United Nations Conference on Trade and Development					
MULTI-YEAR EXPERT MEETING ON COMMODITIES AND DEVELOPMENT					
21-22 April 2016, Geneva					
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Gold in the African economy: The case of artisanal mining in the Sudan					
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Ву					
Mr. Karamo NM Sonko, President and Chief Executive Officer, Jula Consultancy, Sharjah, United Arab Emirates, and Executive Vice President for Africa, Sand Metals Incorporated					
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Jula Consultancy, Sharjah, United Arab Emirates, and Executive Vice President for Africa, Sand Metals Incorporated					



Nothing fascinates the human being more than it. Whether





-Babies...





even in their sleep?



The Pharaohs...



even in their graves!

It is the most famous 4-lettered word in history...

GOLD!





Dr. Karamo NM SONKO

President, Jula Consultancy FZE, Sharjah, United Arab Emirates

&

Executive Vice President, Sand Metals Inc., Vancouver, Canada



GOLD IN THE AFRICAN ECONOMY:

THE CASE OF ARTISANAL MINING IN THE SUDAN

UNCTAD, 8th Multi-Year Expert Meeting on Commodities and Development, Geneva, 21-22 April 2016



Mine production of gold, in kilograms

I. AFRICA AND THE GOLD ECONOMY

1. Africa's Nations of Gold

2011

2040

2012

2012

Country	2010	2011	2012	2013	2014
Algeria	723	340	264	140	80
Botswana	1 774	1 562	1 522	1 206	958
Burkina Faso	23 525	32 188	29 873	33 600	37 200
Burundi	2 933	1 052	2 046	2 823	1 000
Cameroon	* 600	* 600	* 600	* 600	* 600
Congo, Democratic Republic	10 000	10 000	17 000	20 000	36 000
Egypt	4 675	6 305	8 175	11 102	11 734
Eritrea	* 30	11 788	9 735	2 862	840
Ethiopia (b)	6 003	10 322	12 581	13 050	10 340
Gabon	* 300	* 300	684	1 201	1 012
Ghana (c)	92 380	90 959	89 768	99 303	98 528
Guinea	24 836	15 779	16 153	18 139	15 660
Ivory Coast	5 3 1 6	11 009	11 232	12 949	* 17 000
Kenya	2 355	1 636	3 600	2 100	0
Liberia	666	449	641	600	535
Madagascar (c)	46	1	157		_
Mali	* 44 300	* 42 300	* 41 200	* 46 200	* 45 400
Mauritania	8 326	8 198	7 647	9 5 1 8	9 625
Morocco (a)	650	520	532	463	377
Mozambique	106	111	178	180	197
Namibia	2 683	2 112	2 402	2 036	2 139
Niger	1 950	1 957	1 677	1 041	732
Nigeria	3 7 1 8	* 3 700	* 4 000	* 4 000	* 4 000
Senegal	5 354	4 089	6 666	6 445	6 588
Sierra Leone	270	164	141	96	33
South Africa	188 702	180 184	154 180	159 724	151 622
Sudan	34 000	* 40 000	44 500	70 000	* 70 000
Tanzania	39 448	37 085	39 012	43 390	40 598
Togo	10 452	16 469	18 551	21 086	20 583
Zambia (d)	3 410	3 493	4 232	5 207	4 803
Zimbabwe	19 240	12 993	14 743	14 001	15 386
JULA FZE	*ostimates		Source:	Pritish Goologica	al Survey 2016
A 907777	*estimates		Source.	British Geologica	il Julvey, 2010

2. Africa's Golden Companies (By tonnes of atributable gold production)

2.	. Africa's Golden Companies	(By tonnes of atributable gold	production)
Rank	Company	Domicile	2014 output
1.	Barrick	Canada	194.4
2.	Newmont	USA	150.7
3.	AngolGold Ashanti	South Africa	138.0
4.	Goldcorp	Canada	89.3
5.	Kinross	Canada	83.0
6.	Newcrest	Australia	72.4
7.	Gold Fields	South Africa	69.0
8.	Navoi	Uzbekistan	61.0
9.	Polyus	Russia	52.7
10.	Sibanye	South Africa	49.4
11.	Agnico Eagle	Canada	44.4
12.	China Nat. Gold	China	40.2
13.	Freeport	USA	37.8
14.	Randgold	Jersey	35.7
15.	Shandong	China	35.4
16.	Harmony	South Africa	35.2
17.	Yamana	Canada	33.2
18.	NordGold	Russia	30.6

Switzerland

Russia

19.

