



Auditor General's Report on the Greenhouses Project



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I. Background Information

1. Agriculture has historically been one of the BVI's economic mainstays, but with an increase in demand for variety, quality and quantity of produce and ready access to goods from overseas, the local agricultural industry has over the past fifteen years steadily declined as a significant national revenue generator. In 2007, the newly elected Government sought to regenerate the ailing agricultural industry and boost local production. Taking advantage of technology, the Government sought to introduce the use of greenhouses in farming which, if successfully implemented, had the potential to generate renewed interest in the farming sector and promote production of vegetables sufficient to drastically reduce importation of the same.
2. Implementation of this initiative would require investment of resources and call for training of individuals to operate and maintain the proposed greenhouse facilities. To facilitate variety, it was envisioned that the units could be used for hydroponic farming (one acre), regular plantation dirt based planting (three acres) and bucket/container farming (two acres).
3. The Ministry of Natural Resources and Labour invited the Florida based firm International Business and Trade, LLC (IBT) to assess the feasibility and sustainability of using greenhouses for large scale agricultural production in the BVI.
4. Representatives of IBT visited in October 2007 and submitted a report on 20 November 2007 which concluded that greenhouses can be viable in the BVI and yield considerable amounts of produce to satisfy local demand. The Ministry, in partnership with the Department of Agriculture set out to put in place the groundwork to facilitate and resource this initiative that was anticipated to bring some measure of food security to the BVI.
5. In May 2008 a delegation including the Minister of Natural Resources and Labour and comprising members from the Ministry and Department of Agriculture, travelled to Dominican Republic to tour greenhouse facilities and assess whether and how similar systems could be applicable to the BVI. Two Inverca designed greenhouses were visited.
6. The Chief Agricultural Officer, who was a member of the delegation, to Dominican Republic would later assess that commercial greenhouse production could be applied and was feasible for the BVI. Viewing it as an opportunity to increase short crop production several times the current amount and having the potential to serve as a training facility for farmers and potential farmers, he added his endorsement to that of the Ministry's. Additionally, he believed that an operation like the ones visited would boost the Agricultural Industry and minimize the amount of produce being imported into the territory.
7. In June 2008 IBT's associates, Inverca (greenhouse designers and manufacturers from Spain), visited the BVI to provide information about their product. Following this, IBT submitted to the Government an estimate of \$5,555,980.80 for providing and installing six greenhouses in the BVI, each with a ground cover of one acre. The proposal provided two options. In the first option IBT would provide a turn-key project and financing would be negotiated with an affiliated financial institution. In the second option IBT would build and operate the greenhouses and sell the produce to the Government. IBT estimated that it would

take 24 days to build each of the one acre (4080 square metre) greenhouses. This should allow the entire project to be completed in 10 months.

8. Cabinet, on 2 July 2008, endorsed the initiative and authorised the Ministry to undertake a pilot project to produce food crops using greenhouse technology. The venues to be considered for the project were Paraquita Bay, Tortola and South Sound, Virgin Gorda. The projects were to be executed on crown land.

9. Cabinet also agreed that IBT would build and operate the greenhouses and sell the produce to the BVI Government for a specified period of time (not then stated) before it is handed back over to the Government. This decision was later superseded by another on 4 December 2008 in favour of a turnkey development which would be handed over to the Government after commissioning. The project was to be funded via a loan facility sourced by IBT.

Objective, Scope and Methodology

10. The objectives of this examination was to determine whether the project was executed with due regard to the principles of value for money. The audit included examination of the files, records and contracts pertaining to the Greenhouse Project as well as interviews with key personnel at the Ministry of Natural Resources and Labour and the Department of Agriculture who were involved in the process. The audit also included visits to South Sound, Virgin Gorda and Paraquita Bay Tortola where the project was undertaken. The review covered the period October 2007 to December 2013.

Scope Restriction

11. The audit examination was restricted in the following respects:
- i. The former Permanent Secretary of Natural Resources and Labour, Mr Clyde Lettsume, who administered the project during its major period of activity from commencement in 2008 to February 2011, was contacted to be interviewed. The request for an interview was not accommodated.
 - ii. Cabinet Decisions related to the project were requested from the Cabinet Secretary but were not provided. This constitutes a severe restriction as the Cabinet Decisions provide critical information regarding the authorization, scope and objectives of the project and by implication form a part of the audit criteria.

II. Implementing the Greenhouse Initiative

Implementation

12. A contract for installation of the greenhouses was executed by the Ministry without sufficient planning or preparatory work for site, utilities and other related costs thus creating problems with coordination and leading to unanticipated costs.

13. With Cabinet approval in place, the Ministry moved ahead with execution of contracts to have the greenhouses requisitioned and installed without first addressing the preliminary and preparatory requirements that needed to be in place.

14. Before the greenhouses could be installed, the sites needed to be identified, cleared, and leveled. The platforms for the structures would then be prepared to specifications and the infrastructure to provide adequate drainage and utility access put in place. Adequate water access and sufficiency would also have to be addressed as an item critical to the successful implementation of the project. Proper planning would also entail a comprehensive approved budget, and a plan outlining the project phases and the requirements for each.

15. None of these items were addressed when on 10 February 2009 the Minister executed a contract with IBT to design and construct six greenhouses in the BVI.

