Assessment of the Commonwealth of Dominica's Citizenship by Investment Programme

19 August 2019

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About this report

PricewaterhouseCoopers LLP (PwC) was commissioned by CS Global Partners Limited to review the fiscal impacts of projects supported by the Dominica Citizenship by Investment Programme (CBIP) over the period 2013/14 to 2018/19.

The main aim of this report is to provide an overview of the contribution of the CBIP to Dominica's short-term recovery from natural disasters and its long-term transition to a climate resilient, service-based economy. In view of this aim, this report contains analysis of the expenditure supported by funds raised by the CBIP and an assessment of the economic and fiscal effects generated. This analysis is based on quantitative data collected from the Government of the Commonwealth of Dominica and qualitative data gathered during interviews with stakeholders conducted in Dominica in July 2019.

This report has been prepared with the full cooperation of the Government of the Commonwealth of Dominica. PwC is grateful for the assistance provided by the Government to support our analysis. In particular, we would like to thank Gloria Joseph, Permanent Secretary of the Ministry of Planning and Economic Development.

Executive summary

The Commonwealth of Dominica is undergoing a long-term transition to a climate resilient, service-based economy despite the devastating effects of several natural disasters. In September 2017, Dominica was struck with little warning by the Category 5 Hurricane Maria, one of the most severe hurricanes to hit the island in recorded history. It was expected that it would take Dominica decades to recover from Hurricane Maria as well as the damage caused two years prior by Tropical Storm Erika. However, the ability to quickly channel funds generated through the country's Citizenship by Investment Programme (CBIP) to recovery efforts, coupled with the sustained support of the international donor community, had a major impact on the island's resilience.

Dominica's CBIP was founded in 1993 and provides two routes for individuals to acquire Dominican citizenship. It is one of a number of such programmes operating internationally and is ranked first by the Financial Times' PWM CBI Index. To be eligible for citizenship under the CBIP one must invest either by making a contribution to the Economic Diversification Fund (EDF) amounting to a minimum of US$100,000 per applicant, or by making an investment in a designated real estate with a value of US$200,000.

This study considers the fiscal impact of the investments made under the CBIP looking at the period 2014-2018. Any assessment of Dominica over that period will need to take into account the devastating impacts of Tropical Storm Erika and Hurricane Maria which hit the island in 2015 and 2017 respectively. Erika caused damage equating to approximately 90% of 2014 GDP and Maria is estimated to have caused damage amounting to 226% of 2016 GDP. As we show, the CBIP provided the Government with the ability to respond rapidly and flexibly to these crises. In each case, expenditure on the island was substantially increased with CBIP funding coming on stream faster in many cases than donor-funded programmes.

Over the period 2017/18 to 2018/19, EC$582.6 million was spent from CBIP funds across a range of sectors to support the recovery effort and broader economic transition. CBIP funding has resulted in the rehabilitation of 15 sections of damaged roads and 19 bridges, the repair of three hospitals and six health centres, and the repair of 15 damaged schools. In total, the CBIP has supported the construction of Hurricane-resilient homes for 6,680 households. In addition, the CBIP is currently funding the construction of five hotels and ecolodges that will have a total capacity of 628 rooms, creating over 1,000 jobs during construction and providing direct employment for approximately 900 hospitality workers, and supporting the livelihoods of those connected with tourism across the island, such as farmers, fishers, taxi drivers and tour operators.

Expenditure under the CBIP over the period studied has had an indirect impact on Dominica's economy, which we estimate could increase GDP by around EC$150 million and tax receipts by around EC$30 million. In addition, CBIP expenditure should have had a significant long-term impact on the economic potential of the island.

The investment in hotels and tourism should generate future revenue streams for the island, which we estimate as being between EC$90 million and EC$140 million each year. The fiscal benefits of this could be between EC$20 million and EC$40 million each year. This extra Government revenue could be worth around 10% of the overall tax-take for Dominica.

The expenditure funded by the CBIP has had a substantial impact on Dominica's recovery from Tropical Storm Erika and Hurricane Maria and continues to support Dominica's long-term economic transition through both direct investments and indirect support. Currently accounting for approximately 41.5% of total 2018/19 expenditure and having grown from 2% in 2014/15, CBIP is an increasingly important share of total expenditure and continues to grow.

1. Introduction

1.1 Overview of the Commonwealth of Dominica

Historically, Dominica was an agrarian economy focussed on the export of citrus fruits and bananas. However, changes in international trade preferences led to a rapid decline in the export markets on which Dominica relied. Then, in 2007, Hurricane Dean caused widespread damage to agricultural holdings, limiting the availability of agricultural products for export. These shocks prompted diversification within the agricultural sector, as well as diversification away from agriculture toward services such as tourism and financial intermediation. The process of diversification was mainly funded by the international donor community with contributions from the Government.

However, Tropical Storm Erika in 2015, followed by a period of drought, exposed the true extent of Dominica's vulnerability to natural disasters, particularly extreme weather events. Tropical Storm Erika caused damage equating to approximately 90% of 2014 GDP including the destruction of the community of Petite Savanne[1]. The period of drought that followed Erika severely affected yields for a number of key export crops. The combination of these extreme weather events in quick succession highlighted the risks of climate change and the need for climate resilience in all aspects of life in Dominica.

With the post-Erika recovery effort underway, GDP grew at around 2.5% in 2016. The Category 5 hurricane, Maria, hit Dominica in September 2017 causing widespread damage across the island. This was the first time on record that a Category 5 hurricane had hit the island. The damage from Maria was estimated to equate to approximately 226% of 2016 GDP[2].

1.2 About the Citizenship by Investment Programme

Dominica's Citizenship by Investment Programme (CBIP) was established in 1993 and allows individuals to gain Dominican citizenship in exchange for an economic contribution to the island.

Economic citizenship programmes exist in other countries, including Antigua and Barbuda, Bulgaria, Cyprus, Grenada, Malta, St. Lucia, St. Kitts and Nevis, Turkey and Vanuatu. With the exception of the economic citizenship programme in St. Kitts and Nevis, which was established in 1984, Dominica's CBIP is among the longest running. It is also the highest ranked economic citizenship programme in the world according to both the 2017 and 2018 Financial Times' PWM CBI Index[3].

The programme is run by the Citizenship by Investment Unit (CBIU) and requires applicants to make a significant financial contribution to the island. The Government offers a choice to applicants, including:

1) A non-refundable contribution of at least US$100,000 to the Government's Economic Diversification Fund (EDF). This fund is used to finance both public and private sector projects in the country, including the development of hospitals, schools, housing and infrastructure in other sectors.

2) An investment of a value of at least US$200,000 in a pre-approved real estate project. In recent years, these real estate projects have included the development of new hotel complexes, boosting the tourism capacity of the island.