20.

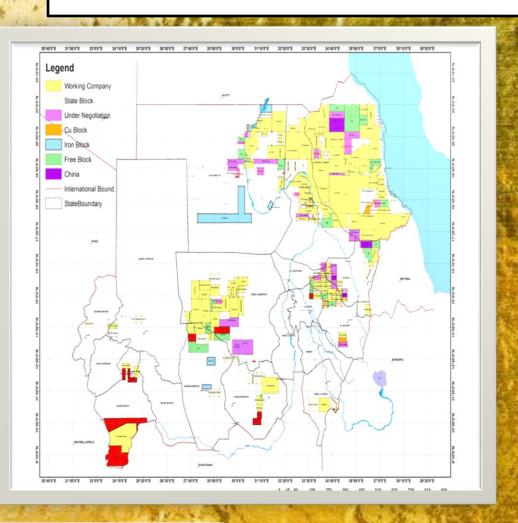
Glencore

Polymetal

Source: Metals Focus, Mineweb

29.7

II. THE SUDANESE ARTISANAL MINING "REVOLUTION": A CASE STUDY



Number of companies (Large scale) (2015): exploration, 160; piloting, 2; producing, 18; Total, 180. No. of companies (Small scale) (2015): exploration, 190; producing, 43; Total, 233. Tailings processing, 50. Other, 370. **Number of artisanal** licenses (2015): Gold Mining (793), Processing (6126),

Source: Geological Research Authourity of the Sudan (GRAS), 2016

Total, 6919.





1. Gold Mining in the Sudan: the Past and the Present



History

•3000 B.C. to the 19th Century: The Glitter of Nubia (Arab and other local tribes in Red Sea Hills, Nuba Mountains, Nubian desert, and South Blue Nile)

Modern Mining: Pre- and Post-Separation

- •Ariab started production from the Hassai mine in 1992, a 60-40 JV with La Mancha
- •The dominance of Ariab/La Mancha
- Deliberate public policy to substitute oil for gold after separation in 2011
- Proliferation of local companies







- Overwhelmingly Sudanese
- Increasing number of foreign nationals in skilled labour and, especially, capital
- Young (less than 40)
- Some child labour (less than 1%, according to official reports)

3. The Evolution of Artisanal Mining **Technology**

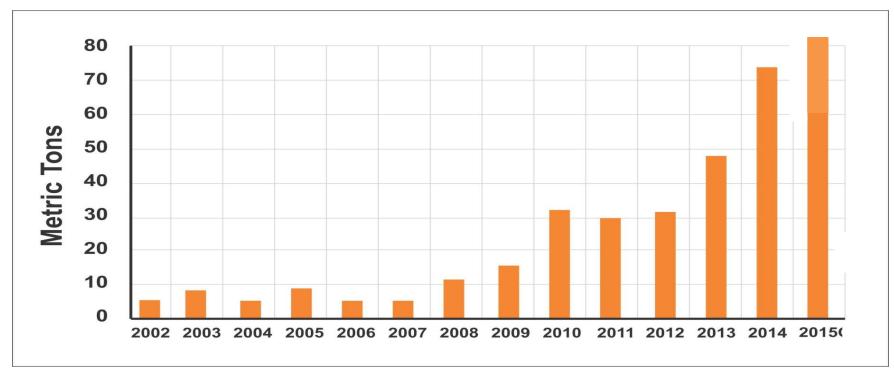
- From chisels and hammers to Metal detectors
- From Metal detectors to **Excavators and loaders**
- From holes to pits & shaking tables
- From pits to processing plants