16. The notice to proceed was to be issued 14 days after signing and the greenhouses were to be installed and commissioned on Tortola and Virgin Gorda within 10 months of the commencement date. After the contract was signed, the Ministry would make sporadic requests for funding from the Ministry of Finance throughout the course of the project as the various needs of the project were brought to the forefront.

17. On 11 August 2009, seven months after executing the agreement with IBT, the Ministry of Natural Resources and Labour contracted Mirsand Town Planning and Architects Ltd. (Mirsand) as Project Managers to oversee preparation of the site works for building the platforms and infrastructure needed to accommodate the greenhouses.

18. At this time the parts for the greenhouses were being prepared for shipment to the BVI and there was an expectation by IBT that they would be able to commence erection of the structures in a month's time.

19. But before commencing any earthwork Mirsand, the project managers, had to first ascertain availability and adequacy of the land to be used for the project.

Site Planning

20. The site locations were not adequately researched to confirm availability. This resulted in changes to the initial location and additional costs.

21. The project would require a total of six acres of surface land area for the greenhouses plus space for supporting structures and infrastructure. One of the first issues encountered was

the availability, or otherwise, of land on the designated sites. In late August 2009 after receiving the cadastral survey for the Paraquita Bay area, Mirsand discovered that some of the land that had been earmarked for the project was leased to farmers and would not be available. The options were to either cut into the hillside to create flat land or to demolish the existing buildings where the meat marketing was located and use that area in conjunction with the area for the animal pound for the project. Mirsand recommended the latter which would be less costly.

22. Six weeks later in October 2009 additional discrepancies were discovered with other allotted plots which were supposed to be vacant but were in fact being actively farmed with a building also located on the site. Adjustments had to be made to the plans to avoid encroachment on the farmed area. At this time the earthworks at Paraquita Bay had commenced but a decision for the location on Virgin Gorda was still pending. The shipments of greenhouses had already begun to arrive.

23. The earthwork in Paraquita Bay to prepare the platforms and infrastructure was undertaken by truckers and heavy equipment operators engaged by the Government as day workers. The works were carried out under Mirsand's supervision and lasted from October 2009 to June 2010. By June the works were sufficiently advanced and the Notice to Proceed was agreed between the parties authorizing IBT to commence on 28 July 2010.

24. In preparation to commence IBT arrived in the territory in June 2010 and performed an inspection of the sites and the shipped equipment.

Storage

25. *Poor coordination at implementation led to the need for long term storage of the greenhouse structures. Improper storage of some of the items resulted in damage to some of the items and additional unanticipated costs.*

26. The original plan for installation of the greenhouses showed a tight timeline whereby assembly of the structures would commence shortly after landing in the BVI making the need for storage relatively minimal. Operating on information from the Ministry that the project was to be expedited, IBT commissioned the greenhouses from Spain and arranged to have them shipped to the BVI. The delays in readying the sites created a critical need to store the greenhouse structures until such time that they could be installed.

27. IBT, in advising of the likely storage costs, asserted this was the result of Government related delays and should therefore be borne by the Government. The Ministry of Natural Resources and Labour agreed to assume the costs for storing and securing the shipped material as this was in keeping with the terms of the contract which provided that storage was the responsibility of the Government.

28. Initially the items remained in the shipping containers which were transported to Paraquita Bay, however, when the containers had to be returned to the shipping agency the Government was forced to find alternative storage. Warehouse space was rented at Fish Bay and the items were transported there for storage. Some however remained at the Paraquita Bay site and were covered with tarpaulin.

29. IBT's pre-commencement inspection in June 2010 revealed that some of the equipment left at the Paraquita Bay site had been damaged as a result of improper storage and exposure to the elements. They would subsequently claim and receive reimbursement of \$13,437.50 from the Government.

30. By January 2012 the Paraquita Bay greenhouses had been assembled and were sitting inactive for almost a year awaiting commissioning. The structures for Virgin Gorda were being stored in the rented warehouses and the works were at a standstill. With the storage costs steadily mounting, a decision was taken to remove the items from the warehouses and place them into two storage containers at Paraquita Bay. Mirsand, at this time, expressed some uncertainty as to whether all the shipments had been received for the greenhouses. In particular, there was concern that some items for the irrigation system had not been received.

31. IBT had already suspended works and left the territory, but agreed to return to supervise an inventory count and the transfer of items to the new location. Once in the territory they advised that the two proposed containers would not be sufficient to hold the items. Eight containers would be required. The inventory count was not performed because no preliminary arrangements had been made for manpower (10-15 men) and equipment, and these could not be sourced in the short time frame requested. The technicians who were on island from 2 to 11 February 2012 left the territory without accomplishing the two tasks they had arrived to perform. The items remained in storage at the Fish Bay warehouses.

32. At this time the main obstacles to the works continuation were a pending claim by IBT and the unavailability of adequate water supply to the Paraquita Bay site.

Utilities

33. *Water and electricity which were essential to the project and required to be in place prior to installation of the greenhouses were not available until several months after the notice to proceed was issued.*

34. From inception, IBT emphasized the need for the greenhouse complexes to have access to sufficient quantities of water. Throughout the project they would repeatedly raise concerns about this apparent limitation and emphasize that the success of the project's outcome would be directly related to the availability of an adequate supply of water needed to support plant growth. The structures would also require electricity to be functional. The infrastructure supporting these two essential utilities needed to be in place before the greenhouses could be installed.

