ANNUAL REPORT 2.le structural works were at 62%. mpleted and oject (CDIP)018



**MINISTRY OF AGRICULTURE**

**NATIONAL DRAINAGE AND IRRIGATION AUTHORITY**



**TABLE OF CONTENTS**

1.0 MISSION STATEMENT ………………………………………………………………………………………………4

[2.0 STRATEGIC OBJECTIVES 4](#_Toc10797123)

[3.0 The Functions of the National Drainage & Irrigation Authority 5](#_Toc10797124)

4.0 CHIEF EXECUTIVE OFFICER'S STATEMENT ………………………………………………………………6

[5.0 EXECUTIVE SUMMARY](#_Toc10797125) 16

6.0 ORGANISATION STRUCTURE ………………………………………………………………………………….16

[6.1 OPERATIONAL Divisions 16](#_Toc10797127)

[6.2 General administration Divisions 16](#_Toc10797128)

[7.0 SECTIONS WITHIN NDIA 17](#_Toc10797129)

[7.1 OFFICE of the Chief Executive Officer 17](#_Toc10797130)

[7.2 Engineering Section 17](#_Toc10797131)

7.3 Finance Section ……………………………………………………………………………………………………………………………17

[7.4 ADMINISTRATIVE AND Human Resources Section 18](#_Toc10797132)

[7.5 PROCUREMENT Department 18](#_Toc10797133)

[7.6 AUDIT Department 18](#_Toc10797134)

[7.6.1 Duties of the Audit Department: 18](#_Toc10797135)

[7.6 Mechanical and Electrical Engineering Department 19](#_Toc10797136)

[7.7 Planned Maintenance of mobile/fixed hydro-flow pumps and equipment in Regions 2, 3, 4, 5, 6 and 10 20](#_Toc10797137)

[7.8 Machinery 21](#_Toc10797138)

[8.0 ADMINISTRATIVE DEPARTMENTAL MATTERS 21](#_Toc10797139)

[8.1 Organization Structure 21](#_Toc10797140)

Committees of the Board………………………………………………………………………………………………………….23

[8.2 Staff Complement 24](#_Toc10797141)

[8.5 Training and Development 24](#_Toc10797142)

[9.0 NDIA’s REGIONAL PROGRAMME OF MAJOR WORKS UNDERTAKEN IN 2014 27](#_Toc10797143)

[9.1 Comprehensive Programme of Works 27](#_Toc10797144)

[9.2 Enhanced Capacity in Regions 2, 3,4,5,6 and 10 27](#_Toc10797145)

[9.2.1 Administrative 27](#_Toc10797146)

[10.0 NDIA WORK PROGRAMME 2018: 28](#_Toc10797147)

[NDIA Equipment Work Progress – D&I Channels 28](#_Toc10797148)

[Maintenance of Outfalls by NDIA Equipment](#_Toc10797149) 29

[Works done by NDIA Bulldozers 29](#_Toc10797150)

[11.0 REVIEW OF CURRENT YEAR’S PROGRAMME 30](#_Toc10797151)

[11.1 DETAILS OF CAPITAL BUDGET 2018 33](#_Toc10797152)

1.0 MISSION STATEMENT

**“The National Drainage and Irrigation Authority functions as the Nation’s apex organization dealing with all public matters pertaining to management, improvement, extension and provision of drainage, irrigation and flood control infrastructure and services in declared areas of the country. While providing support and assistance to other public institutions dealing with connected activities, it shall also evolve mechanisms for improved water use with financial sustainability, equity and efficiency as the guiding principles.”**

# 2.0 STRATEGIC OBJECTIVES

The **strategic objectives** to ensure that the National Drainage and Irrigation Authority execute its legislative mandate shall be to:

1. Develop an institutional structure in terms of water resources management strategy and

water use planning or the primary purpose of locating, evaluating, conserving and

distributing water resources of the country for agricultural purposes.

2. Establish the Authority as the regulatory and coordinating agency responsible for the operation, maintenance, control and management of the drainage and irrigation and flood control system and works to effectively harmonize activities to enhance agricultural production.

3. Ensure that the existing drainage and irrigation system and flood control and any new expansions that are made are operated and maintained in a sustainable manner.

4. Provide for cost recovery for sustainable management of the primary and secondary elements of the drainage and irrigation system and flood control.

5. Promote and provide support for the participation of Water Users’ Association, farmers association and local government organs in the management operation and maintenance of the drainage and irrigation systems and flood control.

6. Promote participation of Water Users’ Association, farmers organizations and local government organs in the planning , design, management, operation and maintenance of the drainage and irrigation and flood control systems and

7. Promote and encourage the involvement of private sector in the construction, management, operation and maintenance of the drainage and irrigation of flood control systems.

# 3.0 The Functions of the National Drainage & Irrigation Authority

The functions of the Authority are the functions conferred upon it by the National Drainage and Irrigation Act 2004 and the regulations made thereunder. These include:

(a) Recommend a national drainage and irrigation policy.