4. ARTISANAL MINING AND THE SUDANESE ECONOMY



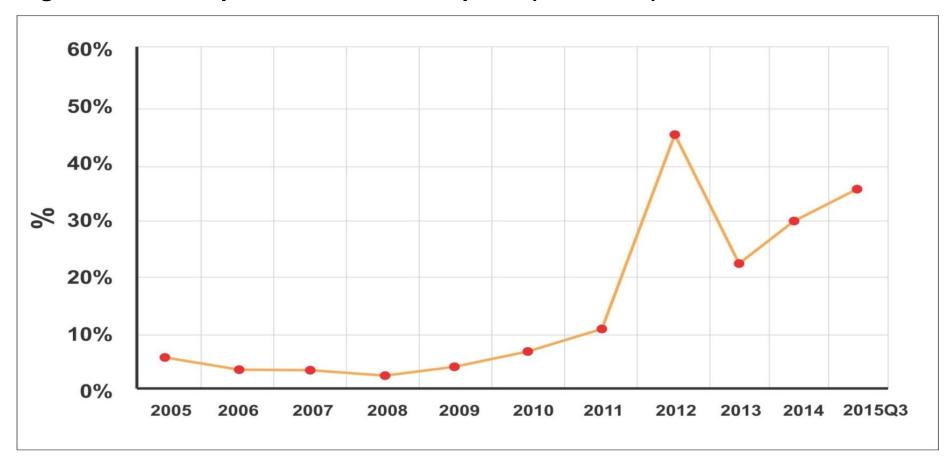
- Production equaled USD\$2.5 billion in 2012, \$2.9 in 2013 & projected to almost double (120 tonnes) in 2016 (\$5.1 bn)
 - About 85% of total production through artisanal activities
 - Growth of subcontracting and other support services (>100,000 companies)
 - Employment (> 1 million directly (2015)) and > four million indirect beneficiaries

Figure 1 : Gold production in Sudan,2002-2015



Sources: Central Bank of Sudan Annual Reports 2002-2014, GEO Services Int. Co Report on Artisanal Mining Impacts prepared for Ministry of Finance 2015, Ministry of Minerals reports 2014-2015 & Mohamed Sulliman (2015)

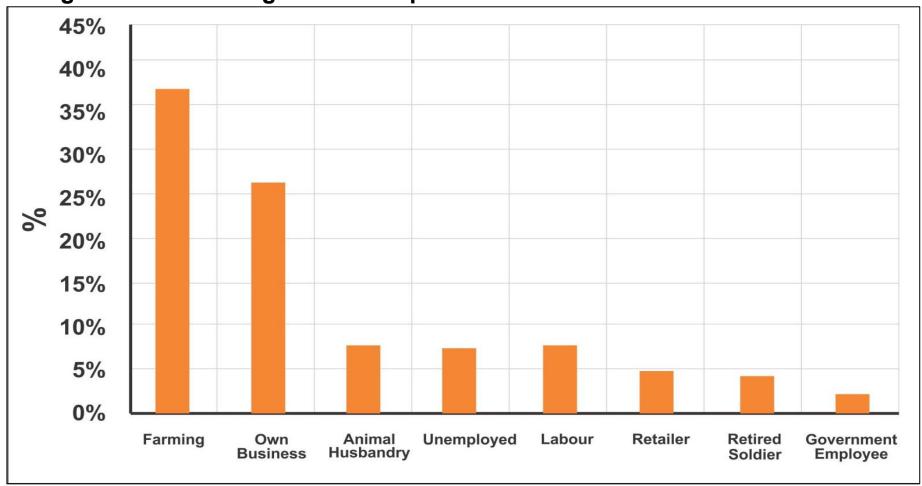
Figure 2 : Gold exports as % of total exports (2005-2015)



Source: Central Bank of Sudan and Mohamed Sulliman (2015). Data on 2015 incomplete



Figure 3: Artisanal gold miners' previous income source



Source: GEO Services Int. Co Report on Artisanal Mining Impacts prepared for Ministry of Finance and Mohamed Sulliman (2015)



5. Artisanal Mining Governance



- Mineral Wealth Development & Mining Act (2015)
- The Regulation of Traditional Gold Mining Act (2012)
 - Sectoral Laws
 - The Supreme Council of Mining
- The Ministry of Minerals: GRAS and SMRC
 - Ministry of Finance: The Central Bank of the Sudan – buyer and exporter since 2011
 - The Refinery inaugurated in 2012 with 270-tonne capacity
 - Royalties, 10%

6. Artisanal mining and social stability



- The International and sociopolitical context
 - Artisanal Gold as a Postseparation economic buffer
 - Political stability (gold vs.

guns)



7. Artisanal Mining: the Cons



- Health and safety: Deadly Pits and Poor Sanitation
 - The Impact on Agriculture
 - Difficulties of regulation and monitoring

8. RECOMMENDATIONS FOR POLICY MAKERS

- Organize and regulate artisanal mining
- Attract junior and senior mining companies
- Avoid intra-sectoral conflict among miners
- Watch out for the "Sharks" and gangs
- Use gold revenues for visible sustainable economic and community development
- Educate artisanal miners on health and safety
- •Train artisanal miners in post-mining entrepreneurial skills, especially for agriculture and small-scale industries
- Protect the Environment





THANK YOU TO ALL OF YOU AND MY RESEARCH ASSISTANT!



