

# **Oil and Gas Opportunities Through Nominations of Onshore and Offshore Areas in Colombia**

**APRIL 2022**

## COLOMBIAN COMMERCIAL BASINS

### GAS OPPORTUNITIES

#### ❖ CONVENTIONAL

Offshore and Onshore

#### ❖ UNCONVENTIONAL

Shale Gas

### OIL OPPORTUNITIES

#### ❖ CONVENTIONAL

Onshore and Offshore

#### ❖ UNCONVENTIONAL

Shale Oil

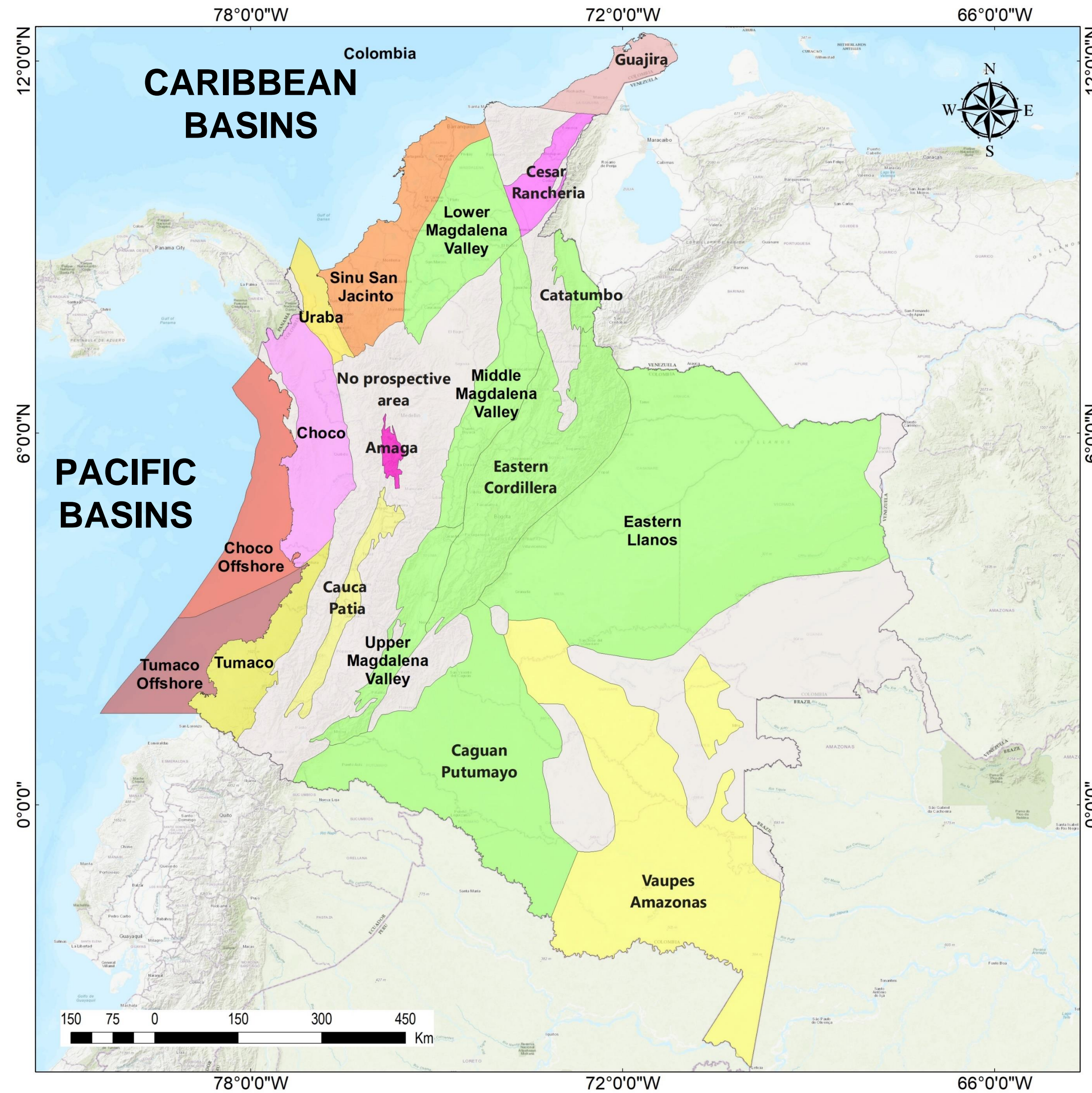
## GAS AND OIL PROSPECTIVE RESOURCES

## COLOMBIAN ROUND STATISTICS

## 2022 NOMINATION STRATEGY



# COLOMBIAN COMMERCIAL BASINS

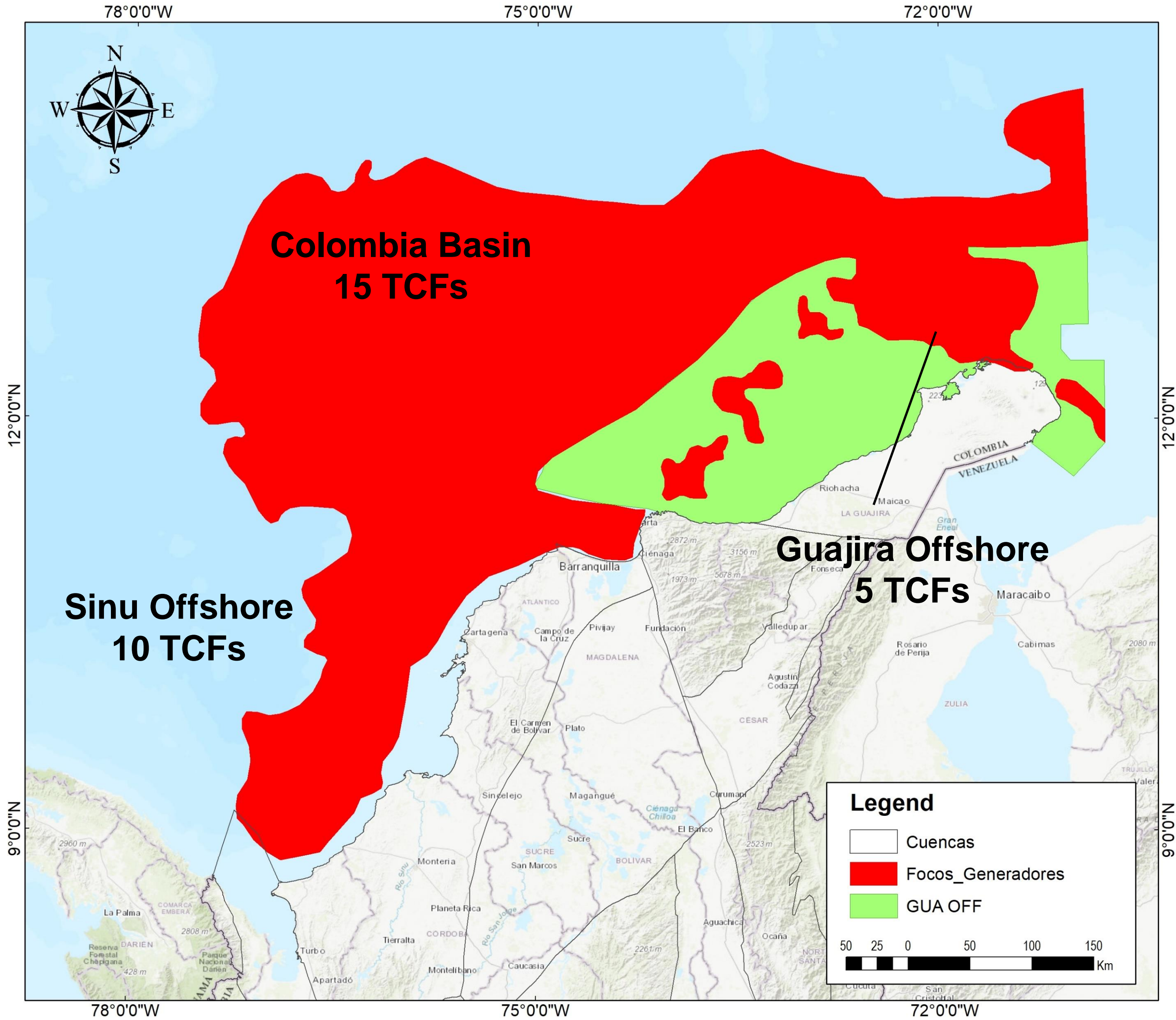


**Eastern Llanos**  
**Middle Magdalena**  
**Upper Magdalena**  
**Lower Magdalena**  
**Caguan Putumayo**  
**Catatumbo**