(b) Co-ordinate the operation and maintenance of drainage and irrigation activities through such measures as may be appropriate and to make suitable recommendation therefore.

(C) Manage, operate and maintain the drainage and irrigation systems and related access roads and facilities, constructed or acquired by the Authority under the Act.

(d) Develop programmes and plans to locate, evaluate, conserve and distribute water resources for agricultural development and for the efficient management, operation, evaluation and monitoring of the drainage and irrigation systems.

(e)Implement a system of financing that separates public and private services of the drainage and irrigation systems and divide drainage and irrigation infrastructure into related public and private categories with the result that the operation and maintenance of the private goods elements of the system are paid for by the direct users of the services and that upkeep of the public elements of the system is supported by public revenue.

(f) Develop procedures, norms, standards including irrigation and environmental standards and operation schedule for the efficient operation and maintenance for the drainage and irrigation systems within the regions.

(g) Execute feasibility studies and appraisals for programmed works to determine priorities and quality standards for plans for the drainage and irrigation systems.

(h) Carry out capital works or contract them to the private sector using competitive bidding procedures.

(i) Set, monitor and enforce the terms and conditions subject to which contracts are entered into by the Authority.

1. Undertake anything incidental or conductive to the performance of any of the foregoing functions.

**4.0** **CHIEF EXECUTIVE OFFICER’S STATEMENT**



**Mr. Fredrick Flatts, CEO, NDIA**

The year 2018 saw the management of the National Drainage and Irrigation Authority (NDIA) making a significant number of changes in the way that the National Drainage and Irrigation Authority (NDIA) operated, maintained and managed the drainage and irrigation systems around the country. More monthly and quarterly management meetings were held to ensure that projects were being executed in a timely manner.

While the year 2018 was full of challenges, the National Drainage and Irrigation Authority (NDIA) was able to persevere and execute its work programme in vulnerable farming communities and residential areas around the country. Works also continued in the hinterland regions as the government moved to increase its agricultural base.

As part of the NDIA’s master plan, its aggressive plan for maintenance of all pumps and machinery continued to ensure that all sluices and drainage infrastructure were fully operational to ensure optimum drainage performance.

Throughout the year, the NDIA staff and engineers worked beyond their call of duty in ensuring that farming and residential communities were secure from adverse weather conditions. Of importance, was the fact that the Authority attended a number of meetings with the Guyana Sugar Corporation, the Regional Democratic Councils (RDCs) and the Neighbourhood Democratic Councils (NDCs).

In 2018, the NDIA was given responsibility for the drainage and irrigation systems in areas where sugar cane factories were closed or operational. In addition, NDIA was tasked with the responsibility for maintenance and upkeep of main drains throughout the city of Georgetown.

In various Regions, dredging of outfall channels was executed in order to enhance the drainage capacity in key areas. In 2017, the NDIA began the process of procuring a cutter head dredger which would be used on outfall channels which was thought to be more cost effective.

In Regions 2, 3, 4, 5, 6 and 10, emphasis was placed on agricultural communities. Excavation of drains and canals and rehabilitation of dams were carried out to assist farmers in various regions. Monthly maintenance of canals and drains continued with the NDIA providing significant sums to the Water Users Association to upkeep drainage and irrigation channels.

To improve drainage and irrigation in vulnerable communities, contracts were signed for a number of drainage pump stations to be constructed. Rehabilitation works were also carried out on others.

The down time for repairs and rehabilitation of equipment remained a concern to the NDIA and the management of the NDIA has taken steps to correct this situation. The Mechanical Department worked tirelessly with its contractors to ensure that NDIA’s fleet of equipment was operational.

In concluding, I wish to say thanks to the staff of the NDIA for putting in their combined efforts and energies as we strive to create a more sustainable, improved and enhanced drainage and irrigation system.

I would also like to take the opportunity in thanking the various stakeholders who would have supported the work of the NDIA. To the farmers especially, I say thank you for your continued support.

# 

# **5.0** **EXECUTIVE SUMMARY**

In

In 2018, the National Drainage and Irrigation Authority (NDIA) continued to evolve with a number of new initiatives being taken to improve and increase the drainage coefficient. More monthly and quarterly management meetings were held to monitor projects and programmes being executed by the Authority. Personnel from the NDIA worked beyond the call of duty to execute these projects and programmes. During 2018, the NDIA ventured into new areas of responsibility such as the hinterland region.

In January 2018, the Chief Executive Officer of the NDIA assured residents on the East Coast of Demerara that adequate preparations were being made for the upcoming May/June rains. He further stated that pump stations at Enmore, Friendship/Vigilance, and Lusignan were in advanced stages of completion.

Further, the CEO said the pumps will increase drainage capacity and prevent flooding in ECD communities which are traditionally inundated with flood waters whenever it rains heavily.

