

Works on \$3B Hope/Dochfour Canal begins

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Several of the long reach excavators were working on the test plot at the conservancy on Oct 1, – at left is one of the excavators works on a timber mat to avoid becoming mired.

... project is technically sound, among largest ever government funded projects – Jagdeo

Government yesterday unveiled a \$3.6B (US\$18M) alternative drainage canal for the Demerara area and described it as one of its biggest projects ever to be funded directly from its coffers.

Five years after the worst spate of flooding the country has ever seen coupled with the very real threat of a catastrophic collapse of the East Demerara Water Conservancy (EDWC), the government has finally broken ground on what President Jagdeo called, “a long term solution” to the threat of flooding from the EDWC.

According to President Bharrat Jagdeo, for many years villages in the area suffered from flooding with no immediate possibility of easing the situation when the EDWC is swollen to dangerous levels – a situation that occurs with greater frequency as each rainy season passes.

The proposed channel joins the conservancy at a point on its north-eastern embankment and then cuts across 10.3km of the coast to spill directly into the Atlantic Ocean. Excess water from the Conservancy will drain into the canal via a three-door sluice at that end, run along the excavated channel and be spilt into the Atlantic via an eight-door high-discharge sluice structure. The canal also cuts one major roadway where the engineers have proposed a span resembling the truss bridges that currently cross the Mahaica and Abary Rivers.

Chief Executive Officer of the National Drainage and Irrigation Authority, Lionel Wordsworth, highlighted the project background for those gathered to mark the occasion – a group which included farmers and residents from the adjoining communities which were hardest hit in 2005 and stand to lose everything should a breach occur in any of the conservancy embankments. He noted that a number of relief options were considered in the aftermath of the 2005 floods; among these were channels at Belmont, Hope/Dochfour and Nabaclis. Eventually the Hope/Dochfour option was chosen and the next step became the proposed design of the structure.

Wordsworth said that a contract was signed with the consulting firm CEMCO on March 19, 2009 to deliver feasible design options in 16 weeks. The value of that design contract was some

\$56.4M however the consultant was unable to deliver the service as agreed within the stipulated time frame – a lapse that the consultant explained himself.

Lead Consultant of CEMCO, Raymond Latchmansingh, explained the delay in the completion of the required design and report. He said that what was a four-month contract became a much tougher job when the terrain, varying soil types and logistics were factored in.

The first challenge was undertaking the topographical survey, this meant taking the measurements of the land they were intending to use, however as Minister of Agriculture, Robert Persaud, later explained, a large part of the land was swamp where the men would sink almost to their waists.

Coupled with torrential rains, this added up to a situation where the topographical survey extended long past the time it would have taken on dry solid land. The next step was a hydrological survey of the conservancy and the surrounding area – this entailed measuring the dimensions of the waterways, flow rates in the channels as well as charting and recording the rainfall in the area.

Then, the team had to undertake the geotechnical survey where the type, strength and other characteristics of the soil were measured. According to Latchmansingh this in itself created a whole host of problems for the team since the terrain was a serious problem for the geologists. To undertake the survey they needed to drill boreholes around the site to remove soil samples for analyses but the fact that the rig kept sinking in the soft soil quickly put a halt to that process, eventually a Surinamese firm was contracted to undertake the geotechnical survey using CPT or Cone Penetration Testing.

Originally developed in a Dutch laboratory, the technique makes it possible to undertake geotechnical scans of soil as well as delineating strata (or layers) by doing as the name suggests and penetrating the soil with a cone. Eventually the testing was completed and a design submitted to the NDIA for review.

Yesterday CEMCO was conducting a test dig on a sample plot to determine the methodology that would eventually be used by the NDIA as they begin excavating the canal. The excavation will be done with the 14 long reach excavators acquired in December 2009 by the NDIA which, according to Wordsworth will save some 60 per cent of the excavating costs.

The Geotechnical survey also allowed the NDIA to call for the supply of geo-textiles. According to Latchmansingh, the quality of the soil was such that to prevent slippage or possible collapse of the earthen embankments geo-textile fabrics would have to be placed between the layers of soil. Turning his attention to critics of the project who have been questioning its technical soundness and feasibility, President Bharrat Jagdeo also knocked a “group of media houses”, including Kaieteur News, that “seemed to have an obsession with negativity”. He noted that in the urgency sometimes to get politicians’ photos into the newspaper, the human side of the story is overlooked, such as the sufferings of the residents around the riverain areas. According to the President, while the canal may not totally stop flooding, it will ensure that authorities will not

have to face the hard choice of releasing waters to the Mahaica and other waterways to ease the threat to the EDWC's dams.

For those critics who have said that the project was too expensive, the President noted that in the East Demerara area alone, in the MMA section, there is an estimated 30,000 hectares earning US\$1,000 per hectare, which translates to around US\$30M. If half those crops are lost when the flood waters are released on the land, he posited that would account for US\$15M in lost revenue – the cost of the project. When taken into account that the project duration is around two years, it is a sound investment for the people of Guyana, the Head of State argued.

He noted there was a time when Guyana could not afford to fund any projects with 90%-plus of its earnings going to debt payments. Government just could not afford to wait for a loan or a grant, which could take up to five years to be approved. Additionally, the President announced, the Japanese government has been approached for help to assist in shoring up the conservancies. Also speaking at the launching of the canal project yesterday was Minister of Agriculture, Robert Persaud who also acknowledged that there had been critics of the project. Making his case for the soundness of the project, the Minister recalled the 2008 heavy January rains which threatened the conservancies but did not result in the widespread flooding that was expected. This was as a result of ongoing infrastructure drainage and irrigation works, which are paying dividends.

He too stressed that a lot of thought and technical tests were carried out that ended up with a project outlining the current Hope/Dochfour relief canal project. No one can truly say that government overlooked the technical aspects of preparing for the project nor critics can fault government for taking such a steadfast technical approach, Persaud said. "We will continue to put the wellbeing of farmers as a priority. This is an investment for the farmers."

With the building of the canal, Guyana can become more confident in investing in agriculture and not face the fear of flooding that is so very real now, the official said.