Eastern Caribbean Regional Climate Change Implementation Plan

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Contents

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1 Executive Summary

Funded by the UK's Foreign and Commonwealth Office, the objective of this project is to provide strategic support to the Organisation of Eastern Caribbean States (OECS) region to help develop and prepare an Eastern Caribbean Climate Change Implementation Plan. This initial project is the first building block on the path to developing such a plan, and recommends follow-on steps to continue to realise the regional plan. Ultimately, this plan will aim to:

I. Deliver large scale emission reductions;
II. Accelerate green growth in the region;
III. Deliver development co-benefits; and
IV. Improve resilience to climate change impacts.

Regional collaboration has the potential to provide a range of benefits to OECS Member States by opening pathways to work together to address common issues and scale-up the implementation of their Nationally Determined Contributions (NDCs). For example, regional initiatives can enable **economies of scale** and make climate action more cost-effective, e.g. through reduced administrative burdens for individual nations, and regional procurement. Pooling collective resources and benefits of climate action can also help to **attract international climate finance and investors**. Improved **knowledge-sharing** mechanisms can prevent duplication of effort and enhance efficiency in the implementation of climate initiatives. Lastly, a regional approach makes **contextual sense** and builds on the OECS economic union to support Member States that share similar climate change challenges.

Multiple stakeholder interviews, alongside two workshops and an online webinar, allowed Member States to shape the direction of this initial feasibility study of a regional climate change plan. There is widespread agreement that the **OECS Commission** is best placed to lead the regional plan, building on its experience with other regional programmes.

It is important that a plan is structured to allow Associate Member States (non-sovereign states) to benefit. Therefore a plan should **initially be aspirational**, rather than a legally binding document. However, to fully unlock the potential for receiving international climate finance, **moves towards a legally binding document** would be beneficial. A compromise for non-sovereign states is that they could act as observers, learning from the implementation of international climate finance even if they are not receiving it themselves.

Public awareness of climate issues is a major barrier for the widespread adoption of climate action. Member States agree that a regional plan should be structured to improve this awareness wherever possible.

As a first step towards developing and preparing a regional climate change plan, this project focused on two sectors – one for climate mitigation and another for adaptation - to illustrate the potential benefits of regional action. Sectors were assessed across a number of criteria, including emissions reduction potential for mitigation, vulnerability to climate change for adaptation, as well as ease of implementation. The **transport sector**, for mitigation, and the **water sector**, for adaptation, were selected for further analysis.

For each sector, the project looked at ongoing initiatives both within and outside the OECS region, indicating potential learning opportunities for OECS regional action. This was followed by an assessment of the gaps, opportunities and challenges that regional collaboration could address in the given sector. This analysis culminated in two recommended regional initiatives for each sector, addressing the common challenges and adding value to the OECS Member States.

Recommended regional initiatives for mitigation in the transport sector

Scale-up Electric Vehicle (EV) Trials

Project ideas:

Attract funding to scale-up national trials and address common regional barriers, for example:

- Knowledge-sharing across various ongoing national initiatives
- Awareness of EVs and their environmental benefits
- Availability of charging stations
- Policies to make EVs more financially competitive

Next steps:

- Seek short-term funding for in-depth design of projects
- Set up working groups for transport collaboration
- Contact existing national initiatives

Regional Vehicle Fuel Efficiency Standards

Project ideas:

Collaboration to develop, or improve, standards and labelling schemes that can be applied across the region depending on national priorities, for example:

- Build public awareness of vehicle efficiency
- Set baselines for import restrictions or charges to prevent import of polluting vehicles
- Introduce fiscal measures such as 'feebates' to incentivise import of more efficient vehicles

Next steps:

- Seek short-term funding to finance the in-depth programme design
- Set up working groups around fuel efficiency
- Discuss the process of developing regional standards in the OECS region with local

Recommended regional initiatives for adaptation in the water sector

Water Pipeline Infrastructure Improvements

Project ideas:

Upgrade and repair water distribution networks to reduce the share of non-revenue water and particularly water losses from damaged pipelines:

- Bring water losses down from currently around 75% to industry standards of around 20%
- This is the most effective approach to solve water supply shortage
- Helps to make desalination more cost-efficient and reduces the pressure on aquifers
- Mitigation co-benefits through lowering energy consumption of water pumps by reducing water pressure needed in the pipelines
- Mitigation co-benefits through reducing water input from desalination plants

Renewable energy-powered desalination

Project ideas:

Provide desalinated seawater to water-insecure areas, using solar PV or wind power combined with water storage tanks:

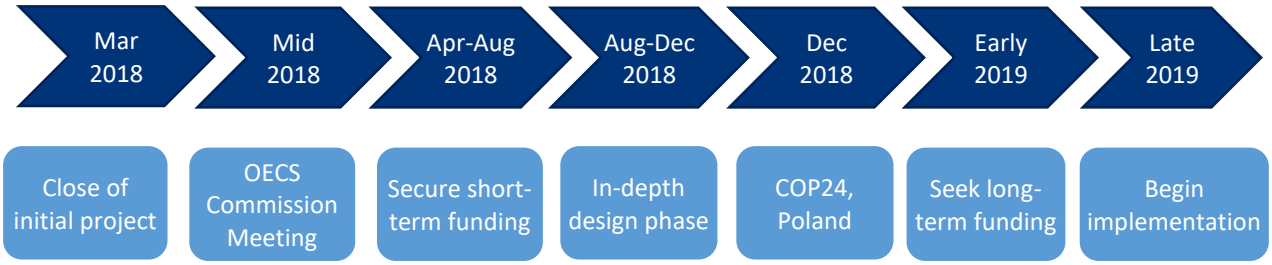
- Most reliable, long-term source of water, with reduced renewable energy intermittency problem
- Improve resilience of water supply against extreme and slow onset drought events
- Transformational and therefore attractive to international donors
- Private sector contribution would be needed for economic viability – e.g. from tourism sector
- Mitigation co-benefits through using renewables to source water

Next steps:

- Seek short-term funding for in-depth programme design

One of the key benefits of a regional approach in the OECS region is the opportunity to make projects more attractive to financial institutions. Given the importance of attracting such finance for the further development and implementation of the plan, we have provided an outline of potential funding sources that the OECS could look to access. Potential sources include: **International Climate Finance** (such as the Green Climate Fund, NAMA Facility and Climate Investment Funds), **Philanthropic Funds** (such as The Clinton Foundation, Virgin Unite and Carbon War Room), and **Bilateral Donors** (including the European Union and United Kingdom Government). For each source, we have indicated the funder requirements so that local stakeholders understand what is needed to apply for follow-on funding.

As a final step, we have outlined a roadmap from this initial project towards implementation. The roadmap indicates a set of recommended actions and milestones to target to realise the impact of the Eastern Caribbean Regional Climate Change Plan by late 2019.



2 Introduction

Background to the project

The Carbon Trust and Climate Analytics Inc. have worked with the OECS Commission to catalyse the development of a regional climate change plan in the Eastern Caribbean. The project was funded by the Programme Fund of the UK's Foreign & Commonwealth Office (FCO) in the Caribbean.

The project aims to provide strategic support to the OECS to help develop, prepare to implement, and finance an Eastern Caribbean Climate Change Implementation Plan. This initial project is the first building block in the path to developing such a plan, and recommends follow-on steps to continue to realise the regional plan. Ultimately, the plan itself should strive to address the following objectives:

I. Deliver large scale emission reductions;
II. Accelerate green growth in the region;
III. Deliver development co-benefits; and
IV. Improve resilience to climate change impacts.

In order to provide support for large scale emission reductions and improved resilience to climate change impacts, both mitigation and adaptation measures have been considered.
At this preliminary stage, the project has assessed how a regionally collaborative plan could work in practice. By conducting deep dives into two priority sectors, the project has highlighted areas for common action requirements, and provided guidance towards the implementation of future regional initiatives that will achieve the objectives.

Opportunity for regional collaboration

The OECS is an economic union comprising ten Member States. Full member status is held by Antigua and Barbuda; Commonwealth of Dominica; Grenada; Montserrat; St. Kitts and Nevis; St. Lucia; and St. Vincent and the Grenadines. In addition, the British Virgin Islands, Anguilla and Martinique are Associate Members of the OECS.

The economic union enables free movement of goods, capital, and people, and so can act as an appropriate platform for regional collaboration on a number of issues, including climate change action.