35. In June 2010 prior to commencing the greenhouses installations, IBT noted that neither the water nor the electrical infrastructure and facilities had been put in place. In January 2011 with installation of the Paraquita Bay greenhouses in the final stages the site still did not have electricity and water access. The public water connections to the Paraquita Bay greenhouses were completed in March 2011 and electricity installations shortly before that. By this time the work on the project was at a standstill.

36. To ensure a constant supply of water, it was decided that both sites would require water storage facilities. In February 2011 the Government received quotations for two water tanks, each with a capacity of 364,000 gallons, for the project. The cost for these, \$511,000, was submitted to the Ministry of Finance for inclusion in a SAP. The requested funding was not provided.

37. Water to the Virgin Gorda site posed a greater problem. There was no water access installed at the designated site and, IBT repeatedly expressed concerns that there was insufficient supply in the area to adequately support the ongoing needs of the greenhouses. As a possible solution, IBT recommended installation of a desalination plant on the island at an estimated cost of \$1,384,800. The issue of adequate water supply has not been adequately addressed on either site.

III. Procurement and Contractors

38. *The public procurement process was completely bypassed on a project that cost the Government in excess of six million dollars. At no stage in the process was competitive tendering engaged in the securing of contractors.*

39. IBT was engaged by the Government, on 10 February 2009 for \$5,481,084 to design and construct the greenhouses without any solicitation for, or submissions from, alternative contractors. The Government, in addition, also signed a service agreement with the IBT to provide support and resource personnel (an engineer/agronomist and two experienced foremen) for commissioning and running the greenhouses, without consideration of alternatives. The latter agreement was one of the conditions in the main, design and construction contract and was signed on 6 February 2009 for an amount of \$225,000 per annum.

40. Mirsand Town Planners was contracted by the Ministry as Project Managers to oversee the project. In particular, the preliminary preparatory works that needed to be completed before IBT could commence installation. The company was initially engaged on 11 August 2009 for \$100,000 to provide Project Supervision, Quantity Surveying and Engineering Services on the Greenhouse Development project. The Ministry of Natural Resources and Labour would subsequently award this company three additional petty contracts of \$100,000 each (two in December 2009 and one in May 2011) without any effort to engage the tender process or secure competitive submissions.

41. The contract splitting for the first three petty contracts was done without seeking a waiver from Cabinet. Permission to waive the process would not be sought until 15 October 2010 and approved on received on 24 Nov 2010. In the end, this company was paid a total of \$781,729.07 on the greenhouse project without tender and without completion of the project.

42. Similarly, the earthworks were preformed on both sites without any form of tendering. On Tortola, this was done by engaging several heavy equipment operators and truckers on a day-works basis and without contracts. This left the amounts open and resulted in sums being paid to some of the operators in amounts that would qualify for the major contracts.

43. In September 2010, Enchantment Holdings was engaged, on the promise of a major contract, to perform the preparatory earthworks on Virgin Gorda for the sum of \$644,455 and instructed to begin works immediately. A major contract for this amount signed two years later after the engagement was regularized by Cabinet with a waiver.

44. More information regarding the contractors is provided later in this report.

Procurement and Installation – International Business and Trade LLC (IBT)

45. *International Business and Trade suspended work on the project pending resolution of their payment request and outstanding matters which were impeding completion of the project.*

46. IBT's design and construct contract outlined a very specific timeline for an expedited project that would be completed ten months after commencement. Under the contract the Government was to issue a notice to proceed 14 days after execution of the agreement setting out the commencement date. Shipments of the greenhouse structures would commence 14 days from the notice to proceed and be in the BVI within eight weeks of the notice to proceed for immediate commencement of installation. Installation of the Tortola Complex was to be completed within ten weeks from delivery of the structures on Tortola. In effect the Paraquita Bay greenhouses would be completed in an estimated 18 weeks after commencement date.

47. The design and construct contract stipulated that the Government would provide IBT with prepared project sites on Tortola and Virgin Gorda suitable for the installation of the greenhouses which would include paved parking, fencing, lighting, landscaping and drainage. The sites would also be free from constraints and be provided with three phase electricity, telephone service, and a constant supply of water in accordance with specifications.

48. The site would not be sufficiently ready until June 2010. Notice to proceed was issued for 28 July 2010. By that time the greenhouse structures had already been shipped to the BVI and had been in storage for several months. IBT technicians arrived prior to commencement date and performed site inspections required under the contract to ensure that the sites were ready for installation. They reported damaged equipment and the absence of electricity and water utilities required for the greenhouse operations at the Paraquita Bay site, and on Virgin Gorda, the absence of any preparations.

49. IBT commenced installations of the structures at Paraquita Bay with oversight of the manufacturer's technicians MSC Fabricas Agricolas (MSC) and with the assistance of three local sub-contractors that had been nominated by the Ministry. The subcontractors, Crabbe Construction, C&E Construction and Boysie Fahie were employed by and paid from IBT. The installations commenced July 2010.

50. By February 2011 installation of the greenhouses at Paraquita Bay was substantially complete. IBT was awaiting the arrival of drainage pipes which needed to be installed and for Mirsand to arrange backfilling around the structures to allow the irrigation systems to be completed. With this done, the only impediment to commissioning would be the absence of water and electricity to the site. Installation of the greenhouses had not commenced on Virgin Gorda as that site was not deemed sufficiently ready. At that time the earthworks for one of the

platforms were complete and the other two platforms were 80% and 20% complete. IBT's work on the project was drawing to a standstill.