Dominica has undertaken a number of initiatives in order to ensure the sustainability and growth of the programme, including a due diligence framework. Certain elements are mandated in the country's legislation. This framework

[1] A. Kambon, V. Little, L. Busby, M. Johnson, N. Mitchell, 2019. Dominica: Social and Livelihood Assessment following Tropical Storm Erika. UNDP.
[2] Government of the Commonwealth of Dominica, 2017. Post-Disaster Needs Assessment Hurricane Maria. https://www.gfdrr.org/en/publication/post-disaster-needs-assessment-dominica. Accessed 25-07-2019.
[3] Financial Times, 2018. The 2018 CBI Index. Professional Wealth Management. https://cbiindex.com/rankings/. Accessed 17-07-2019.

includes:

- Applications must be made through a network of agents authorised by the Government and applicants must possess a clean criminal record and be in good health.
- Background due diligence checks are then carried out by an independent professional firm that specialises in investigating individuals and firms. This complements the CBIU's own due diligence processes. Due diligence is mandated by regulation for all applicants aged 16 or over[4].

As can be seen below in Figure 1, the total number of approved applications has grown each year from 185 in 2013 to 2,059 in 2018, an increase of over 1,000%. The real estate investment route has proved increasingly popular since its introduction in 2014.

Figure 1: Number of approved CBIP applications 2013-2018

Source: Government of the Commonwealth of Dominica data, PwC analysis

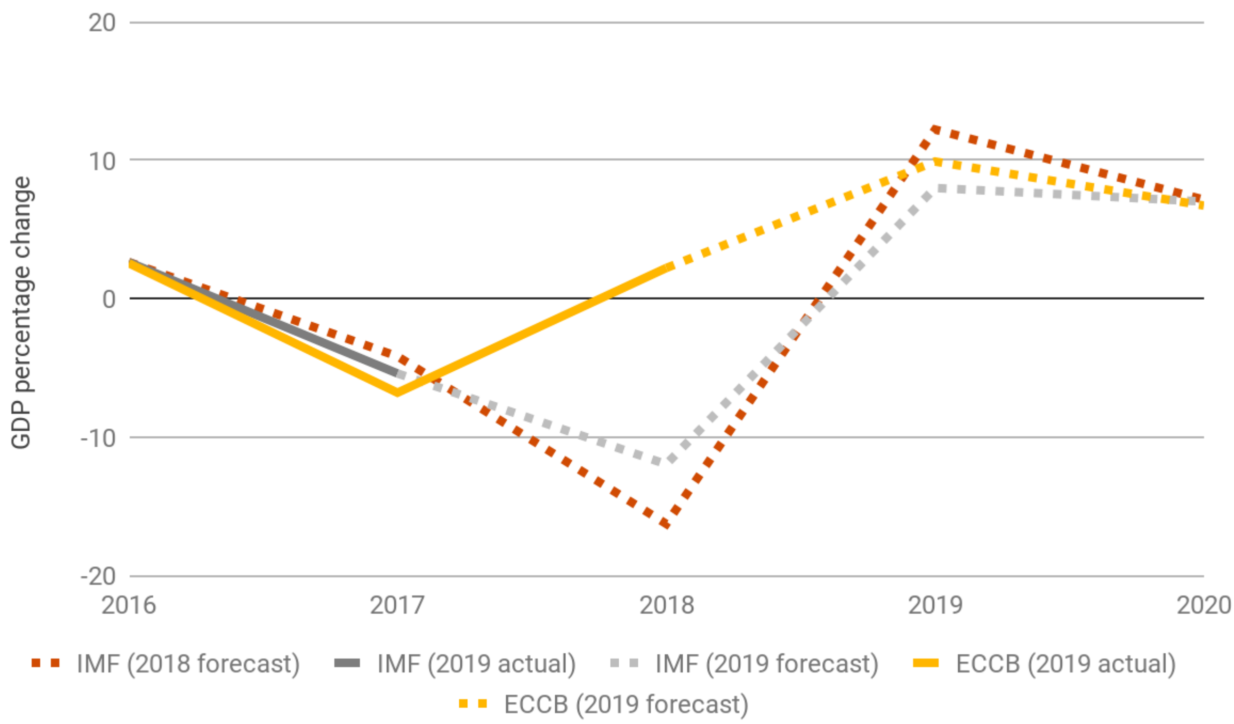
1.3 Post-Maria recovery and transition

In the weeks and months following Hurricane Maria, the reserves built by the CBIP were instrumental in kick-starting the recovery effort. CBIP funds bridged short-term funding needs while the international donor community mobilised and allowed Dominica to rapidly deploy funds to priority areas. The sharp downturn in tax revenues immediately following the hurricane meant that CBIP funds played a vital role in supporting Government spending efforts. According to the latest ECCB data, total tax revenue fell by 6.5% in 2017 to around EC$330 million.

[4] The CBIP finds its legal basis in the Commonwealth of Dominica Citizenship Act (Act. No. 26 of 1978) and in the Commonwealth of Dominica Citizenship by Investment Regulations, 2014 (SRO 37 of 2014) and their later amendments.

The rapid response afforded by the CBIP allowed Dominica to return to positive economic growth more quickly than anticipated and much quicker than neighbouring countries affected by Maria. Real GDP grew by 1.5% a year on average in the 10 years prior to Maria. Following the Hurricane, in 2018, the IMF projected that GDP would fall by 4.2% in 2017 and 16.3% in 2018. In early 2019, the IMF revised its projections, forecasting a decrease in GDP growth of 12% in 2018. However, as shown by Figure 2, thanks in part to the significant expenditure due to the CBIP, GDP growth in 2018 was much higher than anticipated by the IMF at 2.2% (according to the latest ECCB data). Both the IMF and the ECCB forecast strong economic growth going forward. Section 2.5 sets out the channels through which CBIP-funded spending has helped to support the wider macroeconomy both in the near and long-term.

Figure 2: Projected and actual GDP over the period 2016-2020



Source: IMF data, PwC analysis

The post-Maria phase of Dominica's economic transition has been fuelled by a combination of public spending funded by the CBIP and support from the international donor community. In 2017/18, the influx of aid in response to Maria more than doubled spending compared to the previous year. However, CBIP public spending was almost three and a half times higher than international aid, showing the importance of CBIP funds in managing the post-Maria emergency response and recovery.

Hurricane Maria showed that hurricane-proof housing built after Tropical Storm Erika could withstand severe weather conditions, in effect providing a proof of concept for the climate resilient investment undertaken after Erika. This model of 'build back better' has been rolled out across Dominica in the post-Maria recovery effort and Dominica has committed to becoming the world's first climate resilient nation[5].

[5] Overseas Development Institute, 2018. Building back better: A resilient Caribbean after the 2017 hurricanes. http://www.odi.org/sites/odi.org.uk/files/resource-documents/12028.pdf. Accessed 15-07-2019.