In that same month, the NDIA indicated to government that more technical staff was required to carry out GUYSUCO drainage and irrigation works. In that light, the National Drainage and Irrigation Authority (NDIA) was awaiting the approval of a proposal it submitted to the Government to determine how it will move forward with the employment of technical workers to take over the drainage and irrigation responsibilities from the Guyana Sugar Corporation (GUYSUCO).

However, the NDIA indicated that it will be to using GUYSUCO personnel, since those persons had the experience and knowledge of how the system operates. As a result, hundreds of workers from GUYSUCO are expected to be retained as the National Drainage and Irrigation Authority (NDIA) will be taking over maintenance of the drainage and irrigation systems from the sugar company.

According to a press release in January, 2018, it was confirmed that the Authority would be taking over works and that some systems have already been put in place for them to assume control of the maintenance of drainage and irrigation canals that were previously controlled by the Guyana Sugar Corporation ((GUYSUCO)). Additionally, the CEO, NDIA pointed out that it is unlikely that any of the workers would be made redundant from the changing of the administration.

In the month of January, 2018, in keeping with its mandate and increasing its area of responsibility, the National Drainage and Irrigation Authority and the National Research and Extension Institute indicated that assistance would be given to farmers of Dallawalla, Region Ten. This comes after farmers had indicated that they have scaled down operations because of inefficient drainage, inability to access farmlands and a lack of proper market facilities, among other issues. Head of the NDIA, Fredrick Flatts said the authority is working with the Dallawalla Community Development Council to assist with clearing access channels to these farmlands. NAREI’s CEO, Dr. Oudho Homenauth also said that the agency was working closely with farmers through its regional office to increase its technical capacity in the village.

Dallawalla is a small farming community mainly accessible by boat, with just over 20 farmers, who supply a significant percentage of cash crops to Linden.

In February 2018, work on the office to house the National Drainage and Irrigation Authority (NDIA) at Onverwagt West Coast Berbice in Region Five (Mahaica/Berbice) which began last year, was been completed. The NDIA office, which is situated alongside the Headquarters of the Mahaica/Mahaicony/Abary-Agricultural Development Authority (MMA/ADA), will seek to upgrade the drainage system and make better provisions for drought in the region.

This move by the NDIA was expected to boost farmers’ confidence in the D&I system and have them feel encouraged to cultivate and even expand their production of crops and livestock within the Region.

[](https://i1.wp.com/agriculture.gov.gy/wp-content/uploads/2018/03/The-soon-to-be-commissioned-Region-Five-office-of-the-NDIA.jpg)

**The soon to be commissioned Region Five office of the NDIA**

At the time all that was required to get the office up and running was the installation of connections for electricity to the building. The Office will be manned by a Senior Engineer of the NDIA assisted by ancillary staff and he will support the MMA/ADA, the Regional Democratic Council and the Neighborhood Democratic Councils (NDCs) in the region to implement and monitor projects aimed at increasing the discharge capacity of rain-flood waters and the provision of irrigation for agricultural purposes during El Nino (drought) weather conditions.

Among the projects, the Region Five NDIA Office will spearhead and support in 2018 were the upgrading of resuscitated sea sluices along the West Berbice Coast; the establishment of additional sluices and the provision of another electrical pump for drainage of West Berbice at Trafalgar. The aim of the NDIA was to consider increasing the hydraulic efficiency of the tertiary and secondary drainage systems in Region Five with the provision of nine excavators. These mini-excavators will be at the disposal of the Regional Administration for routine remedial and emergency works along the Region Five coast.

The NDIA’s office was also meant to boost the efficiency of drainage in the riverine areas. Projects to be undertaken in that area for 2018 included among others, extending the polder behind Pine Ground to Gordon Table along the right bank of the Mahaicony River to protect cultivation plots from waters coming in from the backlands and installing an irrigation pump at Mora Point, Mahaicony River. The pump is to be acquired from India. Other projects include infrastructural upgrades for replenishment of the Abary Conservancy with water from the Berbice River and the drawing down of water from the upper reaches of the Mahaica River at Kuliserabo to supply the Perth /Biaboo Main Canal for the benefit of low-risk rice production aback of Mahaicony.

The NDIA was also scheduled to fund the replacement of tail regulators for all the high-level irrigation canals within the MMA/ADA project area in West Berbice. This was to ensure better management of irrigation water supplies and less stress on the drainage system from free- flowing water into canals without tail gates.

In February, 2018, discussions continued with the Guyana Sugar Corporation to ensure a smooth transition of workers from GUYSUCO to the agency. The Guyana Sugar Corporation ((GUYSUCO)) throughout its years of operation has played a strategic role in the maintenance of drainage and irrigation canals linking several communities across the coastlands of Guyana. With its reorganization, many were concerned about these canals being left to become clogged and dysfunctional, increasing the threat of floods when it rains heavily or drought which has the potential to destroy farmers’ produce during the dry season.

