

## Technical Cooperation Document

### Supporting Technical Training in Extractive Industries in Guyana GY-T1106

#### I. Basic Information for Technical Cooperation

• Country/Region:	Guyana/CCB
• TC Name:	Supporting Technical Training in Extractive Industries in Guyana
• TC Number:	GY-T1106
• Associated Loan/Guarantee Name:	N/A
• Associated Loan/Guarantee Number:	N/A
• Team Leader/Members:	Malaika Masson (INE/ENE) Team Leader; Carlos Echeverria (ENE/CGY) Alternate Team Leader; Clevern Liddell (CCB/CGY); Maria Victoria Fazio (SCL/LMK); Angel Marces Ticeran (SCF/CFI); Martin Walter (IFD/ICS); Anaitée Mills (INE/ENE); Hisakhana Corbin (VPS/ESG); Javier Jimenez Mosquera (LEG/SGO); under the supervision of Leandro Alves, Energy Division Chief (INE/ENE) and Sophie Makonnen, Country Representative (CCB/CGY).
• Date of TC Abstract authorization:	July 24 <sup>th</sup> , 2013
• Beneficiary	Co-operative Republic of Guyana
• Executing Agency and contact name	Inter-American Development Bank
• Donors providing funding:	Korea Poverty Reduction Fund (KPR)
• IDB Funding Requested:	US\$435,000
• Local counterpart funding, if any:	N/A
• Disbursement period (which includes Execution period):	24 months
• Required start date:	November 2013
• Types of consultants (firm or individual consultants):	Firm and Individual Consultants
• Prepared by Unit:	The Energy Division (INE/ENE)
• Unit of Disbursement Responsibility:	The Energy Division (INE/ENE)
• TC Included in Country Strategy (y/n):	Yes
• TC included in CPD (y/n):	No
• GCI-9 Sector Priority:	Small and Vulnerable Countries; Poverty Reduction; Sustainable environmental and natural resources management; Education & Labor Markets; Regional cooperation and integration.

#### II. Description of the Associated Loan/Guarantee

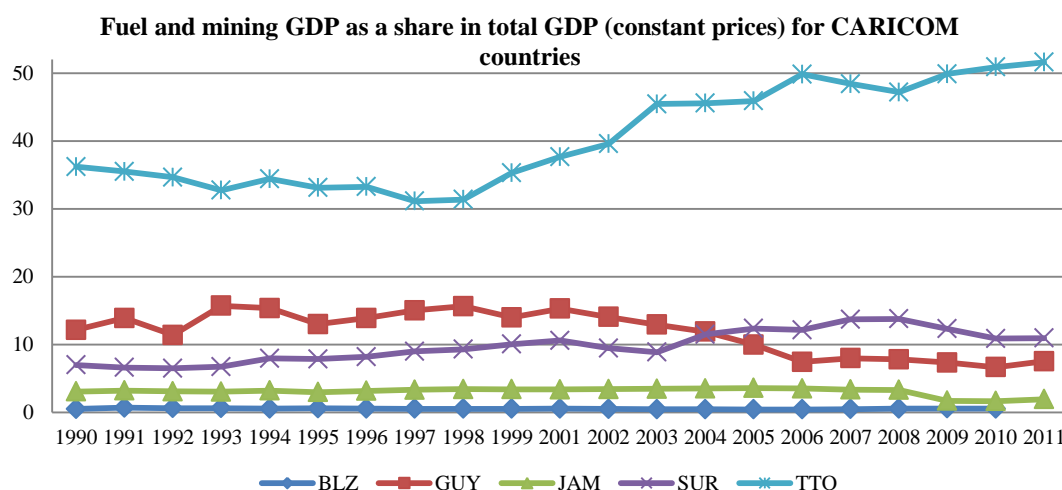
#### III. Objectives and Justification of the TC

3.1 The objective of the project is to increase Guyana's human capital by strengthening local capabilities in the extractive industries, through the support for curricula development, facilities upgrading and course delivery in vocational training in the extractive industries (oil, gas and mining), in order to promote technical skills-upgrading among a local labor force in Guyana. The project will support the development of a model in Guyana, and provides for a scoping study to determine the feasibility (institutional, economic, financial and commercial) for regional collaboration on vocational training and work placement in the extractive industries in the Caribbean, as a way of promoting regional employment and poverty reduction.

