

# OTM-028: Land use mapping to detect the social impact of O&G developments

## Land use mapping to detect the social impact of O&G developments

### Challenge

	Challenge ID	OTM:028				
1	Title	Land use mapping to detect the social impact of O&G developments				
2	Theme ID	ON 4.2: Environmental monitoring - Continuous monitoring of changes throughout the lifecycle				
3	Originator of Challenge	Onshore: OTM				
4	Challenge Reviewer / initiator	PEMEX, Statoil, Shell, Sasol, Tullow, Petronas				
	General description	Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	O&G operations can have both a positive and negative impact on the local populous. The social aspect of this development can be difficult to track or measure. This may include changes in land use, population density, the displacement of communities/ tribes, etc.				
6	Thematic information requirements	4. Obtain detailed land-use information, 14. Obtain detailed imagery of the surface,				
7	Nature of the challenge - What effect does this challenge have on operations?	Monitoring the social implications of our operations allows us to highlight areas of success and improvement. We hope this will allow us to access greater reserves as we can more clearly articulate the benefits of our operations to future licence holders				
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	Looking at changes against base-line maps. However, base-line maps are often insufficient in detail or date.				
9	What kind of solution do you envisage could address this challenge?	Very high to medium resolution EO data to derive land use information.				
10	What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	Resolution depends on covered area and size of analysis objective				
	Challenge classification					
11	Lifecycle stage	Pre license	Exp.	Dev.	Prod.	Decom.
	Score from impact quantification [1]	1	1	2	3	1
12	Climate classification	NOT CLIMATE SPECIFIC				
13	Geographic context/restrictions	Generic onshore (Unspecified)				
14	Topographic classification / Offshore classification	Generic onshore (Unspecified)				
15	Seasonal variations	Any season				
16	Impact Area	Social impact				
17	Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
	Information requirements					
18	Update frequency	Within a month district area				
19	Data Currently used					
20	Spatial resolution					
21	Thematic accuracy					
22	Example formats					
23	Timeliness					
24	Geographic Extent					
25	Existing standards					

[1] Impact quantification scores: 4 – Critical/ enabling; 3 – Significant/ competitive advantage; 2 – Important but non-essential; 1 – Nice to have; 0 – No impact, need satisfied with existing technology

# Relevant products

## Content by label

There is no content with the specified labels