Chief Executive Officer of the National Drainage and Irrigation Authority (NDIA), Frederick Flatts assured during the period that systems were already in place for the agency to assume control of the maintenance of drainage and irrigation canals previously controlled by the now reorganized Guyana Sugar Corporation ((GUYSUCO)).

In March 2018, the Ministry of Agriculture, through the National Drainage and Irrigation Authority (NDIA) and the Agriculture Sector Development Unit (ASDU), heightened its flood prevention efforts in preparation for the upcoming May/June rainy season. These efforts were being achieved through the construction and instillation of several drainage and irrigation structures in low-lying areas along Guyana’s coast. These areas are known to be prone to flooding but were neglected over the years. Pump Stations were strategically constructed on the East Coast of Demerara at Lusignan, Friendship/ Vigilance, Buxton, Enmore and a sluice at Triumph is being reconstructed.

The ASDU was responsible for facilitating the construction of the three pump stations located at Lusignan, Friendship/Vigilance and Enmore. This project is being funded by the World Bank at a cost of GY $1,407,345,410. It also includes the rehabilitation of 4 kilometers of the dam from the Hope intake structure to the Enmore intake structure. The drainage capacity of the pumps at Lusignan and Enmore is 3 m/s³ while the Friendship/Vigilance pump will have a drainage capacity of 2 m/s³. These pump stations were expected to be commissioned in April, 2018.

In an invited comment in March, 2018, Agriculture Minister Noel Holder, indicated that government was in the process of improving the country’s overall drainage capacity, especially in communities that have been without proper drainage and irrigation for decades. He stated that “With the effects of climate change globally resulting in rising sea levels, more pumps are needed along Guyana’s coast to increase our drainage capacity. With this in mind, the ministry through the ASDU and the NDIA is in the process of constructing several structures that will significantly improve the lives of farmers and residents along the entire coast. Construction of these structures fall under the ministry’s flood risk management efforts that involves a series of works of this nature being undertaken within the next two years.” Minister Holder said. A site visit soon followed and Minister Holder urged engineers to keep in mind the approaching rainy season and to ensure that works are on schedule.

The NDIA had also expended GY $581,644,662 for the construction and rehabilitation of drainage and irrigation structures at Buxton and Triumph, ECD.

CEO of NDIA, Fredrick Flatts indicated that the old sluice at Triumph had shown signs of structural failure and that it was underutilized due to those defects. “The sluice at Triumph is part of a high level discharge basin and operates in tandem with the Triumph Pump Station. That pump station currently aids in providing drainage to approximately 300 hectares of land. The state of the basin resulted in a reduction of the storage and operating capacity of the drainage network.” Mr. Flatts said.

He further stated that the design of these new structures is expected to be more effective as it relates to their drainage and irrigation capacity.

Once completed, both projects are expected to deliver much needed drainage and irrigation to both farming and residential communities along the East Coast of Demerara. Approximately 114,000 households along the East Coast of Demerara are expected to benefit from better drainage and irrigation.

In that same month, the NDIA informed the public that it was currently constructing additional pump stations and sluices at Three Friends along the Essequibo Coast, Region Two and Herstelling along the East Bank of Demerara, Region Four.

In July 2018, the NDIA’s Chief Executive Officer, Frederick Flatts called on citizens to be more responsible in their solid waste management. Flatts stated that the authority was continuing its role of improving drainage and irrigation in Guyana and was calling on citizens to play their part in the protection of the pump stations.

According to Flatts, disposal of solid waste into the waterways is costing the nation a fortune. “… in Region Six someone threw a bag in the channel, unfortunately, it got into the pump and the cost of that repair alone was going to be about $5Million. That is the sort of damage I am referring to.”

In August 2018, the NDIA signed a US$3,602,014 contract to have 12 new pumps supplied within the next twelve months. With the installation of the high capacity fixed and mobile drainage and irrigation pumps, 37,780 acres of farm and residential lands in Regions Two, Three, Four, Five and Six are to benefit. Funding for the pumps was acquired under an India Line of Credit.

In that month, the CEO, NDIA, Fredrick Flatts indicated that the Authority was finalizing the design aspect for the new pump stations. Agriculture Minister Noel Holder stated that, “Approximately 1,242 rice farmers and many other residents from Charity to Zorg-en-Vlygt in Region 2 will benefit from a 50% reduction in flooding of their front lands. In Den Amstel (region 3), 3,500 acres in the backlands will be available to rice and cash crop farmers to cultivate in 2019. In Hope (Region 4) the fixed pump will replace existing mobile pump allowing for an increase in efficiency and reduction of flooding by 50%. Further, in Nootenzuil (Region 4), a 75% reduction of flooding events will be realized by the installation of this pump. Lastly, at Mora Point in Region 5, the new pump will be used for irrigation benefiting at least 502 rice farmers in that catchment area. Additionally, it is projected that there will be a 35% reduction in losses during periods of drought.”

