Alluvial Diamond Resource Potential and Production Capacity Assessment of Guinea

By Peter G. Chirico, Katherine C. Malpeli, Mark Van Bockstael, Mamadou Diaby, Kabinet Cissé, Thierno Amadou Diallo, and Mahmoud Sano

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# Contents

Abstract...........................................................................................................................................................1  
Introduction.....................................................................................................................................................1  
Kimberley Process Certification Scheme .................................................................................................1  
Kimberley Process Verification ..................................................................................................................2  
2009 Kimberley Process Administrative Decision on Guinea ...............................................................2  
Historical Setting............................................................................................................................................4  
The History of Diamond Mining in Guinea .................................................................................................4  
Guinea’s Mining Code and 2009 Legislation ...............................................................................................5  
Previous Estimate of Diamond Resources ...............................................................................................5  
Geologic Setting.............................................................................................................................................6  
Geographic Setting........................................................................................................................................6  
The Geology and Diamond Deposits of Guinea ..........................................................................................7  
Alluvial Diamond Deposits ..........................................................................................................................7  
Previous Studies Examining Guinea’s Alluvial Diamond Deposits ..........................................................7  
Study Areas...................................................................................................................................................13  
Fieldwork Missions in Guinea ..................................................................................................................13  
Deposit Types ................................................................................................................................................16  
Forécariah-Coyah Region ..............................................................................................................................16  
Kindia-Télimélé Region ...............................................................................................................................22  
Kissidougou-Macenta Region .....................................................................................................................26  
Kérouané Region ..........................................................................................................................................32  
Methodology .................................................................................................................................................40  
Diamond Assessment Methods ..................................................................................................................40  
Components of Diamond Resource and Production Capacity Assessments ............................................40  
Bibliographic and Historical Research .........................................................................................................40  
Field Mapping .............................................................................................................................................40  
Remote Sensing and GIS ...............................................................................................................................40  
Hydrological Analysis and Geomorphologic Modeling ...............................................................................41  
Diamond Resource Potential Methodology .................................................................................................42  
Diamond-Production Capacity Methodology .............................................................................................42  
GIS Modeling Results ...................................................................................................................................44  
Diamond Resource Potential Results .........................................................................................................44  
Diamond-Production Capacity Results .....................................................................................................47  
Conclusion....................................................................................................................................................48  
References Cited..........................................................................................................................................48
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Abstract

In May of 2000, a meeting was convened in Kimberley, South Africa, by representatives of the diamond industry and leaders of African governments to develop a certification process intended to assure that export shipments of rough diamonds were free of conflict concerns. Outcomes of the meeting were formally supported later in December of 2000 by the United Nations in a resolution adopted by the General Assembly. By 2002, the Kimberley Process Certification Scheme (KPCS) was ratified and signed by diamond-producing and diamond-importing countries.

The goal of this study was to estimate the alluvial diamond resource endowment and the current production capacity of the alluvial diamond mining sector of Guinea. A modified volume and grade methodology was used to estimate the remaining diamond reserves within Guinea’s diamondiferous regions, while the diamond-production capacity of these zones was estimated by inputting the number of artisanal miners, the number of days artisans work per year, and the average grade of the deposits into a formulaic expression.

Guinea’s resource potential was estimated to be approximately 40 million carats, while the production capacity was estimated to lie within a range of 480,000 to 720,000 carats per year. While preliminary results have been produced by integrating historical documents, five fieldwork campaigns, and remote sensing and GIS analysis, significant data gaps remain. The artisanal mining sector is dynamic and is affected by a variety of internal and external factors. Estimates of the number of artisans and deposit variables, such as grade, vary from site to site and from zone to zone. This report has been developed on the basis of the most detailed information available at this time. However, continued fieldwork and evaluation of artisanally mined deposits would increase the accuracy of the results.

Introduction

Kimberley Process Certification Scheme

In May of 2000, a meeting was convened in Kimberley, South Africa, by representatives of the diamond industry and leaders of African governments to develop a certification process intended to assure that export shipments of rough diamonds were free of conflict concerns. Outcomes of the meeting were formally supported later in December of 2000 by the United Nations in a resolution adopted by the General Assembly (A/RES/55/56). By 2002, the Kimberley Process Certification Scheme (KPCS) was ratified and signed by diamond-producing and diamond-importing countries.

The KPCS is an international activity whose goal is to prevent the trade of “conflict diamonds” while helping to protect legitimate trade through monitoring the production, exportation, and importation of rough diamonds throughout the world. To accomplish this task, the KPCS requires that every country set up an internal system of controls and checks to prevent conflict diamonds from entering an imported or exported shipment of rough diamonds. Every rough diamond and diamond shipment must be accompanied by a Kimberley Process (KP) certificate and be contained in tamper-proof packaging. The certificate includes an export origin section, an import verification section, and a security slip. The KP also requires that no diamonds are imported from or exported to a nonmember of the KPCS.