51. IBT, on 11 February 2011, submitted two requests for payment. The first was to cover a variation to the contract sum which dealt substantially with transporting the greenhouse structures between the warehouses in Fish Bay and the site at Paraquita Bay. This totaled \$127,856. The second was a request for a "Taking Over Certificate" for the Paraquita Bay greenhouse complex to allow the company to be paid \$1,027,703.25.

52. The contract agreement provided that a Taking Over Certificate was to be issued when the works were substantially complete. This would serve as authorization for Deutsche Bank to make the second payment of \$2,055,406.50 to IBT. The payment was however reliant on completion of the entire project which would include installation of the greenhouses on Virgin Gorda, followed by testing and commissioning on both sites to ensure that they were functional. Taking this into consideration, IBT's application was for half of the stipulated payment. However as there is no provision in the contract to allow for partial completion, the Ministry did not consent to issuing the Taking Over Certificate.

53. This refusal was followed by a letter from IBT's lawyers, Ackerman Senterfitt (Ackerman) dated 16 May 2011 advising that the non-completion of the project was the result of the Government's failing to satisfy their side of the contract i.e. providing ready sites on both islands with provision for water and electricity. It also claimed that the Government had failed to meet its financial obligations by not approving the two claims submitted by IBT in February.

54. The lawyers advised that unless payment was made in 14 days, work on the project would be stopped. However, if the payments were approved and the Government satisfied the conditions preventing completion, IBT would return to the site and finish the installations as required by the contract.

55. The payments were not made to IBT and a formal notice to cease works was issued by the company to be effective on 3 June 2011.

56. The parties conferred in an attempt to resolve issues surrounding the payment and the outstanding works. The Ministry suggested that an addendum to the contract could be adopted to allow the works on Virgin Gorda to be treated as a separate project allowing for a taking over certificate to be issued for the Paraquita Bay site.

57. In addition, IBT was asked to submit payment certificates for their work done to Mirsand for verification. Two such certificates were submitted on 20 June 2011. The first in the form of a contract variation for \$127,856 and the second for work done to date on the project in the amount of \$574,673.63 determined as follows:

IBT's Payment Submission For Works Completed	
Description	Amount \$
Total Completed and Stored to Date	3,835,825.26
Less: Retainage 10%	(383,582.53)
Less: Prior Payments Per Contract	<u>(2,877,569.10)</u>
Due for Completed work & Stored Materials:	<u><u>574,673.63</u></u>

58. Both certificates were reviewed by Mirsand and approved for payment. These were not, however, paid. The IBT representative left the territory in June 2011, with the project still in an indeterminate state.

59. At the time of writing, the balance on the IBT contract was \$2,603,514.90 (with variation this becomes \$2,731,370.90). Of that amount, \$574,673.63 was certified and due for payment. The balance of \$2,028,841.27 will not become payable until after completion of the Virgin Gorda greenhouses and commissioning on both sites. The schedule below is relevant.

IBT Contract Balances			
Description	Amount	Variation	Total
Contract Sum	5,481,084.00	127,856.00	5,608,940.00
Amount Paid on Contract	(2,877,569.10)	-	(2,877,569.10)
Balance on Contract	2,603,514.90	127,856.00	2,731,370.90
Certified for Payment	574,673.63	127,856.00	702,529.63
Work Pending	2,028,841.27	-	2,028,841.27

60. In addition the \$2,877,569.10 quoted above as paid to the contractor, IBT also received payment of \$13,437.50 in compensation for damaged inventory.

Project Management - Mirsand Town Planners and Architects Ltd.

61. *Mirsand was engaged under an open-ended arrangement which was allowed to mushroom into substantial costs to the Government.*

62. Mirsand Town Planners and Architects Ltd. was contracted by the Ministry as Project Managers to oversee the project. In particular the preliminary preparatory works that needed to be completed before IBT could commence installation.

63. In May 2009, Mirsand submitted a proposal to provide professional services on the project. The proposal did not state a fixed fee for the works but provided billing rates as indicated below plus reimbursables.

Billing Rates Proposed By Mirsand

- i. Fee for time spent on the project of \$100.00 per hour*
- ii. Reimbursement for providing photocopies, site photographs, drawings, use of telephone, trips.*
- iii. Additional charges for changes in services to be applied at stated rates: Principal \$120.00 per hour; Engineer/Consultant \$100.00 per hour; and Technician \$40.00 per hour.*

64. Mirsand was engaged based on this submission. The reason provided by the Ministry for foregoing the tender process was to secure a company with bilingual capacity to facilitate working with the greenhouse suppliers from Spain. This assumed that other potential contractors would not be able to satisfy the criteria for a bilingual principal. It also failed to take into

consideration the long term users and maintenance personnel of the facilities who may need to communicate with the suppliers and will likely not be bilingual. Therefore greater weight should have been given to engaging a supplier who is competent in English and can support long term needs of facility.