Further, the three mobile pumps that were being acquired under the said agreement will be added to the list of equipment used to provide drainage services to Georgetown and its environs. As such, emphasis was being placed on improving drainage in areas depending on primary drains such as Church Street, Sussex Street and Cane View in South Ruimveldt. It was expected that this intervention would result in 18% reduction of flooding occurrences in Georgetown.

In September 2018, the central operations of the National Drainage and Irrigation (NDIA) moved from the Ministry of Agriculture’s head office to GUYSUCO’s LBI compound. In that month, the newly renovated facilities were commissioned by Agriculture Minister, Noel Holder. The commissioning of the new NDIA central office was the first of several other movement of agencies/departments of the Ministry of Agriculture from their present location to the LBI compound.

Minister Holder said that the move to transition to another location was to facilitate the growing number of personnel who were all ‘crammed’ into a small office space. He added that apart from providing better working environment, the movement will also cater for greater coordination among the agencies so as to better serve the public.

“Many times in my discussions, I find there is little coordination between agencies within the sector and this must change. For instance, NAREI has a Mangrove Restoration Project which aims to augment Guyana’s sea defences by protecting, restoring and managing the natural coastline barrier provided by our mangrove forests. This project by its very nature contributes to flood risk management and should be coordinated with the D&I infrastructure,” the Minister said.

The facilities, the Minister said, will also be housed closer to the other agricultural offices located at Mon Repos, namely the Guyana School of Agriculture (GSA), NAREI, GLDA and the Pesticide and Toxic Chemicals Control Board (PTCCB). Prior to the transition, the compound was home to the agriculture research laboratory, head office, Information System and Materials Management department and training facilities managed by GUYSUCO.

Chief Executive Officer of NDIA, Mr. Fredrick Flatts, said that a total of $107.3M was spent on works to ensure the buildings were up to standard. “Four buildings were refurbished and one generator room was constructed. We had five different contactors working on the project to ensure it was done in a timely manner and to our specifications. The staff has expressed satisfaction with the works and the move and we foresee NDIA being here for decades.” Mr. Flatts said.

Recently appointed CEO of GUYSUCO, Dr. Harold Davis Jr. who is also the chairman of the NDIA Board of Directors welcomed the move by the authority, adding that GUYSUCO has a range of facilities that will be beneficial to NDIA.

“GUYSUCO has a long standing history with the NDIA which has demonstrated fruitful outcomes over the years. We (GUYSUCO) have a number of facilities and testing labs that will be made available to NDIA to better serve and add to the needs of efficient service to Guyana. With this expected move to LBI, we look forward to greater synergies with the drainage authority as they utilize all the necessary facilities that GUYSUCO has to offer,” Dr. Davis Jr. said.

In September 2018, the City Engineer Colvern Venture welcomed Cabinet’s decision to allow greater collaboration between the National Drainage and Irrigation Authority (NDIA) and the Mayor and City Council (M&CC). Speaking with the Guyana Chronicle, he said he welcomed the additional support, which is to come on board from early next year, especially in view of the municipality’s cash-strapped state. Due to the council’s financial woes, Venture said his department is prevented from executing much drainage works in a timely fashion.

At a meeting with the M&CC, earlier in the month, Chief Executive Officer of the NDIA Fredrick Flatts said his agency proposes to install two new pumping stations in Georgetown’s central business district and to increase the drainage capacity of the Liliendaal pump station.

Venture subsequently disclosed that in order to boost the capacity of the Liliendaal station, it was proposed that one of the new pumping stations be erected there. The location for the second station is still being worked out, he said. Venture explained that although the municipality has already been receiving support from the NDIA, such support will be increased as of 2019.

Georgetown is expected to experience less flooding in several sections of the city from January 2019, as a result of the collaboration to execute drainage works. A delegation from the City Council had met with the CEO, NDIA to discuss how the drainage system can be improved to alleviate flooding. Flatts informed the meeting that from January 1, 2019, the NDIA was mandated by Cabinet to work in collaboration with the City Engineer’s Department to provide an improved service in the area of drainage.

He noted that the NDIA would be responsible for desilting and maintenance of all the main drainage canals in the city, including Downer, Young Street, Lamaha Street, Church Street, Avenue of the Republic and the Liliendaal drains.

While the council still has the main responsibility for desilting and cleaning secondary and tertiary drains, alleyway drains, and other interlocking drains, Flatts said the NDIA will undertake to assist with the maintenance of the pumps and sluices.

# `6.0 ORGANISATION STRUCTURE

The National Drainage and Irrigation Authority is governed by a Board of Directors appointed by the Minister. The Board of Directors of the NDIA subject to the provision of the National Drainage and Irrigation Act 2004 shall be responsible for the policy and general administration of the affairs of the authority. The Chief Executive Officer of the Authority is responsible for the overall direction and management of the Authority and for ensuring it fulfills all of its statutory functions and other responsibilities.