OECS Member States share similar climate challenges and constraints. As Small Island

Figure 1: OECS Member States and Associated Members

Developing States with similar geographies, climates, economies, and population sizes, many of the climate-related impacts facing the Member States are similar. Therefore, in many cases, programmes that target a particular sector are likely to be scalable to multiple Member States simultaneously, which has the potential to deliver significant benefits. Given that these similarities have led to the OECS economic union, it is feasible to see how a similar collaboration for climate action could yield benefits.

A key driver for the OECS Commission to develop a regional climate change platform is the aspiration that **a plan with sufficient scale can make certain climate-related investments more attractive to investors.** Pooling the collective resources and markets of national projects and scaling them to a regional scale will increase the size and impact of projects. Projects that are more impactful will be more likely to access significant amounts of climate finance.

Moreover, **economies of scale can improve the collective efficiency of climate programmes.** Sharing the administrative burden of programme management is one example of how economies of scale could increase implementation efficiency. In addition, regional collaboration may improve the knowledge transfer process. With national projects, individual countries gain knowledge and expertise in specific topics without a formal platform to share this effectively with neighbouring islands. This can lead to other countries undertaking similar projects but having to learn all the key lessons themselves. If mechanisms for knowledge transfer within the OECS region were included at a programme design stage, inter-country learning would become an easier, more efficient process.

The OECS already runs numerous initiatives that highlight value and the possibilities of collaboration, such as: the Role of Geothermal Energy; Eastern Caribbean Energy Labelling Project (ECELP); Building Energy Efficient Program (BEEP); and Eastern Caribbean Energy Regulatory Authority (ECERA). To achieve climate change targets, regional collaboration would benefit from a central coordinating entity, and the OECS has experience in this role.

Importantly, a regional climate platform does not need to supersede the individual contributions and climate actions highlighted within NDCs. Instead, regional action can complement existing NDCs by enabling the development of programmes that are more attractive to finance, more efficient to learn from, and help Member States to achieve local targets, outlined in NDCs, through building on existing experience and expertise across the region.

3 Structure and Implementation of the Regional Climate Change Plan

Legal

Individual Member States have already worked towards developing climate change plans at a national level. All six independent Member States (Antigua and Barbuda, Commonwealth of Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines) have submitted individual NDCs to the United Nations Framework Convention on Climate Change (UNFCCC), and ratified the Paris Agreement at Conference of Parties 21 (COP21) in 2015.

However, non-independent member states (Montserrat, British Virgin Islands, Anguilla, and Martinique) are unable to formally ratify such agreements themselves. Montserrat, British Virgin Islands and Anguilla are overseas territories of the United Kingdom, and therefore contributions form part of the wider UK NDC rather than through individual submissions. Likewise, as an overseas territory of France, Martinique was unable to formally submit an individual NDC.

In order to ensure that a regional climate change plan is beneficial to both sovereign and non-sovereign member states, the plan must be structured in a way that is sensitive to the intricacies of the region and allows all parties to benefit. Initially, it was proposed that the submission of a Regionally Determined Contribution (RDC) could be the best path to formalise a regional agreement in the OECS region. In a similar fashion to NDCs, an RDC would take the form of a legally binding document that commits the Member States to certain climate change goals and implementing necessary initiatives to achieve them. An RDC in the OECS region would be the one of the first-of-its-kind in the world, and there are no UNFCCC guidelines for the structure that such a regional contribution should take.

However, given extensive stakeholder consultation, Member States decided that an RDC is not the most appropriate way to pursue the regional climate change plan initially. For one there was uncertainty as to an RDC's place with regard to pre-existing NDCs, including concerns that an RDC might appear to be superseding NDCs – an outcome that was agreed to be undesirable. Secondly, there is the legal issue that would face non-independent states (Montserrat, British Virgin Islands, Anguilla, and Martinique), as they would not be able to be party to a legal RDC document.

In sum, these two arguments meant that the term RDC is not appropriate - the regional plan should **initially be aspirational rather than legal**. Without needing legal commitment, at this stage the regional plan can still act as a useful platform for pooling national efforts and supporting their realisation through regional initiatives. It may be useful in the meantime to agree a **memorandum of understanding** between the participating members regarding the current status and how it may develop over time.

The regional climate change plan would not replace the NDCs, and should instead act as an umbrella where climate priorities intersect across the region. This could help build initial momentum through developing an evidence base of the benefits of regional collaboration. It could go as far as implementing some initiatives that demonstrate the value of Member States working together to collectively achieve climate goals.

The non-independent states could also participate under an aspirational framework. However, it is important to note that their ability to access international climate finance can be limited by their legal status – this means that they could benefit from being observers to particular programmes, but not receive funding to implement them.

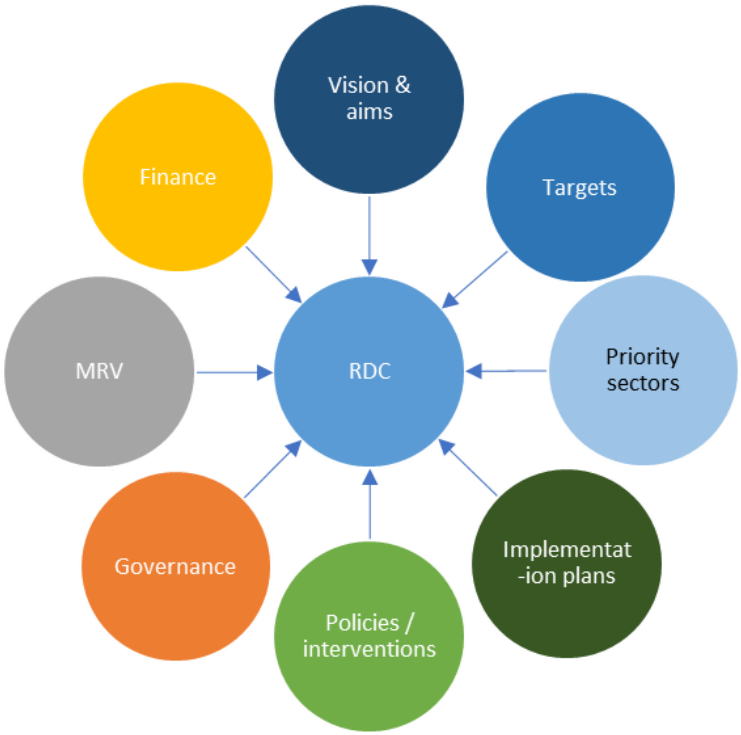
In the long-term, targeting a legal document would still provide benefits. For instance, unlocking funding from various international climate finance institutions or mechanisms would be helped significantly by emphasising political commitment through a legal document. Moreover, implementing an RDC would establish the OECS and its Member States as **global leaders** in addressing the climate change challenges faced by small island states.

Technical

As a novel initiative, there is no definitive structure or design for a regional climate change plan. The project explored a number of options and makes particular recommendations based on the likely objectives and local particularities in the OECS region.

There is a large degree of flexibility in how the regional platform should be structured, and there is a range of possibilities for its constituent components - from targets to measuring, reporting and verification (MRV). These options can be seen in Figure 2.

Figure 2: The potential components of a regional platform



As a starting point, an action-oriented plan, as opposed to an outcome-oriented plan, may be most sensible. Member States that have submitted NDCs already have target outcomes at a national level, and so there is currently low appetite to add regional targets that may confuse priorities. Stakeholder consultation indicated that a better starting point would be to focus on actions within the sectors that have been prioritised as part of this project. By implementing initial regional programmes in these areas of greatest need, an evidence base can be developed that demonstrates the potential for regional collaboration. If initial programmes are successful, this could increase the momentum within the region, and a subsequent outcome-oriented plan may become appropriate.

For the regional platform to be as cohesive and effective as possible there should be a central coordinating entity that is responsible for the management of the platform. This role will reduce the administrative burden on individual member states and improve the efficiency of the collaboration. There is agreement that the OECS Commission should drive the regional platform forward in this way, and should be responsible for the immediate follow-on actions to this project. The aims of the collaboration fit well with the OECS Commission's remit, and the OECS Commission is best placed to coordinate sufficient capacity for implementation. Furthermore, the OECS Commission has experience with programme implementation across the region from similar programmes, which would help in this role.

It is important to add that, while the OECS Commission should be responsible for coordinating the regional platform, it may not be appropriate to lead each interaction. Through prior project experience, individual Member States have differing levels of expertise within the

sectors that the platform will look to address. Therefore, knowledge-sharing activities may be led by individual Member States with greatest expertise where it makes sense to do so.