65. Mirsand was issued four petty contracts of \$100,000 each to perform on the project as indicated below.

Petty Contracts Awarded to Mirsand Town Planners & Architects Ltd.				
Date	Contract #	Description	Period	Amount
11 Aug 2009	30 /2009	Project Supervision, Quantity Surveying & Engineering services	11 Aug 09 – 31 Dec 09	\$100,000
04 Dec 2009	41 /2009	Project Supervision	04 Dec 09 – 04 Jun 10	\$100,000
04 Dec 2009	42 /2009	Quantity Surveying	04 Dec 09 – 04 Jun 10	\$100,000
05 Apr 2011	06 /2011	Project Supervision, Quantity Surveying and Engineering	01 Jan 11 – 31 Dec 11	\$100,000

66. After the second and third petty contracts expired in June 2010 the Ministry sought Cabinet's approval for the tendering process to be waived to allow for a major contract to be awarded to Mirsand in the amount of \$305,200.

67. Cabinet, on 24 November 2010, approved the waiver on the condition that the major contract of \$305,200 would replace petty contracts 41 and 42. This had the effect of approving an additional sum of \$105,200 for Mirsand. The Attorney General Chambers would subsequently advise that the two petty contracts were duly executed documents and could not be superseded. Thus, compliance with Cabinet's approval meant issuing a contract in the amount of \$105,200. No contract was ever issued to Mirsand in the amount of \$105,200.

68. In April 2011, Mirsand met with the Ministry to clarify issues surrounding their engagement and to seek payment of their outstanding fees. Referring to the project in phases Mirsand explained that:

- i. "Proposal A" referred to preliminary and preparatory works for the greenhouse structures including supervising earthworks, infrastructure development etc. at Paraquita Bay and South Sound;
- ii. "Proposal B" was for works ancillary to the Greenhouse Project including designing and supervising works on the marketing building, pigpen and animal pound.

69. The \$305,200 fee sanctioned by Cabinet related to "Proposal B" for design and supervision of the ancillary works which had not yet commenced. This was supported by their estimate to the Minister dated 29 June 2010 which detailed fees for the ancillary works at \$305,200 plus expenses and reimbursables. Mirsand claimed that they had already performed designing works and partial construction management for this aspect of the project and estimated (conservatively) their claimable professional fees for the work already done at \$91,560.

70. Mirsand explained that the works that they had been substantially performing was related to "Proposal A" supervising the earthworks and site preparation for the greenhouses. Their fee estimate for "Proposal A" was \$700,000, which they said is what should have been taken to Cabinet for approval. Examination of Mirsand's proposal to the Minister dated 4 May 2009 does not quote a total amount for the services only staff rates plus expenses and reimbursables. The amount of \$700,000 is not stated anywhere in the proposal. A subsequent/amended proposal for the same services dated 29 June 2010 stipulated the service fee of \$700,000 for the works.

71. Their total fee for professional services on the Greenhouse Project was therefore \$1,005,200 plus expenses and reimbursables. This was an increase of 905% over their initial petty contract of \$100,000. And without any form of public tender.

72. Mirsand assessed that they had been paid \$447,337.29 on the project and were owed \$151,398.60. Their submissions for payment to the Ministry were based on time spent on the project using the fee schedule appended to the contract.

73. At that time the Treasury's records indicated that a total of \$497,998 had been paid to Mirsand on the Greenhouse Project. The value of the existing contracts had been drastically overspent and the Treasury was refusing to honour further requests for payments on timesheets and invoices.

74. The Ministry issued a fourth petty contract in the amount of \$100,000 to Mirsand dated 5 April 2011 for Project Supervision and Quantity Surveying on the Greenhouse Project. This was, ostensibly, to facilitate further payments to the contractor.

75. Concerned about the project's mounting costs, Cabinet, on 6 April 2011, requested an assessment of the project to determine the total value of the work completed and the payments made to date. This was performed in May 2011 by the firm of quantity surveyors BCQS International. The completed works on both sites were estimated to be valued at \$4,802,021.09. At that time the Treasury Records indicated that \$5,058,556.32 in construction related costs had been paid out on the project. An additional \$157,253.49 was spent on travel, agronomist wages, storage and other related costs. The total was \$5,215,809.81. These payments do not take into account outstanding claims by Mirsand (and Enchantment Holdings).

76. In November 2011 Cabinet amended the decision made a year earlier for a \$305,200 major contract to Mirsand by increasing the contract amount to \$700,000. This was done with the intention of covering Mirsand's fees for the entire project. The decision had the effect of absorbing the last three petty contracts, covering other amounts already paid to Mirsand outside of the contract sums and providing additional funding of \$104,055.90. This decision was subsequently amended upwards to \$107,038.72 by Cabinet on 15 August 2012.

77. This amount was deemed unsatisfactory by Mirsand who submitted a counterproposal for the payment to be increased by \$157,422.82. The Ministry reviewed the counterproposal and based on invoices submitted by the company agreed a reduced amount of \$94,899.57. This was ratified by Cabinet, bringing the total for the settlement contract to \$201,938.29. This amount was paid to Mirsand in May 2013. With the works still in limbo, the Treasury records show that the Government has paid Mirsand a total of \$797,301.57 on the Greenhouse Project.

78. There were a number of breaches with respect to the arrangements with Mirsand;
- i. Disregard for, and circumvention of, the tendering process;
 - ii. Splitting a major contract;
 - iii. Proceeding with a project ("Proposal B" Ancillary Works) without proper approval and adequate provision for funding which would require both Cabinet and the House approval;
 - iv. Allowing a third party to commit the Government without any written approval (some of the invoices submitted by Mirsand for payment made reference to a "Gentleman's Agreement at the Ministry" instead of a contract document, which is required)

79. In addition, the open ended arrangement that enabled Mirsand to bill the Ministry for "time spent" and "reimbursables" on an ongoing basis and without any controls was contrary to prudent practice. This put the Ministry in an unfavorable position as it could not effectively monitor or verify Mirsand's submissions with any amount of certainty and must take the company's submissions at face value. Arrangements such as this are undesirable as they are open to many forms of abuse.

