing sound infrastructure to build upon, the benefit of technology is limited. Technology-based firms, for example, need rapid-market feedback on their products during their crucial development stage. That requires both a technology savvy and early-adapter market. Neither exists in the Territory. The low internet usage (Table 1) does not suggest a technology-savvy market. Neither does the low income per capita (Table 1), which suggests that there is little expendable income to take the risk in consuming emerging products. This makes it a challenge to locally develop differentiated technology-based producers of products or services that could eventually be successfully exported to the world.

Miniscule Regional Technology Development

There is also very limited local technology being created. The University of the Virgin Islands has an annual research expenditure of a few hundred thousand dollars, whereas places like the University of Michigan are over \$1 Billion in research expenditures. University research has a low probability of being commercialized, making such commercialization a stochastic process. The larger the research input, the larger the odd of creating new commercializable innovations (Faley and Sharer, 2008). At research rates of four orders of magnitude that of large universities, the expectation of producing the next Google or Facebook is immeasurably low although efforts are being made to research and economic development through the efforts of the Virgin Islands Institute for STEM Education Research and Practice (VI-ISERP) and the University of the Virgin Islands’ Research and Technology Park (UVI RTPark).

Healthcare

The USVI Hurricane Recovery and Resilience Task Force (2018) indicated that the Territory's health care system serves roughly 104,000 USVI residents, as well as visitors; many residents are low- or moderate-income (LMI). The system's infrastructure includes two public hospitals, two federally qualified health centers (FQHCs), two specialized service centers, 23 pharmacies, numerous private providers, and 382 VI-licensed medical professionals (excluding nurses). The system is overseen by the Department of Health, which has offices and clinics on St. Thomas, St. Croix, and St. John. Compared to the rest of the United States, the USVI has unique characteristics related to the demographic and social determinants of health and poverty that affect health care delivery. Approximately 82 percent of the USVI population is medically underserved and faces a number of health challenges, including limited access to certain specialty services. Some USVI residents refrain from seeking care altogether because of unaffordable costs and/or language barriers. Growing a high-tech firm requires attracting a workforce that is in high demand. Education, healthcare, housing and livability are but a few of the key factors in attracting this workforce (TechTown, 2020). The Territory struggles in all these dimensions making it a challenge to grow tech firms by attracting such workers.

Workforce Development

The alternative to attracting tech workers is developing our own. Any comprehensive economic development plan must include workforce development. A sturdy house must be built on a solid foundation; the regional labor force is that foundation. One challenge in the creation of an innovation-based, globally-competitive traded cluster is the lack of local workers necessary to support it. Less than 20% of those over 25 in the Territory have college degrees; that is nearly half that of the mainland US (Demographics, 2020). The lack of non-college, but specifically-trained, labor is also a limitation. Data centers and other computer-intensive industries need a plethora of non-college educated, but technically trained personnel. The Territory has a distinct lack of post-secondary non-college educational opportunities. Filling this challenge via "on-line" courses is also a challenge, given the Territory's low internet connectivity rates (see Table 1).

Territory Business Opportunities and Threats

The challenges of a remotely located economy are well known. The Territory is not business friendly. It can take months and hundreds of dollars to create a business and set up a bank account for that business, for example, when that can be done in less than an hour and for less than \$100 in many US states. The gross receipts tax, while easy to administer, favors high-margin businesses (like jewelry stores). A value-added tax structure, common in Europe, would create a level tax playing field for a diverse economy. There are many other examples. Figure 20 lists a number of pros and cons of doing business in the Territory.

Figure 20. Pros and Cons (Opportunities and Threats) of Doing Business in the Territory

Territory Business Pros / Opportunities	Territory Business Cons / Threats
Operates under the US flag (US intellectual property laws, etc. apply)	Physically isolated
Abundance of sun	Relatively high shipping costs
Tradewinds	High Priced and Unstable Power
Tropical climate	Gross Receipts Tax (favors high-margin businesses)
English-speaking	Labor Laws (particularly the wrongful discharge act)
University with US-based accreditation	Workforce Development - Low College graduate rate - Lack of local post-secondary education opportunities (ex. “trade schools”)
	Transportation within and between the islands of the Territory
	Small local market
	Risk-averse regional market

One of the challenges is how to turn natural weaknesses into strengths. The fact that the Territory is remotely located makes everything that comes here more expensive due to the shipping charges. How could this remoteness be leveraged as an advantage? Could, for example, the Territory be a testbed for renewable energy-based microgrids? Could the Territory be the model for additive manufacturing? Could the Territory be a Caribbean-based transportation hub? Rather than trying to copy what is done in the mainland US and other regions of the world, how can we find that niche where we can lead? That is our challenge.

Summary

Innovation and knowledge-based economic development should not be looked upon as the savior of the regional economy. The Territory has too many fundamental and infrastructure issues that first need to be addressed. The Territory could, for example, as other Caribbean nations have done, systematically target and improve elements of their regional business environment (Wenner, 2020). The fundamentals need to be strengthened. High-speed internet, for example, is of little use if the last mile is not connected making it accessible to local business and residences. Nor is it useful if there are few trained to take advantage of it. Fix the fundamentals first (power, internet, healthcare, education, housing, transportation, etc.). Without that there is no cake to put the icing of technology on.

When asked what would be your three top priority initiatives/projects as they relate to the USVI's Economic Development, the responses were:

- Fix WAPA.
- Improve the roads.
- Reduce the cost of doing business.
- Provide incentive to local businesses such as tax breaks, and benefits.
- Create incentives for manufacturing plants.
- Develop the tourism industry through agriculture, the fishing industry, and sport industries such as golfing.

Analysis of Economic Development Problems and Opportunities (SWOT)

Economic Strengths and Opportunities

Based on a 2020 survey of local stake holders and supported by the Bureau of Economic Research, it was asserted that despite the many positive strides in 2019 and earlier 2020, economic challenges for the Territory remain:

- (1) Improving procurement, grants management, and supervisory absorptive capacity in order to more quickly and effectively spend the Federal disaster-related assistance;
- (2) Improving the overall quality and effectiveness of public institutions and services to reduce transaction costs, stimulate economic growth, and promote social development;
- (3) Inspiring private sector-led growth by strengthening the business climate and generating new poles of sustainable economic growth, unrelated to government contracting;
- (4) Constructing a credible plan to address the pending insolvency of GERS; and
- (5) Mitigating climate change effects and strengthening environmental protection and conservation efforts, given the critical link between the ecological patrimony and the mainstay of the economy: tourism. The report must provide information on the structure and performance of the Territorial economy, highlighting movements in key macroeconomic variables, developments in the real and financial sectors, fiscal and debt management, and ends with a catalog of remaining economic challenges.
- (6) The USVI government, in partnership with the private sector, needs to have a truly unique business model that becomes our niche and can't be duplicated, whether that's a waterpark, focusing on diving schools and certification centers; sports tourism, partnering with solar companies for research and development of their product, or a business model, starting to offer low cost manufacturing options to invite businesses in. We need to consider what things we truly need and think creatively and develop partnerships with those outside resources that can assist us with meeting our goal. For example, partnering with solar companies to build micro grids here in the USVI---allow them

to manufacture, test and build here tax free with the understanding that they rebuild and maintain our electrical systems from the ground up. In 2019 and early 2020, the main driver in the economy was government spending. Government spending increased dramatically over the last two years with an influx of Federal disaster assistance. According to the Bureau of Economic Research, in 2018, government spending was estimated to be 42% of GDP, when for the decade before the hurricanes (2007-2016), the average government share of the GDP was 26.36%. Although the official GDP for 2019 has not yet been calculated, the expected 2019-2020 government spending as a share ratio is likely to be in the 30% range.

(7) The EDA program for business recruitment based on tax incentives seems to be highly effective. It draws new companies that offer job opportunities not otherwise found in the USVI and which contribute significantly to local non-profits. The USVI does a good job at encouraging local people to create businesses. However, more needs to be done in regards to supporting entrepreneurship in the Territory. The Territory needs to continue to grow the list of EDC companies that bring jobs and economic stimulus here by spending and contributing to local nonprofit 501(c)3 donations.

A few conclusions were agreed upon and formed a common thread or theme based on the 2020 community surveys and townhall meetings with the Virgin Islands' stakeholders:

- Re-think how the VI provides education to align the entire system with the industry and workforce needs of the future to help stem the outflow of many of the island's best and brightest.
- Focus intently on technology and its role in industries and businesses in the future (agriculture, energy, manufacturing, etc).
- While recognizing that the importance of tourism now and in the future is essential, continue to diversify the overall economy to reduce dependency on short-stay visitors.
- Improve the quality of life and place on the islands by improving streets and public places, modernizing health care, public safety, and addressing the high cost of living and doing business.
- Modernize infrastructure to stay competitive in the Caribbean and global economy, particularly energy, and telecommunications to include mobile technology in telecommunication.

It should be noted that St Croix could become an agricultural center for the USVI if properly supported. The opportunity can provide a reliable food chain thus making food cheaper and available for all citizens. This opportunity is achievable given the fact that the Islands

have favorable stable weather and reliable water sources through the dredging of water wells. Fishermen can capitalize on the relatively stable sea farming known as the “blue economy” to produce increased agricultural production.

Another area of strength is technology. The Global Crossing fiber optic cables that originated in St. Croix and connect the rest of the world is a gold mine that needs to be explored. The appropriate use of the technology resources would enable the USVI to provide reliable internet services, which are critical resources for so many businesses and individuals working remotely.

Yet another area to be considered is a sustainable economy in which tourism is a contributing factor, but not the essential base. Other factors are extremely low unemployment numbers, accessible, affordable education beyond high school to match jobs available locally. Economic development success is a community in which citizens have strong healthcare available to them, and they are able to pay for it. Health professionals are thoroughly vetted and periodically checked to maintain license for work in the Territory. Education is viewed as an endeavor of paramount importance by adults and children. Educators are thoroughly vetted and periodically reviewed for professional work with children. With these two areas taken into consideration, much more would require less effort to accomplish. The EDA can seek out manufacturing and energy development businesses. If the VI wants to realistically attract businesses - something must be done to bring competitive and reliable utilities to the Territory. Businesses will continue to close if this decades-long problem is not resolved. WAPA is not dependable nor affordable for anyone - end of story. The EDA might consider brainstorming with Limetree or collaborate with other rural communities similarly situated to identify tested solutions.

According to a recent survey, the private sector can capitalize on opportunities of economic development in the Territory by continuing to improve their customer service and the overall quality of their business. Customer service is of utmost importance when it comes to business. Most business owners know this fact and should educate their employees of this fact as well. Everyone needs to work together. Tourism can collaborate with the private sector to identify blighted areas that can be transformed into gardens, community centers, sheltered spaces, etc. The private sector will capitalize; that is not the problem. The problem is with our government presenting the opportunities.

Economic Clusters

Clusters are geographic concentrations of interconnected companies that work closely with each other, local suppliers, infrastructure providers, educational institutions, and other relevant agencies. Cluster-based development is based on the premise that a company (and their region) can realize higher levels of competitiveness when it looks beyond its own limited capacity and strategically partners with other companies and support institutions to address challenges and solve problems that it is unable to solve when operating as an

isolated entity. It is an approach that encourages companies that compete to come together and identify ways in which they can cooperate for their mutual benefit. Additionally, public sector entities such as economic development agencies and universities make themselves available to assist with collaborative problem solving and solution identification. A successful cluster- based economic development strategy will help the USVI expand the number of high-paying jobs, increase the rate of new business formation, and enhance the innovative capacity of local industry. Furthermore, and perhaps most importantly, it will provide a platform for long-term, sustained, economic growth. It is a strategy that will maximize the investment returns of scarce public sector dollars.

Why Focus on Clusters?

Clustering brings a variety of benefits to firms and the local economy. The Department of Trade and Industry in the UK, describes the benefits of cluster development as follows:

- Clusters increase levels of local expertise. This provides sourcing companies with a greater depth to their supply chain and allows for the potential of inter-firm learning and co-operation.
- Clusters give firms the ability to draw together complementary skills in order to bid for large contracts that as individual units they would be unable to successfully compete.
- Clusters allow for potential economies of scale to be realized by further specializing production within each firm, by joint purchasing of common raw materials to attract bulk discounts or by joint marketing.
- Clusters strengthen social and other informal links, leading to the creation of new ideas and new businesses.
- Clusters improve information flows within industries. For example, clusters may enable finance providers to judge who the good entrepreneurs are and business people to find who provides good support services.