Moreover, Member States will engage with regional projects through working groups and other knowledge-sharing channels. Regional collaboration is set to build upon, rather than replace, national action. Knowledge sharing forums should highlight best practice and learnings from national projects in order to avoid repetition of mistakes in the region and improve efficiency. This process requires engagement from individual Member States in addition to the leadership of the OECS Commission.

Feedback from the stakeholder engagement exercise highlighted that a key component of the platform should be to target an improvement in public education and awareness. The greatest impact can be generated by ensuring that lessons learnt from the regional platform are understood on the ground to build on discussions and actions agreed in conferences and workshops.

4 Sector Case Studies

Prioritisation

To illustrate how an Eastern Caribbean Regional Climate Change Implementation Plan would work in practice, the scope of this initial project included deep dives of two priority sectors to highlight the potential for, and benefits of, approaching climate change issues regionally. One sector for each of climate mitigation and adaptation concerns was selected for more detailed examination. Stakeholder interviews with OECS Member States discussed the following sectors to find points of common need across the region:

	Mitigation	Adaptation
Sectors	• Energy • Industrial processes and product use • Agriculture, Forestry and other Land Use (AFOLU) • Waste • Transport	• Agriculture • Forestry • Water • Public Health • Coastal Zones • Tourism • Fishing

Each sector was assessed against prioritisation criteria which looked at the benefits of regional collaboration. Different criteria were used to assess mitigation and adaptation sectors where relevant for the best comparison.

	Mitigation	Adaptation
Prioritisation Criteria	• Greenhouse gas emissions reduction potential • Regional cooperation potential • Implementation potential • Local capacity • Cost reduction potential	• Vulnerability to climate change • Adaptive capacity • Regional cooperation potential • Socio-economic importance • Implementation potential • Cost reduction potential

While two sectors were prioritised at these initial stages, there are likely to be opportunities to expand the scope of a regional plan into additional sectors in the future. If this is the case, then the above prioritisation framework would be useful to help guide decision-making for the selection of additional sectors.

The prioritisation involved desk research and multiple interviews with local stakeholders. It culminated in the first workshop at COP23 in Bonn in November 2017. At this workshop, Member States agreed to prioritise the **transport** and **water** sectors for mitigation and adaptation respectively. The rationale for each is given below.

Mitigation

Transport, particularly road transport was the most commonly cited sector for mitigation actions. In particular, significant points of commonality, in both challenges and opportunities, are to be found in road transport. To help guide the initiatives to be investigated in the project's second phase, it was decided that the project would consider **vehicles, fuels and habits of behaviour** to test ideas for a regional approach.

Aside from transport, there were other significant mentions for power generation and forestry. Power generation is a pertinent issue across the region given the need to move away from fossil fuels and towards renewable energy and integration. However, it was highlighted that this sector already receives a large amount of mitigation attention and is a central focus of every country's NDC. Therefore, regional collaboration may not prove to be as additional as work in the transport sector could be.

Forestry was touted as a key sector for the region but one that is often difficult to approach. There are a number of barriers related to deforestation that can be sensitive economically and politically – such as land use rights. As a result, for the scope of this project the sector appears to be too challenging but is one that could benefit from considering a regional approach in the long-term.

Adaptation

The results from stakeholder engagement indicated a strong consensus that water should be a priority sector for adaptation. For adaptation, the sourcing of water is of central importance around the region due to relatively scarce resources and often inefficient extraction systems. Significantly, this sector also has cross-relevance with mitigation given the large amounts of energy used to source drinking water in a number of the islands. However, the water sector is very broad and can be relevant to many different sub-sectors – moreover, there are competing pressures for instance distributing limited resource to drinking or agriculture. For this project, the scope was narrowed down to the key sub-sector of water sourcing/extraction.

Mitigation Case Study: Transport

Sector background

The transport sector is one of the most significant consumers of energy and producers of greenhouse gas emissions in the region. To illustrate this, in Grenada transportation accounted for more than 50% of total end-use energy consumption in 2014 (CARICOM, 2015). Furthermore, St. Vincent and the Grenadines have identified transport as the fastest growing source of emissions (St. Vincent and the Grenadines NDC, 2015), a trend that is seen globally, with transport predicted to contribute up to 60% of global emissions by 2050 (GIZ, 2017).

Within the transport sector, there are several sub-sectors that are particularly important in the OECS Region. As small islands, both maritime and air transport are necessary for travel between islands (GIZ, 2015). On individual islands, privately owned vehicles are responsible for the majority of transport. Whilst there are bus routes in operation, these form a minority of total journeys taken. There is limited potential for rail as a public transport option due to conflicting land use (GIZ, 2015). For this project, Member States selected road transport as the most promising sub-sector for regional collaboration.

Initiatives within the region

The NDCs of the Member States prescribe action to reduce emissions from the transport sector, alongside ensuring that transport is efficient and affordable. The NDCs offer potential schemes that Member States are considering in the transport sector (Table 1).

Table 1: Consideration of transport mitigation in Member State NDCs

Member State	NDC transport consideration
St. Kitts & Nevis	• Retrofit of inefficient vehicles
St. Vincent & The Grenadines	• Reduction of import duty on low emission vehicles
Grenada	• Introduction of biofuel blends
St. Lucia	• Improved and expanded public transport
Antigua & Barbuda	• Efficiency standards for the import of vehicles
Dominica	• Promotion of import of hybrid vehicles

However, whilst there is a lot of overlap between the schemes that Member States are considering, there is not a consistent approach across the region. During the stakeholder engagement exercise, it was mentioned that there is limited knowledge of ongoing initiatives in different Member States. Mapping out what is going on in each Member State

should be a high priority for the regional plan. Table 2 illustrates some example policies and initiatives relevant to the transport sector that are ongoing in the OECS region.

Table 2: Example policies and initiatives across the OECS region focussing on transport mitigation[1]

Member State	Example policies and initiatives
St. Kitts & Nevis	• Pilot electric school bus fleet • There is an import tax on vehicles over 5 years of age
St. Vincent & The Grenadines	• The country is developing a NAMA for the transport sector • There is an import charge on vehicles over 5 years of age
Grenada	• A utility company has been trialling electric vehicles
St. Lucia	• There is an exemption of up to 5% of duty and excise tax for import of vehicles operating on 'sustainable fuels', as well as for any related equipment
British Virgin Islands	• Early-stage ideas for a park-and-ride scheme to help ease congestion
Antigua & Barbuda	• Plans to pilot electric school buses, with accompanied charging stations
Dominica	• Feasibility study on electric vehicles

These national initiatives highlight learning opportunities that a regional approach could look to scale-up and improve. For example, where selective import taxes exist, the taxes currently target vehicles solely on age, and do not consider performance. Whilst age can be a useful indicator of efficiency, a tax on performance would be more accurate.

Another important opportunity could arise through scaling up the numerous ongoing electric vehicle (EV) trials. Sharing key lessons learnt and successes across the region will greatly enhance the efficiency and effectiveness of these trials, as well as opening the door to commercial scale-up. One option to aid this scale-up could be through the involvement of the private sector in trial initiatives, as is occurring in Grenada. Attracting private sector investment will increase the likelihood of trials outlasting individual projects and may help to leverage other sources of funding.

Relevant initiatives from other geographies

The regional platform will clearly benefit from improved knowledge transfer between Member States. In addition, the regional platform should attempt to learn from transport initiatives that are ongoing in other regions – gleaning best practice lessons and forming

[1] Interviews with Member States from 28/12/2017-10/01/2018

international collaboration networks. This section mentions four international initiatives that could provide collaboration and learning opportunities for the OECS region.

The **Global Fuel Economy Initiative (GFEI)** is a partnership of six organisations with the mission of improving fuel economy to address pollution, congestion, energy and resource depletion, and environmental damage caused by the growth in road transport. The GFEI has worked with over 70 countries to help plan ways to address these issues, including with island states such as Jamaica and Mauritius.[2]

Fuel efficiency measures recommended by the GFEI include:

- Vehicle standards for manufacturing;
- Implementation of 'feebates' (fees on inefficient technologies, and rebates on efficient technologies);
- Import restrictions to encourage the import of more fuel efficient vehicles; and
- Fuel taxes.

The GFEI also have experience accessing international financial support for vehicle fuel economy (GFEI website).