Climate resilience and Dominica

As the frequency and severity of storms, such as Tropical Storm Erika and Hurricane Maria, is expected to increase over time as climate change worsens, the economic and social impact of these storms is similarly likely to intensify unless resilience measures are adopted. Small island states such as Dominica are particularly at risk, and the IMF warns against this increasing threat of natural disasters[6].

In response to these threats and in the wake of Hurricane Maria, Dominica committed to 'build back better' and become the first climate-resilient country in the world.

The Intergovernmental Panel on Climate Change defines resilience as '*the ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner, including through ensuring the preservation, restoration, or improvement of its essential basic structures and functions*' (The Intergovernmental Panel on Climate Change, 2012)[7].

A number of Government policy initiatives and projects toward climate resilience exist in Dominica, with the support of institutional partners such as the World Bank and the Climate Investment Funds[8]. These include the National Climate Change Adaptation Policy in 2002, the Low-Carbon Resilient-Development Strategy, the Strategic Programme for Climate Resilience (SPCR) in 2012, and most recently the National Resilience Development Strategy (NRDS) in 2017 after Hurricane Maria, setting the agenda to 2030.

In line with the United Nations (UN) Sustainable Development Goals, Dominica's climate resilience plan is centered around seven development objectives:

1. The promotion of food security and self-sufficiency through Climate Resilience Agriculture and Fisheries Development.
2. A focus on ecosystems and sustainable use of natural resources, be it forestry, marine or water resources.
3. Resilience of the infrastructure.
4. The promotion of sustainable human settlements and communities.
5. The development of sustainable social protection systems able to respond to sudden shocks.
6. The implementation of a Comprehensive Risk Management Framework as well as a commitment to a green economy through the Low Carbon Development Pathway.
7. Sustainable Climate Financing in order to enforce innovation and economic empowerment.

[6] IMF, 2019. Building Resilience in Developing Countries Vulnerable to Large Natural Disasters. https://www.imf.org/en/Publications/Policy-Papers/Issues/2019/06/24/Building-Resilience-in-Developing-Countries-Vulnerable-to-Large-Natural-Disasters-47020. Accessed 02-08-2019.

[7] The Intergovernmental Panel on Climate Change, 2012. Glossary of terms. In: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. https://www.ipcc.ch/site/assets/uploads/2018/03/SREX_Full_Report-1.pdf. Accessed 02-08-2019.

[8] Climate Investment Funds, 2015. Climate Resilience in Dominica. http://www.climateinvestmentfunds.org/sites/cif_enc/files/meeting-documents/dominica-2015_ppcr_results_report.pdf. Accessed 02-08-2019.

2. Contribution of Citizenship by Investment to Government expenditure

2.1 The role of the CBIP in Government expenditure

The EDF is a Government vehicle for collecting and managing the non-refundable cash contributions made by CBIP applicants. The role of the EDF is to support economic development in Dominica by providing funding for the Government's programme of public expenditure[9].

As outlined below, the EDF is used to support a wide range of public sector projects, including housing, the building of schools, renovations of hospitals and health centres, and the construction of a national sports stadium. The EDF is also used to provide support to the private sector in line with Dominica's economic vision, for example, by enhancing the capacity of the tourism, information technology and agricultural sectors.

2.2 Key outputs of CBIP-funded public expenditure

The support provided by the CBIP to public expenditure has had wide-reaching impacts, touching on all aspects of life in Dominica. Table 1 outlines some of the main outputs generated by spending funded by the CBIP.

Table 1: Summary of selected outputs generated by the Citizenship by Investment Programme

Housing	
	The CBIP has contributed to the construction of homes for 6,680 households over the period 2013/14-2018/19 over 15 sites in Dominica. Many of these homes have been constructed using climate resilient building techniques. Although more expensive to construct, studies indicate that climate resilient infrastructure generates gains that offset the initial investment by a factor of three[10].
Roads and transport	
	CBIP funds were used to **build/repair over 15 sections of damaged roads in Dominica and 19 bridges** that were damaged by Hurricane Maria. This included the rehabilitation of Goodwill Road, one of the main thoroughfares in Roseau (the nation's capital), the reconstruction of E.C. Loblack, Elmshall and York valley bridges and the erection of the retaining wall at Riviere Cyrique.

[9] Please note that CBIP revenue shown in public sector financial statements refers to funds released from the EDF to the national budget.
[10] IMF, 2018. Dominica: 2018 Article IV Consultation-Press Release and Staff Report. https://www.imf.org/en/Publications/CR/Issues/2018/09/05/Dominica-2018-Article-IV-Consultation-Press-Release-and-Staff-Report-46204. Accessed 03-08-2019.

Water and sanitation

The CBIP has funded investment of over EC$175 million in water sources over the period 2015-2019. **CBIP funds have also been used to dredge rivers in 11 different locations**, an essential part of mitigating the risks of future flooding.

Health

CBIP funds have been used to repair three hospitals and six health centres damaged by Hurricane Maria.

16 Dominican children were sent overseas for complex medical treatment in 2017/18 using CBIP funds.

Education

Damage caused to over 15 schools by Hurricane Maria was repaired using CBIP funds.

Business and employment

The CBIP's contribution to the National Employment Programme has funded 3,896 intern placements across the public and private sector over the period 2013-2019. Of these, 2,582 were assigned to community projects, 1,145 were placed as general interns in the public/private sectors and 169 were placed within schools as education mentors. Since the beginning of the programme over 200 people have moved from the internships into permanent jobs.

CBIP funds have also been used to provide financial support to over 4,500 businesses owners over the period 2012-2019.

Agriculture and fisheries

Between 2014/15 to 2018/19, EC$29.7 million was allocated to support the agricultural and fisheries sector through 32 projects.

Most of the projects were aimed at increased food production and security, which targeted specifically banana, coffee and cocoa plantations. Farmers and fishermen's employment was also boosted through training programmes and economic support.