Clusters allow for the development of an infrastructure of professional, legal, financial and other specialist services. It is believed that cluster-based economic development represents an opportunity for industries in the USVI to reach unprecedented levels of competitiveness. If this approach is going to be successful, it will require fresh thinking on the part of both the private and the public sectors. On the part of the private sector, it will require a Cluster-Based Economic Development and the willingness of individual companies to establish strategic partnerships and joint ventures with other companies in the region. On the part of the public sector, it requires redirecting some of its scarce resources (dollars and personnel) away from incentive-based and towards cluster-based economic

development strategies. The cluster-based approach is also premised on the idea that the solutions to many of the USVI economic challenges can be found right here in the within the Territory. By developing and nurturing existing business networks, it will grow and strengthen our economy and reduce the reliance on publicly funded abatement packages. The USVI has a rich pool of knowledge and expertise already here in the Territory, which if harnessed strategically, can generate job growth and enhance the quality of life of all USVI residents. Successful cluster-based economic development does not make traditional incentives redundant. It will, however, open an additional avenue for economic enhancement.

Economic Weaknesses and Threats

The main external economic threat to the Territorial economy will have a negative impact, consistent with global economic growth and even recessionary threat posed by the novel coronavirus (COVID-19) pandemic that is dampening international travel and disrupting international and local supply chains and threatening to push major economies into recession. In addition to a potential pandemic, continuing trade and immigration policy uncertainties and tensions between major trading economies are likely to have ripple effects on smaller states and dependencies, reducing growth, disposable incomes, the movement of people, and the flow of remittances into and out of the US Virgin Islands. The Bureau of Economic Research (2020) further stated that other risks, such as hurricanes and earthquakes are present but not as concerning as a COVID-19 induced recession. Initial long-range forecasts of the 2020 hurricane season point to an average to above-average season (Norwall, 2020). The first quantitative forecast will be available in April. Similar to the tropical disturbances, the Seismic activity around the Puerto Rican trench, which forms the boundary of the Caribbean plate with the North American plate closest to the USVI, has been on the increase, but earthquakes are very difficult to predict.

The main internal threats to the USVI's economy are the massive unfunded liabilities of the Government Employee Retirement System (GERS) and the illiquidity of the Water and Power Authority (WAPA), a semi-autonomous government-owned electric, water, and sewer utility. The likely consequences of the dire financial situations of these two entities would be a reduction in the benefits paid to retirees after 2023 in the case of GERS and demands for more transfers from the central government in the case of WAPA.

The USVI needs to Improve response times for new applicants and renewals making compliance less time consuming and simpler. The USVI hasn't had a new hotel development in many years! They never follow through on their ideas. There are still outstanding issues with funding that affect the stadium and racetrack. In light of the 2017 hurricanes and COVID-19, there is a focus on recruitment of sustainable businesses, which are not tourism dependent. The Territory needs to help develop reliable, high-speed internet access with consideration to WAPA's frequent outages. Concerning economic development, the USVI needs to support local farmers more. Many

local Caribbean fruits are either languishing or disappearing all together. With meaningful support, farmers can grow enough to support the Territory with local fruits, if nothing else.

The USVI needs to feature more small businesses, historical sites and landscapes throughout the islands i.e., East End, Mid island, and the Western side. Do not concentrate on one segment like the Eastern side. It's important to promote the surrounding areas and the diverse culture which plays a key role in our economy. It would be value added to look at the things that make St. Croix, St. Thomas and St. John unique. Each island has its own lure. Additionally, major infrastructure issues still plague the government's over reach such as roads, schools, healthcare systems, and reliable energy. To complicate matters, the increasing crime rates, lack of job opportunities and training programs are negatively impacting the USVI's economy. The USVI is faced with competition that is constantly growing in the Caribbean diaspora, which is constantly drawing potential investors that were once targeted by the USVI through the tax incentive benefits programs.

What Would You Say to the Governor/Government of the VI about Tourism?

- "Think outside of the box!"
- Include all 3 islands when working with the tourism industry.
- Consider creating water parks, recreation centers, convention centers with large hotels, summer camps for the family, community gardens that grow vegetable crops to be shipped during the fall of the year, when it is cold in the mainland.
- Have a broad range of experiences and attractions! Add a golf course on St. Thomas. Make major changes to the taxi services!
- Make the islands beautiful again! The VI needs to seriously address the trash and vehicle disposal problem! Improve the roadsides particularly in areas frequented by tourists. Upgrade zoning and building controls in the 2nd tier. Create a more robust and updated tourism website!
- Promote one of the VI's under promoted assets: the marine related industries - charter boating, sailing, diving, fishing. The BVI is making it difficult and expensive for people to visit. Don't make St. Thomas become primarily a cruise ship destination for lower end travelers. Visitors want to experience local cultures, food, and not be another crowded destination.
- To Governor Bryan, Commission Boschulte, and Teams - We encourage you to shift the tourism priority from the currently debilitated cruise ship industry to private aviation. Recent research suggests that an average private jet brings \$70,000 in

spending to every stopover location. We lose so many potential visitors to Puerto Rico and St. Maarten, that we believe appealing to those tourists will be key in the years to come.

- Again, I would say all that I have stated above. However, I would add that we need to keep in mind that we are not the only game in town. Throughout the Caribbean, governments are working hard to attract tourists. “

Summary and Remaining Policy Challenges

According to the Bureau of Economic Research, the USVI's economy performed better in 2018 and 2019, with strong indicators showing positive real economic growth, higher revenues, decreasing unemployment, and improving fiscal balances and liquidity positions for the central government. However, the improvement in economic performance was primarily due to an infusion of Federal disaster relief assistance that is helping rebuild the economy. Despite the positive achievements and progress on reconstruction, the economy still faces many weaknesses and vulnerabilities within its infrastructure that could result in the return of significant deficits and financial distress, due to the pending insolvency of GERS and the mounting liquidity issues at WAPA. To minimize these risks, significant improvements and fiscal responsibility in financial management and shared governance have to improve across the public sector; new economic growth needs to be stimulated; tourism products need to be revitalized and differentiated, and credible plans need to be shaped to stabilize GERS and improve the management and financial performance of WAPA. The long-term prospects of the economy depend on improving institutional capacity, strengthening the business climate, and reducing vulnerabilities. Currently the USVI's economy is marked by limited diversification, high export concentration, high dependence on imported fossil fuels, lack of preparedness to cope with disasters and climate change, and limited access to capital markets.

Hazard Mitigation

Setting

The United States Virgin Islands (USVI) is a Territory of the United States, located in the Caribbean Sea, 40 to 50 miles east of the U.S. Commonwealth of Puerto Rico. It is composed of many islands, four of which are populated: St. Croix (STX), St. Thomas (STT), Water Island (WI) and St. John (STJ). The combined land mass of these islands is approximately 133 mi² (STX is 84 mi², STT 32 mi², STJ 20 mi² and WI 0.76 mi²). For context, the USVI is twice the size of the District of Columbia or 4% of the size of Puerto-Rico. In 2010, the population of the USVI was 106,405 persons, and it is anticipated to not have increased in 2020. The USVI is mostly composed of Black/African American (76%), followed by White (15.6%) and Asian (1.4%). Most Virgin-Islanders speak English, but 17.5% identify as Hispanic, and nearly the same proportion speak Spanish as a first language. The USVI's population is like the American population with 17% younger than 14, 64% between 14 and 65, and 18% older than 65, with a median age of 39.2 years, slightly older than the average of 37.9 years observed on the mainland.

Government Structure

The Territory's capital, Charlotte Amalie, is located on the island of St. Thomas. The Territory's government is composed of a Governor, elected every 4 years, who oversees the various agencies that run the Territory, and nominates island administrators (STT and WI are run by one administrator). The legislative branch is composed of 15 senators: 7 from STX, 7 from STT-WI, and 1 from STJ. There is no other level of government.

The median household income in the USVI is approximately \$37,254, which is significantly lower than the average American income of \$50,112. The unemployment rate in 2019-2020 was around at 8-9%, slightly higher than the average U.S. rate of 4-5%. However, approximately 22% of the population lives below poverty level, compared to an average of 14% in the U.S. The Territory's main employer is the government, followed by the tourism sector. The main export is tourism, followed by rum, and revenues from these have been declining since 2015.

Natural Resources

The Territory, like many other tropical islands, appears to be rich in natural resources. At one time, these islands were rich in resources on both land and sea. Like most Caribbean islands, the terrestrial landscape has been significantly altered following European colonization beginning in the late 17th century but accelerating into the 18th and 19th centuries. One of the main drivers of land use change was the establishment of plantations primarily of sugar cane, but with other crops, such as cotton, tobacco, and coffee as well. Trees were harvested for building materials, and these activities resulted in all three main islands being highly deforested. Current estimates put landcover of the USVI as being between 50 – 67%, comprising forests, woodlands, and shrublands. This reflects an increase in forest habitats from historical deforestation levels; at the beginning of the 20th century about 90% of the forested lands had been cleared for agriculture, wood production or other uses, and by the 1970s, the estimated forest cover of the three major islands was around 45%. Although land-cover has remained stable over recent years, these numbers do not reveal the transition from pasture to early forests and loss of forests to urban development. STJ has the highest forest cover of the three islands with the most mature forest cover at around 20%.

One of the key environmental and economic benefits of these natural habitats is that they help reduce the volume and velocity of run-off following tropical rain events. The steep topography of all three islands, but especially STT and STJ, can result in significant volumes of runoff which can include garbage/debris, but also sediments from exposed soils from active agricultural sites and from areas under development (e.g., construction sites). The runoff follows both natural and artificial drainage systems on its way to the ocean. Water quality at the land/sea interface such as beaches, mangrove forests, and rocky shorelines can greatly influence the appearance, health and safety of local beaches and the nearshore environment, which are major components of our blue water tourism product.

The other major part of the Territory's natural resources is set in the coastal and marine environment. These environments include our iconic coral reefs, seagrass beds, and mangroves forests, which are all critical habitats and home to food resources for the Territory's fisheries. The land-sea interface begins with the beaches and shorelines. Sandy beaches offer nesting areas for iconic and endangered sea turtles that are valued by both tourists and local residents. Beaches also buffer coastal areas from storm energy while filtering sedimentation from upland runoff. The coral, mangrove, and seagrass habitats of the nearshore are highly productive ecosystems that support a variety of organisms including important commercial fisheries. They are habitats of special concern due to their value as productive ecosystems that provide natural resources (e.g., fish, shellfish, and recreational areas) for the tourists and locals alike.

Unfortunately, the USVI is struggling to mitigate the damages to our coastal systems caused by coastal development and poor land use planning. Damage to any one of these habitats routinely results in deleterious ecological impacts to adjacent habitats. These sediment loads are simply too frequent and too large and are literally smothering these important habitats and diminishing their ecological function

to keep coastal waters filtered and healthy. These resources provide ample opportunities for different types of tourism experience, and for some form of food production. Another key resource is fresh water. The Territory, although it has some aquifers (primarily on STX), does not have consistent sources of water or perennial rivers. This issue will be explored shortly. The biggest concern and threat to natural resources is the lack of management of solid waste, wastewater, and stormwater, which adds to the degradation of our marine and coastal resources. As noted, the increased coastal development, increased boating and overfishing further diminish the Territory's natural resources.

Infrastructure System

The USVI has a modern and well-developed infrastructure system that provides critical services. The islands of STT and STX each has deep water ports that can support visits by cruise ships, as well as international airports. Cruise ship terminals on each island can accommodate some of the largest cruise ship, and STT has plans to dredge its main harbor to accommodate the new largest class of vessels in the world. STJ does not have any deep-water ports or airport, but it has two smaller harbors that can accommodate cars, trucks and passenger ferries. All three islands have numerous marinas and mooring sites for sail and motor-boats. Travel between the islands is done by air, private boats, and ferry. Transportation on islands by car, taxi or bus is done across paved roads, which cover most of the 3 main islands.

The USVI has an extensive cell phone coverage, even though most places are covered by only 1 cell tower. The cell phone network has recently been upgraded to 5G, and is dominated by 1 major company, Liberty Latin America. In addition, the Territory has ample fiber-optics internet coverage. The internet network is connected to the U.S. via underwater cables with 1 or 2 connection points on STT and STX. As mentioned earlier, the Territory does not have much readily accessible and reliable sources of freshwater. All three islands have aquifers; however, their water quality is poor and not suitable for drinking or for extended use for animals. Most of the water used for drinking and farming is generated by desalination plants, which are located on the islands of STT and STX. Water generated by these plants is distributed to most households on STX, and approximately 20% of households on STT. Freshwater produced by the desalination plant on STT is sent to a water storage tank on STJ via an underwater pipeline. However, most households, especially on STT and STJ harvest rainwater from roofs and store it in cisterns built into the homes or into external storage tanks adjacent to the homes. Some resorts have their own desalination plants and produce their own water. Wastewater is treated for most of STX, and parts of STT and STJ. Most households on STT and STJ dispose of their wastewater in septic tanks on their properties. All these systems, including traffic lights for the islands' roads, are primarily powered by electricity. Electricity is produced by large power plants on STT and STX. More than 90% of electricity is generated by the burning of fossil fuels. Electricity generated on STT is transmitted to STJ via an underwater electric cable.