The **European Union** (EU) provides an example for how regional collaboration can nurture similar transport initiatives across multiple countries to generate a large cumulative impact. Alongside regional vehicle standards, the EU possesses legislation around minimum numbers of recharging and refuelling stations for clean technologies. Electric and hydrogen vehicles, gas-powered trucks, barges, and ships all benefit from this legislation.

The EU supports public transport through measures that are designed to instil consumer confidence in the system. Measures include compensation for delays, lost or damaged luggage, and accidental injury or death. These measures help to alleviate some of the perceived problems with public transport and encourage its use (EU website).

The **Electric Vehicles Initiative** (EVI) is an initiative by the Clean Energy Ministerial that acts as a forum for global cooperation on the development and deployment of EVs. The EVI has produced several reports that are aimed at helping policymakers access information about local policies, incentives and consumer behaviours to increase collaboration. In addition, the EVI convenes an annual forum of cities as a platform to share ideas and solutions towards fostering greater EV deployment. A similar forum within the OECS Region to share common problems and solutions may provide an opportunity for collaboration (EVI website, picture from IEA website).

[2] Interview with FIA Foundation on 30/01/2018

Barbados provides a useful success story of EV deployment in the Eastern Caribbean. Megapower Ltd sell and operate EVs in the Caribbean, and have had large-scale deployment success in Barbados. Megapower procure and install charging stations that customers can use to charge vehicles (Figure 3). Customers are able to sign up to a number of different membership options depending on their charging requirements.

Figure 3: Number of EV charging stations across Barbados (www.plugshare.com)

The scheme has seen high profile government officials trialling EVs with success, which has helped to improve EV's public perception in the country. Moreover, the Government of Barbados has reduced import duties for EVs, ensuring that they are financially competitive compared to fossil-fuel powered vehicles.

The success of EVs in a neighbouring country provides several learning opportunities for the OECS region to ensure that trials are followed by large-scale growth in EV deployment. Firstly, the private sector can play an important role in delivering the services required for EV deployment, both in installation of charging stations, and in support to improve the public awareness of the benefits that EVs can offer. This is achieved partly through economies of scale, which a regional plan can be optimised to provide. Secondly, policy is of great importance in increasing EV competitiveness, and import levies can help to make EVs a more financially attractive option for consumers. Lastly, efficient procurement could help to reduce the capital investment required for EVs, charging stations, and other related equipment, to encourage scale-up of EV use following initial trials (Megapower website).

There is one major caveat when applying the Barbados success story to the OECS region: Barbados is a very flat island, which makes it easier for EVs to be within range of a charging station. Unfortunately, this is not the case for many of the OECS islands. Therefore

understanding the geography of the islands and its effect on the range of EVs is crucial for knowing what infrastructure is required.

Gaps, opportunities and challenges for the transport sector

Accounting for the analysis into the OECS Member States' targets, as well as what is ongoing both within and outside the region, the following section looks at where there are common issues that a regional climate change plan could aim to address.

Vehicles

As mentioned previously, the majority of journeys in the OECS region are taken by privately owned vehicles. As vehicle manufacturing in the region is limited, these vehicles are usually imported from abroad. The importation of inefficient, used vehicles leads to high amounts of greenhouse gas emissions, as well as increasing trade deficits for both vehicles and the fuels required to run them. Whilst there are some national import levies that target older vehicles, there are no regional standards for the import of vehicles.

There is therefore an opportunity to agree regional standards for vehicle import, as well as developing and sharing knowledge and capacity with regard to testing and/or labelling vehicles. Off the back of understanding what makes an inefficient vehicle, Member States could later share policy advice and success stories where subsequent measures have worked well in stemming the flow of inefficient imported vehicles.

However, the concerns across different national markets and politics can be very particular. It may be difficult to transfer successful measures from one Member State to a second due to differing conditions and priorities. Another challenge is that the introduction of regional standards and future policies would be very unlikely to be able to influence the existing vehicle fleet, limiting its immediate impact.

Fuels

At present, consumers in the OECS region have little alternative to using fossil fuels for transportation. These fossil fuels are largely imported from abroad, which can constitute a significant portion of GDP. The use of EVs can reduce emissions by between 25-85% across the vehicle life cycle, depending on the source of electricity used. Where electricity is generated by renewable sources, the emissions reductions using EVs will be greatest (Messagie 2014).

To alleviate the use of fossil fuels, the OECS region can focus on trialling infrastructure and use of alternative fuels. In some Member States, EV trials are already under way – this represents an opportunity through knowledge sharing from existing and future trials to other OECS Member States.

Switching to alternative fuels presents some difficulties. New infrastructure must be built, which can present high capital investment. Additionally, the public are likely to be apprehensive about the use of fuels with which they have little experience.

Habits of behaviour

There is generally low public awareness of climate-related issues in the OECS region. Consequently, there is a lack of urgency to change transport behaviours from the status quo of large-scale use of private vehicles.

Awareness-raising campaigns would be a useful tool to advertise cleaner transport options, such as vehicle sharing and public transport opportunities. Campaigns may also target the use of alternative fuels, to ease concerns related to public inexperience.

One obstacle towards mitigation action in the transport sector is the lack of incentives to change behaviours, particularly at a political level. Overcoming these is not easy and will be a long-term process. Building an evidence base that demonstrates the environmental and economic benefits of cleaner transport options is a crucial first step.

To address these common issues across the OECS region, the project explored the potential for two regional initiatives that could be implemented under a future climate change plan:

I. Scale-up EV Trials; and
II. Regional Vehicle Fuel Efficiency Standards.

Regional Initiative I – Scale-up Electric Vehicle Trials

The first of two proposed opportunities for regional collaboration is to scale-up EV trials.

Opportunity

Widespread use of EVs in the OECS region could provide value in a variety of ways. Member States are already working towards decarbonisation through the energy grid. Use of renewables such as solar PV, wind, and geothermal power to generate electricity is continuing to grow as part of wider mitigation efforts (Member States' NDCs). Combining the increase in renewable energy generation with the deployment of EVs would drastically reduce emissions from the transport sector. There would also be a corresponding reduction in the reliance on imported fossil fuels for vehicles, which can be expensive and hinder regional development. However, there is an important caveat that without an increase in renewable energy generation, the extra demand on the grid from new EVs would minimise the potential emissions reductions and require greater fossil fuel imports for power plants.

The positive image of EVs could bring an additional value to the region. Tourism is a key sector across the OECS region. The scale-up of EV usage could benefit this sector, as a 'green' image and lower levels of pollution may attract visitors.

The small island geographies of the OECS Member States means that EVs offer great promise as a low carbon transport solution. Low cost EVs such as the Nissan Leaf can drive in the range of 250km per full charge, which is higher than the average daily driving distances in the region (GIZ 2015). EVs may also provide an adaptive benefit by providing a source of electricity to power homes during power cuts, improving resilience to natural disasters. Any additional stress on the national grid imposed by EVs can be limited by charging during times of low energy demand (CARICOM 2015).

Moreover, the price of EVs has decreased in recent years and EVs can be financially competitive with fossil fuel-powered alternatives given the appropriate fiscal incentives. Importantly, this cost reduction is projected to continue well into the future as key components, such as batteries, see their costs diminish through innovation and economies of scale.

Challenges

However, the cost of purchasing a new EV is still significantly more expensive than many cheaper used internal combustion engine vehicles. Public awareness and perception of EVs is another barrier to deployment. The low availability of charging stations in many OECS Member States means that many people do not view EVs as a viable option. Alongside this concern, there is low awareness of the operational cost benefits that EVs may bring[3].

Implementation

Several Member States are already in the process of trialling EVs in some manner across the OECS region. These trials differ in nature, and range from the trial of school buses to private sector utility trials. Development of a platform for knowledge transfer between these national initiatives offers promise to prevent the duplication of effort and errors. Building on, and working with, initiatives such as the CARICOM E-Mobility Group provide good opportunities to realise this.

Future trials may be able to attract larger funding through collaboration and pooling of resources and benefits. Regional collaboration can help to foster economies of scale through regional procurement of EVs and associated equipment, helping to unlock cheaper per unit costs.

Potential next steps to implement a regional EV trial and scale-up national trials are outlined below.