3.2 Guyana is primarily a resource-based economy. The mining and quarrying industry contributes 10% of Guyana's Gross Domestic Product. In 2012, the value of mineral production was

estimated to be G\$175.8 billion, representing an increase of 28.9% from the value of G\$136.4 billion reported in 2011. The extractive industries are an important source of employment, income, and government revenue. The sector occupies a central place in the economy, due to attractive commodity prices, the availability of mining properties, increases in production and technological improvements. With further hydrocarbon exploration, resumption of manganese mining, increased production of bauxite and gold and the opening to new exploration, the extractive sector is expected to continue growing rapidly.

- 3.3 However, in spite of the growing importance of the extractive sector, a skill needs survey for the mining sector in Guyana, conducted in April 2012 by the Council for Technical and Vocational Education and Training and Statistical Unit (CTVET) in the Ministry of Labor Human Services and Social Security, revealed that there are a number of skills shortages among technical operators and machinery drivers. Managerial and technical professional were also noted to be in scarce supply as they are already occupied as planners, evaluators and analysts for the expansion of the mining sector and not within jobs fitting their profile (See Figure I).<sup>1</sup>

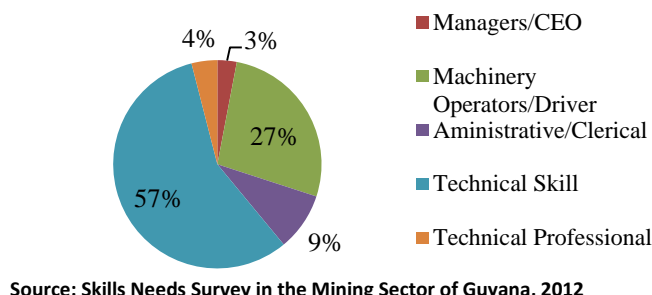


- 3.4 This trend in extractive industry growth and skills shortages is not only taking place in Guyana, but in other mineral-rich and CARICOM countries. The extractive industries have been driving economic growth in Guyana (bauxite, gold, diamonds), Jamaica (bauxite, gypsum, limestone), Suriname (gold, bauxite, oil/gas), Trinidad & Tobago (oil/gas, asphalt), Belize (oil/gas) and is poised to become an important revenue generator in Bahamas (oil/gas) and Haiti (gold, copper). As the region becomes more dependent on the extractive industries (see Figure II), a key concern for CARICOM resource-rich countries is to continue promoting the enabling environment for investments in oil, gas and mining while also strengthening the value-added to their local economies from these primarily export-based sectors, so that more local labor (both male and female) profit from the presence of these industries in their country.
- 3.5 The acute shortage of skilled personnel in CARICOM countries with regard to mining, mineral exploration and processing related qualifications runs the risk of further distancing these small and vulnerable countries from participating in the economic benefits of the extractive industries. This leads, in part, to declining employment and innovation trends contributing to what

<sup>1</sup> Summary of critical skills needed in this study; heavy duty drivers; mechanist; geologists; surveyors; mining engineers; skilled operators; bulldoze operators; technicians; seaman; mechanics; production managers; drillers.

academics call the ‘Resource Curse’ – a phenomenon associated with growing poverty in resource-rich countries. Further, numerous studies<sup>2</sup> reveal that the extractive industries are also faced with a host of gender biased stereotypes, biased with higher pay and more access to jobs and higher pay for men. In addition to contributing to tackling these issues, the development of technical and vocational skills for the extractive sector can help promote better practices and the implementation of recognized codes of conduct in extractive activities thereby incentivizing the use of cleaner technologies by operators and/or improving environmental monitoring capacity in oversight agencies.

**Needed Skills in Guyana's Mining Sector**



- 3.6 The GOG is seeking partners experienced in these industries to design and deliver technical training modules with the establishment of a ‘Mining Training School’ that will qualify Guyanese workers to undertake positions offered in the short-term, helping them to secure work and alleviating unemployment and its link with poverty in Guyana.<sup>3</sup> It was clear at a recent workshop with CARICOM countries (EITI Outreach to CARICOM countries, Port of Spain 19-20 November 2012) co-hosted by the Inter-American Development Bank (IDB), it was clear that Guyana was not alone in designing mining/extractive training schools. Participants at the seminar indicated that Jamaica, Trinidad and Suriname had all started discussions and partnerships with a view of establishing their own ‘Mining Training Schools’. It was immediately apparent, that although each country had a clear imperative to establish a strategy for vocational training in this sector, there were potential synergies and areas of collaboration at the regional level that could be strengthened to enable countries to share resources and efforts in training a certain pool of qualified extractive industry professionals that could be deployed within the region.
- 3.7 Willingness to collaborate was further evidenced by, the invitation of the Government of Trinidad and Tobago to share Trinidad’s experiences and extend capacity building and skills development support to the GoG. Subsequently, on 30 January 2013, Guyana’s Minister of Natural Resources and the Environment met with Minister of Energy and Energy Affairs of Trinidad and Tobago, to further bilateral discussions on the future development of Guyana’s oil and gas sector. Such visit resulted from the invitation of the Government of Trinidad and Tobago to share Trinidad’s experiences and to extend support to build Guyana’s capacity and skills. The result was an agreement to form a technical team that would finalize a memorandum of cooperation between the Guyana and Trinidad and Tobago governments by the end of February to formalize training, support the private sector and provide technical assistance.<sup>4</sup> Such agreement indicates the current

