

**Moonshot Global LLC** (Moonshot) is a woman-owned, advisory services firm that works with clients to deliver demand-driven solutions to the world's most challenging problems. Moonshot has capabilities in digital and mobile solutions; impact measurement; investment advisory and business acceleration; and knowledge management (KM). Founded in 2013, we are an agile team based in Washington, DC and Santiago de Chile, with project teams in Kinshasa and Kigali. We bring experience in more than 30 countries in every region of the world.



Among our clients are: Bill and Melinda Gates Foundation, British Council, COMESA Regional Investment Agency, DAI, Google, InterAmerican Development Bank, International Finance Corporation (IFC), The MasterCard Foundation, Mobiles for Education Alliance, US Agency for International Development (USAID), and World Bank. Moonshot consultants bring experience with African Development Bank, Consultative Group to Assist the Poor, GSMA, Grameen Foundation, UNCDF, and UNICEF.

Moonshot brings expertise in Environment and Sustainability. Our team has delivered work in Climate Change and Adaptation, Clean Energy Development, Greenhouse Gas (GHG) Footprint Development, and Training of the Private Sector in Efficiency and Renewable Energy, Innovating Approaches to Emissions. Examples of recent projects are included below.

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### CLIMATE CHANGE ADAPTATION AND MITIGATION

#### Climate Change Adaptation and Mitigation Planning for the City of Palo Alto:

Leading cities are looking to mitigate impacts of climate change while using clean energy development to help drive economic prosperity. The objective of the City of Palo Alto Adaptation Roadmap was to examine a broad spectrum of the community's potential climate change vulnerabilities and prioritize adaptation responses based on the greatest risks, needs, and synergies with related planning efforts. The Roadmap served as a guide to adaptation planning by identifying important City-owned and community assets that are vulnerable to climate change impacts, assessing the risk that climate change poses to those assets, and recommending response actions that the City should integrate into its planning efforts to mitigate that risk. The overall goal is to establish a stronger framework for gathering data, making decisions, and prioritizing actions that will improve the City's resilience to climate change.

#### World Bank Group Analysis of Lending Practice Impacts on GHG Emissions:

Many of the World Bank's projects have global and domestic environmental costs and benefits. This issue was of importance to the Global Environment Facility, because the costs associated with projects to further global environmental objectives are often borne by lending countries supporting local development projects. A Moonshot expert was the lead author of this study that reviewed principals of cost allocation and the separation of and quantifying of global and domestic climate-related benefits. The study focused on how projects that promote the production of specific types of non-forest biomass can address both domestic and global climate-related issues. This study resulted in the World Bank-published report: Environment Working Paper No. 59.

#### Mitigating GHG Emissions From Transportation Sources In China:

The World Bank was evaluating the environmental impact of a transportation sector structural adjustment loan for China. A Moonshot expert assessed the impact of this loan on GHG and local air pollutants. Karl prepared an inventory of GHG and local emissions from the growth in the transportation sector, and developing a comprehensive plan for mitigating the negative environmental impacts of this loan for the World Bank.

## **CLEAN ENERGY DEVELOPMENT**

### **Implementing Community Choice Aggregation to drive zero carbon communities:**

On behalf of the City of Pleasanton and county of Alameda, a Moonshot expert led an analysis of municipal costs, benefits and risks of a proposed Community Choice Aggregation project to achieve local management of energy development. Assessed areas of identified risks to the City and County including load forecasts, availability of renewable supplies and practicality of meeting State clean energy regulations. Provided roadmap to drive clean energy economy throughout the County.

## **TRAINING OF PRIVATE SECTOR IN EFFICIENCY AND RENEWABLE ENERGY**

### **Energy Efficiency and Conservation in Jamaica:**

USAID implemented the Energy Sector Assistance project to help alleviate Jamaica's large financial challenges in the energy sector. Jamaica relies on imported petroleum to meet 90 percent of its overall energy needs and 98 percent of commercial energy consumption. In order to reduce this large draw on foreign reserves, this program focused on energy conservation by the private sector, and training of staff to reduce efficiency and promote renewable energy. The assignment resulted in a detailed plan to significantly reduce energy consumption and provide training and assessment tools for the private sector to assess current energy consumption and reduce energy costs. The project highlighted the importance of a financial necessity to conserve energy; a sound economic policy and appropriate environmental regulations; a relatively quick payback for investments in energy conservation; a competitive economic environment; beneficiary commitment; and a limited role for government.

### **Clean Energy Management – Best Practices Training:**

A Moonshot expert served as a thought-leader and lead-lecturer in developing sustainability roadmaps for California PUC-funded "Step up and Power Down" circles, which provide a 5-month peer-learning program to imbed sustainable practices across operations. Key components of this training include improving energy efficiency and renewable energy development, with a focus on energy management, green buildings and manufacturing standards. The training of these companies included Dolby Labs, Natera, Orchard International Group, Amyris, Western Digital, City of San Jose, City of Petaluma, University of California, Intercontinental Hotels, Bank of the West, and Pacific Gas and Electric.

### **Energy Efficiency Training for the Private Sector, South Africa:**

South Africa's growth in electricity demand was outstripping the ability of incumbent utility, ESKOM, to generate sufficient supply. A Moonshot expert served as the energy efficiency trainer for over 15 major corporations in South Africa with support from both ESKOM and Hewlett Packard. This training examined standards for both buildings and industrial processes, and developed a comprehensive strategy for reducing energy consumption and GHG emissions.

## **INNOVATING GHG EMISSIONS FOOTPRINT DEVELOPMENT**

### **Innovating GHG Emissions Footprint Estimations for Cities through Green Buildings:**

Cities around the world are taking systematic steps to reduce municipal resource use and GHG emissions are increasingly motivated by the significant cost savings opportunities they are uncovering. Reductions in resource use and their related cost savings are great advantages in difficult economic times, but achieving them requires focus, timely access to resource use information, and new management processes. A Moonshot expert led a team of experts to drive innovative and comprehensive enterprise-wide approaches to estimate GHG emissions and focus on green buildings and manufacturing standards as well as the development of new comprehensive emissions footprint systems for the Cities of Palo Alto and Metro Vancouver. These systems enabled both cities to effectively target emissions reductions plans to maximize the effectiveness of GHG emissions actions.