I. Seek short-term funding for in-depth design of projects, which may include:
    a. Cost-benefit analysis of different project ideas
    b. Development of detailed project plans
II. Set up working groups which will aim to:
    a. Identify the potential for EVs in the OECS region
    b. Find areas of common need to apply to donors for a regional EV trial
III. Work with ongoing national initiatives:
    a. Establish a point of contact for national initiatives that can provide details and evaluation of trials as they are ongoing
    b. Consider holding workshops with members of multiple project teams to discuss trial best practice and learnings to encourage subsequent growth
IV. Look for synergies with the CARICOM E-mobility group to promote scale-up from national trials, and avoid a duplication of efforts.

[3] Interview with Megapower Ltd. on 10/01/2018

Regional Initiative II – Regional Vehicle Fuel Efficiency Standards

Opportunity

As noted above, the importation of inefficient vehicles into the OECS region is a significant problem for the transport sector. Regional standards on the efficiency of vehicles for import, possibly combined with associated taxes and incentives, could encourage the import of more efficient vehicles and reduce transport emissions. Member States could collaborate at a regional level to establish guidelines around efficient vehicles while maintaining flexibility in implementation for each nation depending on priorities.

Challenges

A fundamental barrier at present to improving the fuel efficiency of existing fleets is the lack of awareness of the fuel efficiency of imported cars. At present, where levies exist, they focus on the age of vehicles, and vehicles are not tested or labelled for their efficiency. If there were greater transparency for both consumers and policy makers, there would be better knowledge of the implications on running costs and environmental impacts of individual cars.

However, there is limited capacity to measure and track the efficiency of imported vehicles. Capacity to perform such actions would be required to test individual vehicles and tax accordingly. Moreover, the future implementation of such tests would have a limited effect on the current vehicle fleet.

Implementation

The OECS region would benefit from a collective database of vehicle efficiency standards, which would provide a centralised measure for Member States to understand what makes an efficient vehicle and provide an evidence base for future policies. The OECS has a good record of harmonising regional standards for other goods, so there are precedents, and each Member State could utilise such a database as desired depending on their priorities.

Regional coordination could help to implement labelling schemes to improve visibility of vehicle efficiency. Such labelling would benefit public awareness amongst consumers and allow better-informed purchasing decisions.

In addition, the development and deployment of taxes and incentives could be coordinated to share the administrative burden, for instance by producing collective impact assessments for different policies. All of these policies depend on a high quality set of data around vehicle efficiencies. By leveraging the regional climate change plan, this process could benefit the whole OECS region.

Potential next steps towards implementing regional vehicle fuel efficiency standards are outlined below.

I. Seek short-term funding to finance the in-depth programme design, which may include:
    a. The development of an initial regional vehicle database against which newly imported vehicles can be compared
    b. Cost-benefit analysis of multiple project ideas
    c. Impact assessments for potential policies and fiscal measures

II. Set up working groups that aim to:
    a. Compile a register of national policies that are relevant to fuel efficiency
    b. Identify capacity limitations that a regional programme could look to address

III. Discuss the process of developing regional standards in the OECS region:
    a. Establish points of contact that have been involved with the development of other regional initiatives
    b. Host a workshop for stakeholders to discuss the practicalities of a regional standard

Adaptation Case Study: Water

Sector background

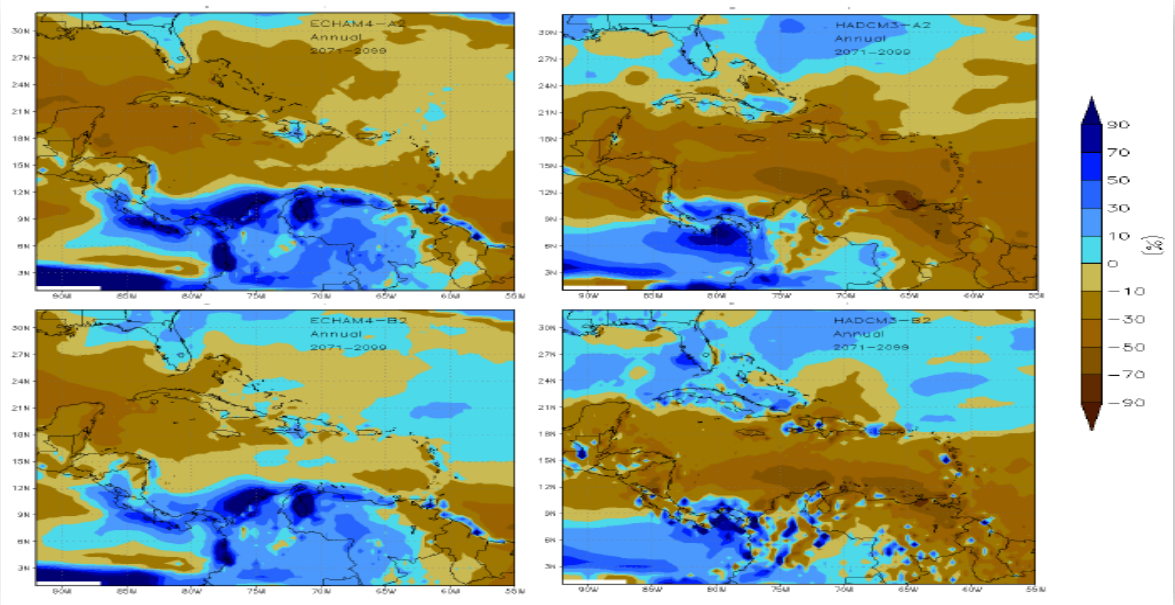
Environmental ministries across OECS Member States are acutely aware that their water supply will be impacted by climate change. This awareness is backed by scientific analysis of regional impacts, as well as experience with drought and hurricane impacts on the water supply in the recent past. Most of the OECS region already suffers from low freshwater availability with some Member States' renewable water per capita falling below one tenth of the global average of around 6,000 m^3/capita/year, as seen in Table 3 (FAO 2016, Cashman 2014, Cashman et al. 2010, CARIBANK 2015).

Table 3: Current water resources across OECS Member States (FAO Aquastat Database, 2016)

OECS Water availability	Rainfall (mm/y)	Renewable water (m^3/capita/yr)
Dominica	2,083	2,778
St. Vincent & The Grenadines	1,583	917
Saint Lucia	2,300	1,648
Antigua & Barbuda	1,030	578
Grenada	2,350	1,887
St. Kitts & Nevis	1,427	444

The shortage of fresh water across the OECS region is expected to become more severe over the century due to impacts of climate change on regional precipitation patterns, as seen by estimates in Figure 4. Depending on the applied model, annual rainfall could be reduced by up to 25-30% over the period 2071-2099 when compared to the years 1961-1989.

Figure 4: Mean changes in annual rainfall by the end of the century (Taylor et al. 2013)



Ensuring a reliable water supply is a top priority for the region, given the recent impacts of extreme weather events, the islands' vulnerable infrastructure, and the general difficulties involved in disaster relief across the remote islands. A precautionary approach to water supply is required, adapting to potential impacts early and avoiding recurrent emergency responses and repairs after extreme weather events.

Thus, the OECS Member States identified common grounds to focus on adaptation measures in the water sector. Local stakeholders highlighted that current NDCs in the region do not adequately cover the adaptation needs for the water sector, which was seen as the most suitable sector for additional and ambitious action across the region. Stakeholders further stipulated that the adaptation component should offer opportunities for regional learning and capacity building to help engagement of overseas territories. A further ambition is to lower barriers for tapping into international financial support.

The eligibility requirements for financing from international climate funds under the UNFCCC, such as the Green Climate Fund (GCF) and the Adaptation Fund (AF), are limited to sovereign states with full membership to the UNFCCC. Overseas territories would currently not qualify for receiving resources through these financial mechanisms but could benefit from regional experience gained through implementation support within the OECS as well as from learning and capacity building activities being part of such support.

A noticeable precedent for similar engagement of member states and overseas territories has been set in current OECS regional climate programmes such as I-Land Resilience. This programme is targeting adaptation and resilience of the ecosystem and physical infrastructure through pilot projects across the OECS region, supported by the European Union's Global Climate Change Alliance (GCCA) until October 2018.

Initiatives within the region

Climate change adaptation in the water sector is currently covered by very few projects in the region. Most of the projects at present are 'soft' projects, mostly aiming at providing assessments of sector needs and capacity building. Nevertheless, at least four regional projects can provide starting points and learning opportunities for the development of an OECS wide programme (summarised in Table 4 below).

