

Donor country Italy			
Project/programme title Eni Flaring Down Program (exploration & production division)			
Purpose The objective of the plan is to eliminate the practice of gas flaring in the Countries where Eni operates. The recovery of associated gas would contribute to the economic development of the producer Countries while simultaneously reducing impacts on the global climate change			
Recipient country Tunisia, Libya, Congo, Algeria, Nigeria	Sector Oil & Gas	Total funding 3,664 million euros in the 2009-2012 period	Years in operation 2009-2012
Description <p><u>Tunisia: “Gaz du Sud” Project</u> The “Gaz du Sud” integrated project foresees to reduce gas flaring activities within the concessions of Adam, Oued Zar and Djebel Grouz by increasing the gas supply to the STEG National gas transmission system. The project aimed to the recovery of associated gas within the Djebel Grouz field, was completed in 2008. With regard to the project Adam – Gaz du Sud, only the first phase has been completed, while the second phase, foreseeing the installation of back up facilities at the Adam field, is on-going. However, it can be said that the flaring reduction target, defined by the first phase only, has already been achieved.</p> <p><u>Libya: Bouri Gas Recovery project</u> The Bouri field is placed in the Libyan offshore, 120 km far from Tripoli. At the moment the associated gas is completely flared. The Bouri Gas Recovery project objectives are to preserve natural resources and to reduce the emission of pollutants/GHGs into the atmosphere. The first phase of the project foresees to separate the acid gas from the natural gas stream on platform DP4 and to lay down 20km sealines from DP4 to Sabratah platform where the purified gas will be blended with Sabratah produced gas and then delivered to Mellitah processing center. The gas arriving to on-shore Mellitah site will be exported to European market by Greenstream pipeline. Subsequently, in the second project phase, the acid gas stream separated on platform DP4 will be re-injected thus reducing the sulphur content of the flared gas.</p> <p><u>Congo: M’Boundi Gas Valorization</u> The integrated project ‘M’Boundi Gas Valorization includes the implementation of three different projects aimed to recover the associated gas previously flared at the M’Boundi oil field: M’Boundi Gas Gathering, CED (Centrale Electrique du Congo) re-powering and IPP Congo. The first two projects have already been completed. The M’Boundi Gas Gathering has foreseen the construction of a pipeline aimed to transport the recovered gas from M’Boundi to Djeno area where the Power Plants are located. The CED re-powering has foreseen the doubling of the existing power plant from 25MW to 50MW with the installation of a second simple cycle gas turbine. The new IPP Congo of 300 MW will be placed in the Djeno area near the existent CED. The startup of the new open cycle thermo-power plant is scheduled for the end of 2010. Both the power plants will be fed initially with M’Boundi field associated gas. However, the CEC, during the last part of its operational life will be fed by natural gas. The considered projects have a social value as well as an environmental one because they will allow to increase the power production in Congo, contributing to the economic development of the Country.</p> <p><u>Algeria: Zero flaring in 2012</u> ENI Algeria will achieve its strict flaring reduction target, which is ‘zero flaring’ by 2012, thanks to the following projects. The MPP (Multiphase Pumps) project will enable to recover the associated gas, otherwise flared, coming from ZEA, ZEK and ROM oil fields, located in the Algerian desert. The project includes the installation of multiphase pumps (MPP) at M7 site (Phase 1 - completed) and ROM (Phase 2) + one new 12” pipeline of 37km from ROM to M7. This pipeline will allow the transport in multiphase of oil and gas to BRN (T1-T2) for the final treatment (separation-stabilization). The associated gas separated at BRN will be reinjected in BRSW field. MPP is part of the larger ROM project including a GOSP (Oil/Gas/Water Separation Plant) and the debottlenecking of BRN CPF (BRN Central Processing Facility) in order to increase the treatment capacity of BRN plant.</p> <p><u>Nigeria: Flaring down projects</u> Nigeria flaring down program continues with the implementation of several projects proposed</p>			

by NAOC JV aimed to the maximization of gas utilization in its operational areas, for example the construction and upgrade of pipelines gas network, compression stations, gas treatment plants and as injection facilities. The target is the reduction of the ratio between gas flaring and gas production, in order to maximize the associated gas recovery to collect toward the LNG (Liquefied Natural Gas) Terminals..

Moreover, in 2006 the “Recovery of associated gas that would otherwise be flared at Kwale oil-gas processing plant, Nigeria” project was registered as a CDM with the aim of reducing the GHG emissions of about 15 MtCO₂e in the 10 years.

Italy: flaring/venting reduction initiatives:

- Compressors sealing gas recovery at Barbara T1-2 platforms;
- Flaring reduction in Pineto gas treatment plant;
- Long Production Test (LPT) Cerro Falcone started in 2002 until January 2009 with renewal temporary authorization issued by UNMIG and Environmental Regional Department. In 2008 the LPT greenhouse emission was 166.659 ton and the gas flaring was 74.864.600 Sm³. In January 2009 the LPT has been closed, the GHG reduction in the year 2009 is 94% and gas flaring reduction is 99% vs 2008..

Indicate factors that led to project’s success

Eni signed Memorandum of Understanding (MoU) with many national authorities (i.e.: with Nigeria, Congo, Angola, Italy) to facilitate the development of this types of projects.

Moreover, it is foreseen to require the registration as CDM for some GHG reduction projects in order to generate Carbon Credits which could be used for compliance within the European Emission Trading Scheme.

Technology transferred

The flaring down projects in the considered Countries will require the construction of costly infrastructures such as new gas pipelines, highly efficient electrical plants and gas liquefaction facilities, thus the projects’ implementation will be able to promote the transfer of advanced technologies to the local communities.

Impact on greenhouse gas emissions/sinks

Greenhouse gas emission reduction Target:

- Flaring Down Program 2009-2012: about 14 MtCO₂e by 2012, equivalent to a reduction of 70% 2007 flaring emissions;
- CDM-Kwale, Nigeria: expected emissions reduction of about 15 MtCO₂e by 2015.