<sup>2</sup> UNDP. 2011. “*Getting it Right: Lessons from the south in managing hydrocarbon economies.*” <http://tcde2.undp.org/GSSDAcademy/existingacademies.aspx>; UNDP. 2011. “*Managing Natural Resources for Human Development in Low-Income Countries.*” Working Paper, <http://web.undp.org/africa/knowledge/working-natural.pdf>; World Bank. 2011. “*Improving the Impact of Extractive Industries Projects on Women.*” <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTOGMC/EXTTEXTIN/DWOM/0,,contentMDK:21242269~menuPK:3157104~pagePK:210058~piPK:210062~theSitePK:3156914,00.html>

<sup>3</sup> A MOU between the Government of the Co-Operative Republic of Guyana Ministry of Natural Resources and the Environment and The Fisheries and Marine Institute of Memorial University, Newfoundland and Labrador was signed on 20<sup>th</sup> September 2012.

<sup>4</sup> “Guyana, Trinidad engage in discussion for oil and gas support,” *Caribbean News Now*, online article retrieved on 31/01/2013, <http://www.caribbeannewsnow.com/topstory-Guyana%2C-Trinidad-engage-in-discussion-for-oil-and-gas-support-14336.html>

awareness surrounding the development of the extractive sector in Guyana. Proactive skills development for Guyanese employees would complement such initiatives and position the country favorably for future developments in the region.

- 3.8 Therefore, the objective of this TC is to support the development of a model in Guyana for technical training and work place in the extractive industry, as well as to determine the feasibility (institutional, economic, financial and commercial) for regional collaboration on vocational training and work placement in the extractive industries in the Caribbean. This project is aligned with the IDB's commitment to poverty reduction, particularly among small, vulnerable and less developed countries in the Caribbean region with a GDP of less than US\$55 billion. The project is also aligned with the IDB's sector priorities as outlined in the report on the Ninth General Capital Increase in Resources for the Inter-American Development Bank (GCI-9) (AB-2764), particularly with "Social policy for equity and productivity" where the IDB emphasizes well-functioning labor market and appropriate vocational training linked with the skills demanded by the industry in order to achieve sustainable reduction in poverty and inequality. This operation will present how well-developed vocational training could support better labor market and sustainable poverty alleviation. It also contributes to the priority areas under the IDB Country Strategy with Guyana 2012-2016 (GY-P1067), which include "Natural resources management" through boosting productivity growth of labor in natural resource-based economic activity with sustainability, as well as "Private sector development" where the IDB supports improvement in quality of technical and vocational education and training. This TC is also aligned with the objectives of the Policy Based Loan (PBL) operation GY-L1039 "Environment Sector Strengthening – I", which is currently going through the approval process. This operation seeks to strengthen the governance and policy framework that supports the implementation of the Low Carbon Development Strategy (LCDS) within the Ministry of Natural Resources and the Environment (MoNRE)<sup>5</sup>, and assist Government of Guyana's (GOG) efforts to improve the development of forest-dependent sectors, including mining, and support development of efficient Monitoring Reporting & Verification System (MRVS).