For example, the "Reducing Risks to Human and Natural Assets Resulting from Climate Change" project (RRACC) is raising awareness and providing training for rainwater harvesting techniques in the OECS, supported by USAID. The "Integrating Watershed and Coastal Areas Management" project IWCAM is building capacities for watershed assessment and protection measures in four OECS Member States, among others, supported by Global Environment Facility (GEF) and implemented by UN Environment[4].

More directly related to adaptation measures discussed within this project (see below), the LAC region Pilot Programme for Climate Resilience (PPCR) by the Climate Investment Funds (CIF) Strategic Climate Fund is providing USD 90 million in financial support for water sector management projects, in addition to mainstreaming and capacity building support across ten LAC countries. The programme is also active in Grenada, Saint Lucia, Saint Vincent and the Grenadines, and Dominica.

The OECS I-Land Resilience programme includes a component on small-scale water security and drought mitigation supported by the EU-GCCA and extending to OECS overseas territories members[5]. The experience with similar efforts in the OECS will help further develop a water sector adaptation programme and enhance access to funding from current bilateral and multilateral partners in the sector including the EU, the NDC Partnership or the CIF, as well as additional potential financing institutions such as the Caribbean Development Bank (CDB) and the GCF among others.

While previous experience with sector needs assessments and awareness-raising is very helpful to develop regional water supply adaptation projects, the noteworthy gap at a regional level regarding regional water supply adaptation projects provides a convincing argument to accelerate access to international and/or bilateral financial support to formulate a regional water supply adaptation programme.

[4] For further detail see: http://www.gwp.org/globalassets/global/gwp-c-files/iwrm-initiatives_carpha_iweco.pdf, and: https://www.stlucianewsonline.com/integrating-water-land-and-ecosystems-in-soufriere-with-more-than-us70000/, and: https://petchary.wordpress.com/2016/09/25/small-islands-big-ambitions-for-better-land-water-and-biodiversity-management-uneps-largest-ever-caribbean-project/

[5] For further detail see: http://www.gcca.eu/regional-programmes/gcca-eastern-caribbean

Table 4: Water adaptation projects in the OECS region

Initiative Name	Location	Focus Area(s)	Finance/ Implementer	Opportunities
Pilot Programme for Climate Resilience	LAC: Grenada, Saint Lucia, SVG, Dominica	Mainstreaming, capacity building, implementation finance	CIF/PPCR	- On-going programme, $238 million, 38% reserved for water resource management projects - Potential financial support
I-land Resilience	OECS: Grenada, Saint Lucia, SVG, Montserrat	Small-scale water security and drought mitigation	EU-GCCA/OECS	- On-going programme, open for the overseas territories - Natural resource protection, capacity building for rainwater harvesting
IWCAM	Saint Lucia, A&B, St Kitts and Nevis, others	Capacity Building	GEF/UNEP	- Watershed assessment and protection measures
RRACC	Grenada, SVG, Dominica, A&B, Saint Lucia, St Kitts and Nevis	Rainwater harvesting	USAID/OECS	- Rainwater harvesting technologies - Awareness raising and training
CREWS	Grenada	Water sector climate resilience	GCF/GIZ	- Blueprint for vulner-ability assessments - Access to GCF support
Multiple small-scale desalination projects	St. Vincent and the Grenadines, Antigua and Barbuda	Solar powered desalination	CCCCC/GCF, World Bank	- GCF feasibility study for desalination in Antigua and Barbuda - Environmental impact assessment for Bequia, the Grenadines
Local water infrastructure upgrades	Saint Lucia (Vieux Fort, Compton Dam)	Restore and upgrade water supply network	GIZ/CDB	- Test case for fundability and support requirements

In addition to existing regional programmes, a number of national initiatives and projects present opportunities for learning and scale-up. In Saint Lucia, GIZ and the Caribbean Development Bank have supported a project to upgrade the water pipeline infrastructure in Vieux Fort, Saint Lucia in 2014; and the CDB has also supported a project to restore the John Compton Dam in Saint Lucia in 2015, which is crucial for the water supply for the north of the island. These projects could provide a starting point to develop cost assessments for similar

investments throughout the region and help develop a business case to attract private capital if desired (e.g. to satisfy GCF criteria).

In Grenada, the GCF is supporting a GIZ project (GIZ-CREWS) to build climate resilience for the water sector, which is currently ongoing and has completed a vulnerability assessment that could be useful for other Member States as a blueprint for similar efforts[6]. This project in particular can provide valuable insights how to tap into, and make use of, GCF funding support.

In St Vincent and the Grenadines, the Caribbean Community Climate Change Centre (CCCCC) and the World Bank have supported small-scale, solar-powered seawater desalination in Bequia in 2015. Meanwhile, in Antigua and Barbuda, the Green Climate Fund is supporting an initial assessment of the feasibility of expanded seawater desalination powered by renewable energy in response to the country experiencing three consecutive years of drought between 2013 and 2016.

While being highly situational, the usefulness and fundability of desalination to address climate change current and projected impacts can be analysed for other islands building on the methodologies and lessons learned through the GCF assessment. Numerous other desalination projects are also underway or completed throughout the region, which could inform the assessment of national circumstances and economic feasibility studies needed for potential additional projects at the regional level.

Gaps, opportunities and challenges for the water sector

The small number of projects completed and currently being implemented across OECS Member States provide insights into suitable and best practice approaches, but fall short of a addressing the full scope of adaptation needs in the sector. Furthermore, the projects broadly focus on additional water supply generation in reaction to existing local shortages, rather than adaptation to impacts caused by future climate change.

For example, most OECS Member States passed regulation for rainwater harvesting to reduce the stress on potable water supply, and installed small-scale seawater desalination plants to supply communities with limited access to other sources of fresh water. Both measures have significant potential for scale-up, but also face important practical obstacles. Generally, harvested rainwater is often unsuitable to replace potable water or at least requires additional treatment. The resilience of the approach is also limited because stored water tends to run out during more extended drought conditions. On a practical level, significant implementation costs to install and maintain rainwater catchment fall on consumers, contributing to poor compliance with the respective regulations. Desalination is currently seen as prohibitively expensive, particularly because the small plants cannot benefit from economies of scale, are not supplied with more affordable renewable energy, and mostly feed into a piping network that has fallen into disrepair – losing up to three quarters of the expensive water during transmission to consumers as non-revenue water.

[6] The Grenada project has been approved by the GCF (**FP059**) and provides USD 42.16 million for the Climate-Resilient Water Sector in Grenada (G-CREWS) with Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. Another water project has been approved by the GCF for Barbados (**FP060)**, providing USD 27.61 million for the Water Sector Resilience Nexus for Sustainability in Barbados (WSRN S-Barbados) with Caribbean Community Climate Change Center (CCCCC).

Regional Initiative I – Water Infrastructure and Supply

Opportunity

Reducing the significant share of non-revenue water across OECS member states to industry standard levels will reduce the need for fresh water supply to meet consumer demand. This will not only address current water shortages and adapt the sector to expected precipitation changes caused by climate change, but also contribute greatly to regional targets of reducing emissions form the energy sector as a mitigation co-benefit. The large energy consumption of water pumps in the mountainous region would be reduced, as pumps no longer need to compensate pressure losses from leakage. Additionally, as less water needs to be produced to satisfy consumer needs, the energy consumption of water supply could drop sharply. Equipping existing and potential additional desalination capacity with renewable energy systems can further reduce emissions from the water sector and guarantee a reliable supply of fresh water during anticipated drought events.

Launching a programme to address water losses and supply on the OECS regional level rather than separate projects in individual member states will generate economies of scale. The member states are facing the same issues, which offers regional learning opportunities and a pooling of expertise and financial resources on the regional level.

Challenges

In some OECS member states (e.g. Saint Lucia), water distribution pipelines need to be mapped first, since haphazard reconstruction and emergency repairs in the past have not consistently been documented. Water providers and regulators lack a complete overview of the existing infrastructure, which is a prerequisite for sound planning. This information is vital for any initiatives to reduce non-revenue water or to improve resilience of the water supply infrastructure, as well as to adapt water sourcing to expected climate change impacts.

Implementation

Against this background of opportunities and challenges, a regional stocktaking effort will be required, which will have to:

1. Engage ministries and water companies to assess the infrastructure;
2. Map the extent and reasons for water losses;
3. Identify weak points in the infrastructure;
4. Estimate the future development of water consumption;
5. Model the impacts of climate change on future water availability; and
6. Finally to develop a needs assessment in each OECS Member State, aggregating this to the regional level.