Source: Government of the Commonwealth of Dominica data, PwC analysis

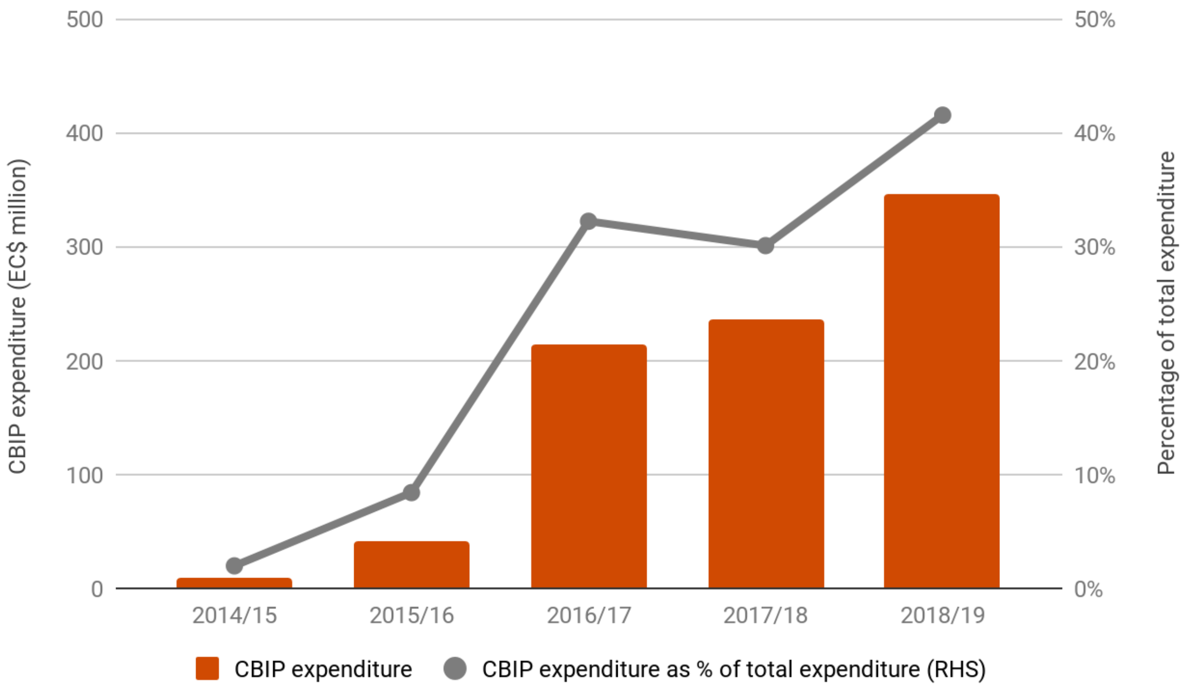
2.3 Contribution to public sector expenditure

Over the last five years, the annual public sector expenditure funded by the CBIP has increased dramatically, growing from EC$9.1 million in 2014/15 to EC$346.8 million in 2018/19[11]. This equates to an increase of approximately 3,700% over the period which was driven, in part, by the response of the Government to the destruction caused by Tropical Storm Erika and Hurricane Maria.

As shown in Figure 3 below, CBIP-funded public sector expenditure has also grown over the last five years as a share of total Government expenditure, increasing from 2.0% in 2014/15 to 41.5% in 2018/19.

[11] Data for fiscal years from July to June.

Figure 3: CBIP-funded public sector spending 2014/15-2018/19



Source: Government of the Commonwealth of Dominica data, PwC analysis

The damage and destruction caused by Tropical Storm Erika and Hurricane Maria shifted spending priorities from general growth enhancement measures to disaster recovery and risk reduction. This can be observed in intra-sectoral expenditure changes. Prior to 2015, the main projects were aimed at economic upgrade and development, such as “Land Settlement and Development”, while after Erika we have a significant uplift and greater allocation to restoration and rehabilitation projects, such as “Layou Reconstruction and Rehabilitation”.

Table 2: Top five priority sectors 2014/15-2018/19

Rank	2014/15	2015/16	2016/17	2017/18	2018/19
1	Housing	Ports and airports	Commerce/Micro-business	Housing	Disaster Risk Reduction
2	Commerce/Micro-business	Commerce/Micro-business	Ports and airports	Disaster Risk Reduction	Housing
3	Cross sector	Cross sector	Housing	Commerce/Micro-business	Commerce/Micro-business
4	Tourism	Roads and transport	Disaster Risk Reduction	Cross sector	Roads and transport
5	Electricity	Water and sanitation	Culture	Ports and airports	Culture

Source: Government of the Commonwealth of Dominica data, PwC analysis

This overall spending pattern can be seen by looking at key elements of the post-2015 restoration and rehabilitation spending, focussing on the sectors most affected by the natural disasters[12].

Housing

The trend of increased spending following Tropical Storm Erika and Hurricane Maria can be seen clearly within the housing sector. Both storms had a devastating impact on the housing stock of Dominica, and following both storms there was a shift towards financing reconstruction. As a result, the housing sector has increasingly been allocated more funds, receiving EC$4 million in 2014/15 and then EC$106 million in 2018/19. Public sector expenditure in the housing sector has been steadily increasing due to the growing demand for housing development. The extent of the CBIP's contribution to the housing sector is addressed in much greater detail in section 2.4.

Ports and Airports

Douglas-Charles Airport (previously Melville Hall Airport) is the largest of the two airports of Dominica. Being Dominica's main international hub and having been severely damaged by Tropical Storm Erika, the airport, and its reconstruction, became one of the Government's main priorities, allocating EC$15 million in 2015/2016 and EC$28 million in 2016/17.

The airport was subject to further damage under Hurricane Maria and other EC$9 million were allocated in 2017/18 for emergency infrastructural works. Post Tropical Storm Erika investments to reconstruct the airport were done in line with the 'build back better' principle, boosting the resilience of the airport's infrastructure and reducing the damage sustained during Hurricane Maria.

The Government also committed to the construction of a new international airport in the north-eastern part of the island. A study was commissioned to understand the feasibility of the project, allocating EC$1.6 million from CBIP funds in 2016/17. The construction of a new international airport could bring substantial benefits to Dominica as it would allow tourists from beyond the Caribbean to fly directly to Dominica, instead of flying to a neighbouring island and then taking a local flight to Dominica. This is likely to provide a boost to the number of international tourists travelling to Dominica, which will support the broader transition to a service-based economy and has the potential to provide new sources of Government revenue.