80. Mirsand's engagement was marked by steadily increasing costs. Despite their June 2010 fee proposal of \$700,000 for the greenhouses preparatory works and \$305,200 for the greenhouses ancillary works, Mirsand, in April 2012, submitted a schedule to the Ministry that showed the fees for these services at \$1,005,200 and \$585,000 respectively. Thereby increasing their engagement on this project to \$1,590,200. The company also claimed that it had already completed work valued at \$154,440 on the Ancillary works and was accordingly seeking payment for this amount and for other charges, on other projects, that it perceived were payable. The settlement agreement executed between the parties in May 2013 would serve to conclude this and other claims on the project made by the contractor.

81. The Ministry's decision to terminate its relationship with Mirsand was prudent. However, the effect of the settlement is that Mirsand has been paid the full amount for supervision of the project notwithstanding the fact that the Virgin Gorda works are incomplete. The proposal clearly included both sites in the \$700,000 fee quoted by Mirsand and ultimately accepted by the Government.

Earthworks Tortola - Various

82. *Earthworks for site preparation at Paraquita Bay were performed with several operators under a day-works arrangement which may have compromised the Government's ability to achieve economy on this aspect of the project.*

83. Mirsand had estimated that the earthworks at Paraquita Bay to cost \$443,845.16. The actual amount paid out to the heavy equipment operators and truckers was \$1,126,241. More than two and a half times the initial estimate.

84. Under day-works arrangements several operators were engaged and paid based on the number of days on site. Invoices were submitted to Mirsand for review, certification and forwarding to the Ministry for payment. At completion of the Paraquita Bay works, five of the day workers had received payments in excess of the major contract sum. These are indicated in the schedule below. Seventeen others received payments in excess of \$5,000 that would have qualified for petty contracts.

Day-workers Paid Major Contract Sums	
Name	\$
Acrete & Landscaping	103,520.00
Khoy Stoutt	109,693.78
D & B Trucking	135,659.38
Brian Maduro	157,899.64
Jasin Fahie	225,445.64
	<u>394,023.13</u>
	<u>1,126,241.57</u>

85. Because no attempts were made to put contracts in place, the Government lost the opportunity to negotiate a more favourable outcome for the earthworks and control the costs.

Earthworks Virgin Gorda– Enchantment Holdings

86. *A major contract was executed with the contractor after works ceased on the project and much of the contract sum already paid.*

87. While the greenhouses were being installed at Paraquita Bay, earthworks commenced at the Virgin Gorda site. Enchantment Holdings (Enchantment) was selected by the Ministry to carry out all of the works and submitted a cost estimate of \$1,248,130. This was revised by Mirsand who deleted a number of the line items from the estimate reducing it to \$644,455. Based on this revised sum, the company was informed on 6 September 2010 that they would be awarded a major contract and instructed to begin work immediately while the details of the contract were sorted out.

88. On 26 October 2010 the Ministry sought to secure preliminary approval from Finance to cover the contract sum and payments to Enchantment pending execution of a contract. Throughout the engagement the contractor received periodic payments based on invoices submitted.

89. The contractor submitted a variation on 31 October 2011 to revise the contract sum upwards by \$248,850. The stated reason was because of additional challenges created in having to use boulders to compensate for the lack of fill to build the greenhouse platforms. The variation was not approved. A contract was signed two years after the works commenced on 28 September 2012 for \$644,455. Upon signing of the contract a final amount of \$329,541 was paid bringing the total payments up to the contract sum.

90. This contract, like all the others on the Greenhouse Project, was not subject to competitive submissions. The Ministry committed the Government to a major contract without the benefit of a Cabinet waiver and (for two years) without a duly executed document.

91. At the time of writing in December 2013, the greenhouses were not installed at South Sound Virgin Gorda.

Operations & Training – Agronomist

92. *An agronomist was engaged for a period of two years but was unable secure commissioning of the greenhouses due to unavailability of adequate water and supporting resources.*

93. The Government signed a service agreement with IBT on 6 February 2009 which was intended to provide expertise required to setup and run the greenhouses after installation. The agreement stated that IBT would provide one agronomist and two foremen to reside in the BVI and give advice, guidance and training to the Government's assigned manager of the greenhouses. The Government would pay \$225,000 annually with a 3.5% annual price increase under the contract. The agreement would come into effect upon the completion of the greenhouse complexes and could remain in effect for up to five years.

94. By December 2010, with completion of the greenhouses at Paraquita Bay approaching, the need to have an experienced agronomist on site to set up and run operations became relevant. However due to difficulties encountered by IBT in sourcing a suitable person, the parties agreed that the Ministry should source one directly.

95. Mr Jose Miguel Arias-Matos was recommended by one of the Ministry's contacts in the Dominican Republic. He was interviewed briefly during a visit by the BVI delegation to Dominican Republic in December 2010 and subsequently agreed to be employed by the Government. An agreement was executed on 3 February 2011 for a period of two years at \$70,000 per annum. The commencement date was stated as 7 February 2011.