The Authority is divided into three Operational Divisions as follows:-

## 6.1 OPERATIONAL Divisions

1. Operations and Maintenance
2. Construction and Development
3. The General Administration, which includes support and control, is carried out by various divisions as follows:-

## 6.2 General administration Divisions

1. Finance and Budgeting
2. Human Resources and Administration
3. Procurement
4. Monitoring and Evaluation
5. GIS

7.0 SECTIONS WITHIN NDIA

## 7.1 OFFICE of the Chief Executive Officer

The Chief Executive Officer is the Chief Engineer and Head of Department of the National Drainage and Irrigation Authority. All technical, administrative and financial powers to manage the Authority are vested in him. He also deals with and ensures the existing drainage and irrigation infrastructure is in a functioning state, and improved where necessary to function more efficiently while staying within the guidelines set out in the Laws of Guyana. He is primarily responsible for all technical and scientific matters and matters related to special projects of the Authority. He co-ordinates with the Ministry of Agriculture, Regional Administrations, local agencies and beneficiaries in promoting improved drainage and irrigation within the agricultural sector and performs other related activities.

## 7.2 Engineering Section

This section is responsible for co-coordinating all drainage and irrigation engineering activities and reports to the Chief Executive Officer.

The responsibilities of the engineering division are as follows:

* Conduct cost analysis to ascertain rate for works and update it every year.
* Water management. Design and implement mechanisms that ensure efficient use of water by farmers.
* Design and implement projects that contribute to increased drainage and irrigation capacity of the country.
* Report progress of works in monthly progress reports.

7.3 FINANCE

This section has the responsibility for budget and expenditure and reports to the Chief Executive Officer. It prepares the budget of expenditure for each year in advance and monitors the progress so as to achieve the targets. At the end of the year, the section prepares the report on financial performance to be included in the annual performance report of the Authority. It also ensures that the expenditure in each head of accounts that has been identified stays within the allocated budget.

7.4 ADMINISTRATIVE AND Human Resources Section

This section is in charge of support services, office management, recruitment and service matter including disciplinary action, human resource development and training. They are responsible for the requisition and distribution of fuel and allocation of vehicles for the effective operations of the NDIA.

## 7.5 PROCUREMENT Department

This department is responsible for the preparation of contracts, collecting of bid documents and attending tender board opening and awarding of contracts. This department also has the responsibility of ensuring that all procurement laws and procedures are adhered to.

## 7.6 AUDIT Department

The National Drainage and Irrigation Authority (NDIA) is also subject to auditing procedures since it has a significant number of personnel and machinery in the operating field.

### 7.6.1 Duties of the Audit Department:

These include:

1. Ensuring that adequate safeguards exist for the safekeeping of public funds and stores.
2. Ensuring that adequate checks are made of all stores and assets and all log books for vehicles and equipment within the NDIA are properly written up.
3. Ensuring that monthly reports on fuel consumption are submitted and analyzed.
4. Drawing up programme and reviewing all stock verification reports.
5. Making recommendations as necessary and taking appropriate follow-up actions.
6. Carrying out investigations relating to contracts for works and to allegations of fraud and malpractices.

## 7.6 Mechanical and Electrical Engineering Department

Under the mechanical department, there is a programme of planned maintenance of all machinery owned and controlled by the National Drainage and Irrigation Authority (NDIA). Operation and maintenance of all equipment including those executing rehabilitation works under force account. It ensures that the existing equipment remain in operating condition with acceptable fuel and operational efficiency.

Duties of this department include:

1. Ensuring the continued serviceability of all drainage and irrigation equipment.
2. Installing and calibrating new systems and services.
3. Maintaining and repairing computer equipment and other equipment.
4. Preventative maintenance for all drainage and irrigation equipment. This includes the setting up and monitoring of a preventative maintenance programme for each piece of equipment.
5. Ensuring that all unserviceable equipment is repaired to acceptable standards and service reports attended to.
6. Requisitioning spares to ensure that an adequate stock is available.
7. Ensuring that necessary test equipment is available, in proper working order and arranges for calibration.
8. Assisting staff in specific tasks.
9. Assembling testing procedures as necessary to ensure that equipment is maintained to optimum performance levels.
10. Assisting the CEO in the planning of new installations.
11. Ensuring that staff is trained in the maintenance of new installations.
12. Keeping up to date with new regulations, procedures and technological advances.

MONITORING AND EVALUATION

Monitors and evaluates the annual work programme and prepares monthly, mid-year and annual performance reports of the National Drainage and Irrigation Authority for submission to the Minister, CEO and the Board of Directors and creates systems of collection, analyzing, reporting and managing all data relevant to the operation of NDIA.

GEOGRAPHIC INFORMATION SYSTEM

This department is responsible for keeping an inventory of drainage and irrigation network data and map the D&I infrastructure countrywide.

## 7.7 Planned Maintenance of mobile/fixed hydro-flow pumps and equipment in Regions 2, 3, 4, 5, 6 and 10

The National Drainage & Irrigation Authority is able to satisfy its mandate via the use of Mobile & Fixed Irrigational and Drainage Pumps at various locations with the Region No. 2, 3, 4, 5 & 6.