Disaster Risk Reduction

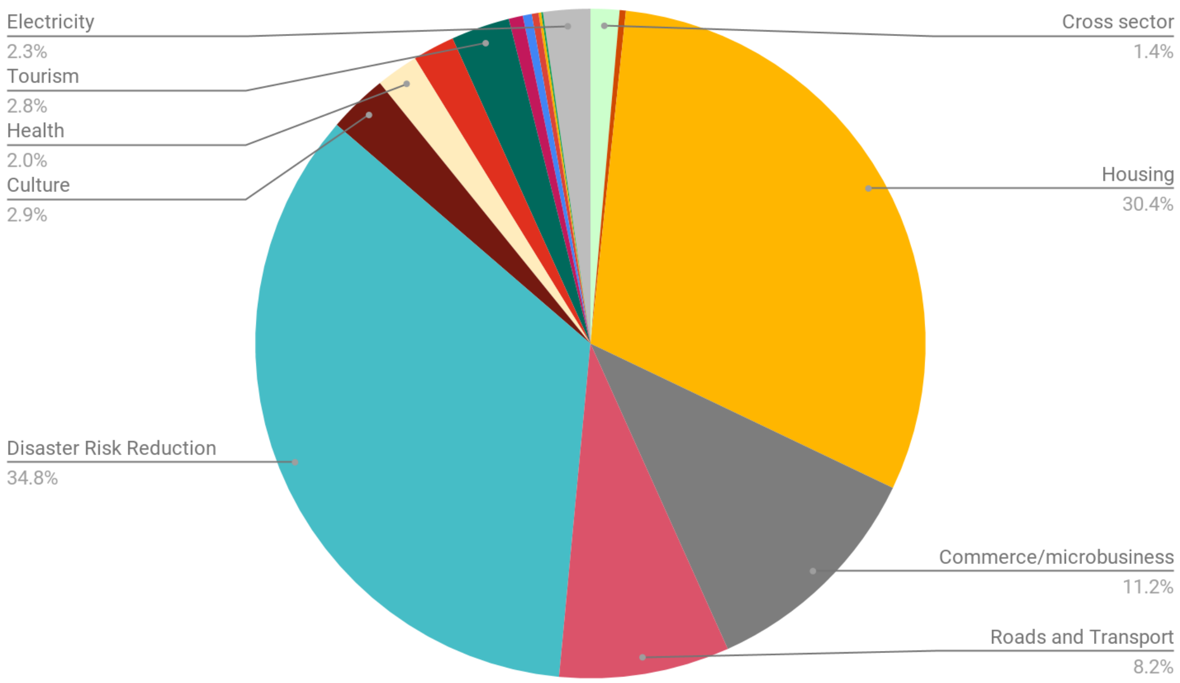
CBIP-funded public expenditure in the disaster risk reduction sector has grown significantly since 2015. Just over EC$1million was spent in this sector in 2015/16. After Hurricane Maria, more than EC$30 million was spent, making it the country's second most funded sector.

The mountainous terrain of Dominica coupled with its large number of rivers creates significant flood risks during storms and hurricanes. Indeed, Tropical Storm Erika and Hurricane Maria had an enormous impact on Dominica's many rivers, filling them with debris, sand and stones, destroying the river beds and preventing the water from flowing freely. The flood risks created by Dominica's difficult topography are hard to mitigate and require sustained expenditure on river dredging and work to reinforce river banks and hillsides.

After Hurricane Maria hit in 2017, the majority of CBIP funds for 2017/18 was channelled to recovery and reconstruction programmes. In 2018/19 overall CBIP-funded public expenditure rose to EC$347 million, almost 50% more than in the previous year. This included EC$110 million of expenditure on river dredging and other river protection measures, such as building river walls and river training.

[12] Please note that public sector expenditure projects were allocated to the sectors outlined in the 2017 Post Disaster Needs Assessment (PDNA). A 'cross sector' classification was added to the PDNA sectors to accommodate projects that covered more than one sector.

Figure 4: CBIP-funded public sector expenditure 2018/19



Source: Government of the Commonwealth of Dominica data, PwC analysis

Geothermal power in Dominica

Although the electricity sector received just 2.3% of CBIP-funded public expenditure in 2018/19, a large proportion (EC$6 million) of this was allocated to the construction of a 7MW geothermal power plant.

Consumers in Dominica face among the highest prices for electricity in the world (approximately 0.33 US$/kWh) and experienced widespread power outages after Hurricane Maria due to damage to infrastructure. It was estimated that 75% of the country's power network was damaged by Hurricane Maria.

In keeping with the Government's vision to become the first climate resilient country in the world, it is hoped that promoting geothermal energy will reduce dependence on fossil fuels and lower consumer and business prices for electricity. In addition, the geothermal power plant could have the potential to make Dominica a net exporter of energy.

The National Employment Programme

The National Employment Programme (NEP) was started in line with the Government's objective to increase human resource capacity for social protection and economic growth.

The NEP aims to provide young people with the skills and training necessary to enter the labour market. Composed of a General Internship Programme, a community project placement and an Education Mentorship Programme, the NEP places interns in a variety of positions to provide on-the-job training.

General Internship Programme

This programme aims to support university graduates to gain work-related skills and to progress career development. Graduates are employed for a one-year period across a variety of placements in the public sector, NGOs and corporations. This programme accounts for roughly 30% of all interns within the overall NEP (1,145 participants).

Community projects and employment initiatives

This programme places interns at institutions within communities (including placements at small shops, salons, bars, schools, etc.). The aim of this programme is to create sustainable employment which supports the local community and economy. This programme accounts for approximately 66% of all participants (2,582 participants).

Education Mentorship Programme

Education mentors are placed within schools to tutor students who would not otherwise be able to afford or access extra attention after school, amounting to 4% of total interns (169 participants).

Overall, nearly 4,000 people participated in these internship programmes since 2013 and over 200 people have graduated and entered into permanent jobs as a result. Individuals on these schemes have worked across a number of sectors of the economy, including both the public and private sectors, and have helped to develop both local communities as well as mentoring future generations of workers.

Expenditure for this programme continues to grow. In its first year (2013/14), the NEP received EC$3.8 million in grant funding, growing to EC$14.3 million of Government and grant funding in 2014/15. Experiencing steady and consistent expenditure growth, in 2017/18 and 2018/19 the NEP received, respectively, EC$17.9 million and EC$27 million in Government funding.

2.4 Contribution to housing

'Housing Dominica' and 'Housing Revolution' are housing development projects which have taken place across the island and have been fully funded by the EDF. These projects have seen the rebuilding of hundreds of homes for displaced Dominicans. They are the most extensive projects ever funded by the CBIP. Over 2013/14-2018/19, CBIP funding supported the creation of nearly 7,000 homes - reflecting a regeneration of around a quarter of the housing stock in only 5 years.

Tropical Storm Erika in 2015 left the housing stock of Dominica severely damaged and in need of extensive reconstruction. Of the approximately 25,000 homes in Dominica, 20% were in need of replacement and a further 25% were in need of significant repairs. Over 1,000 households became homeless and more than 800 shelters were made uninhabitable[13]. The housing sector specifically suffered a loss of over EC$122 million from Erika (approximately 14% of the total damage from the storm)[14].

Two years after Erika, Hurricane Maria destroyed nearly 23,500 houses, approximately 90% of houses countrywide. Total damage to the housing sector caused by Hurricane Maria is estimated at EC$955 million. These losses include expected loss of rental income, as well as the cost of demolition, rubble removal and shelter expenses. The recovery

[13] Data from Housing Dominica website. https://housingdominica.com/. Accessed 27-07-2019.
[14] A. Kambon, V. Little, L. Busby, M. Johnson, N. Mitchell, 2019. Dominica: Social and Livelihood Assessment following Tropical Storm Erika. UNDP.

strategy focuses on an improved standard of resilience, as well as the replacement of destroyed houses. Total cost for recovery is estimated at EC$1,403 million (US$519.7 million). The Government also committed to the relocation of the communities of Petite Savanne and Dubique, which has now been completed.