96. Agronomist Jose Miguel Arias-Matos commenced work immediately, performing an assessment of the facilities on 1 February 2011 and advising the Ministry of the types of plants that would be suited to the greenhouses. He would subsequently make recommendations for importing seedlings from Dominican Republic because the facilities to support germination of seeds were not yet available. He also requested the Ministry to assign persons for training and assisting with operations of the greenhouses and agricultural duties.

97. At the time of his engagement the greenhouses still had issues with water supply and electricity. Without these facilities, and in the absence of support staff, the greenhouses would not be functional. Mr Matos engagement lasted until May 2012. At the time of his termination the greenhouses were still unused.

IV. Budgeting, Financing and Expenditure

98. The project commenced and was executed without a comprehensive budget. Such a budget would have included costs for preparatory work, installations, major equipment, commissioning and resources needed for operations.

99. The 2008 budget approved a provisional amount of \$100,000 for the Greenhouse Project. This was supplemented by loan funding in October 2009 when the Government executed a loan agreement with Deutsche Bank S.A.E. in for an amount of \$4,726,000.

100. None of the Annual Budgets showed forward planning for this project. Funding was instead provided via local resources on an annual basis from 2009-2013. The provisions and annual expenditure are indicated below.

Greenhouse Project Provision and Expended			
Local Funding	Provision	Expended	Balance
General Warrant 2008	100,000.00	65,313.25	34,686.75
General Warrant 2009 & SAP *	1,553,800.00	1,654,936.92	(101,136.92)
General Warrant 2010	1,000,000.00	1,146,794.60	(146,794.60)
General Warrant 2011	570,000.00	402,506.50	167,493.50
General Warrant 2012	500,000.00	439,955.82	60,044.18
General Warrant 2013	200,000.00	270,560.79	(70,560.79)
Total	<u>3,923,800.00</u>	<u>3,980,067.88</u>	<u>(56,267.88)</u>
Loan Funding	Approved	Expended	Balance
Deutsche Bank 2009	<u>4,658,921.00</u>	<u>2,055,406.50</u> #	<u>2,603,514.50</u>
Total	<u>4,658,921.00</u>	<u>2,055,406.50</u>	<u>2,603,514.50</u>
Grand Total Local & Loan Funding	<u>8,582,721.00</u>	<u>6,035,474.38</u>	<u>2,547,246.62</u>

* Includes GW \$989,100.00 and SAP \$564,700.00

Paid to IBT in 2010

101. At each stage of the process new costs were introduced and brought to the Ministry of Finance as an urgent need that required immediate funding. These were usually funded then later regularized in a subsequent budget process.

102. Payments occurring in 2012 and 2013 shown in the schedule above were primarily for works performed in 2011 and prior. These included a payment to Enchantment in 2012 for \$332,136.96 and the settlement payment to Mirsand in 2013 for \$201,938.29. Other payments during these years were for storage, utilities and various other miscellaneous charges.

103. At 31 December 2013 the costs on the project were as indicated in the schedule that follows.

Greenhouse Project Payments	
Description	Amount
International Business & Trade	2,891,006.60
Mirsand Town Planners	797,301.57
Earthworks – Tortola	1,126,241.57
Earthworks – Virgin Gorda	644,455.00
Utilities – Water & Electricity	101,076.04
Skelton Baylot Storage	180,000.00
Agronomist	93,817.10
Travel	73,200.44
Materials	61,814.50
Shipping	15,154.00
Other	51,407.56
Grand Total	<u>6,035,474.38</u>

104. Payments from Deutsche Bank were to be made directly by the bank to IBT at key points in the project. IBT received \$2,055,406.50 at commencement of the installation. The balance was to be paid at substantial completion (\$2,055,406.5) and after the defects liability period (\$548,108.40). At the time of writing the last two payments had not been made to IBT.

V. Post Installation Inspection – Paraquita Bay

105. *Minor issues were identified in the workmanship of the greenhouses at Paraquita Bay and reported for correction.*

106. After the greenhouses in Paraquita Bay were substantially complete, inspections were performed by Mirsand that revealed some issues in workmanship. These were thought to have been the result of IBT's inadequate supervision of the sub-contractors who were inexperienced in greenhouse installations. Among the issues were tears in the plastic, collection of large quantities of water on the roofs and sun damage to the pipes.

107. MSC were the Inverca technicians who oversaw the installations. They advised that tears in the plastic were normal during the installation process and that these would be repaired. The sun damaged pipes were functional, though not aesthetic, and the collection of water was due to the absence of electricity which was needed to operate the automated systems in place for controlling the windows in the event of rain and heavy winds. They also advised that the best way to prevent deterioration to the structures is to put them to use.

“A closed and uncultivated greenhouse, suffers a continuous and rapid deterioration due to the high temperatures present on their interior. The best way to keep a greenhouse in perfect condition is to keep it active, functioning and producing.”

VI. Current Status

108. *The Ministry has commenced steps to commission one of the greenhouses on Tortola via contract. The site works on Virgin Gorda are partially complete and payment to IBT for work done is pending.*

109. At the time of writing three greenhouse structures had been erected at Paraquita Bay. The platforms for two of the greenhouses were completed on Virgin Gorda and the third was 25% - 35% complete. Works on the project had been discontinued since mid 2011. The electrical installation for the Paraquita Bay site had been completed by BVI Electricity Corporation but it is unclear whether the works to be completed by the electrician were carried out. The Paraquita Bay site had been connected to the public water supply, this however was not deemed sufficient to guarantee the constant supply of water required by the facility. The water tanks requested to support operations for the greenhouses had not been purchased.