Some of that groundwork has already been laid in a couple of Member States and the results offer learning opportunities for others. Depending on the outcome of that initial stocktake, adequate response measures could begin with installing bulk water meters to help detect leakage and unaccounted-for water withdrawal; the two principal causes behind non-revenue water.

After assessing the data collected from bulk meters, the next step could be targeted retrofitting of damaged sections of the pipeline network and installing pressure valves. These

measures will help to improve water pressure management to reduce losses and avoid further and future damage to pipelines.

As a second project component, a regional programme could support access to finance and project proposal development for expanding renewable energy based desalination. Issues with the intermittency of solar power could be alleviated with additional water storage capacity.

The two components of i) addressing non-revenue water, and ii) expanding desalination capacities, can be implemented independently or successively, depending on local circumstances and needs. The main advantage of consolidation is to match the adaptation finance agenda of organisations providing international implementation support.

As a stand-alone project, reducing non-revenue water is not directly linked to climate change, whereas desalination relying on renewable energy is strongly linked, because it compensates the effects of climate change on freshwater availability like drying watersheds and groundwater salinization. Since desalination is energy intensive, it is also very relevant for mitigation. In addition to avoiding emissions by using renewable energy sources, the specific circumstances of OECS member states present an opportunity to lower the volume of required water by reducing the very high losses occurring in the water network. Producing and transporting or pumping fresh water both generate emissions, and reducing the non-revenue water share not only reduces emissions from energy needed for water pumps but also reduces the amount of water needed in the first place. Hence, there are quite strong – albeit indirect – links between climate change mitigation and water infrastructure in addition to the adaption benefits in the OECS.

Additionally, the water infrastructure component should improve resilience against extreme weather events, particularly impacts of flooding and landslides. Depending on local circumstances, this could also include retrofitting of damaged and weak sections of the network, as well as relocating sections of the main distribution network to avoid areas that are especially prone to flooding and damage from landslides.

The OECS Commission could help with developing the programmatic approach, translating initial pilot project experience into regional best practices, seeking financial support, and developing implementation plans and regional trainings for water facilities and infrastructure maintenance.

Next steps towards implementing the water infrastructure and supply adaptation project:

I. Seek initial financial support for a detailed member state stocktake, ideally including:
   a. Mapping of existing water distribution networks
   b. Measurement and analysis of the share of non-review water in overall water consumption
   c. Mapping of distribution losses
   d. Identification of local needs for additional desalination capacity
   e. Cost-benefit analysis of available technologies to reduce non-revenue water
   f. Environmental impact assessment for suitable desalination technologies

II. Develop a bankable regional programme

a. Establish the institutional framework at the OECS
b. Cost assessment for effective pilot programme implementation at the OECS level
c. Regional stakeholder consultations and inter-ministerial coordination
d. Technical project development to establish a suite of projects on the national level
e. Seek financial support for programme implementation

5 Implementation and Funding Options

This study is just the first the building block of a future Regional Climate Change Implementation Plan. It outlines the potential benefits of regional collaboration and how this can be realised by the OECS. In order to take it further there is a need to dedicate sufficient time and resources to implement the recommended actions.

Fortunately, there are a number of organisations focused on delivering climate change initiatives across the region. Leveraging their networks and expertise could be fruitful for scaling the regional plan beyond this initial study. Examples include:

- The **Caribbean Community (CARICOM)** hosts working groups devoted to knowledge-sharing and capacity-building for sectors such as electric mobility;
- The **Caribbean Community Climate Change Centre (5Cs)** is linked to CARICOM – hosting climate data and providing policy advice for the CARICOM Member States; and
- The **Nationally Determined Contributions (NDC) Partnership** is a global initiative, funded by the German Government, which seeks to scale-up and implement NDCs by providing strategy advice and helping countries partner with international institutions to achieve such.

Whilst these organisations can help the OECS Member States understand what implementation support is available, and help them access it, they themselves are unable to overcome a key obstacle to action – finance.

Access to finance is a barrier that prevents many proposed climate initiatives progressing to implementation across the OECS Member States. However, sources of climate finance are growing, and there are a number of different opportunities to access such sources for the Eastern Caribbean region. As previously mentioned, the larger scale that regional projects can achieve through aggregation is likely to make such projects more attractive to investment.

In this section, we have outlined a number of potential investment sources from:

1. International climate finance institutions;
2. Bilateral donors; and
3. Philanthropic funds.

International Climate Finance

In recent years, global efforts to scale-up climate change action have led to a vast increase in the amount of finance available from international institutions for both mitigation and adaptation activities. Below, there are several case studies of key international sources that may be in a position to finance programmes under the umbrella of the Eastern Caribbean Regional Climate Change Implementation Plan.

Name	NAMA Facility
Logo	NAMA Facility
Mission Statement	Accelerate low carbon development to keep temperature rises to well below 2°C by financing measures that shift challenging sectors in a country towards a sustainable, irreversible, low carbon pathway.
Funder Country(ies)	United Kingdom and Germany.
Proposal Process	There is an open call for applications. The NAMA Facility provide a proposal template to be completed. Initial information required in the proposal includes: project concept; analysis of barriers to be overcome; the project financial and mitigation ambition; and financing structure.
Upcoming deadlines	The 5th Call for NAMA Support Project Outlines will close on 15th March 2018. There is no public information about a future 6th Call for NAMA support, but the early indications suggest that there will be a 6th Call, which will likely take place in 2019.
Decision dates	The contracting for the next phase (Detailed Preparation Phase – DPP) will be made in late summer 2018. For a future 6th Call for NAMA Support, the decision process and timeline will likely be similar to the 5th Call, with successful concepts moving forward to the DPP stage.
Requirements	An endorsement from a relevant government ministry must be attached to the proposal.
Previous projects funded	The NAMA Facility has funded a wide range of mitigation projects. Those that have reached the implementation phase include: • Chilean self-supply renewable energy • Colombia transit-oriented development • Sustainable urban transport program Indonesia • Implementation of the new housing NAMA Mexico
Indicative funding amount per project	Around €5-20 million for the full implementation phase, with smaller amounts of funding available for initial preparation phases. Implementation periods are generally between three to five years.
Other information	While the NAMA Facility generally provides grants, the implementing partners are encouraged to use such funding to unlock other types of financial support, such as loans. In particular, private investment is encouraged. It would therefore be useful to identify potential financial partners during the proposal phase, such as the Inter-American Development Bank, CAF (Corporacion Andina de Fomento), or the Caribbean Development Bank. It is also worth noting that the Facility has indicated that projects ideas that are building on previous studies will be favoured over those that

	will start from scratch, which would put the Eastern Caribbean regional platform at an advantage.
Next steps	Consider submitting a proposal for the prospective 6th Call in 2019. To produce an attractive proposal, the OECS Commission should select technical partners for the project that can help identify financial institutions to leverage private sector investment. Proposal submission is online, and requires a letter of endorsement from a national government.

Name	Green Climate Fund
Logo	GREEN CLIMATE FUND
Mission Statement	Contribute to achieving the goals of the international community to fight climate change. Support the implementation of the Paris Agreement.
Funder Country(ies)	Mostly developed countries, and some developing countries. The first regular replenishment is to start in 2018.
Proposal Process	Accredited Entities submit concept notes (with no-objection letters from the National Designated Authority, or NDA), and then develop full proposals in discussion with the Secretariat.
Upcoming deadlines	The fund accepts proposals on a rolling basis.
Decision dates	Theoretically within six months from full proposal submission (with a decision made at the board meeting).
Requirements	A no-objection letter from the NDA must be attached to the proposal. Several countries have to endorse the proposal if a regional project.
Indicative funding amount per project	No indicative amount. Funding can be from $1m USD to more than $250m USD. It should be noted that the fund favours scale and impact. However there is also a Project Preparation Facility that finances feasibility studies and similar initiatives. The Carbon Trust is accredited to deliver such programmes.
Other information	Co-financing is a requirement for mitigation projects, but not for adaptation projects. Projects have to be of high quality, impactful, and must meet the investment criteria of the fund, including being transformational and having clear measurable outcomes.
Next steps	The concept should be refined, an Accredited Entity should be identified and a concept note prepared. If a Direct Access Entity is carrying the project (OECS is in the process of being accredited), a request for project proposal support can be submitted (up to the value of $1.5m USD).