In line with the goal of constructing homes to be climate-resilient, investment in the housing sector has steadily and substantially increased in recent fiscal years. Housing sector expenditure accounted for EC$30 million in 2016/17, EC$91 million in 2017/18, and EC$106 million in 2018/19.

There are several ongoing housing development projects across Dominica which are outlined below in Table 3. The largest project is the Bellevue-Chopin Housing Project. The CBIP also funded investment in East Coast projects (Castle Bruce, La Plaine, Delices, Grand Fond and San Sauveur), West Coast projects (Georgetown and Cotton Hill) and Roseau City housing projects.

Table 3: Number of units per housing development

Site	Number of Units	Site	Number of Units
Bellevue-Chopin	353	Grand Fond	66
Georgetown	68	Grand Bay	32
Cotton Hill	68	Stockfarm	32
Delices	66	Jimmit	33
La Plaine	66	Upper River Bank	30
Castle Bruce	66	River Side	70
San Sauveur	66		

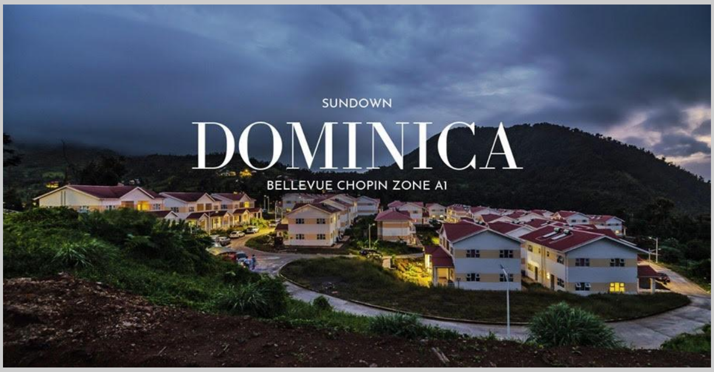
Source: Government of the Commonwealth of Dominica data, PwC analysis

All of these projects are currently under construction and are due to be completed in 2019, except for Upper River Bank and River Side which are still awaiting handover from the Government before construction begins. In alignment with the Government's overall goal of 'building back better' and ensuring that Dominica's infrastructure can withstand tropical storms and hurricanes, all of these housing projects are using modern climate resilient construction methods such as:

- Modern structures designed to withstand hurricanes and seismic shocks;
- Reinforced concrete walls and roofs that ensure water tightness and stability;
- Windows made of impact resistant glass;
- Solar water heating structures.

Climate resilient housing funded by Citizenship by Investment at Bellevue-Chopin

The Bellevue-Chopin housing project was launched as part of the Petite Savanne Resettlement Programme in September 2016 following the widespread destruction of Tropical Storm Erika in 2015.



Source: Montreal Management Consultants, Est., 2019

Erika was the deadliest and most destructive natural disaster that Dominica had experienced since 1979. Torrential rainfall triggered massive flooding and landslides, wiping out entire villages and destroying bridges, roads and homes across the island. The storm resulted in the death of at least 20 Dominicans and directly impacted about 16,000 people, approximately 23% of the population. Over 1,000 households were left homeless and more than 800 shelters became uninhabitable.

The village of Petite Savanne was entirely devastated following the storm and all 823 residents were forced to permanently evacuate. The Government responded to the destruction by launching a series of housing projects (Housing Dominica) aimed at building climate resilient homes capable of withstanding natural disasters such as tropical storms and hurricanes.

Part way through construction, Hurricane Maria hit Dominica in September 2017 causing further damage to infrastructure across the country. However, due to the reinforced concrete being used in Bellevue-Chopin, the structures survived the hurricane. The success of the Bellevue-Chopin infrastructure meant that Bellevue-Chopin could be used as a model for future housing and infrastructure projects in Dominica. As part of the Government's response to Maria, a series of new housing projects were launched in September 2018, following the model of reinforced concrete structures like those in Bellevue-Chopin.

The Bellevue-Chopin Housing Project consists of 353 residential units, a commercial plaza where community members can shop and rent spaces for their businesses, a community centre, a farmers' market, football pitches and basketball courts. The new houses have been designed and are being constructed to withstand natural disasters and represent a model for future housing and infrastructure projects in the country.

The beginning of 2019 saw the second stage of handovers from the housing project (the first stage having been handed over in late 2018), opening doors for even more displaced families. These new units consist of 32 three-bedroom townhouses, 12 three-bedroom apartments, and eight four-bedroom semi-detached houses. In addition, a combination of 12 three-bedroom and 12 two-bedroom apartments units and 14 four-bedroom detached houses are ready to be occupied as well. A handover ceremony was held on 30 March 2019.

Source: Montreal Management Consultants, Est., 2019

Features being used in housing projects include modern and climate resilient structures designed to withstand hurricanes and seismic shocks, reinforced concrete walls and roof structures that ensure water tightness and stability, impact resistant glass windows and solar water heating systems.

These housing development projects are the most extensive projects ever funded by the CBIP, which is playing a central role in the rebuilding of Dominica's homes.

2.5 Economic impacts of public expenditure funded by Citizenship by Investment

The expenditure funded by the CBIP has had a substantial impact on Dominica's recovery from Tropical Storm Erika and Hurricane Maria, but the CBIP is also playing an important role in supporting Dominica's long-term economic transition. The report so far has focussed on the direct benefits of spending from CBIP funds. In this section we focus on how CBIP expenditure will indirectly benefit the wider macroeconomy. Firstly, additional spending will stimulate demand via a multiplier effect (i.e. through the impact on the local economy as extra wages and salaries are spent on local goods and services). Secondly, additional capital spending will increase the long-term capacity of the economy, for example, by improving the efficiency with which goods can be transported. We discuss each effect below.

Near-term demand effects

Based upon the standard fiscal multiplier approach used by the IMF[15], we have estimated the near-term demand effect of CBIP-funded expenditure on GDP growth. Using the IMF's estimates from a recent 'selected issues' paper[16], the modelling takes into account the openness of Dominica's economy (which would mean that a portion of the extra spending stimulates imports rather than Dominica's domestic economy) and lagged timing effects. The result of this modelling is that CBIP funds in the period 2014/15-2018/19 are estimated to have contributed over EC$135.3 million (in real 2018/19 terms) to Dominica's economy. Not accounting for future commitments, the CBIP funding committed in this period is also projected to contribute EC$15.3 million (in real 2018/19 terms) to the economy over the period 2019/20-2021/22. Taken together, the funds committed over the period 2014/15-2018/19 are likely to generate a total economic contribution in excess of EC$150.5 million (in real 2018/19 terms).

