

# 26<sup>th</sup> World Gas Conference

1 – 5 June 2015, Paris, France



Gas Flaring:  
An industry practice faces increasing global attention

Bjorn Hamso, Program Manager – Global Gas Flaring Reduction Partnership  
The World Bank



# Gas Flaring – Why Should It Stop?

- The large volumes
  - About 140 billion cubic meters annually
  - Enough to produce 750 billion kWh power
    - More than the entire power consumption on the African continent
- The CO<sub>2</sub> emissions
  - About 350 million tons annually
  - Equivalent to about 77 million cars
- The black carbon from flares...
  - In and near the Arctic impacting the reflective power of the snow and ice cap



...and health impacts when people live near flares





Greenland (National Geographic)

# Timely to Act – Climate Negotiations Ahead



- Here in Paris in December 2015
- CO<sub>2</sub> emission reduction plans
  - Under preparation by governments before the Conference of the Parties (COP21) to the UN Framework Convention on Climate Change (UNFCCC)
- Gas flaring reduction may be in contributions from oil-producing nations

- Gas flaring – the “low-hanging fruit” in a global climate action plan





# Who works on reducing flaring? Companies and governments in this audience

## ...and GGFR – the Global Gas Flaring Reduction Partnership



### Companies

- BP
- Chevron
- Eni
- ExxonMobil
- Kuwait Oil Company
- Pemex (Mexico)
- Qatar Petroleum
- Shell
- SNH (Cameroon)
- SOCAR (Azerbaijan)
- Sonatrach (Algeria)
- Statoil
- TOTAL

### Countries/Governments

- Alberta (Canada)
- Republic of Congo
- France
- Gabon
- Indonesia
- Iraq
- Kazakhstan
- Khanty-Mansiysk (Russia)
- Mexico (SENER)
- Nigeria
- Norway
- USA
- Uzbekistan
- Yamal-Nenets AO (Russia)

### Institutions, other

- EBRD
- European Commission
- World Bank



Satellite  
detection  
of gas flares.  
Compilation  
for 2013  
(VIIRS Satellite)





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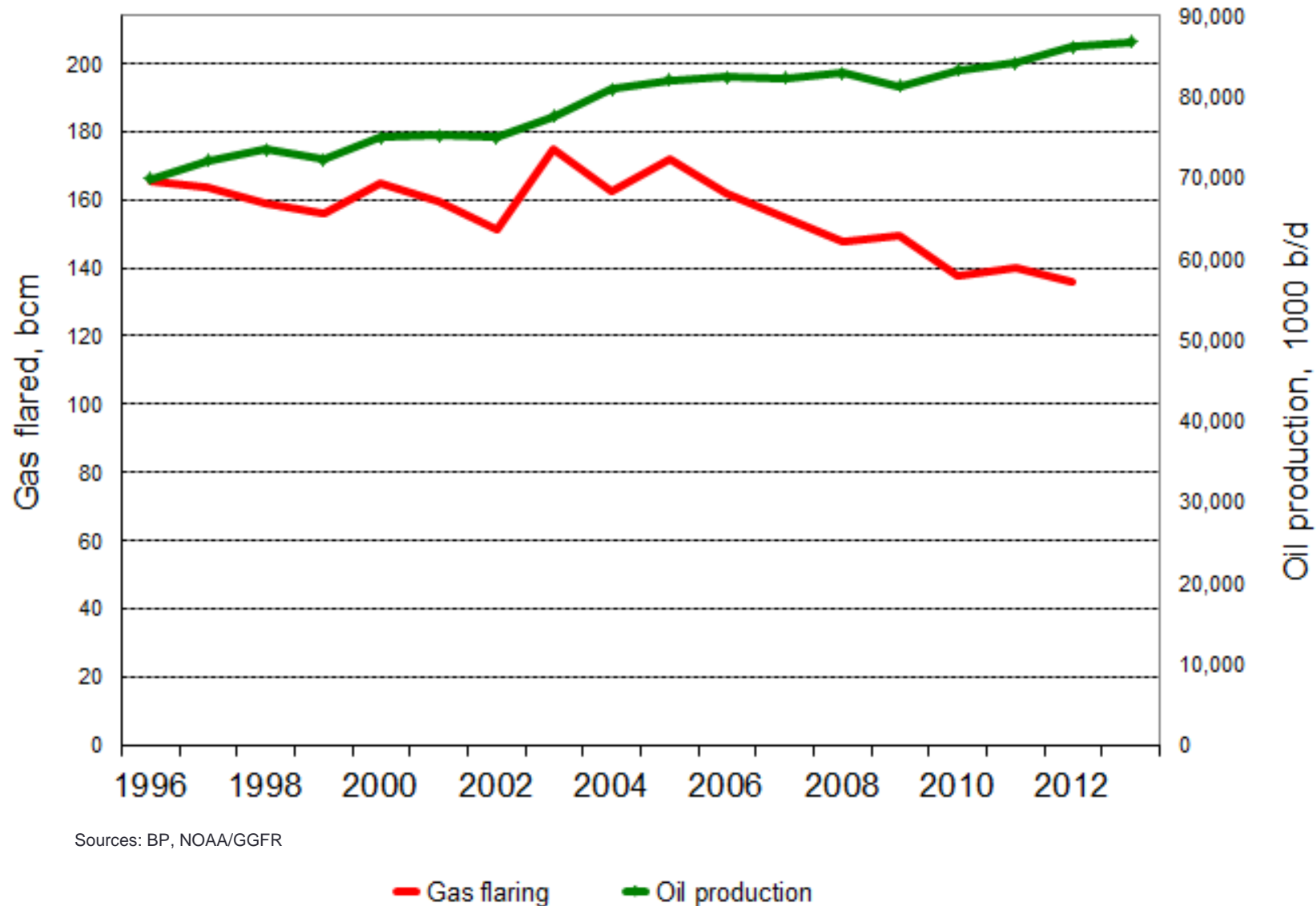