Name	Climate Investment Funds
Logo	CLIMATE INVESTMENT FUNDS
Mission Statement	The $8.3 billion Climate Investment Funds (CIF) provide 72 developing and middle income countries with urgently needed resources to manage the challenges of climate change and reduce their greenhouse gas emissions through four programs: • $5.6 billion Clean Technology Fund to scale-up demonstration, deployment and transfer renewable energy, efficiency and sustainable transport technologies; • $1.2 billion Pilot Program for Climate Resilience to integrate climate resilience into development planning and public and private sector investment for developing countries; • $0.78 billion Scaling Up Renewable Energy in Low Income Countries Program to help the world's poorest countries increase energy access and economic growth through renewable energy solutions; and • $0.78 billion Forest Investment Program to address deforestation, forest degradation and sustainable forest management.
Funder Country(ies)	Australia, Canada, Denmark, France, Germany, Japan, South Korea, Netherlands, Norway, Spain, Sweden, Switzerland, UK, USA.
Proposal Process	The CIF operates a programmatic approach to proposals. Countries (including Dominica, Grenada, St Lucia and St Vincent and the Grenadines from the OECS so far) or regions (there is a Caribbean Region Programme for Climate Resilience) submit strategic programs and then investment plans to the CIF. Once these are approved, implementation of specific projects can begin through partnering with relevant multilateral development banks (MDBs) who can access the funds and distribute them locally. In the case of the Caribbean this includes the World Bank and the Inter-American Development Bank.
Upcoming deadlines	The CIF operates rolling calls for proposals. The latest of which meant that they have allocated all of their initial $8.3 billion of capital. Therefore at the moment there are no upcoming deadlines if interest for new proposals.
Decision dates	N/A
Requirements	Each of the four programmes outlined above will have specific eligibility criteria. The overarching requirement is that proposals must be submitted by the appropriate MDBs in order to access CIF finance. Individual proposals must fit with the strategic priorities and investment plan for the country or region in focus, as per their prior submission to the CIF.

Indicative funding amount per project	The CIF provides between $1 million and $200 million of concessional finance (predominately loans but sometimes for other financial instruments or technical assistance) per proposal, with the partner MDB providing a substantial in-kind contribution (although this will not be as concessional as the CIF finance).
Next steps	There are ongoing discussions with donors regarding the potential shape and size of a follow-on round of finance. To ensure the OECS region is prepared, it should identify who are the key contacts within the relevant development banks for accessing CIF finance in the future and build relationships and proposals with them to implement in the future. For Member States that have not submitted an investment plan to the CIF, this is a high priority first step to securing any future funding.

Bilateral donors

Bilateral donors are also a common source of finance for climate mitigation and adaptation projects. Finance may be provided in the form of grants or ODA loans, which often varies by donor country (Atteridge et. al 2017). In many cases, there will be an in-country representative of the donor organisation responsible for coordinating funding who should be the first port of call for funding conversations.

The **European Union** is an important donor to the Caribbean region, with a number of programmes that fund climate action in the region. An example of this is the Global Climate Change Alliance+ (GCCA+), which provides technical assistance, and promotes regional collaboration through dialogue, knowledge sharing, and partnerships. The GCCA+ has already supported a sustainable land management programme for the OECS, and is therefore active in the region. Lessons from this programme can be taken when considering accessing GCCA+ finance for a regional plan.

The European Union has also provided technical assistance, grant funding and risk capital to the Caribbean region through the Caribbean Investment Facility (CIF). The CIF supports investments in 15 Caribbean countries, including some, but not all, of the OECS Member States, and highlights transport and water infrastructure within its key priorities.

The United Kingdom **Department for International Development** (DFID) have pledged to provide up to £300m grant financing to 2020 to set up the **UK Caribbean Infrastructure Programme** (UKCIF). The fund is administered by the Caribbean Development Bank (CDB). The fund targets official development assistance (ODA) eligible nations, which includes Antigua & Barbuda, Dominica, Grenada, Saint Lucia, St. Vincent & The Grenadines, and Montserrat.

KfW Development Bank (Bank aus Verantwortung) works on behalf of the German federal government to provide support to protect the environment and climate internationally. The Latin America and Caribbean region is highlighted as significant particularly with regard to international climate policy, and both sustainable transport and water are mentioned as important regional aims.

It is likely that many of these donors will have previously funded projects in the OECS region, and that there are existing relationships between funders and Member States. Where these relationships can be utilised, they may provide a start point for conversations around funding new projects and programmes.

Philanthropic funds

Philanthropic funds are large sources of charitable funding made available by individuals or organisations to achieve specific goals. Several high profile philanthropists have made climate action a priority, providing a potential source of finance for programmes identified by the regional platform. Some example philanthropic funds are mentioned below.

The Clinton Foundation has a history of funding both climate action and programmes in the Caribbean region. The Clinton Climate Initiative is the arm of the Clinton Foundation that supports measures to fight climate change. The Clinton Climate Initiative have funded the Islands Energy Program to support renewable energy projects in small island nations, and thus an Eastern Caribbean platform complements this remit.

Virgin Unite is the entrepreneurial foundation of the Virgin Group and the Branson family. Market-based solutions towards addressing climate change is identified as one of four target areas for positive change. Virgin Unite covers the overheads of a related foundation: **Unite BVI**, a foundation that works in particular with the British Virgin Islands.

Incubated by Virgin Unite, **Carbon War Room** has worked with St. Vincent and the Grenadines and St. Lucia to develop clean energy roadmaps. The Carbon War Room merged with the Rocky Mountain Institute in 2014, and has since operated as part of the Institute. Utilisation of these pre-established relationships could provide a way to access finance for regional projects.

In order to engage these funds, the primary step would be to leverage existing relationships. In general, philanthropic funds have less regimented funding schedules than international climate financers, and do not have such strict deadlines for propositions. Although philanthropic funds may provide calls for proposals, many of them do not accept unsolicited proposals, and funding occurs through networking.

6 Next Steps

This section outlines a roadmap for how the OECS Commission and its Member States can move forward with the Eastern Caribbean Regional Climate Change Implementation Plan. At the second project workshop, which took place in St. Lucia in February 2018, there was consensus around the importance of keeping the momentum going beyond the end of this particular project.

The following stage of the project thus looked to develop a realistic, indicative timeline for implementing the regional plan. This was presented and discussed via a webinar with local stakeholders on 1 March 2018 - the final result can be found below.

At this preliminary stage, the regional plan could take two possible paths:

I. Widening the scope of the plan to further mitigation and adaptation sectors before moving to implementation; or
II. Progressing towards implementation of the programme ideas in the two prioritised sectors.

Should the Member States and OECS Commission agree that the former choice is appropriate; a repeat of the prioritisation process described in Section 4 would help to prioritise additional focus sectors to investigate regional collaboration opportunities.

For approach II, a vital requirement is for a comprehensive cost-benefit analysis of each programme. The quantification of the programmes is essential to underpin a business case and communication strategy for engaging key stakeholders.

Below is an indicative roadmap for targeting implementation of the regional plan, or elements of it, by late 2019.

Date	Milestone	Action(s) to be taken
March 2018	Close of initial project	Disseminate report findings and programme ideas with local stakeholders.
Mid 2018 (tbc)	OECS Commission Meeting	Launch findings of initial scoping study and secure Member State buy-in for implementing a regional climate change plan.
April – August 2018	Secure short-term funding	Attempt to secure short-term funding to perform the in-depth design of the regional plan, e.g. through: • GCF Readiness Support; • Bilateral donors; • Philanthropic funds. Recommend prioritising sources of funding where strong relationships already exist with OECS and/or Members States for efficient progress.
August – December 2018	In-depth design phase	OECS to develop a delivery framework for a Regional Climate Change Implementation Plan: • Designate OECS lead contact; • Establish working groups to focus on priority areas – e.g. transport and/or water; • Undertake cost-benefit analyses of priority regional initiatives; • Set up regular meetings to discuss progress and findings across the region; • Create full programme proposals ready to present to funders.
December 2018	COP24, Katowice, Poland	Disseminate the progress of the Regional Climate Change Implementation Plan at an official side event. Connect local stakeholders to key international organisations and donors through working sessions.
Early 2019	Seek long-term funding for implementation	Develop and submit full programme proposals to sources of long-term finance, e.g.: • NAMA Facility (6th Call March 2019) • GCF (ongoing calls for proposals) • CIF (CIF II currently under discussion) • Bilateral donors e.g. EU, UK, Germany • Philanthropies e.g. Clinton Foundation, Virgin Unite, Carbon War Room
Late 2019	**Begin implementation of regional climate change activities**	

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