The indirect economic impact of CBIP-funded public expenditure will also generate an impact on the Government's tax receipts. Using Dominica's five-year average tax to GDP ratio, the indirect impact of CBIP-funded public spending is estimated to have contributed around EC$28.9 million to tax receipts over the period 2014/15-2018/19.

Longer-term effects on economic capacity and wider transition

In addition to the near-term demand boost that follows higher public investment spending, the expansion of the total value of capital assets on the island (including infrastructure) is vital for Dominica's long-term supply potential. Economic theory suggests that when the total value of these capital assets is low or diminished, the real returns on extra capital investment are likely to be higher. Several important economic studies show that high levels of capital investment (relative to GDP) have been a key component of faster growth rates for some economies over the second half of the last century (see Barro 1994)[17]. The IMF have also highlighted the benefits of resilient infrastructure investment in particular for Dominica, where the output gains can outweigh the additional costs by around a factor of three[18].

Overall, the impact of CBIP-funded capital expenditure has played a critical role in helping to restore the island's infrastructure following Hurricane Maria, giving an important boost to the supply potential of the economy going forward. Capital investment is a well-documented and important source of sustainable economic growth and will have increased the economy's long-term growth potential.

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[15] IMF, 2014.Fiscal Multipliers : Size, Determinants, and Use in Macroeconomic Projections. https://www.imf.org/en/Publications/TNM/Issues/2016/12/31/Fiscal-Multipliers-Size-Determinants-and-Use-in-Macroeconomic-Projections-41784. Accessed 25-07-2019.

[16] IMF, 2017. Dominica: Selected Issues. IMF Country Report 17/392. https://www.imf.org/~/media/Files/Publications/CR/2017/cr17392-DominicaSI.ashx. Accessed 22-07-2019.; The methodology assumes that resource expenditure has a public consumption multiplier of 0.2 in the concurrent year. We have also assumed that capital expenditure is composed of one-third expenditure on physical capital and two-thirds expenditure on labour compensation. Expenditure on physical capital has a cumulative investment multiplier over a three-year period starting in the year following commitment of funds. Expenditure on labour compensation has a public consumption multiplier of 0.2 in the concurrent year. These multipliers reflect the fundamentals of Dominica's economy and may seem low when compared against other economies.

[17] R. Barro, J.W. Lee, 1994. Sources of Economic Growth. Carnegie-Rochester Conference Series on Public Policy.

[18] IMF, 2018. Dominica: 2018 Article IV Consultation-Press Release and Staff Report. https://www.imf.org/en/Publications/CR/Issues/2018/09/05/Dominica-2018-Article-IV-Consultation-Press-Release-and-Staff-Report-46204. Accessed 03-08-2019.

3. Citizenship by Investment and tourism in Dominica

3.1 Tourism investment through the Citizenship by Investment Programme

In 2014, the Government established the option to invest in approved real estate projects under the CBIP. Under this option, applicants must invest a minimum of US$200,000 in an approved project. Once the investment has been made it must be held for a minimum of three years and can only be sold to other CBIP applicants after a period of five years.

At the time of writing, all approved CBIP real estate projects for investment through the CBIP are hotels and ecolodges. This is in keeping with Dominica's vision to '*Create and manage a diversified growing tourism industry offering the best visitor experience in nature, wellness, culture, sports and recreation segments in a sustainable synergetic manner and to advance human settlements and communities for enhanced quality of living and visiting, and to pursue and develop the country's cultural heritage*[19]*.'*

3.2 Overview of tourism developments

There are currently three hotels under construction being funded by the CBIP:

- **The Cabrits Resort & Spa Kempinski** is a luxury 161-room hotel located next to the town of Portsmouth in the north of Dominica. Set to open in Autumn 2019, the resort includes a spa, three restaurants and tennis courts.
- **The Anichi Resort** is a luxury hotel just south of Portsmouth with 201 rooms available, two swimming pools and a spa.
- **The Tranquility Beach Resort**, set to be completed by 2021, offers a mix of condos, villas, cliffhanger suites and penthouses, for a total of 73 rooms overlooking the ocean.

Secret Bay Residences are a series of villas that are planned to be built by October 2021 as part of an extension of Secret Bay, a 5-star luxury hotel operating on the west coast of Dominica.

In addition, **Jungle Bay Resort,** located in the south of Dominica, recently opened to guests. The resort has small villas surrounded by Dominica's forest, offering meditation and adventure packages. CBIP investment was used to finance the construction of the resort.

As shown in Table 4, these developments should become operational over the period to 2022 and are projected to increase the stock of hotel rooms by almost 70%, adding 628 new rooms to the current stock.

More importantly, given the current limited availability of high-end accommodation, the luxury nature of these developments should increase spending per tourist visiting Dominica, which stood at EC$406 per night in 2016[20]. This is below the levels of tourism spending in Saint Lucia and Antigua and Barbuda, which stood at EC$619 and EC$659 in 2016 respectively[21].

[19] Government of the Commonwealth of Dominica, 2018. National Resilience Development Strategy 2030 of Dominica.
https://observatorioplanificacion.cepal.org/sites/default/files/plan/files/Dominica%202030The%20National%20Resilience%20Development%20Strategy.pdf. Accessed 22-07-2019.
[20] Government of the Commonwealth of Dominica, 2017. Post-Disaster Needs Assessment Hurricane Maria.
https://www.gfdrr.org/en/publication/post-disaster-needs-assessment-dominica. Accessed 25-07-2019.
[21] Eastern Carribean Central Bank database, 2018. https://www.eccb-centralbank.org/statistics/dashboard-datas/. Accessed 19-07-2019.

Table 4: Overview of CBIP-funded tourism developments

Name of development	Estimated completion date	Number of rooms	Construction workforce	Projected hotel workforce
Range Developments - Cabrits Resort Kempinski	14/10/2019	161	605	250
Oriental Developers (Caribbean) Ltd - Anichi Resort (operated by Marriott)	12/2020	201	60	281
AyAy Holdings Caribbean Ltd - Jungle Bay Resort	03/2020 (main site currently open)	120	210	150
Sunstone Inc. - Tranquility Beach Resort (operated by Hilton)	2021	73	42	120
Secret Bay Development - Secret Bay Residences	10/2021 (main site currently open)	73	50-100	140-160

Source: Government of the Commonwealth of Dominica data, PwC analysis

According to the analysis above, based on Government data, over 1,000 jobs were created during the construction of the five resorts. Based on data obtained from four developments, approximately 30% of construction jobs went to expatriate construction workers.

Once completed, these resorts are projected to create employment for over 900 people. In addition, once built, the construction of these resorts will also have a positive effect on employment throughout the value chain. For instance, anecdotal evidence gathered during interviews with management for two ecolodge resorts suggests that one room alone supports the livelihood of one farmer or fisherman. If this were right, then the development of additional ecolodges would support more than 193 farmers and fishermen[22]. It is likely that the hotel developments listed above will generate a similar, but smaller, effect[23]. There is likely to be a similar effect in other parts of the tourism value chain, such as day trips and excursion operators.