Most of the buildings on the islands receive electricity via above-ground lines, although buildings in parts of the main towns of Charlotte-Amalie, Christiansted, Frederiksted and Cruz-Bay receive their electricity via buried lines.

Status of the Infrastructure

Most of the infrastructure systems in the USVI are vulnerable to small (e.g., heavy rain events) and large disruptions (e.g., hurricanes and earthquakes). Many roads are currently failing structurally as a result of the impacts of the 2017 hurricanes, but also because of a lack of investment in maintenance and proper drainage. Also, even though most ports are not vulnerable to flooding, the airport on STT is located on a floodplain and is susceptible to flooding from storm surge and heavy rains. In addition to the transportation infrastructure, most of the wastewater infrastructure is vulnerable and is often failing, and has been failing more frequently since the 2017 hurricanes.

One of the most fragile systems in the USVI is the energy system. The electrical grid is quite unstable, with prolonged power outages happening on a regular basis for reasons that are not often understood even by those involved in the maintenance of the grid. As a result, the transportation infrastructure is impacted, with traffic lights turning off, and ports and airports required to use backup generators. Also, while the telecommunication infrastructure, including the internet, is relatively robust, access to the internet can be interrupted, and use of cell phones can be compromised. Additionally, these interruptions can affect water production at the desalination plants, water distribution in parts of STT and STX that depend on pumps to move water, as well as access to water from cisterns in individual houses. In short, the infrastructure of the Territory is interdependent, and the energy system is critical to the provisioning of these and other essential services.

In addition to the fragility of most of the infrastructure, a lot of their elements are located in hazardous zones and are mostly vulnerable to impacts of flooding from sea and rain. And often, even if some of the assets are outside of the flood zone, roads leading to these facilities (e.g., airport on STT, ports on STT and STX, power stations on STT and STX) are in flood zones and prevent access to these facilities.

Community and Stakeholder Input

In establishing the CEDS report, the taskforce scheduled a series of townhall meetings throughout the USVI, held interviews with key stakeholders' groups and used the information gathered to build consensus among economic development partners in the private and public sectors, nonprofits, community and business stakeholders. A series of public meetings were also held on St. Thomas, St. Croix, and St. John, to facilitate discussion on the issues and actions that are of priority to residents and businesses. It was found that a common trend of priorities essential for economic growth and sustainability for the USVI economy were articulated as follows:

Government Support Systems: Build quality institutions and strengthen support systems for business creation and expansion:

- Infrastructure,
- Environment and Quality of Life,
- Economic Competitiveness,
- Diversify and grow the economy and create quality job opportunities,
- Education and Skills: Develop human capital—knowledge, skills, and experience,
- Invest in quality infrastructure and enhance management and conservation of natural resources,
- Healthcare: Build a stronger healthcare sector that provides residents and visitors with good critical care and affordable services.

SWOT Analysis

An in-depth analysis of Territorial strengths, weaknesses, opportunities and threats (commonly known as a “SWOT” analysis); includes the (i) incorporation of relevant material from other government-sponsored or supported plans and consistency with applicable Territorial and local workforce investment strategies; and (ii) An identification of past, present and projected future economic development investments in the Territory covered. The USVI lacks a comprehensive land and water use plan. As a result, development has and continues to occur in an uncontrolled manner and rapidly encroaching on many natural systems on all islands, and consequently, natural and artificial resources are being damaged and depleted. At the same time, the need for maintenance of the existing and new development has increased, but the ability to pay for this increased maintenance has not kept up with the pace of development. As discussed elsewhere, the economic downturns over the past 12 -20 years, coupled with a reduced tax base due to demographic trends (little to no population growth), and reduced revenues all lead to less investment in maintenance of the infrastructure—the very things that could attract new investment and businesses. As a result, systems are more fragile and vulnerable, as mentioned above. The USVI is vulnerable to the impacts of numerous hazards, from hurricanes and accompanying windstorms and storm surge; rainstorms; earthquakes and tsunamis, and drought. Unfortunately, because the climate is changing, the frequency and severity of hurricanes and droughts is increasing and sea-level is rising. As a result, many infrastructural assets will be more at risk than in the past. Coastal ecosystems and beaches will suffer more and more from the impact of sea-level rise and storms. In turn, water quality will be impaired, and these economically important areas will suffer from erosion. Additionally, since all stormwater drains into the ocean, drainage infrastructure will be impaired, and flooding is likely to be more persistent in urban and developed areas.

The ability of a region or state to produce or have ready access to its own food (food security) is often perceived as a key indicator of economic independence and resilience. The USVI, due to its geographical remoteness, size, population, and tourism-based economy, will never achieve food security in the same context that continental regions or states can do. In the USVI, land availability and suitability for agricultural production is too limited. Of the approximate 85,000 acres that constitute the Territory, only 9300 acres are in agricultural production and generate less than \$4M in revenue. Of the 565 registered farmers, over 80% are on STX, where the topography of the land is more amenable to agriculture- consistent with the historical patterns of land use under both Danish and American rule.

These figures are likely to be significantly underreported- as with the VI commercial fishers who do not report their landings, farmers are reluctant to provide information (yields, harvests, pest problems, income) to the relevant government agencies. There is a reluctance among VI farmers to work with USDA or the local VIDA, for reasons that seem counterintuitive. Consequently, the government agencies struggle to justify funding requests to address farmers' needs or problems without key supporting data. As for acreage under cultivation, there are innumerable and multiacre gardens that produce food that are part of an informal economy and barter system. Despite its small scale (the VI imports over 95% of our food), agriculture has a strong cultural value to the communities of the Virgin Islands. The overwhelming majority of food production in the Territory is for domestic/local production and subsistence. One third of the revenue generated is in highly perishable vegetable and fruit production (peppers, lettuce, cucumbers, squash, bananas, etc.) -all staples of local cuisine. Food animals (beef, pork, poultry, eggs) only constitute about 20% of the revenue- but again all for local consumption. One area of notable production that does not generate food products is the nursery plant production; 20% of the Territory's revenue is derived from this sector.

Unfortunately, and yet consistent with national trends, is that the VI farmers are aging. Over 70% of the registered farmers are 55 years or older. The Territory has very few young farmers at this time. Another trend is that the number of farms has increased over the past decade; however, many of the new farms registered are 3 acres or less; suggesting that subsistence and part time farming is increasing. Water access and availability, exacerbated by increased frequency and duration of droughts, poses a significant threat to the agricultural enterprise in the Territory. To counter these trends, the University of the Virgin Islands has embraced its land-grant mission of providing innovative and cutting-edge research, teaching, and extension programs in agriculture that encourage younger people into farming and equip them with the tools to address the challenges of limited resources and climate change. It is hoped that this new effort by the University, with support from the VI Government, will reverse these trends and mitigate some of the challenges facing VI farmers.

Gaps: Healthcare, Banking, and Education (VIDE and UVI) Systems, Role of VI Government

Strategic Direction/Action Plan

The strategic direction and action plan should build on findings from the SWOT analysis and incorporate/integrate elements from other Territorial plans (e.g., land use and transportation, hazard mitigation, workforce development, etc.) where appropriate as determined by the EDD team and stakeholders engaged in development of the CEDS. The action plan should also identify the stakeholder(s) responsible for implementation, timetables, and opportunities for the integrated use of Territorial and federal funds; a section setting forth goals and objectives necessary to solve the economic development problems of the USVI; a discussion of community and private sector participation in the CEDS' effort; a section listing all suggested projects and the projected numbers of jobs to be created as a result thereof; a section identifying and prioritizing vital projects, programs and activities that address the region's greatest needs, or that will best enhance the USVI's competitiveness, including sources of funding for past and potential future Investments; a section identifying economic clusters within the Territory, focusing on those that are growing or in decline; a plan of action to implement the goals and objectives of the CEDS, including: (i) Promoting economic development and opportunity; (ii) Fostering effective transportation access; (iii) Enhancing and protecting the environment; (iv) Maximizing effective development and use of the workforce consistent with any applicable State or local workforce investment strategy; (v) Promoting the use of technology in economic development, including access to high-speed telecommunications; (vi) Balancing resources through sound management of physical development; and (vii) Obtaining and utilizing adequate funds and other resources.



Henry E. Rohlsen Airport

Part II: Economic Resilience Factors

Because of the overdependence of the USVI on tourism and its related businesses, and its location in an area of natural disasters, the 2025 CEDS must address areas to help the Territory diversify its economy and develop the ability to recover quickly from shocks, the ability to withstand shocks, and the ability to avoid shocks, to the extent possible.

- **Research and Knowledge Building** – The GVI through the BER collects data on the local economy and local firms on a monthly basis. The UVI also has a wide array of census and community survey data as well as the capacity to analyze big data to understand the local economy. The USVI's DOL, DLCA, and BIR all have a wide selection of data relevant to the workforce, businesses, and taxes that support the data collection efforts of the BIR. Together these sources form a robust data system concerning the local economy and local firms. Additionally, information from the SWOT Analysis noted in Part One of this study together with information residing at the USVI's EDA and the UVI's RTPark speak to economic and industry specific vulnerabilities and opportunities for growth. VITEMA working in tandem with the local chambers of commerce and hotel associations have identified

the various challenges and threats in the face of disaster and have contingency plans to prepare for and respond to disasters. All of these factors combine to have an understanding of resiliency best practices for the various industries in the local economy in support of resiliency programming and improving the functioning of implemented programs.

- **Planning Integration** – The GVI is in the process of developing Vision 2024 – a Territorial integrated development strategy, that integrates numerous other government and agency plans into the economic development plan of the Territory. The results of the hurricane resiliency and recovery taskforce report together with the hazard mitigation plan, land use plans, the VITEMA plan, WAPA plan, VIPA plan, UVI plan, DPW plan, WICO plan, PFA plan, and other emergency response plans will be fully integrated into the Vision 2040 Plan to promote better coordination when incidences occur. The integration of various government entities into the overall economic development strategy of the Territory gives further credence to the Territory’s mitigation or preparedness planning efforts. Information garnered through broad and significant stakeholder engagement including vulnerable populations, business and workforce populations, will ensure that plans are based on the best set of information possible and are supported by a robust monitoring and evaluation system within the context of living documents with regularly updated progress reports that track implementation, create accountability for planning goals/objectives, and communicate progress to the community through dashboards and key performance indicators.
- **Governance Structures** – The USVI’s EDA is tasked with the responsibility of addressing and monitoring the economic planning and economic recovery efforts in collaboration with VITEMA, VIPD/National Guard, and the Office of the Governor. The USVI’s emergency Territorial response strategy includes and acknowledges the role of non-profit organizations, volunteer organizations, faith-based organizations, community foundations, and non-traditional lenders to support resiliency building and recovery efforts. These organizations are encouraged/required to promote business continuity planning and other mitigation and preparedness activities before a disaster. VITEMA performs continuous assessment of community organizations and their ability to manage and contribute to post-disaster recovery programing. The Territory also cultivates public-private partnerships to foster mutual support for economic development goals to improve local economic viability, retention, and expansion.
- **Financing Resources and Programs** – Existing financial institutions across the Territory all participate in providing financial economic and community development. The GVI is open to identifying resources to incentivize economic disaster mitigation planning and preparedness through the USVI’s EDA agencies including EDB, EZC, EDC, and EDPC in addition to federal resources for economic disaster response and recovery for public and private sector services from agencies including FEMA, HUD, SBA, and EDA, among others. The LGO through the insurance and banking board ensures that all insurance companies licensed to operate in the Territory are capable of responding to disasters and maintain a program to promote/provide adequate private insurance

coverage for local businesses. Many special grant programs and initiatives are currently underway to finance resilience initiatives and better assure mitigation and preparedness activities.