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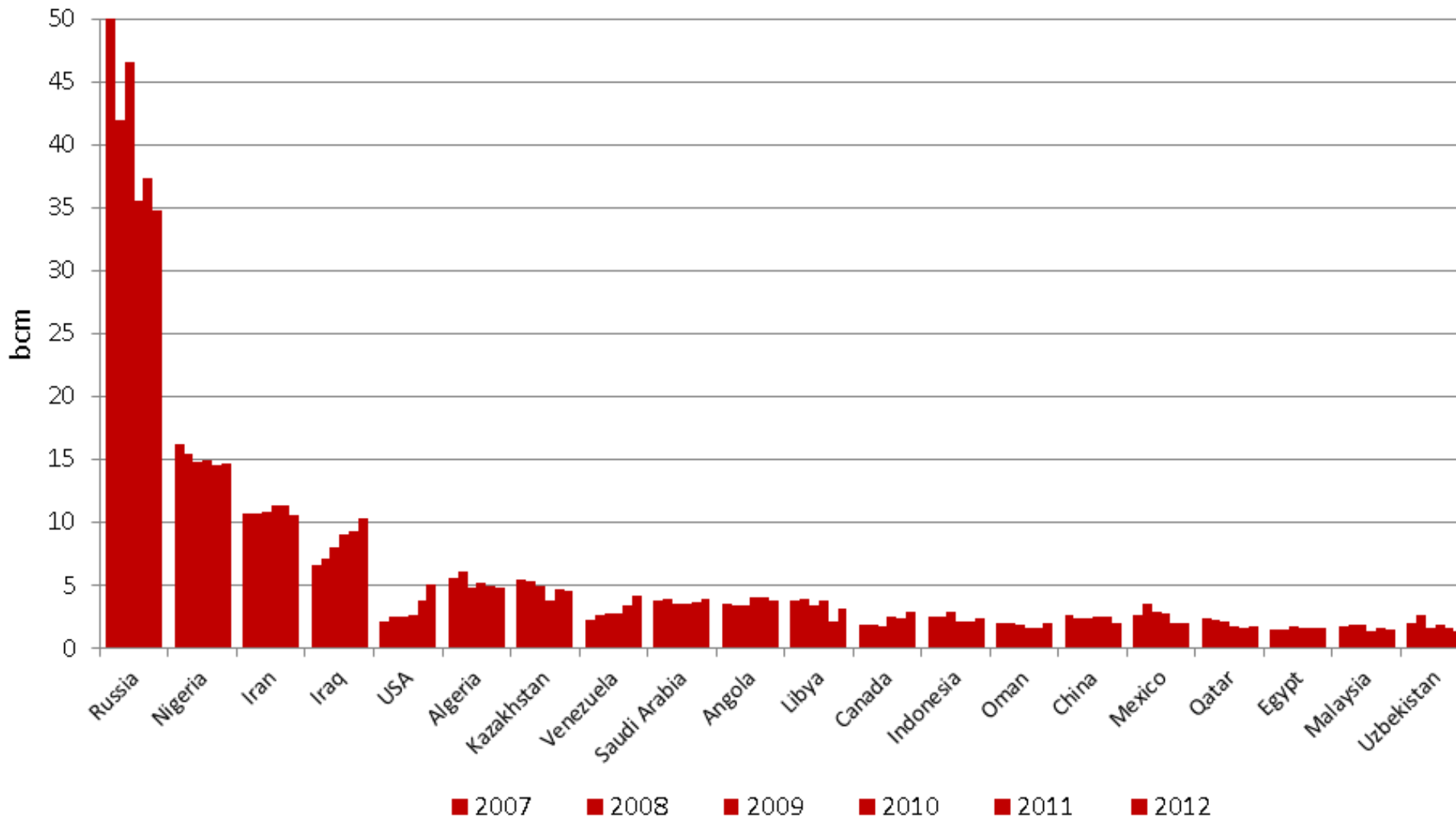