110. The Government had paid IBT's for completion of the Paraquita Bay greenhouses and transportation of the structures between the warehouses and the site. Both Mirsand and Enchantment Holdings had been paid the full amounts under their contracts, notwithstanding the incomplete works on Virgin Gorda which both contracts were intended to cover.

111. In December 2013 the Government issued a public tender notice inviting submissions from persons interested in operating one of the three completed greenhouses in Paraquita Bay. The result of this process is pending.

VII. Related Party Disclosure

International Public Sector Accounting Standard – IPSAS 5

112. The project was initiated and executed under the direction of the former Minister of Natural Resources and Labour who headed the Ministry from August 2007 to November 2011. During this period contracts valued at \$800,000 and payments of \$595,363.28 were awarded Mirsand Town Planners and Architects without public tender and without any recorded consideration of alternatives. An additional \$201,938.29 was paid to Mirsand in 2013 arising from commitments created during the period 2009-2011. The total amount paid to the company on this project was \$797,301.57. These transactions, because of their materiality and because of the relationship between the principal of Mirsand and the then Minister, represent related party transactions as defined by IPSAS 20 5 (c) and accordingly require disclosure.

VIII. Conclusion

113. The Greenhouse Project was a progressive initiative with the potential to boost short crop production and generate renewed interest in the fading agricultural industry. The Ministry's failure to develop a comprehensive plan for its implementation resulted in an expedited project that violated all three principles of value for money, Economy, Efficiency and Effectiveness.

114. On the principle of Economy the project demonstrated blatant disregard for the provisions of the Public Finance Management Regulations which provide guidance for the management of public funds. There was no comprehensive budget for the project. Items were added as the project developed leading to requests for supplementary and over expenditure on approved amounts. Monies were committed without a supporting budget. There was no competitive bidding, all the work was performed by handpicked contractors. This deprived the Government of the opportunity to examine other options with a view to achieving greater value for money. Large scale works were performed on open arrangements without controls or mitigating conditions leading to an escalation of costs. Unplanned costs were incurred on items such as storage and damaged inventory. The scale and cost of this project dictated that there should have been greater financial prudence and public accountability.

115. With respect to Efficiency, the absence of planning led to inefficiencies throughout the project. Notably the signing of the Contract with IBT before preliminary issues and requirements had been assessed and duly addressed. Some of these issues including land availability, earthworks preparations, water and electricity access and adequacy should have been assessed and addressed before implementation was pursued. Shipment of structures too early in the process required long term storage and in some cases resulted in damaged items. The complexes were supposed to be completed in ten months but four years later the project is incomplete.

116. The principle of Effectiveness looks at whether the project's intended objectives were achieved. The objective was to have functioning greenhouse complexes on Tortola and Virgin Gorda within a year of execution of IBT contract with a view to producing short term crops in quantities that would reduce importation and boost the agricultural industry.

117. At the time of this report the Government had spent over six million dollars on this project. The greenhouses in Paraquita Bay were substantially complete but non-functioning due to the absence of a constant supply of water in quantities sufficient to support crop development. Two of the three bases for the greenhouses in Virgin Gorda have been built but the structures have not been assembled and installed. The problem of water sufficiency has not been addressed on Virgin Gorda. There has been no crop production from the greenhouses to date. While there is still scope for the project to redeem itself, at present it has failed to meet any of the stipulated objectives.

IX. Recommendations

Process

- i. All Government projects should be adequately planned and budgeted prior to implementation.
- ii. Permanent Secretaries and Department Heads should adhere to the financial regulations. Those who fail to observe prudent financial management of public funds should be subject to surcharge.

- iii. The Public Works Department should be strengthened to allow it to assist on Government projects in implementation and in the management of public projects showing distress. No explanation was given as to why this Department was not sourced to manage and supervise the earthworks for this project.
- iv. Management of public funds requires a higher level of accountability and transparency. Public officers should therefore abstain from engaging in related party transactions without full and adequate disclosure through an open process where alternatives were sought. To do otherwise creates an environment for favoritism and abuse.

Greenhouses

- v. Priority should be given to commissioning of the greenhouses at Paraquita Bay. Keeping them in a state of disuse contributes to their rapid deterioration and could cost the Government the opportunity to make good on this costly initiative.
- vi. An assessment should be performed on the practicality of installing three greenhouses on Virgin Gorda and a decision made on whether and how to move forward with that phase of the project.
- vii. The Ministry should amend the contract with IBT to allow for a Taking Over Certificate to be issued for the Paraquita Bay greenhouses.
- viii. An inventory of the items held in storage at Fish Bay is required.
- ix. Consideration should be given to sourcing suitable individuals from HLSCC to undertake training and attachments abroad on greenhouse farming. A “Technology in Agriculture” initiative can be implemented to generate youth interest in the sector at local secondary and tertiary learning institutions.
- x. The process to lease one of the greenhouses out to private interests has already commenced. The Ministry should consider retaining at least one of the greenhouses to be used for training and possibly for to leasing to interested farmers in much the same way as is done with the land in Paraquita Bay.

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