- **Infrastructure Strategies and Programs** – The WAPA, VIPA, DPW, and telecommunication providers all have strategies and programs to maintain critical systems in the face of a disaster. These include plans for maintaining/upgrading critical infrastructure and the resulting impact on the business community including utilities, transportation, and communications. Agreements between the various agencies and the private sector to assist each other's work in times of crisis is an integral part of Vision 2040. GVI's infrastructure strategies and programs also include a plan for rapid return of utilities through MOUs with other utilities, redundancies in micro-grids, and alternative transportation routes and logistics for economic activity. The presence of such strategies and services will increase the ability of USVI businesses to continue operations in the face of disasters and thus serve the needs of the community.
- **Procurement Strategies** – Current efforts between DPP, DOL, and UVI to ensure enhanced procurement capacity and capability across government departments and agencies all fall with GVI's plans for reducing capital leakage and providing training to support procurement efforts. GVI has a strategy for working with emergency management agencies led by VITEMA to identify local procurement opportunities including EDC's eligible suppliers and the greater Virgin Islands region following disasters. The DPP/DOL/UVI's initiative will also promote and encourage procurement training (inclusive of record keeping and financial management) for local businesses and encourage them to register as approved vendors for local, Territorial, and Federal procurement processes. Local businesses are encouraged to register with the Federal Government System for Award Management (SAM) as well as maintain adequate levels of insurance or other requirements. GVI also has plans for a preliminary marketing plan for promoting local businesses during a recovery and certifying local businesses as post-disaster recovery businesses. The goal is to keep money in the local economy and avoid capital leakage in the form of out-of-area contractors that channel vital resources out of the local market. Local businesses will also be encouraged to develop supply chain continuity plans and the development of mutual agreements with similar type businesses across the region that could support businesses when supply chains are down.
- **Business Continuity and Risk Management** – The USVI's EDA in conjunction with the UVI's SBDC are collaborating to deliver programs to promote the development of business continuity plans to facilitate a quick return to business. Emphasis will be placed on promoting and practicing good record keeping as a means of accessing business recovery resources. Businesses will also be required to keep copies of records in safe keeping in case original documents are lost in a disaster. They are encouraged to have generators and other private forms of energy and water access in place through intergovernmental agreements and other forms of joint collaborations. There is also a plan to provide short-term space for affected businesses and provisions and guidelines in place

to relax or streamline permitting and zoning bylaws to encourage quick return of businesses. The GVI will review its permitting rules and bylaws to determine which regulations could be suspended after a disaster to encourage a quick return to business.

- **Workforce Support Programs** – The GVI is committed to providing programs to support workforce development through training, placement services, and community support. The DOL in collaboration with UVI CELL and the Workforce Investment Board (WIB) and the Career and Technical Education Board (CTEB) have identified and implemented programs for workforce education and skills training to ensure a more flexible and adaptable workforce with the capacity and ability to shift between jobs or industries when their core employment is threatened. Other labor training agencies and similar firms have also been engaged to fill labor gaps and reduce unemployment due to workforce displacement after a disaster or other economic disruption. The GVI also promotes personal financial literacy, Individual Development Accounts (IDAs), and financial literacy training to help stabilize the workforce and keep them local while businesses reopen. Such an approach is needed to encourage savings and other practices for precarious workforce members.

Local workforce organizations should also be enlisted to encourage residents to prepare for economic disruption and have alternatives for transportation, housing, or other necessities. Efforts are afoot to identify the workforce sectors that are most vulnerable to displacement from various types of economic disruption including but not limited to vulnerabilities posed to the workforce by transportation, schools and other critical infrastructure outages, commuting patterns and the extent of cross-community commuting patterns for employment, and programs to educate employers on public and private resources available to support workforce preparedness and post-disaster assistance.

- **Economic Diversification** – Because of its location and with an abundance of sunshine, clear water, and beaches, the USVI's economy revolves around tourism and small manufacturing, which are vulnerable to disasters. More recently, the USVIEDA has offered tax incentives to financial services and other types of businesses to operate in the Territory in an effort to further diversify the economy. The development of the CEDS, TDMP, HMP, Vision 2040, and other agency plans all demonstrate an understanding of our economic limitations, vulnerabilities, and disaster preparedness and recovery activities. Through the HMP, the Territory is aware of its limitations and is committed to implementing projects that are in line with the recommendations of the plan. We are sensitive to risk avoidance and through the efforts of DRNP ensure that vulnerabilities are supported with risk mitigation strategies. Land use planning, economic development planning, and disaster emergency planning are coordinated in order to ensure that projects and facilities are appropriately located in accordance with their level of vulnerability and ensure that commercial developments are placed at resilient sites. Trends in the economy are mapped by the OMB and used by the USVIEDA, UVI, and other entities to identify activities for innovation and develop competitive advantages in current industries. VIPA is

mindful of the supply chain mechanisms and logistics to ensure the efficient flow of goods, and together with the government and other sectors promote the development of enterprises and technologies that support disaster preparedness and recovery.

- **Counseling and Technical Assistance Programs** – A major challenge faced after disasters in the Territory is the need for adequate personal and business counseling professionals to assist businesses in filling out forms for recovery resources and commencing the process of reopening. The SBDC, UVI CELL, and USVIEDA all play a significant role in assisting small businesses with training and counseling and specialized assistance with accessing needed loans and grants. There is a direct connection between the services offered by these agencies and their ability to secure needed access to capital. They are a good source of economic gardening to assist economic recovery after disasters. There is still a need for more resources in the area of counseling and technical assistance, some of which will be addressed in this CEDS.
- **Communications Systems and Programs** – Care is being taken to ensure greater resilience in the communication network during and after disasters. VITEMA, DLCA and the USVIEDA have systems in place to facilitate information sharing with local businesses. The Territory will explore the feasibility of establishing a business emergency operations center to help business owners get up to date real time information and share the status of operations (open/close). Such a mechanism would help the Territory to better identify those areas that need to accelerate business recovery. Resource guides and plans (electronic and paper) will also be developed to assist businesses with disaster mitigation and post-disaster recovery guidance. These would include best practices, specific available resources, and contact information that would be needed as businesses try to reopen and recover.

To improve our resilience and solidify our sustainability, the USVI through the CEDS will establish programs and implement projects that would help to mitigate against impacts of disaster. As a result of diverse economy, we will build stronger and smarter, diversify our economic base, provide services and infrastructure in collaboration with others including the private sector, and practice strategic leadership and responsible financial stewardship. Going forward, our goal is to lessen the impact of disaster such as:

- Reduced taxes and other revenues
- Loss of infrastructure
- Expense of mitigation efforts
- Importance of federal assistance
- Loss of economic resources
- Opportunity to rebuild better and stronger communities
- Population, demographic, and cultural shifts

- Felt trauma physically, mentally and emotionally
- Destruction of property, loss of financial resources and personal injury or illness
- Develop severe post-traumatic stress disorders or withdraw into states of depression



Point Udall

Part III: Selected United National Sustainable Development Goals (applicable to the USVI)

Through the CEDS, Vision 2040, TDMP, HMP and other sector and agency plans relevant to the sustainable development of the Territory, the USVI is committed to fulfilling to the extent possible the purpose and intent of the Sustainable Development Goals as promoted by the United Nations General Assembly. Our commitment is as follows:

1. End Poverty in all its Forms – The USVI is committed to poverty eradication across the Territory. We will create the framework and mechanism for social enterprise and impact investing, encourage our businesses to support poverty reduction through investments in communities and ensuring that community development is a key part of economic development. We will develop asset maps, determine the poverty footprint of the Territory, adhere to human rights principles and provide resources to address any shortcomings, to the extent possible. The 2014 Virgin Islands Community Survey (VICS) reported that 18.9% of USVI families were living below the poverty level. Of note is the increase in poverty in the community over time. The 2016 Community Foundation of the Virgin Islands Kids Count (herein after VI Kids Count 2016) Data Book (CFVI 2018) provides information on the status of children in the USVI in 2014, with some limited data for 2015. The VI Kids Count 2016 reported increased poverty levels

for USVI families with children (32%, up from 27% in 2012) as well as increases in the number of children in the USVI living in poverty (37%, up from 35% in 2013). **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Develop products and services tailored for poor customers.
- Improve access to basic goods and services for people living in poverty (e.g. through core business, policy dialogue, social investment).
- Recruit, train and employ local community members, including those living in poverty, and integrate them in our value chain (as producers, suppliers, distributors, vendors).
- Invest in business-driven poverty eradication activities (e.g. develop living wage policy).
- Partner with civil society networks to provide education and entrepreneurial skills training.

Achieve Food Security and Improve Nutrition – The USVI is committed to identifying and implementing ways and means to ensure food security and improve nutrition across the Territory. We will promote sustainable agriculture and fund programs and projects that provide the most effective and proven technologies for safe food production and processing. The DOA, DOL and UVI will be required to work collaboratively to ensure the requisite training, techniques, and agriculture business principles are provided not only to commercial farmers but to all who would desire to have a home garden for short crops and the preparation of nutritious meals. We will also encourage businesses to support food and agriculture production and utilization across the Territory. The USVI currently imports 99% of its agricultural product. Farmers have an opportunity to get into this market through local sales from direct to consumer, retail and wholesale opportunities. According to the most recent USDA agricultural census, there are 219 farms in the USVI, which range from 3 to 100 acres. All livestock must be slaughtered at an abattoir. Many residents participate in nearshore or offshore fishing activities, and based on findings from the NOAA fishery report, approximately 40% of households engage in fishing and marine resources, 65% consume fish/seafood once a week or more, and 84% of fishers do not sell the fish that they catch. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Supporting, encouraging and demonstrating the continued viability of small scale farming, sustaining grower communities by developing partnerships with cooperatives and producer organizations supporting many small farmers.
- Investing in sustainable agricultural technology, intensifying collaboration with academic as well as scientific institutions.
- Demonstrating support to genetic diversity of seeds, plants and animals and report on company's contribution to biodiversity.
- Upholding highest standards of sustainability in sourcing practices, enhancing traceability of commodities and demonstrating transparency in agricultural supply chain.

2. Ensure Healthy Lives and Well-Being – We will promote healthy lifestyle living through applied research in health disparities at UVI and encourage everyone to engage in well-being activities in support of enhanced mental health. We will improve programs for women, children, and infants and provide adequate sports, parks, and recreation opportunities in support of a health-conscious society. We will also upgrade our health services and training platforms to assure an adequate supply of health and medical professionals across the Territory. Health is a fundamental human right and a key indicator of sustainable development. The 2015 VICS reported that 22% of the population did not have health insurance coverage. The Kaiser Foundation (2017) noted in its health report on the USVI for 2017 that 13% of the population was reported as having to manage living with diabetes, a higher level of prevalence than the 12% reported nationally. Additionally, the 2016 BRFSS revealed that 65.2% of the adult population were overweight or obese (Centers for Disease Control and Prevention). **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Align human resources policies with principles of human rights.
- Make investments in health a priority in business operations.
- Facilitate and invest in affordable medicine and health care for low-income populations.
- Leverage corporate resources to support health care delivery.

3. Ensure Inclusive and Equitable Quality Education – We are committed to providing a wholistic all-round system of education in modern facilities. Students will have the opportunity for substantive internships with businesses in the context of a framework for business engagement in education. We will teach our children financial and responsible management principles, expand the coverage of the free tuition program, and ensure that an adequate number of highly trained teachers are in our classrooms. In the USVI only 18% of the population is reported having a bachelor or higher degree (2015 VICS), while nearly 1 in 3 adults (33%) were higher education graduates at the national level (US Census Bureau, 2015), 17.5% of adults 25 years or older have at least attended college or earned an associate’s degree (2015 VICS). Education is a fundamental human right and is indispensable for the achievement of sustainable development. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Enhance relationships with school entities and higher education institutions to improve education curricula to better align with business needs including responsible management.
- Create programs (e.g., internships, work-study programs, traineeships, etc.) that give students earlier access to the corporate environment.
- Provide employees with continuous opportunities to improve their (job) skills for their current and future employment.
- Ensure learning environments are clean and safe for children by mitigating environmental hazards.

4. Achieve Gender Equality – We will continue to promote the empowerment of women and children across the Territory. Special focused programs will also be provided for men of all ages to address issues unique to them and their circumstances, and programs aimed at domestic violence reduction will be provided. Gender equality is a fundamental and inviolable human right and women’s and girls’ empowerment is essential to expand economic growth, promote social development and enhance business performance. Additionally, single females head 67% of the households with children under 6 years of age and 38% of these families have income levels that fall below the poverty line. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Pay equal remuneration, including benefits, for work of equal value and strive to pay a living wage to all women and men.
- Support access to child and dependent care by providing services, resources and information to both women and men.
- Establish a zero-tolerance policy towards all forms of violence at work, including verbal/ and/ or physical abuse and prevent sexual harassment.
- Expand business relationships with women-owned enterprises, including small businesses and women entrepreneurs.

5. Ensure Availability and Sustainable Management of Water and Sanitation – The water and waste management needs of the Territory will be given special attention. We will rid ourselves of consent decrees, invest in modern water and waste management opportunities and energy efficient plants, and convert the energy produced from the processing of these commodities to the grid, thus providing more affordable sources of energy. The USVI will also provide water usage education to the population and ensure that every household has access to clean water and sanitation. Waste management infrastructure in the Territory consists of two systems: solid waste collection and disposal and wastewater collection, treatment, and disposal. Both systems operate under federal consent decrees as a result of past Environmental Protection Agency (EPA) and Federal Aviation Administration (FAA) violations and failure to meet requirements for federally mandated EPA programs, including the Clean Air Act, Clean Water Act, and Safe Drinking Water Act. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Prioritize water efficiency across operations by installing best practice technologies for water conservation.
- Reduce the likelihood of groundwater contamination by treating and processing all waste with exceptional precaution, according to local and federal guidelines.
- Invest in water and sanitation projects or infrastructure across the Territory.