# Gas Flaring – how are we doing?



Global gas flaring  
(red) and oil  
production (green)

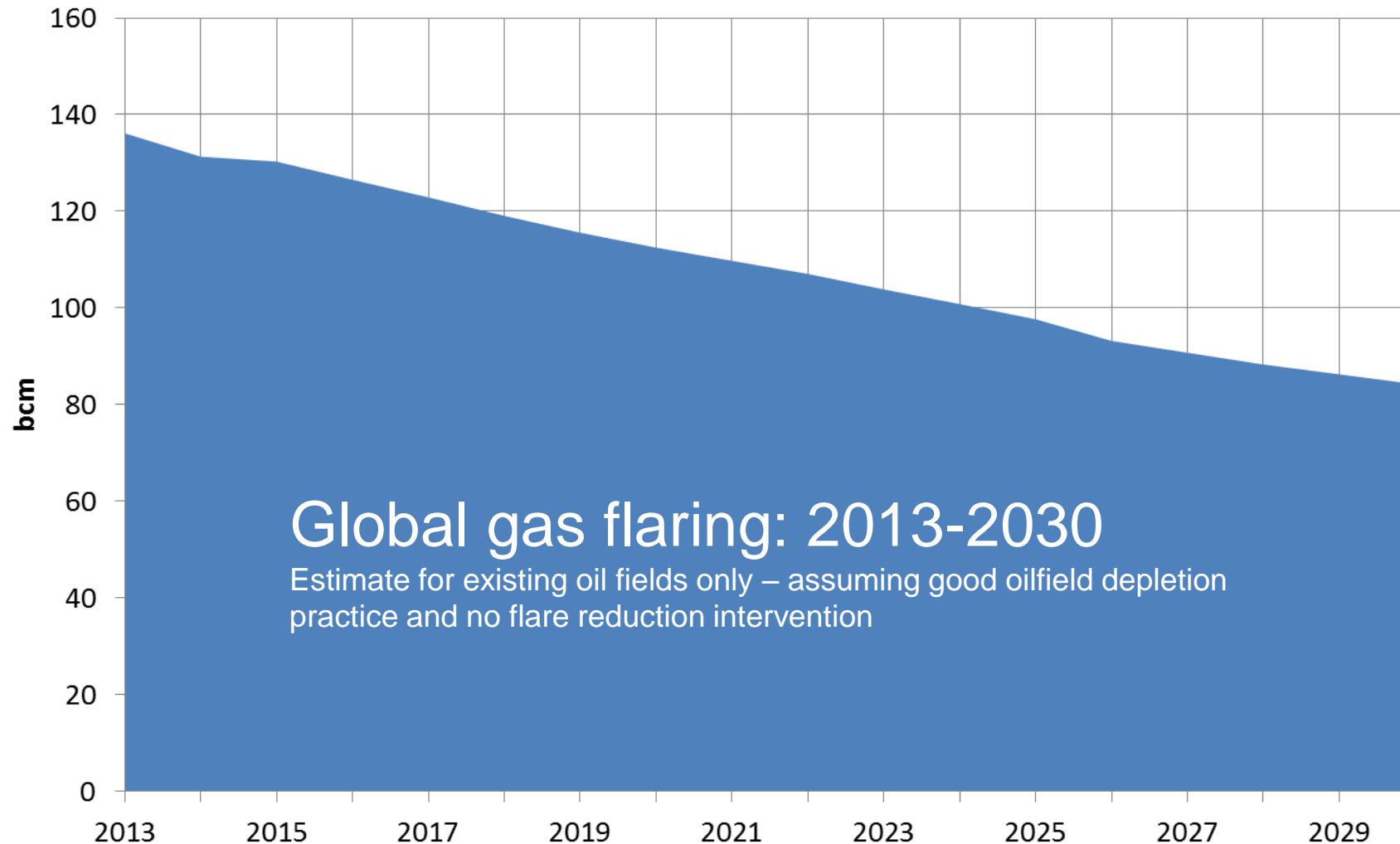
## Who flares gas? – Top 20 countries



Source: NOAA/GGFR



# Will natural oil field depletion take care of the flaring problem? Not really



Source: Energy Redefined

## Global Initiative Launched: “Zero Routine Flaring by 2030”





# Global Initiative: “Zero Routine Flaring by 2030”

The essence

- Oil companies to plan for zero routine flaring in new oil field developments
  - Seek economic solution to end routine flaring at existing oil fields as soon as possible and no later than 2030
- 
- Governments to provide legal/regulatory/investment/operating environment conducive to upstream investments and energy infrastructure and market development. No flaring in new oil developments; end legacy flaring by 2030
- 
- Development institutions to facilitate cooperation and implementation – and consider the use of financial instruments and other measures

## Programs

This page in: **English**

### Zero Routine Flaring by 2030

FEATURED

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#### Combining Forces to End Routine Gas Flaring by 2030

Major oil companies joined senior government officials from several oil-producing countries to commit, for the first time, to ending the practice of routine gas flaring at oil production sites by 2030. [Read More »](#)

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FLARING IN THE NEWS