NDIA had assumed responsibilities over the other pumps countrywide originally maintained & operated by the Regional Democratic Council No.4 and Guysuco.

Pumps that are monitored, maintained and operated by the Mayor and City Council are:

* Kitty
* Liliendaal

The aim of this planned maintenance exercise is to ensure that all the Mobile and Fixed Drainage Pumps are available and reliable during the year under one responsible body.

Carrying out a Plan Preventative Maintenance on all the NDIA Mobile & Fixed Drainage Pumps in preparation of the year end rainy season will enhance optimum drainage of water from land hence reduce flooding and discomfort of the citizens and in addition minimum loss in farming of crops and livestock.

## 7.8 Machinery

As at the ending of 2018 the NDIA was responsible for a growing fleet of 108 equipment. There is also a planned maintenance programme for the NDIA excavators for which the engineers collect relevant data needed and perform routine servicing in keeping with the specific objectives of 2018.

# 8.0 ADMINISTRATIVE DEPARTMENTAL MATTERS

## 8.1 Organization Structure

**For the year 2018, the following persons comprise the Board of Directors: namely:-**

**NAMES DESIGNATION**

Mr. Harold Davis Chairman

Mr. Omadat Persaud Vice- Chairman

Mr. Fredrick Flatts Ex-officio member, C.E.O, NDIA

Ms. Delma Nedd Director, PS, Ministry of Agriculture

Mr. George Jervis Director, C.T.O., Ministry of Agriculture

Mr. Devanand Ramdatt Director, Chairman, Region # 2

Mr. Julius Faerber Director, Chairman, Region #3

Ms. Genevieve Allen Director, Chairman, Region #4

Mr. Vickchand Ramphal Director, Chairman, Region # 5

Mr. David Armogan Director, Chairman, Region #6

Mr. Renis Morian Director, Chairman, Region # 10

Mr. Bernard Lord Director, Ministry of Finance

Mr. Rene Duesbury Director, Guyana Lands and Surveys Commission

Mr. Cecil Seepersaud Director, Head of Agriculture Project Cycle Unit

Lieutenant Colonel Kester Craig Director, Civil Defence Commission

Representative

Mr. Ramsaran Director, RPA Representative

Mr. George Nedd Director, Water Users Association Representative

Mr. Ahmad Rajab Director, Water Users Association Representative

Mr. Omadatt Chandan Corporate Secretary, NDIA

**Committees of the Board**

**Appointments Committee**

1. Dr. Harold Davis, Chairman
2. Ms. Delma Nedd, Permanent Secretary, MOA
3. Mr. Cecil Seepersaud, Member, NDIA Board
4. Mr. Omadat Persaud, Member, NDIA Board
5. Mr. Fredrick Flatts, CEO, NDIA
6. Mr. Omadatt Chandan, Secretary, NDIA Board

This committee met on at least eleven (11) occasions to discuss and make decisions on staff related issues.

**Works Committee**

1. Dr. Harold Davis, Chairman
2. Mr. Omadat Persaud, Member, NDIA Board
3. Mr. Paul Sarran, Consulting Engineer
4. Mr. Fredrick Flatts, CEO, NDIA
5. All relevant Regional Chairmen (as required)
6. Mr. Omadatt Chandan, Secretary, NDIA Board

This Committee met on three (3) occasions.

**Finance Committee**

1. Mr. Bernard Lord, Member, NDIA Board (Chairperson)
2. Dr. Harold Davis, Chairman
3. Ms. Delma Nedd, Permanent Secretary, MOA
4. Mr. Fredrick Flatts, CEO, NDIA
5. Mr. Omadatt Chandan, Secretary, NDIA Board

**NDIA Tender Committee**

1. Mr. Claude Housty, Chairman
2. Ms. Agnes Dalrymple
3. Ms. Iola Isaacs
4. Ms. Geoffrey Vaughn
5. Mr. Fredrick Flatts, CEO, NDIA

This Committee was set up in accordance with the Procurement Act and meets weekly. It has been operating for the past two (2) years.

## 8.2 Staff Complement

Ninety Five (95) employees comprised the staff strength of the National Drainage & Irrigation Authority; they are supervised by their respective Department Heads.