The estimated total CBIP investment for these resorts is over US$477 million. Discussion with several developers indicated that the availability of the CBIP investment is an important factor in deciding to develop a site in Dominica due to the challenges of securing bank finance for hotel developments in the Caribbean. Furthermore, the process of obtaining Government approval for CBIP-sponsored developments is an important signal of project quality to prospective investors.

3.3 Impact on tourism spending

The growth in Dominica's stock of tourist accommodation generated by the CBIP could generate a boost to tourist spending of between EC$87.5 million and EC$142.1 million each year.

The magnitude of the boost to tourism spending will depend on occupancy rates, number of tourists and average spend per tourist. Our analysis has assumed an occupancy rate of 61%, consistent with anecdotal evidence gathered through interviews with resort management, and that rooms will be occupied primarily by individuals and couples. In order to generate a range of impacts, we present two scenarios regarding Dominica's average spend per tourist: 1) that the

[22] Secret Bay Residences and Jungle Bay Resort are classified as ecolodges.
[23] It is expected that the number of farmers and fishermen supported by one room will be lower due to the greater use of imported food in hotels relative to ecolodges.

average spend per tourist remains at 2016 levels in real terms and 2) that the average spend per tourist will reach that of Antigua and Barbuda at 2016 levels in real terms.

As set out above, CBIP-funded hotels and ecolodges have developed in line with a focus to promote 'ecotourism', in particular by prioritising sustainable experiences which pursue and develop the country's heritage.

While the data on this emerging trend are scarce, recent studies highlight that the typical 'ecotourist' to the Caribbean is generally over the age of 35 and tends to be from a middle-to-high income household[24]. These tourists also tend to demand higher quality accommodation, indicating that our higher spending scenario could be more feasible in the long run. A higher average spend per tourist per day will lead to additional tourist spending in total, increasing the economic contribution and contribution to tax receipts.

Additional tourism spending of this magnitude could generate an annual contribution to economic output of between EC$21.9 million and EC$35.5 million to Dominica[25]. As with the analysis of the economic contribution of the CBIP-funded public sector expenditure, increased tourism spending will result in an increase in imports to a certain degree due to the openness and level of diversification of Dominica's economy. This diminishes the economic contribution made by additional tourism spending.

This could also result in an annual contribution of between EC$23.4 million and EC$38.0 million to tax receipts when applying the economy wide average tax rate to the tourism sector, and taking into account indirect benefits of second round effects. These additional tax receipts would be worth around 10% of the overall tax-take for Dominica.

Table 5: Estimates of additional tourist spending generated by CBIP-funded tourism developments

Scenario number	Scenario assumptions			Additional tourist spending (EC$ millions)	Contribution to tax receipts (EC$ millions)
	Occupancy rate (%)	Number of guests per room	Average spend per tourist per day (EC$, real 2018/19 prices)		
1	61	1.5	416	87.5	23.4
2	61	1.5	675	142.1	38.0

Source: Dominica Hotel & Tourism Association, Government of the Commonwealth of Dominica data, PwC analysis

Going forward, the Government also plans further CBIP-funded investment spending which will boost the tourism capacity of the island. The Government has committed to the construction of a new international airport which would allow international tourists to fly direct to the island. The Government has also stated its intention to construct a new cruise port, again with the aim of attracting more international visitors. Combined with the proposed establishment of a domestic hospitality institute (which will train local staff to work in the tourism industry), these ongoing projects will continue to aid Dominica on its long-term transition to a service-based economy.

[24] The Ecotourism Industry in the Caribbean: A Value Chain Analysis, Inter-American Development Bank, 2014.
[25] This projection has been prepared using a tourism spending multiplier of 0.25 taken from C. Cannonier, M. Galloway Burke, 2018. The economic growth impact of tourism in Small Island Developing States - evidence from the Caribbean. Tourism Economics.

4. Conclusions

4.1 Supporting the post-Maria recovery

The reserves generated by the CBIP provide Dominica with a flexible buffer to respond to the costs of natural disasters in the short-term while promoting transition to a service-based economy led by the tourism sector in the long-term.

The CBIP makes a significant contribution to public sector expenditure, accounting for approximately 41.5% of total Government expenditure in 2018/19. The CBIP funds committed to public sector expenditure in the period 2014/15-2018/19 are projected to generate an economic contribution of around EC$150.5 million.

Not only this, CBIP-funded public expenditure has generated tangible impacts on almost every aspect of life in Dominica. It was instrumental to the post-Maria recovery effort, funding the reconstruction of 19 bridges and the repair of more than 15 stretches of roads and 15 schools. The ability to utilise CBIP funds in the immediate aftermath of Maria boosted morale and generated momentum for the recovery effort. Moreover, the combined effect of CBIP-funded public expenditure and direct cash contributions through the CBIP will provide 6,680 households with modern, hurricane-proof housing.

4.2 Looking to the future

Looking to the future, the impacts and economic contribution generated by the CBIP are expected to secure the final stages of Dominica's transition.

Public sector expenditure funded by the CBIP is providing climate resilient infrastructure and practices. These will leave Dominica both less exposed to the risks of extreme weather events and better placed to recover from them.

Investment through the CBIP has proved instrumental to the construction of several hotels and ecolodges that will drive the development of tourism in Dominica over the coming years. Once operational, these resorts will generate significant employment opportunities and a sustained economic contribution of between EC$21.9 million and EC$35.5 million annually. The Government is working with the private sector (including farmers, fishermen, small business owners and other service providers) to ensure they are well-positioned to take advantage of these opportunities and Dominica's changed tourism landscape. For example, a hospitality-training institute is scheduled for establishment.

Recent announcements by the Government also indicate that CBIP funds will be used to finance the modernisation of air and sea links to Dominica. At the time of writing, the intention is to provide facilities capable of accommodating intercontinental aeroplanes and a greater number of regional connections. A new cruise port is also being planned. This will help realise the potential benefits of increasing the stock of hotel rooms and could generate further growth in the tourism sector.

The CBIP is also contributing to the long-term energy security of Dominica. CBIP funds have been used to finance the initial stages of a geothermal power station which will be completed with donor funding from the World Bank, the International Development Association, the UK Department for International Development and the Clean Technology Fund. This will increase the share of renewable energy in the energy mix, and make Dominica less exposed to the volatility of global fossil fuel markets. It could also position Dominica as a net exporter of energy.

The combination of these future developments will provide a strong base from which to develop a prosperous and vibrant economy. In the words of one Government stakeholder, '*the Citizenship by Investment Programme has given Dominica the means to become independent.*'