During oil production, associated gas is produced from the reservoir together with the oil. Much of this gas is utilized or conserved because governments and oil companies have made substantial investments to capture it; nevertheless, some of it is flared because of technical, regulatory, or economic constraints. As a result, thousands of gas flares at oil production sites around the globe burn approximately 140 billion cubic meters of natural gas annually, causing more than 300 million tons of CO<sub>2</sub> to be emitted to the atmosphere.

Flaring of gas contributes to climate change and impacts the environment through emission of CO<sub>2</sub>, black carbon and other pollutants. It also wastes a valuable energy resource that could be used to advance the sustainable development of producing countries. For example, if this amount of gas were used for power generation, it could provide about 750 billion kWh of electricity, or more than the African continent's current annual electricity consumption. While associated gas cannot always be used to produce power, it can often be utilized in a number of other productive ways or conserved (re-injected into an underground formation)

#### LIVING IN THE SHADOW OF FLARES



Ed Kashi / World Bank Group

#### GAS FLARING NEWS

- ▶ In Ecuador, Innovation Leads to Significant CO<sub>2</sub> Reduction
- ▶ Gas Utilization in Kuwait Reaps Economic and Environmental Benefits
- ▶ Time to End Routine Gas Flaring
- ▶ My encounter with gas flares in Iraq
- ▶ Gas Flaring: Let's Light Up Homes Rather than the Sky
- ▶ Rosneft Wins Award for Gas Flaring Reduction Efforts in Russia
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#### MULTIMEDIA

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# Media Coverage: “Zero Routine Flaring by 2030” Initiative

## UPI

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### World Bank: Stop flaring gas

There are no U.S. parties to a U.N.-World Bank initiative to capture more gas.