- Ensure that all people have ample access to safe drinking water and adequate sanitation, and raise awareness about hygiene practices.

6. Ensure Access to Affordable, Reliable, Sustainable, and Modern Energy – Although this may be our greatest challenge, the USVI is committed to ensuring access to affordable, reliable, sustainable, and modern energy for all. The energy infrastructure of the Territory is undergoing significant upgrades and is mindful of the need to care for the climate by utilizing more sources of alternative energy including solar and wind to energize the Territory while caring for the environment. Modern society depends on reliable and affordable energy services to function smoothly and to develop equitably. A well-established energy system supports all sectors from medicine and education to agriculture, infrastructure, communications and high-technology. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Ensure that all people have access to a reliable and affordable source of energy by investing in local infrastructure to establish accessible energy services.
- Commit to sourcing 100% of operational electricity needs from renewable sources.
- Integrate renewable energy into employee benefits packages, subsidizing the capital expenditures associated with residential solar investments.
- Prioritize energy efficiency across operations through tools such as the use of an internal carbon price and science-based target setting to reduce overall demand for energy.

7. Promote Sustained, Inclusive, and Sustainable Economic Growth – We continue to update our labor laws and ensure that employers and employees are mindful of their labor rights' principles and resources. We will provide decent work and economic growth all while ensuring adherence to fair labor practices, living wages, decent working conditions. Employers are required to provide adequate benefits and promote respect for the dignity of labor within the context of a resilient economy. We will serve as the engines for job creation and economic growth and foster economic activity through our value chain. The US Virgin Islands' economy is generally undiversified and heavily dependent on tourism and related services. According to the World Travel and

Tourism Council Caribbean, in 2018 tourism contributed 30.9 % of GDP in the US Virgin Islands, directly employed 5,500 persons and visitor spending amounted to \$1.5 billion (WTTO, 2019). Currently, construction employment is buoyant due to the need to rebuild and repair in the aftermath of the storms. Manufacturing is poised to increase with the opening of the Limetree oil refinery section of the terminals. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Offer apprenticeship opportunities.
- Foster entrepreneurial culture and invest in or mentor young entrepreneurs.
- Initiate skills development programs moving down company supply chains.
- Install a firm policy against unfair hiring and recruitment practices, particularly of vulnerable groups such as migrant workers.

8. Build Resilient Infrastructure and Foster Innovation – There is no easy way out for a hurricane and earthquake zone knowing that it is not if, but when those disasters will strike. We have had our share of disasters and will use our experiences and guidance inherent in our many plans to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. We will follow principles for responsible investment, finance innovations with the potential for revenue generation and cost reduction and enhance commerce in our towns and University. USVI's Hurricanes Irma and Maria (Progress Report 2019) indicated that even in the best of times, no organization has the resources to meet all its business needs. To help ensure that the USVI's Government spends its scarce resources on the disaster recovery related work that is of the most value, the Office of Management and Budget (OMB) developed an integrated portfolio management approach that drives the interests and operating standards of the Office of Disaster Recovery (ODR) by providing flexibility for managing each federal agency's distinct requirements. Over the last nine months, the OMB has successfully applied this integrated approach in organizing the USVI's 1300+ disaster recovery related projects and schedules across 54 agencies. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Invest in new, resilient infrastructure or retrofit existing infrastructure to make it more sustainable.
- Promote innovation by giving all stakeholders the opportunity to offer creative solutions to sustainability challenges.
- Consult and engage a wide range of stakeholders to ensure that infrastructure development benefits and creates opportunities for all.
- Collaborate with the public sector to help promote sustainable growth within the Territory.

9. Reduce Inequality – The USVI is committed to reducing inequality within and among the districts of our Territory. We will adhere to the principles of human rights, indigenous peoples’ rights, and ensure that government and the business sectors reflect the composition of the population, to the extent possible. We respect the rights of all ethnicities and peoples and uphold the principles of good governance and fair justice for all. Inequalities in income and wealth are severe and have been widening globally. The richest 1% of the world’s population now controls up to 40% of global assets, while the poorest half owns just one per cent. Global inequality data show that rising inequality is not a fatality and that countries with strong investments in public services and welfare policies have the lowest inequality levels. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Improve access to basic goods and services for people living in poverty (e.g. through core business, policy dialogue, social investment).
- Recruit, train and employ local community members, including those living in poverty, and integrate them in our value chain (as producers, suppliers, distributors, vendors).
- Invest in business-driven poverty eradication activities (e.g. develop living wage policy).
- Partner with civil society networks to provide education and entrepreneurial skills training.

10. Make Communities Inclusive, Safe, Resilient, and Sustainable – The USVI is committed to making our islands, towns, and communities sustainable. We will adhere to all applicable laws and conventions to ensure that our towns and human settlements

are inclusive, safe, resilient, and sustainable. Every effort will be made to make housing affordable to every strata of society in a manner that integrates the society and improves the quality of living and of place for all. We will work with businesses to adopt public spaces for art and sculpture and to properly enhance the livability and walkability effects of our communities. We will play a vital role not only in providing specific infrastructure, technology, services and financing solutions, but also in contributing to the strategy that will support the overall optimization of our systems to create an inclusive, safe, sustainable and disaster resilient Territory. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Jointly develop and/or participate in a sustainable community that brings together relevant stakeholders through a common and neutral platform to jointly analyze, discuss and act on urban functionality, resilience and sustainable development.
- Collaborate with businesses and intergovernmental offices to find solutions to future mobility needs that minimize environmental impact while making transportation safer and more affordable for all.
- Reform private sector finance investment strategies to support integrated and sustainable urban development like sustainable urban transport, low-carbon buildings, and resilient infrastructure.
- Invest in safe and sustainable infrastructure in the community and city operations, including lighting, transportation, alarm systems, etc.

11. Ensure Sustainable Consumption and Production Patterns – We will work with producers, suppliers, consumers, logistics vendors, and transportation entities to ensure sustainable consumption and production patterns. We will collaborate more with our neighbors to assure economies of scale and benefit more strategically from the federal resources available to Puerto Rico and the USVI. We will promote more joint work between UVI and UPR and seek to form a sustainable economic district in the US Caribbean. Such a path forms the productive and technological basis of sustainable development. In order to channel investments in the desired direction and make them viable, incentives and institutional frameworks must be redefined, to strengthen the guiding role of public investment and foster public-private cooperation. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Develop innovative business models such as moving from selling products to selling services, to retain ownership of the products and help close the materials loop.
- Enable sustainable consumption by developing innovative solutions can reduce energy need in usage and educate consumers about these benefits.
- Reduce manufacturing impacts by substituting virgin raw materials in products with post-consumer materials through recycling and upcycling.
- Significantly reduce waste and ensure that any unavoidable waste is utilized to the fullest degree (e.g. organic waste as fuel or fertilizer).

12. Take Urgent Action to Combat Climate Change – Through recommendation in our Hazard Mitigation Plan and FEMA Guidelines, we will take appropriate urgent actions to combat climate change and its impacts on the Territory. We will reduce our carbon footprint and obtain carbon credits in exchange for maintaining vegetation and our underwater environment. We will care for the climate and encourage all inhabitants and businesses to do the same by adopting climate preservation practices and caring for the environment with more natural resources as sources of energy and production. The climate of the U.S. Virgin Islands is changing. The air and ocean are warming, heavy rainstorms are becoming more severe, sea level is rising, and the ocean is becoming more acidic. In the coming decades, these environmental changes are likely to increase threats to life and property from severe storms, reduce the availability of fresh water during the dry season, harm or destroy much of the islands' coral reef ecosystems, and make air temperatures uncomfortably hot more often (EPA's Climate Change Indicators in the United States 2016). **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Source all electricity from renewable sources – such as wind, solar or hydro – or install renewable energy generation capacity on-site.
- Increase investment in innovation to improve the efficiency of the company's product portfolio, thereby enabling customers to reduce their GHG (greenhouse gas) emissions.

- Invest in CCS (carbon capture & storage) technology to capture emissions produced from the use of fossil fuels in electricity generation and industrial processes, preventing the carbon dioxide from entering the atmosphere.
- Understand climate risk and build resilience into the Territory's assets and supply chain.

13. Conserve and Sustainably Use the Ocean and Marine/Maritime Resources – The USVI under the guidance of the USVIEDA, UVI, and the marine/maritime industry will develop and adhere to a blue economy ocean policy plan for biodiversity and ecosystem services. We will conserve and sustainably use the oceans, seas, and marine resources for sustainable development while expanding the economy of the Territory. We will develop and deploy new water-based technologies that are friendly to the environment and adhere to generally accepted practices for sustainable underwater management and preservation. Careful management of this essential global resource is a key feature of a sustainable future. Saving our ocean must remain a priority for the Territory. Marine biodiversity is critical to the health of people and our Territory. Marine protected areas need to be effectively managed and well-resourced and regulations need to be put in place to reduce overfishing, marine pollution and ocean acidification. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Improve resource efficiency by generating value from waste.
- Replace, limit or prohibit the use of certain chemicals, additives, or materials that could prevent closing the loop or lead to nutrient pollution or chemical and physical hazards if they happen to reach marine ecosystems.
- Raise consumer awareness on effective ways to properly dispose of their waste to discourage littering and promote responsible behavior.
- Prohibit practices that put marine species and resources at further risk of harm, exploitation or depletion.

14. Protect, Restore, and Promote Sustainable Use of Terrestrial Resources – As a territory, we commit to being wise stewards of our natural resources. We will protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests and other vegetation, combat decertification by maintaining agricultural lands, halt and reverse land degradation, and halt biodiversity

loss. We will also adhere to the global compact framework for biodiversity and ecosystem services and render due stewardship of our rainforest by following nationally and globally accepted practices and rules for sustainable forest management. While many of the effects are felt locally first, the long-term consequences are global and the scale is highly relevant to business, presenting risks and opportunities. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Measure, manage and mitigate impacts on ecosystems and natural resources.
- Scale up best practices for land use planning and management.
- Invest in natural infrastructure as a cost-competitive alternative to grey infrastructure.
- Foster product and technology innovation to optimize resource efficiency, reduce impacts on ecosystems and lower carbon emissions.

15. Promote Peaceful and Inclusive Societies for Sustainable Development – The USVI supports and promotes good governance within the context of peaceful and inclusive societies for sustainable development. We will provide access to justice for all and build effective, accountable, and inclusive institutions at all levels. We are committed to rooting out crime and violence and will adhere to anti-corruption principles and resources in respect of peace and the rule of law. We support good governance, transparency, truth in operations, and strong institutions of justice. Failure to implement responsible Territory practices can result in additional costs and risks (financial, legal, reputational) to the Territory itself, and, can exacerbate tensions and instability in society and undermine the rule of law. We are committed to working with all levels of government and civil society to eliminate corruption in all its forms and to support strengthening of the rule of law. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Comply with laws and seek to meet international standards; require and support business partners to do the same.
- Commit to and implement conflict-sensitive, lawful and transparent operational policies and practices, including on human resources, public and corporate procurement, and in the value chain more generally.
- Conduct risk and impact assessments to identify and mitigate risks of contributing to corruption, violence and conflict, and weakening of the rule of law and identify opportunities for positive impacts.

- Engage in public-private dialogues, partnerships and collective action in conflict prevention, peacekeeping, peacebuilding, anti-corruption and the rule of law.

16. Strengthen the Means of Implementation – We will seek local, regional, national, and international partnerships in support of our commitment to these principles. We will regularly plan for our future through the CEDS and Vision 2040, strengthen the means of plan implementation and collaborate with others in partnership for sustainable development. For government and businesses to succeed, they require access to energy, good governance and sustainable economic development, among other fundamental factors. We expect our business community to work alongside the government sectors to develop more integrated solutions to Territorial challenges. **The USVI is committed to fulfilling the following examples, actions, and solutions suggested by the United Nations Global Compact Report 2030:**

- Promote the development, transfer, dissemination and diffusion of environmentally sound technologies.
- Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism.
- Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system.
- Realize timely implementation of duty-free and quota-free market access on a lasting basis



St. John

Part IV: Nexus Statement

Disaster Nexus – The storms of 2017 made a significant unfavorable impact on the economic base of the United States Virgin Islands and significantly inhibited its capacity to quickly respond, recover, and reestablish a stable economic state. It was a clear example of the Territory's insufficient capacity and capability to facilitate coordinated interagency capacities across disaster-related mission areas to include prevention, protection, mitigation, response, and recovery. When the storms occurred, the Territory was still in the process of recovering from the financial crisis of 2008/9 and the deep economic challenges resulting from the closure of HOVENSA. It was, however, making strides towards reducing unemployment, maintaining and expanding the economy, and solidifying plans for improved infrastructural stabilization. The resulting situation in the aftermath of the storms exasperated the need for more community planning and capacity building, economic sustainability, health and social services improvements, housing, infrastructure systems, and natural and cultural resources.