#### IV. Description of activities

- 4.1 In order to achieve its objectives, this Technical cooperation contemplates the development of activities and preparation of products, which are organized in the five components detailed below:
- 4.2 **Component I: Facilities upgrading in Guyana:** Component I will have resources allocated to upgrade training facilities. An initial rapid assessment of the prospective learning facilities will be conducted at project outset to determine needs and requisite equipment for the sustainable delivery of the course design and delivery program. This evaluation will determine the nature and cost of necessary upgrading, examining possible synergies with existing facilities and initiatives. This initial diagnosis will identify potential providers to support the acquisition of the materials necessary for upgrading the Guyanese technical facilities, which may include equipment (i.e. the purchase of learning terminals, including computers, an LCD projector, appropriate software licenses) as well as materials for the physical rehabilitation of classroom space (i.e. paint, light fixtures, desks and chairs, air conditioning).
- 4.3 **Component II: Course design and delivery in Guyana:** Component II will focus on delivering skills-oriented training and certification (balanced with respect to gender equity) to Guyanese looking to enter or currently employed within the extractive industries. It is expected that training courses will be designed and delivered in close collaboration with the Guyana private sector. Collaboration with the private sector including small and medium enterprises (SMEs) will help

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<sup>5</sup> LCDS 2010- Developing Required Capabilities 2010. Section 6. Page 39-41.

guarantee training closely matches with industry needs as well as GOG's priorities on environmental footprint and compliance. The focus of courses will be on practical skills and technician-level instruction geared toward lower-socioeconomic groups. Accordingly, training will conform to current national, regional (Caribbean Vocational Qualification CVQs) and/or international training standards and will include certification where applicable. Trainers will recognize the existing skill sets and prior credentials of the learners. Accordingly, the expected outcome of these courses is to have upgraded the skill-set for a growing pool of current and prospective employees in the broad extractive industries to further lead into work placement and technical capacity in the sector. This component will be composed of the phases detailed below:

- **Phase I: Needs Assessment:** Initial study to identify specific needs and conditions for sustainability for training delivery, as well as determine priority areas for intervention and training targets.
- **Phase II: Course Design:** This phase will support the design of a tailored curriculum and support materials, aligned with identified training priorities and with the establishment of a methodology to measure and monitor the quality of training actions. Training is expected to be delivered in close collaboration with the Guyana private sector, and closely matching the requirements of the industry and government environmental compliance issues, so as to improve placement opportunities for the trainees.
- **Phase III: Course Delivery:** This phase will focus on the delivery of training courses to extractive industry actors and the following targeted beneficiaries: (i) instructors (Train-the-Trainers); (ii) pre-graduates interested in professional placement in the sector, including local miners and technicians; and (iii) public officials with oversight and management responsibilities in the sector. Formal in-classroom programming will be complemented where feasible with on-site delivery and practical work placements. The focus of training will be on practical skills and technician-level instruction. Courses will include exit questionnaires for trainees to evaluate the quality and appropriateness on the training delivered.

4.4 **Component III: Scoping Study Extractive Industry Technical Training at the Caribbean Regional Level:** The main objective of Component III is the preparation of a scoping study of Caribbean regional training capability in the extractive industries, with specific focus on opportunities for regional collaboration and private sector partnership/engagement. This study will help identify opportunities for regional linkages on **vocational and technical training in the extractive industries for target beneficiaries such as:** (i) trainers; (ii) technicians/operators; (iii) local small-scale miners; and (iv) managerial-level officials. Moreover, it will also allow collaboration regarding the expansion of technical and operational training programs, specifically linking the TC with the loan with C. Kersten & Co. N. V. (CKC) currently lead by the Industries & Services Division (SCF/CFI), on scaling up a Suriname vocational training program for the use of heavy equipment in mining and involving eligible labor force candidates from the Region.

- Additionally, this study will delineate the economic, institutional, political will and costs associated with the regional approach and will recommend the type of training activities that can be supported by a regional/institutional arrangements (existing or new), the types of partnerships that would need to be established to finance the initiative, and skills upgrading and employment outcomes that can be expected in the medium term.

4.5 **Component IV: Monitoring and Dissemination:** An important aspect of the project will be the dissemination of project information and lessons learned. This will be achieved through seminars on project outputs delivered to IDB and a final report in both hard and electronic format.

- 4.6 **Component V: Project management:** Based at IDB in Washington D.C., a Project Manager will ensure accurate and timely execution of the project, coordination between the Guyana pilot and Caribbean study and will help to mitigate operational risks.