## 8.5 Training and Development

During the year Forty Seven (47) staff benefited from training at NDIA in various areas as follows

|  |  |  |  |
| --- | --- | --- | --- |
| **Item No.** | **Name of Training Programme** | **To be executed by** | **Names of persons to be/ was trained** |
| 1 | Familiarization of Mechanical Equipment and Components | Illaam Sugrim, Representative From Macorps | 1. Lonsdale Edghill |
| 2. Roderick Grant |
| 3. Molly Manbodh |
| 4. Ramish Bachioo |
| 5. Andrea Edwards |
| 6. Suraj Persaud |
| 7. Kevon King |
| 8. Kenny Seurattan |
| 9. Devin Budhan |
| 10. Nanram Narine |
| 11. Lall Piterahdaue |
| 12. Jermey Douglas |
| 13. Timothy Inniss |
| 14. Seeraj Bhagwandas |
| 15. Sorindra Ramdeen |
| 16. Crystal Conway |
| **Total persons trained in 1st Quarter** | | | **16** |
| 2 | Training in Preventative Maintenance | Farms Supply Limited | 17. Ancil Ramdat |
| 18. Lonsdale Edghill |
| 19. Roderick Grant |
| 20. Molly Manbodh |
| 21. Ramish Bachioo |
| 22. Andrea Edwards |
| 23. Suraj Persaud |
| 24. Kevon King |
| 25. Kenny Seurattan |
| 26. Illhaam Sugrim |
| 27. Devin Budhan |
| 28. Crystal Conway |
| 3 | Communication in the Office | Department of the Public Service, Training Department | 34. Shamar Hutson |
| 4 | Monitoring and Evaluation | 35. Christine Douglas |
| 5 | Government Accounting Procedures | 36. Trevica Bearam |
| 37. Joshua Hamilton |
| 6 | Principles of Supervisory Management | 38. Mohan Haimnarine |
| 39. Bibi Gaffar |
| 7 | National Administrative Professional Seminar | 40. Samantha Charles 41. Molly Manbodh |
| 8 | National Disasters Management Training in Thailand |  | 43. Crystal Conway |
| 9 | International Arbitration Conference |  | 44. Omadat Chandan |
| **Total persons trained in 2nd Quarter** | | | **19** |
| 10 | Foundation Training in MWI Pump Maintenance | General Engineering supplies & Services | 40. Illhaam Sugrim |
| 11 | Introduction to Geographic Information System | GIS Engineer/Guyana Lands and Survey Department | 41. Nanram Narine |
| 42. Lall Piterahdaue |
| 43. Jermey Douglas |
| 44. Timothy Inniss |
| 45. Seeraj Bhagwandas |
| 46. Sorindra Ramdeen |
| 47. Abraham Realine |

# 9.0 NDIA’s REGIONAL PROGRAMME OF MAJOR WORKS UNDERTAKEN IN 2018

## 9.1 Comprehensive Programme of Works

* Arising out of the Board meetings and other meetings concerning different stakeholders including Regional Chairpersons/Directors, farmers, the NDIA has compiled a comprehensive programme of drainage works and implementation has commenced. In keeping with the strategic objectives of the Government of Guyana.
* Ongoing collaboration with NDIA, MMA, RDC’s, GUYSUCO and Farmers’ groups in the implementation and maintenance of drainage works.

## 9.2 Enhanced Capacity in Regions 2, 3,4,5,6 and 10

### 9.2.1 Administrative

The NDIA has engineers assigned to the following regions to oversee and monitor all D&I activities:

* + Region No. 2 Nandram Narine
  + Region No. 3 Lall Piterahdaue
  + Region No. 4 Timothy Inniss (EDWC) & Rickford Sue (ECD)

Jermey Douglas (EBD)

* + Region No. 5 Seerajh Bhagwandas
  + Region No. 6 Sorindra Ramdeen
  + Region No. 10 Jermey Douglas

# 10.0 NDIA WORK PROGRAMME 2018:

# NDIA Equipment Work Progress – D&I Channels

# MAINTENANCE OF OUTFALLS BY NDIA EQUIPMENT

## Works done by NDIA Bulldozers



# 11.0 REVIEW OF CURRENT YEAR’S PROGRAMME

|  |
| --- |
| **SUMMARY** |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **PROGRAMME CODE & TITLE** | **FUND** | **BUDGET** | **SUPPLIMENTARY/VIREMENT** | **REVISED** | **ACTUAL** | **UNSPENT** |
| 1301600 - National Drainage & Irrigation Authority | Local | 1,260,000,000.00 | - | 1,260,000,000.00 | 1,259,994,036.00 | 5,964.00 |
| 1301700 - Drainage & Irrigation | Local | 48,000,000.00 | (7,000,000.00) | 41,000,000.00 | 19,251,241.00 | 21,748,759.00 |
| 2100500 - East Demerara Water Conservancy - Japan Grant | Foreign | 135,000,000.00 | - | 135,000,000.00 | 30,689,445.00 | 104,310,555.00 |
| 1302300 - Drainage & irrigation Pumps - India | Foreign | 10,000,000.00 | - | 10,000,000.00 | - | 10,000,000.00 |
| 6321 - Subsidies & Contribution to Local Organisation | Local | 2,004,716,000.00 | 6,818,593.00 | 2,011,534,593.00 | 2,011,516,819.00 | 17,774.00 |
| **Total** |  | **3,457,716,000.00** | **(181,407.00)** | **3,457,534,593.00** | **3,321,451,541.00** | **136,083,052.00** |
|  |  |  |  |  |  |  |

## 

## 11.1 DETAILS OF CAPITAL BUDGET 2018

## 





