The U.S. Caribbean Fourth Annual Climate Assessment (2018) indicated that the limited geographic and economic scale of Caribbean islands means that disruptions from extreme climate-related events, such as droughts and hurricanes, can devastate large portions of local economies and cause widespread damage to crops, water supplies, infrastructure, and other critical resources and services. FEMA

indicated in a National Preparedness Report 2020, that preparedness relies on the contributions of individuals and communities, the private and nonprofit sectors, faith-based organizations, and all levels of government. Preparedness activities take many forms, from simple actions, such as investing in an emergency fund, to complex actions, such as building response and recovery capabilities to manage a major earthquake, cyber incident, or wildfire. Together, stakeholders should work to achieve a Territorial Preparedness Goal: “A secure and resilient Territory with the capabilities required across the whole community to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk.”

In order to make the USVI more resilient, financing is needed for risk reduction and response to natural disasters and climate change. We will follow the suggestions from the United Nations Office for Disaster Risk Reduction 2018 Annual Report, which indicated several priorities and guiding principles for mitigating disasters. The following priorities are essential to our disaster recovery efforts:

Priority 1 is understanding disaster risk: Disaster risk management needs to be based on an understanding of disaster risk in all its dimensions of vulnerability, capacity, exposure of persons and assets, hazard characteristics and the environment.

Priority 2 is strengthening disaster risk governance to manage disaster risk: Disaster risk governance at the Territorial level is vital to the management of disaster risk reduction in all sectors and ensuring the coherence of national and local frameworks of laws, regulations and public policies that, by defining roles and responsibilities, guide, encourage and incentivize the public and private sectors to take action and address disaster risk.

Priority 3 is investing in disaster risk reduction for resilience: Public and private investment in disaster risk prevention and reduction through structural and non-structural measures are essential to enhance the economic, social, health and cultural resilience of persons, communities, assets, and the environment. These can be drivers of innovation, growth and job creation. Such measures are cost-effective and instrumental to save lives, prevent and reduce losses and ensure effective recovery and rehabilitation.

Priority 4 is enhancing disaster preparedness for effective response, and to “Build Back Better” in recovery, rehabilitation and reconstruction: Experience indicates that disaster preparedness needs to be strengthened for more effective response and ensure capacities are in place for effective recovery. Disasters have also demonstrated that the recovery, rehabilitation and reconstruction phase, which needs to be prepared ahead of the disaster, is an opportunity to “Build Back Better” through integrating disaster risk reduction measures.

The projects outlined in this CEDS will help the Territory to be better prepared to respond to the overall needs of the Virgin Islands prior to, during, and after disasters. The disaster nexus of these projects can be directly associated with the challenges identified post disaster,

the economic development opportunities associated to the recovery, and the role of the Government of the Virgin Islands and other public and private agencies to support the development of a more robust, vibrant, and resilient economy for the Territory. Some of these areas are:

- The need to have the required applicable data and information for informed decision making
- The need to ensure expanded community planning and local capacity building to mitigate against capital leakage and assure a highly trained cadre of professionals with the requisite skills to assist individuals and businesses with providing business continuity assurance in the face of disasters
- The need to ensure that the economy is stabilized and returned to normal within the shortest possible time through greater collaboration with the private sector to buttress workforce development, education, financial stability, and business continuity needs
- The need to provide proven resilient health and social services personnel and facilities, and interventions to contain mental health issues, health disparities, and mitigate against the spread of tropical diseases, infectious diseases, and other public health threats to the economy of the Territory and safeguard the health of the affected population during and after disasters
- The need to have a resilient infrastructure system in the form of energy, roads, transportation, ports (air, land, sea) to diversify the local tourism economy and build economic resiliency through 21st Century workforce development in areas germane to the health and safety of workers in support of the wider economy
- The need to ensure adequate and affordable housing for the population and ensure that building codes are upgraded and enforced in an effort to minimize the level of damage future storms may inflict on the housing stocks of the Territory
- The need to map the natural and cultural resources required to improve the quality of life and quality of place for residents and visitors alike. Community development is integral to economic development
- The need to assure residents and visitors of the availability of expert medical research and treatment services allowing them to remain in the Territory and contribute to the economic base of the region while receiving world-class medical and health services.

Part V: USVINext Territorial Resilience Framework

The CEDS projects aim to address these and other areas in direct support of the economy of the United States Virgin Islands and the wider American Caribbean region.



St. Thomas Harbor

Vision – A resilient, innovative and globally competitive economy that retains, grows and attracts new business and industry, provides high-wage jobs and opportunities that result in the highest quality of life and sustainable prosperity for residents.

Mission – To grow and maintain a robust diversified and resilient economy for the people of the U. S. Virgin Islands.

The following tables identify actions that must be taken for the United States Virgin Islands to become a more resilient Territory and ensure a sustainable economy well into the future. Measured steps must be taken on each of the recommendations in the interest of leadership and strategy, economy and society, health and well-being, and infrastructure and the environment.

USVINext

CEDS 2020-2025

Territorial Resilience Framework

Performance Goals, Measurable Objectives, Strategies Actions, Resources, Project Leads, Performance Measures, and
Projected Annual Economic Impact

Priority Ranking: 1-3 (1= Immediate Term; 2= Medium Term; 3= Long Term)

The following tables identify actions that must be taken for the United States Virgin Islands to become a more resilient Territory and ensure a sustainable economy well into the future. Measured steps must be taken on each of the recommendations in the interest of leadership and strategy, economy and society, health and well-being, and infrastructure and the environment.

Area of Focus 1: Leadership and Strategy

Project and/or Program Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
1	Actively lead the implementation of the CEDS in a phased and balanced manner	Increase by 25% the implementation rate of projects/programs identified in the CEDS	Establish a position of Executive Assistant to the Governor for Planning and Strategy Implementation	\$150K (Local)	OG	Number of CEDS and Vision 2040 projects implemented and completed	\$300K

Project and/or Program Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
2	Promote leadership and effective management	Increase by 20% the number of department and agency heads holding at least MPA or CPM credentials	Provide scholarships and financial assistance to public officers pursuing MPA and CPM credentials	\$650K (Local)	DOP/UVI	Increases in the number of department and agency heads with the requisite credentials	\$10M
1	Ensure that budgets and spending plans are linked to the strategic development plans of the Territory	Increase by 25% the number of departments and agencies whose budgets are tied to their strategic plan and aligned to CEDS, and Vision 2040	Develop and launch a public sector reform program to restructure, merge, and eliminate services, as needed	\$450K (Local)	OG/OMB	Increase in the number of department work plans directly tied to strategic plans, CEDS, and Vision 2040	\$3M
1	Provide data and information needed for informed decision making and planning	Assemble at least 90% of all pertinent Territory-specific data in one appropriately staffed center or institute	Establish a Territorial institute of economic research, statistics and policy analysis to provide data, information, and policy impact advice	\$2.5M (Federal, Local)	OMB/UVI	Territorial Institute established and operating	\$5M
1	Create capacity for resilience planning and ensure the phased	Expand the Territory's capacity to strengthen preparedness, mitigation, and resilience by 15%	Establish a Center for Resilience, Economic Policy,	\$15M (Federal, Local)	UVI/OG	CREPSED established and functioning in	\$28M

Project and/or Program Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
	development of the Territory		and Strategic Economic Development (CREPSED) as a “Think Tank” for the Territory.			accordance with its mandate	
2	Promote IEDC economic development certification	Increase the number of certified economic development professionals in the Territory by 50%	Develop a cadre of IEDC certified economic development professionals (CEcD) at the USVIEDA and other key agencies across the Territory.	\$350K (Local)	USVIEDA/UVI	Increase in the number of certified economic development professionals in the public and private sectors	\$3M
1	Support economic development accreditation status for the USVIEDA	Establish at least one nationally accredited and recognized economic development organization in the Territory	Certify the USVIEDA as an IEDC accredited economic development organization (AEDO).	\$100K (Local)	USVIEDA	Increase in the number of AEDOs in the Territory	\$2M
2	Promote economic diversification	Increase investments in areas other than tourism by 10%	Develop an economic diversification strategy for the Territory	\$150K (Local, Federal)	USVIEDA	Strategy developed and commissioned	\$5M
2	Promote the Territory with a consistent voice	Increase by 20% the number of organizations and businesses	Develop a territorial brand campaign to be	\$150K (Local)	DOT/USVIEDA	Development Territory brand; Number of partner	\$5M

Project and/or Program Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
		strategically marketing the Territory	utilized by all stakeholders			organizations utilizing Territory brand/identity; Marketing metrics.	
1	Strategically leverage Territory-wide assets	Identify the types and categories of assets available across the Territory	Conduct an up-to-date asset mapping study	\$120K (Local)	UVI/DOL	Study completed and displayed via an interactive website; Assets actively engaged in economic development.	\$10M
1	Promote awareness of hazards and risks	Reduce by 15% the number of man-made incidences of hazards and risks occurring across the Territory	Complete development of the Hazard Mitigation Plan	\$450K	VITEMA/DPNR/UVI	Reduction in the number of man-made hazardous occurrences; Increases in the number of approved plans that adhere to hazard mitigation guidelines.	\$5M
3	Promote the placement of public art at strategic locations	Increase the placement of public art by 25% across the Territory	Develop regional funding strategy and campaign to support public art	\$800K (Local, Private)	DPW/USVIEDA/NGOs	Creation of funding strategy; Funds leveraged to increase public art outputs	\$2M
1	Empower a broad range of stakeholders to foster economic	Increase by 10% the number of public, not for profit, and private sector agencies trained and	Develop a certified acquisitions management program at UVI	\$500K (Local)	DPP/UVI	Certified acquisitions management program developed and	\$5M

Project and/or Program Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
	development activities	certified in contracts and grants acquisitions				launched; Increases in the number of certified acquisition management professionals	
1	Identify and manage risks	Decrease the Territory's exposure to controlled risk by 15%	Develop a business continuity and risk assessment management plan for the Territory	\$150K (Federal, Local)	OMB/UVI/Consultant	Business continuity and risk management plan completed and implemented	\$35M
2	Foster long term and integrated planning across the Territory	Integrate at least 50% of all public and private sector plans into one cohesive territorial strategy	Develop and implement Vison 2040 – a twenty-year Territorial Integrated Development Strategy (TIDS)	\$450K (Federal, Local)	USVIEDA	Vision 2040 Plan developed and approved	\$15M
1	Create a reformed and nimble USVI with the capacity and capability to lead disaster recovery and build resilience and sustainability	Increase by 20% the number of credentialed disaster management professionals in the Territory	Establish a Disaster Management certificate program at UVI CELL	\$500K (Federal)	UVI/VITEMA	Disaster Management certificate program developed and launched	\$5M
2	Modernize P-16 education	Increase by 25% the number of curriculum offerings that respond to	Develop a P-16 Education Modernization	\$500K (Local, Federal)	DOE/UVI/Consultant	Modernization Plan completed and commissioned;	\$3M

Project and/or Program Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
		the needs of a modern technological and innovative society	Plan for the Territory			Establishment of an education modernization unit in the DOE to lead implementation of the plan; Integration of the modernization plan into the DOE strategic plan	
1	Review compensation levels across government	Adjust 100% of salaries to at least the average national minimum for job positions	Conduct a compensation/ reclassification study for the public sector	\$250K (Local)	DOP/UVI	Compensation and reclassification study completed and implemented	\$12M
1	Preserve the government employees' retirement system plan	Reduce the GERS bleed to 0% and increase holdings by 3%	Introduce strick fiscal and investment measures and strategies to fund the GERS	\$250K (Local)	GERS/OG/ Legislature	Reversal of the depletion of GERS holdings and the continued spending of benefactors across the Territory	\$300M
1	Strengthen operations of the economic development agencies	Increase by 20% the number of active businesses operating under the USVIEDA and UVI RTPark	Expand the physical and operational footprint of USVIEDA and the UVI RTPark and require firm accountability for business attraction,	\$500K (Local, Federal)	USVIEDA/UVI/ RTPark	Increase the number of entities doing business in the USVI; New amended business friendly legislation; Increase in taxes to treasury; Enhancement to the USVI quality of place	\$25M