### Indicative Results Matrix

Impact Indicators	Base Level (2013)	2014	Target Level (2015)
Technical skills for the targeted beneficiaries are upgraded, and match Guyana's needs	Vocational and technical training needs are identified	Completed facilities upgrading and significant progress towards the design and delivery of the training.	Training program delivered. Certification identified. 80% of students evaluate the training program as "highly useful and complete" for the needs identified as priority in Phase I of Component II.
Outcome Indicators			
Component 1: Infrastructure Upgrading	Base Level (2013)	2014	Target Level (2015)
Diagnostic Report	0	1 Report	1 Report
# of facilities upgraded	0	TBD by the results of the Diagnostic Report	TBD by the results of the Diagnostic Report
Component 2: Course Delivery	Base Level (2013)	2014	Target Level (2015)
# of Needs Assessment Reports	0	1 Report	1 Report
# of Tailored Course Curricula	0	2 Course Curricula	2 Course Curricula
# of Trainee Exit Questionnaires	0	At least 35 questionnaires	At least 140 questionnaires
# of trainees (by beneficiary type)	0	55 trainees	180 trainees
• Trainers	0	10	10
• Public Officials	0	15	60
• Pre-graduates	0	30	110
Proportion of Females in each cohort	N/A	20%	25%
Proportion of Minorities in each cohort	N/A	10%	10%
# of Survey Assessment Reports	0	0	1
Component 3: Regional Scoping Study	Base Level (2013)	2014	Target Level (2015)
Caribbean Regional Scoping Study	0	0	1 Scoping Study
Component 4: Monitoring and Dissemination	Base Level (2013)	2014	Target Level (2015)
# of Publications	0	0	1 Final Report
# of Internal IDB Seminars	0	0	1 Seminar
Component 5: Project Manager	Base Level (2013)	2014	Target Level (2015)
# of Quarterly Reports	0	4 reports	8 reports
Final Report	0	0	1 report

### Indicative Budget

Activity/Component	IDB/Fund Funding (US\$)	Local Counterpart (US\$)	Total Funding (US\$)
Component I: Infrastructure Upgrading	60,000	-	60,000
Component II: Course Delivery	170,000	-	170,000
Component III: Regional Scoping Study	40,000	-	40,000
Component IV: Monitoring & Dissemination	20,000	-	20,000
Component V: Project Management (2 years)	135,000	-	135,000
Contingencies	10,000	-	10,000
<b>Total</b>	<b>435,000</b>	<b>-</b>	<b>435,000</b>

- 4.7 The Program might benefit, at a later stage and no later than January 31, 2014, of additional resources amounting to the US dollar equivalent of CAD 161,000. This additional funding would

originate from a resource re-allocation of the unspent balance from a Project Specific Grant (PSG) from the Canadian International Development Agency (CIDA) for project GY-X1001, now closed. In case the availability of additional funding is confirmed, by means of CIDA's approval of the use of these resources for the present Program, the project budget would be increased by the corresponding amount. No additional Bank's approval would be processed. The additional resources from CIDA would be distributed into the exiting components of the TC. CIDA's resources would not be subject to the 5% administrative fee applied by the Bank to PSGs, as this fee had already been applied to the contribution paid in for GY-X1001. The project team would be responsible for the donor reporting which would be agreed with CIDA.

## **V. Executing agency and execution structure**

- 5.1 The TC will be executed by the Energy Division of the Inter-American Development Bank with support from the IDB country office in Guyana.

### **Overall Administration and Monitoring**

- 5.2 A Project Manager (PM) will be hired with resources of this TC to facilitate the execution of the Program. Coordination with governmental entities will be essential in the collection of data and analysis of country-specific strategies. In addition, the PM will be required to summarize quarterly results and updates, as well as mid-term review when 50% of the funds are disbursed or half of the execution time is accomplished, whichever occurs first. A final progress and monitoring report will be prepared at the completion of the Program period, 90 days from the last disbursement and it will have indicators relating to: number of trained labor force and trainees, disaggregated gender information, facilities upgrading and finalized regional study and dissemination outputs and outcomes.

## **VI. Major issues**

- 6.1 No major risks have been identified in the implementation of the TC. However, given the level of planning and coordination required with respect to curricula design, delivery, facility upgrading and regional feasibility studies, the team will need to work closely with consultants and course delivery agents to ensure that the deliverables are produced according to the planned schedule and intended GOG's requirements. For this reason, a PM will be hired to ensure effective coordination.

## **VII. Exceptions to Bank policy**

- 7.1 N/A

## **VIII. Environmental and Social Strategy**

- 8.1 There are no envisioned environmental or social risks associated with this operation. The TC team expects a C classification. (see IDBDocs #[38186418](#) and #[38186417](#))

## **IX. Required Annexes:**

- [Letter of Request](#)
- [Letter for IDB Execution](#)
- [Terms of Reference Components I and II](#)
- [Terms of Reference Project Manager](#)
- [Procurement Plan](#)