Greenhouse gas emission reduction targets versus VIIRS estimated gas flaring in 2015

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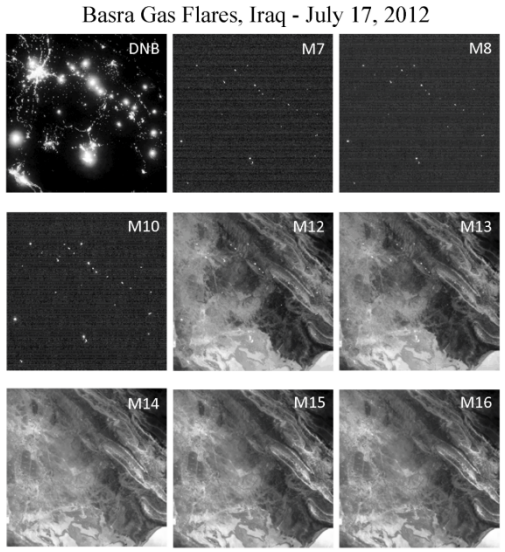
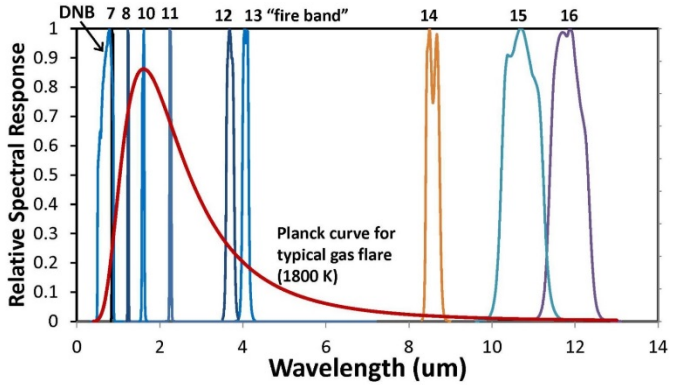
The Nine VIIRS Nighttime Channels

Gas flares are readily detected in the VIIRS M10 spectral band



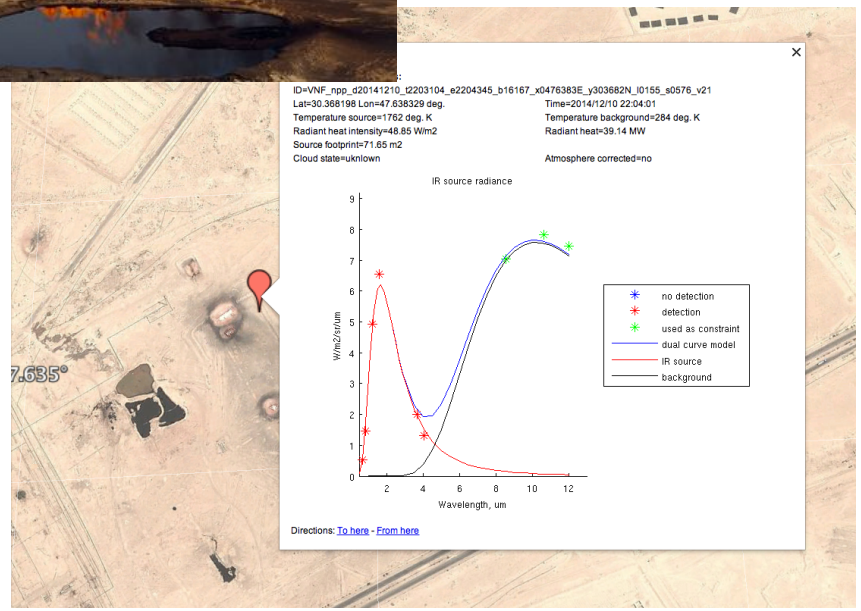


VIIRS Nightfire (VNF):

A global fire product created from nighttime multispectral satellite data

VIIRS data is available from March 2012 – present.
Nine channels of data are collected at night.
VIIRS M-band spatial resolution is 742m at nadir.
Nighttime collection of channel 11 is expected to start in 2016

Flare Array in Basra



Summary

We have compared Paris Climate Agreement greenhouse gas emission reduction targets (INDCs) to VIIRS estimated national CO_2e emissions from gas flares for 2015. With these results it is possible to identify countries who have sufficient gas flaring reduction potential to fully meet the target, those countries that can meet a substantial portion of their targets through gas flaring reductions, and countries who have little potential to meet the targets from flaring reductions. This information could be used by countries to evaluate the potential benefit of embarking on gas flaring reduction programs.

Percent of target that could be met by eliminating gas flaring - 2015

Iraq	241.0
Oman	240.6
Yemen	236.8
Algeria	120.8
Iran	104.4
Tunisia	23.7
Ecuador	17.9
Gabon	16.5
Mauritania	15.1
Kazakhstan	12.3
Angola	11.1
Nigeria	7.4
Indonesia	6.4
Malaysia	6.4
Mexico	4.2
Vietnam	3.0
Trinidad and Tobago	2.8
Niger	2.8
Norway	2.5
Columbia	2.2
Ghana	2.1
Russia	1.5
Peru	1.4
Azerbaijan	1.3
Argentina	1.1
Guatemala	1.03
Australia	0.75
Thailand	0.60
Democratic Republic of C	0.51
Brazil	0.29
European Union	0.16
Jordan	0.12
USA	0.11
Belarus	0.04
Israel	0.009
Bangladesh	0.003
Japan	0.001

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