Project and/or Program Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
			retention, and expansion				
1	Strengthen the local skills bank of the Territory	Increase by 15% the number of locally qualified and certified personnel needed to work in a thriving economy	Conduct a comprehensive workforce development (laborshed) study to ensure the needed skills in support of a resilient economy	\$125K (Federal, Local)	DOL/WDB/UVI/VIBCTE	Workforce Development study completed and implemented	\$2M

Area of Focus 2: Economy and Society

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
1	Foster economic prosperity	Conduct at least 3 economic development igniters at \$.3M each funded by private sector investments	Establish a special purpose vehicle at the USVIEDA through which private sector investments could be made to economic development initiatives and projects at an annual rate of \$1M	\$25K (Private)	USVIEDA	Increase in the level and number of daytime and nighttime economic activities in the four towns across the Territory	A \$3M
1	Make the Territory more resilient and	Reduce the economic	Attract and develop key industries that could	\$400K (Federal)	USVIEDA/Consultant	Key industries identified and	\$15M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
	economically diverse	recovery time lapse after significant disasters by 20%	form a hedging effect against long-term and short-term disasters			granted tax incentives, as appropriate to their business	
2	Provide funding for small business development in the towns	Increase the number of loans made available to eligible small businesses operating in the towns	Capitalize the Economic Development Bank (EDB) for expanded private investment and small business lending	\$50M (Federal)	USVIEDA	Increase in the number of eligible small businesses in the towns participating in the loan program	A \$34M
1	Promote expanded private sector investment in the economy	Increase by 15% the number of private sector entities providing expanded investment through 3 rd sector organizations	Establish a private sector investment development fund at the EDB with an initial corpus of \$3M	\$100K (Private)	USVIEDA/ Private Sector	Increase in the number of 3 rd sector organizations providing support to the economy	A \$5M
2	Encourage development of mini economic development districts and clusters	Increase by 10% the number of companies operating in the USVIEDA Economic Development Parks Corporation (EDPC)	Construct at least two new facilities on the EDPC grounds on STX	\$10M (Federal, Local)	USVIEDA	Increase in the number of companies operating within the EDPC	C \$15M ² A \$19M

² For selected projects, this column shows both the one-time impact of spending on construction and development (labeled “C”) and the annual impact of ongoing operations (labeled “A”).

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
2	Explore opportunities for expanded use of the St. Croix airport	Increase by 10% the number of aviation support activities occurring in the Territory	Conduct a feasibility study for the establishment of a major aircraft refurbishing hub at Rohlsen airport	\$250K (Federal, Local)	VIPA/USVIEDA	Feasibility study completed and commissioned	\$25M
2	Promote entrepreneurship and business development	Expand by 10% the number of entrepreneurs operating across the Territory	Establish community-based entrepreneurship centers on STX, STJ, and STT	\$5M (Federal, Local, Private)	USVIEDA/UVI/ Private Sector	Entrepreneurship centers built and commissioned	\$9M
1	Expand the military use of Rohlsen airport beyond the seasonal staging of hurricane hunters	Increase the presence of military operations in the Territory by 5%	Construct a military aircraft hub at the Rohlsen airport	\$50M (Federal)	VIPA/VING/ USVIEDA	Hub established and commissioned	\$35M
1	Support the restoration of hospitality venues	Restore the number of hotel rooms to 90% of pre-hurricane levels	Complete reconstruction and refurbishment of Divi Carina Bay Resort, Frenchman's Reef Resort, Sugar Bay Resort, and Carambola Resort	\$500M (Private)	USVIEDA/DPNR	Properties restored and operating	C \$526M A \$189M
2	Encourage the installation of approved public art	Increase by 10% the number of approved public art installed across the Territory	Conduct a comprehensive assessment of current public/private/nonprofit funding structures in support of	\$75K (Local, Private partners)	USVIEDA/UVI/ Private Sector	Increase in the number of approved public art placements, trends assessment, prioritized funding	\$1M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
			arts/culture/creative class			to increase public art outputs	
2	Encourage the redevelopment of downtown areas	Increase by 15% the number of night-time activities in the towns	Develop a strategy to support planning efforts in the vitalization of the four downtown waterfronts	\$100K (Local, Federal)	USVIEDA, DOT, VIPD, Private sector	Public sector investments; Private sector investments? Number of businesses created/ Increase in recreational activities/ Economic impacts	\$12M
1	Promote free trade operations	Expand the tax base by 10% through free trade zone opportunities	Establish at least one free trade zone on STX under the management of the USVIEDA	\$100K (Local)	OG/Legislature/ USVIEDA	Free trade zone established and operating	\$30M
1	Encourage development in 'brown areas'	Increase the number of enterprise zone and opportunity zone approvals by 15%	Implement the enterprise zones redevelopment plans for Christiansted, Frederiksted, and Charlotte Amalie	\$300K (Federal and Local)	USVIEDA	Increase in the number of redevelopment plans approved for the enterprise zones	\$25M
3	Encourage Virgin Islanders in the diaspora to participate in local economic development	Increase by 5% the number of Virgin Islanders in the diaspora participating in the local economy	Establish an office to facilitate the repatriation of Virgin Islanders from the diaspora to work from the Territory or establish businesses in the Territory	\$250K (Local)	OG/DOL/ USVIEDA	Increase in new businesses established by Virgin Islanders in the diaspora	\$3M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
2	Enhance the capacity of the UVI RTPark	Increase by 10% the number of technology maker spaces on STX	Establish the UVI RTPark technology village	\$50M (Private)	UVI RTPark	Increases in technology maker spaces, hotel rooms, villas, and agricultural support	C \$53M A \$96M
1	Diversify the tourism product	Increase the number of resilient land-based and water-based tourism products capable of quickly rebounding after a disaster	Develop a tourism master plan for the Territory	\$170K (Federal, Local)	DOT/UVI/IEDC	Plan developed and launched	\$8M
1	Expand the economic development role of the University of the Virgin Islands	Increase the capacity for business and industry conferences on STT by 10%	Establish a public private partnership Agreement for the development of 50-100 acres of UVI lands on STT for hotel, villas, condominiums, and conferencing facilities	\$300M (Private)	UVI	Agreement developed and approved; Projects constructed and commissioned	C \$326M A \$30M
2	Promote workforce development certification programs	Improve the skills level of the Territory's workforce through short-term certificate programs by 15% over current levels	Establish CELL Workforce Development and Job Transition centers on STX and STT.	\$6M (Federal, Local)	UVI CELL/DOL	Increase in the number of persons trained, certified, and transitioned to new jobs	\$12M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
1	Promote collaboration among public and private partners in the interest of economic development	Establish public private economic development planning groups on each of the three main islands	Conduct training in the science of strategic doing for each of the three island groups	\$200K (Local, Federal)	UVI CELL/USVIEDA	Increase in the number of collaborative economic development projects implemented through strategic doing exercises	\$8M
1	Further develop the arts across the Territory	Provide at least three additional venues for the demonstration of art appreciation	Conduct a feasibility study for the establishment of a museum and arts center on STT, an arts theater on STX, and a music production center on STJ	\$10M STT \$10M STX \$2M STJ (Private, Local, Federal)	USVIEDA/UVI CELL	Feasibility study completed	C \$25M A \$4M
1	Encourage social stability	Increase by 10% the number of NGOs engaged in social justice and peace initiatives	Develop a social justice and peace network to assist law enforcement authorities with addressing social instabilities	\$200K (Local)	VIPD/NGOs/DHS	Social justice and peace network developed and commissioned	\$3M
1	Encourage criminal justice reform	Increase the number of persons served by re-entry programs by 10%	Require collaboration between BOC, UVI, and other education providers to provide re-entry programs to community members	\$800K (Federal)	BOC/UVI/NGOs	Re-entry programs developed, funded, and implemented	\$300K
1	Improve safety and security	Reduce the number of offences	Expand the strategic use of crime stats to ensure	\$250K (Local)	VIPD/Auxiliary law enforcement	Increase in safety and security in the	\$10M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
		committed in the Territory areas by 15%	safety and security across the territory		units/Social Justice network	towns at day and night	
2	Promote appreciation for the arts	Increase the number of day and night-time events in Charlotte Amalie	Develop a cultural and economic enhancement arts pavilion adjacent to the Emile Griffith Park on STT	\$5M (Federal, Local)	SPR/USVIEDA/EZC	Increase in the number of visitors and residents patronizing cultural entertainment and nightlife	\$15M
2	Promote equitable opportunities in redevelopment	Ensure that 5% of each redeveloped commercial property provides space for small businesses	Develop/amend enabling legislation to improve equitable and inclusive participation in economic development	\$20K (Local)	OG/Legislature	Legislation developed/amended and enacted	\$10M
2	Encourage collaborative learning in communities	Increase the number of persons utilizing community development centers	Operationalize the VINGN Community Development Centers	\$800K (Local)	VINGN	Centers opened and functioning	\$2M
1	Promote cohesive and engaged communities	Increase by 20% the value of block grants to community-based action groups focused on community improvement	Implement the CDBG-DR aspect of the VIHFA disaster recovery plan	\$250M (Federal)	VIHFA/ODR	Increases in the number of projects completed	\$60M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
1	Expand opportunities for creativity and innovation	Increase the number of new innovations developed in the USVI by 5%	Establish a Research and Business Innovation (RaBIC) Center at UVI	\$10M (Federal)	UVI	RaBIC established and operating; Increases in the number of new niche innovations and discoveries	\$18M
2	Encourage the monetization of dormant public assets	Increase the strategic use of dormant real public assets by 5% in the interest of resilient economic development	Require semi-autonomous agencies to develop monetization plans for dormant or underutilized assets in line with zoning laws	\$250K (Government and Semi-autonomous Agencies)	DPP/Agencies	Monetization Plans developed	\$75M
1	Improve business climate across government departments	Reduce by 50% the time and steps needed to process or acquire licenses, certificates, etc.	Establish effective and efficient process maps for services and hold personnel accountable for timely implementation	\$300K (Local)	Departments and Agencies	Process maps developed and utilized	\$3M
1	Promote maritime research and training	Increase by 10% the number of trained and certified maritime professionals in the USVI	Establish the Maritime Research, Training and Exploration Complex (MaRTEC) on UVI lands on STX	\$22M (Federal, Local, Private)	UVI	Maritime Complex established and operating	C \$25M A \$2M
1	Grow the marine-based economy	Increase the number of water-based cabins by 15%	Establish new moorings and leisure landside marine facilities	\$10M (Local, private)	DPNR	Increases in the number of pleasure vessels operating and mooring	\$40M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead and Partners	Performance Measures	Projected Annual Economic Impact
2	Increase utilization of the Territory's technology infrastructure	Expand the capacity of the Territory to host big data by 10%	Collaborate with Level 3 (Global Crossing) to develop an Advanced Strategic Data Hosting Site at its facilities on STX	\$10M (Level 3)	USVIEDA/Level 3	Advanced data hosting site center established and commissioned	C \$11M A \$7M