By Daniel J. Graeber | May 8, 2015 at 9:41 AM

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WASHINGTON, May 8 (UPI) -- Natural gas is a bridge fuel to a low-carbon economy so it's unfortunate companies are burning it off at the wellhead, a World Bank spokesman said Friday.

Lawmakers in Washington this week called on Interior Secretary Sally Jewel to re-evaluate federal policies on so-called flared gas, pointing to a report from the Government Accountability Office finding federal standards are *behind the curve*.

U.N. Secretary-General Ban Ki-moon, World Bank Group and European energy leaders, from Royal Dutch Shell to Norwegian company Statoil, endorsed a plan to eliminate routine flaring no later than 2030.

Some energy companies burn off, or

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### Oil Firms, Nations Agree to End Gas Flaring

Group agrees to end practice of routine flaring of natural gas by 2030



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### Operators, governments commit to end routine gas flaring

Home > News > Operators, governments commit to end routine gas flaring

4/20/2015

WASHINGTON -- Chief executives from major oil companies joined together with senior government officials from several oil-producing countries on Sunday to commit, for the first time, to ending the practice of routine gas flaring at oil production sites by 2030 at the latest.

The Zero Routine Flaring by 2030 initiative—already endorsed by nine countries, ten oil companies and six development institutions—was launched Sunday by United Nations Secretary-General Ban Ki-moon and World Bank Group President Jim Yong Kim.

They were joined by Royal Dutch Shell Chairman Jorma Ollila; Statoil CEO Eldar Sætre; Norwegian Foreign Minister Børge Brende; Gabonese Minister of Petroleum Etienne Dieudonne Ngoubou; and several other senior government and corporate officials, and representatives of international development banks. The endorsees collectively represent more than 40% of

## VANGUARD

20 APRIL 2015

### Nigeria Shuns World Bank-Backed Zero Gas Flaring Summit

Tagged: Business • Energy • Nigeria • West Africa

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By Omoh Gabriel

Chief executives from major oil companies joined senior government officials from several oil-producing countries in Washington to commit, for the first time, to ending the practice of routine gas flaring at oil production sites by 2030 at the latest. The commitment was made on the sideline of the IMF/World Group Spring Meetings in Washington.

On the list of participating countries, Nigeria was absent. Those who endorsed the move are Norway, Cameroon, Russian Federation, Kazakhstan, Gabon, Uzbekistan. Others are Republic of Congo, Angola and France.

The "Zero Routine Flaring by 2030" initiative - already endorsed by nine countries, 10 oil companies and six development institutions - was launched by United Nations Secretary-General, Ban Ki-moon and World Bank Group President, Jim Yong Kim.

They were joined by Royal Dutch Shell Chairman, Jorma Ollila; Statoil CEO, Eldar Sætre; Norwegian Foreign Minister, Børge Brende; Gabonese Minister of Petroleum, Etienne Dieudonne

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- Cameroon: Renewable Energy - Investment

# “Zero Routine Flaring by 2030” Initiative

## Current endorsers (28)

### Countries:

- Angola
- Cameroon
- Republic of Congo
- France
- Gabon
- Kazakhstan
- Norway
- Peru
- Russian Federation
- Uzbekistan

### Companies:

- BG Group
- BP
- Eni
- Kuwait Oil Company
- Petroamazonas EP (Ecuador)
- Royal Dutch Shell
- Société Nationale des Hydrocarbures (SNH – Cameroon)
- Société Nationale des Petroles du Congo (SNPC)
- State Oil Company of the Azerbaijan Republic (SOCAR)
- Statoil
- TOTAL

### Development Institutions:

- African Development Bank (AfDB)
- Asian Development Bank (ADB)
- European Bank for Reconstruction & Dev. (EBRD)
- Inter-American Development Bank (IDB)
- Islamic Development Bank (IsDB)
- United Nations Sustainable Energy for All (SE4ALL)
- World Bank



# “Zero Routine Flaring by 2030” Initiative



The ambition:

- A new global industry standard

Join us now