Area of Focus 3: Health and Well-Being

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead	Performance Measures	Projected Annual Economic Impact
1	Ensure access to affordable quality public health services	Increase by 15% the number of persons accessing quality healthcare within the Territory	Explore the feasibility of merging public healthcare facilities (hospitals and clinics) with a recognized national healthcare system	\$650K (Local)	DOH/OG	Feasibility study completed	\$80M
1	Expand the capacity for medical research, medical simulation, and training	Increase by 20% the Territory's capacity to conduct meaningful federally funded medical research and approved medical education and training	Complete construction and commence operation of the UVISOM Medical Simulation Center on STX and the Medical Research and Training Center on STT	\$45M (Federal, Local)	UVI	Increase in the quality and value of medical research and education undertaken by UVI	C \$50M A \$21M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead	Performance Measures	Projected Annual Economic Impact
1	Establish quality healthcare facilities	Increase the number of high-quality rooms in certified medical facilities by 30%	Construct a new hospital on STX and refurbish the hospital on STT and clinic on STJ	\$450M (Federal)	DOH/JFLHMC/RLSRMC	Increases in the quality of healthcare facilities and services	C \$493M A \$53M
2	Invest in health disparities research	Reduce by 5% the number of persons developing non-communicable health challenges	Expand the capacity and capability of the Caribbean Exploratory Research Center (CERC) at UVI to address health disparities across the Territory	\$10M (Federal)	UVI/DOH/DHS	CERC expanded and operating with federal research contracts and grants	\$18M
2	Support livelihoods and employment	Increase the number of Virgin Islanders owning and operating businesses in the Territory	Develop enabling legislation to improve equitable and inclusive participation in economic development	\$50K (Local)	USVIEDA/Legislature	Increases in the number of locally owned and operating businesses	\$5M
3	Promote regular exercise regimens	Increase by 15% the number of persons participating in biking, hiking, jogging, and walking	Conduct a feasibility study on establishing more walking and biking paths across the Territory	\$85K (Local)	USVIEDA	Feasibility study completed and commissioned	\$3M
2	Promote healthy lifestyles practices	Increase by 10% the number of persons following regular	Develop a "Healthy Virgin Islands	\$150K (Local)	DOH/SPR/DOE	Healthy VI program developed; Increases in physical activities;	\$5M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead	Performance Measures	Projected Annual Economic Impact
		exercise and healthy eating regiments	(HVI)” program for the Territory			Increases in the number of restaurants offering alternative plant based healthy eating options	
2	Enhance sports, parks, and recreation opportunities	Increase by 10% the capacity for sports and recreation facilities on STX	Complete construction of the Paul E. Joseph Stadium	\$25M (Federal, Local)	PFA/DPW/SPR	Stadium constructed and commissioned	C \$26M A \$4 M
1	Expand sporting and recreational facilities	Increase sporting and recreational options by 10%	Construct the multi-purpose sports complex on the UVI STX campus	\$30M (Federal)	VIHFA/UVI/SPR	Multi-purpose complex completed and commissioned	C \$34M A \$8M
1	Meet basic needs through safe, affordable and reliable utilities	Increase the resilience and affordability of energy by 15% through alternative sources and reinforcements	Fully implement the FEMA and HUD funded WAPA resilience plan	\$4B (Federal)	WAPA/VIHFA/ODR	WAPA plan fully implemented; Reduction in energy rates; Utility lines underground or replaced using reinforced poles	C \$5.4B A \$62M
1	Expand the food security base	Increase the amount of locally produced foods by 15% over current levels	Establish natural disaster rated green houses on public agriculture lands and provide training in advanced farming technologies	\$8M (Federal)	DOA/UVI	Green houses constructed and commissioned; Increases in the number of persons trained in advance farming technologies	C \$11M A \$7M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead	Performance Measures	Projected Annual Economic Impact
3	Encourages the processing and packaging of locally harvested foods	Increase by 20% the quantity of locally harvested foods processed and packaged in the Territory	Establish processing plants (fruit, vegetables, fish, meat) across the Territory in support of the farming and fishing industries	\$7M (Federal)	USVIEDA/DOA/UVI	Processing plants established and commissioned	C \$4M
1	Promote culinary opportunities	Increase the number of certified culinary artists in the Territory by 10%	Establish a Culinary Arts Center and Program at UVI	\$2M (Federal, Local)	UVI	Center established and commissioned	\$3M

Area of Focus 4: Infrastructure and Environment

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead	Performance Measures	Projected Annual Economic Impact
2	Promote responsible development	Increase by 20% the number of (modernized) development plans approved that follow the guidelines contained in the Hazard Mitigation Plan (HMP)	Link the CEDS, Vision 2040, and HMP with each other to ensure responsible, resilient, and sustainable economic development	\$75K (Local)	OMB/UVI/DPNR	CEDS, Vision 2040, and HMP linked and mapped	\$5M
1	Make the Territory more resilient and economically diverse	Increase by 10% the rate of completion for disaster recovery projects	Expand implementation of the HUD and FEMA funded disaster	\$8B (Federal)	VIHFA	Increases in the number of projects funded and completed	\$750M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead	Performance Measures	Projected Annual Economic Impact
			recovery program for the USVI				
2	Provide reliable communication and mobility	Reduce the USVI communication and mobility divide by 50%	Expand last mile broadband capacity to every household across the Territory	\$20M (Federal)	VINGN/BIT/ISPs	Increase in access to broad band capacity by households	C \$27M A \$64M
1	Upgrade all public education school facilities	Increase by 20% the number of new or refurbished public schools across the Territory	Commence implementation of the Territory-wide schools redevelopment plan	\$300M (Federal)	DOE/DPW/VIHFA	New schools built and commissioned	C \$343 M A \$17M
3	Enhance travel and interaction across the greater Virgin Islands	Increase by 15% the high-speed ferry inter-island service across the greater Virgin Islands	Expand VITRAN ferry highway between STX and STT.Improve regulation of the water highways across (USVI, BVI, SVI)	\$30M (Federal)	DPW/PFA/USCG	Ferries acquired and commissioned	\$45M
1	Transform the degraded condition of roads throughout the Territory	Increase the quality and quantity of road miles refurbished and marked by 20%	Encourage efficient use of available funding to improve the quality of roads	\$45M (Federal)	DPW/VIHFA/ODR	Improved road safety ratings; Leveraged local and federal funding	C \$50M A \$41M
2	Support development choices that increase density	Increase by 10% the number of building permits issued for new or refurbished	Support urban development choices that offer mixed use, multi-	\$800K (Local, Federal)	DPNR/Private Sector	Increased vibrancy to urbanized town centers, activation of public spaces,	\$20M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead	Performance Measures	Projected Annual Economic Impact
	and promote vibrancy to urban town centers	development of properties in the town centers	generational options			supported public transit options, additional tax-revenue generation.	
1	Recommence refining of crude oil	Attain 40% of crude oil refining capacity and output at the Lime Tree Bay Refinery	Facilitate the processes require to recommence refining of oil	\$250M (Private)	OG/DPNR/PFA	Production of refined fuels and products; Increases to the tax base	C \$254M A \$450M
1	Ensure continuity of critical services	Increase by 10% efficient water, energy and waste management security through privatization of services	Establish public private agreements for the efficient production, distribution, and handling of water, energy, and waste	\$200M (Private)	WAPA/VIWMA/PFA/Private Investors	Increase efficiencies in energy, water, and waste management	\$300M
1	Preserve water and waste plant facilities	Reduce deferred maintenance on water and waste plants by 30%	Develop a plan for solid waste and water plant renewal	\$250K (Federal, Local))	VIWMA/WAPA/PFA/DPW/Consultant	Plan developed and implemented	C \$289M
2	Improve operations at airports	Create, refurbish or replace at least 25% of airport facilities	Complete modernization plans for land side/air side facilities at CEK and HER airports	\$40M (Federal)	VIPA	More functional airport facilities	C \$42M A \$14M
2	Promote hospitality venues close to airports	Increase the number of hotel rooms close to Rohlsen airport by 20%	Construct a hotel at the Rohlsen airport	\$30M (Private)	VIPA	Increase in the number of hotel rooms	C \$32M A \$6M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead	Performance Measures	Projected Annual Economic Impact
2	Provide and enhance natural and manmade assets	Increase the number of active participants in the enterprise zone program by 5%	Implement the enterprise zones redevelopment plans for Christiansted, Frederiksted, and Charlotte Amalie.	\$275M (Federal, Private)	USVIEDA/DPW/DPNR	Number of new and improved property developments in and around the town centers	\$500M
1	Improve maritime and marine ports	Increase by 15% the carrying capacity of cargo and passenger terminals in both districts	Expand cargo shipment and passenger ports landside and waterside facilities	\$75M (Federal)	VIPA/PFA	Expanded facilities	C \$80M A \$170M
1	Support development of a free trade zone	Expand transshipment activities by 15% beyond current levels	Develop the free trade zone and international transshipment hub on St. Croix for clean technology device manufacturing and assembling	\$250M (Federal and Private)	USVIEDA/DPP/DPNR	Free Trade Zone and Shipping Hub established and commissioned	C \$263M A \$69M
1	Expand green technology capacity and capability	Increase by 10% the number of green technology companies operating in the Territory	Develop a strategy to attract and retain more clean device technology manufacturing companies to the USVI	\$75K (Local)	USVIEDA/UVI	Strategy developed and implemented	A \$13M
2	Expand development	Approve three enterprise commercial	Designate Cruz Bay as an enterprise or commercial zone	\$25K (Local)	USVIEDA	Increased opportunities for tax incentives	\$15M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead	Performance Measures	Projected Annual Economic Impact
	incentives across the Territory	zone certificates on St. John					
2	Enhance beauty in the enterprise zones	Expand by 10% the number of properties participating in the enterprise zone tax rebate programs	Expand the “board up” and “scrape and paint” programs in the Enterprise Zones	\$250K (Federal)	USVIEDA EZC	Increase in the number of projects completed	\$2M
1	Ensure the effective use of all development resources available through the Office of Disaster Recovery and the Housing Finance Authority	Complete 50% of the projects and programs listed and approved by the Office of Disaster Recovery	Acquire the needed resources (technical and financial) to actively implement ODR projects	\$8B (Federal)	ODR/HFA	Number of ODR projects started and completed; Impact of ODR projects	\$12B
1	Improve water ports on STX	Increase the number of luxury vessels arriving in STX	Complete the Gallows Bay facilities expansion inclusive of boardwalk and dredging	\$40M (Federal)	VIPA/DPNR	Number of mega yachts berthed at the facility; Number of visitors to the islands	\$60M

Project Rank	Performance Goal	Measurable Objective	Strategic Action	Resources	Project Lead	Performance Measures	Projected Annual Economic Impact
2	Expand cyber security job opportunities	Increase the number of certified cyber security professional in the Territory by 5%	Establish a Sensitive Compartmented Information Facility (SCIF) at UVI for national cyber security engagement, DOD contracting services, and Homeland Security certification	\$8M (Federal)	VITEMA/VIPD/OG/UVI	Number of contracts fulfilled for the Department of Defense; Number of cyberattacks averted; Increases in national security awareness in the Caribbean region	C \$5M A \$2M
3	Monitor climate change	Increase the environmental studies capacity of the Territory by 10%	Reconstruct the Virgin Islands Environmental Research Station (VIERS) on STJ	\$5M (Federal, Local)	NP/DPNR/UVI	Environmental Research Station constructed and commissioned	C \$12M A \$6M

Part VI: Future USVI—Economic Impact of Implementing/Not Implementing the CEDS

The United States Virgin Islands has a great opportunity to effectively use the outcomes of the crises of 2017 disasters and the 2020 pandemic to chart a well-defined strategic future for the Territory. The financial resources allocated to the Territory for rebuilding infrastructure and programs and mitigating against the impacts of COVID-19 are set to make the USVI more resilient, economically diverse, innovative, knowledge and information advanced, and sustainable way into the future. This is evident by the quantity and quality of projects and programs delineated in the plan.

Some of the projects listed in the preceding tables are at too early a stage to calculate their economic impact. Others are far enough along to allow for at least a preliminary analysis of their impact on the Territory's economy

A preliminary economic impact analysis was conducted for 30 of the projects described in the table, including the impact of projected spending on development and construction, and the annual impact of ongoing operations. The analysis was conducted using the IMPLAN input-output modeling system, an analytic tool commonly used in economic impact studies.

Based on this analysis we estimate that over a decade or more, spending on development and construction of the 30 projects would directly and indirectly support:

- A cumulative addition of more than \$8.3 billion (in 2023 dollars) to the U.S. Virgin Islands' gross domestic product ((GDP)
- More than 75,000 person-years of employment in the Territory³

³ A person-year is equivalent to the time worked by one person who is employed full-time for a year. It could, for example, represent the work of two people who are each employed full-time for six months; or the work of one person who is employed half-time for two years. In this case, 75,000 person-years of construction-related employment, if spread over fifteen years, would equate to an average of 5,000 jobs each year.

After all 30 projects are completed and operational, collectively they would directly and indirectly account for:

- \$1.706 billion in annual gross domestic product – equivalent to an increase of nearly 43 percent over the USVI's GDP in 2018
- A total of more than 8,400 jobs in the U.S. Virgin Islands – equivalent to 22 percent of average annual wage-and-salary employment in the Territory in 2019, encompassing virtually every sector of the USVI economy.

Moreover, it should be acknowledged that the cost of not undertaking the projects identified above would go beyond losing an opportunity to create 8,400 new jobs and to grow the Territory's economy by more than 40 percent. Without the growth envisioned here, the U.S. Virgin Islands will not be able to develop, retain, or attract the talented workers and entrepreneurs it needs, or to finance the improvements in public services it needs, to build a better future for its residents. The Territory can move ahead or slide back – but simply maintaining the status quo may not be an option.

The future of the USVI is bright. We have the opportunity to forge ahead and diversify the economy, develop the needed workforce with the required skills to manage pre-award and post-award grants and contracts, significantly improve our education system and the delivery of teaching and learning, attract innovative companies and retain those that are doing well, strategically use the resources of the ocean and develop inventions that could be scaled and sold around the world. This is our time. This is our moment to shine as never before as we deliver on the vision and dreams of our foreparents and Virgin Islands' heroes and heroines who worked and laid the foundation for a strong and resilient Virgin Islands, which is before us today. Together, we will take the torch, we will rise to the occasion, seize the moment, deliver success, and favorably transform our Territory for generation to come.

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