# GAS OPPORTUNITIES CONVENTIONAL OFFSHORE CARIBBEAN BASINS

Yet to Find



## PROSPECTIVE RESOURCES

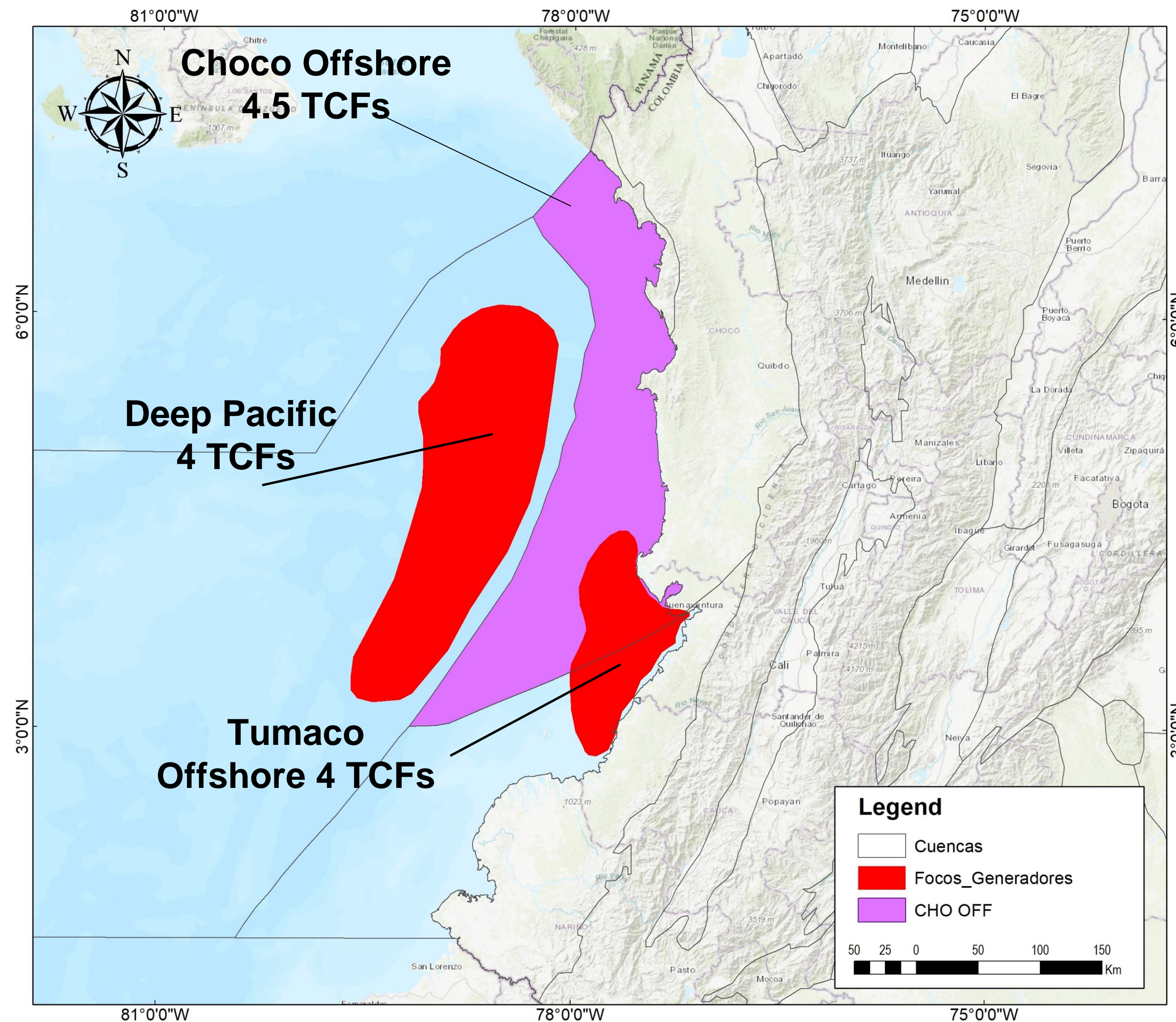
- COLOMBIA BASIN 15 TCFs
- SINU OFFSHORE 10 TCFs
- GUAJIRA OFFSHORE 5 TCFs

**TOTAL 30 TCFs**



# GAS OPPORTUNITIES CONVENTIONAL OFFSHORE PACIFIC BASINS

Yet to Find



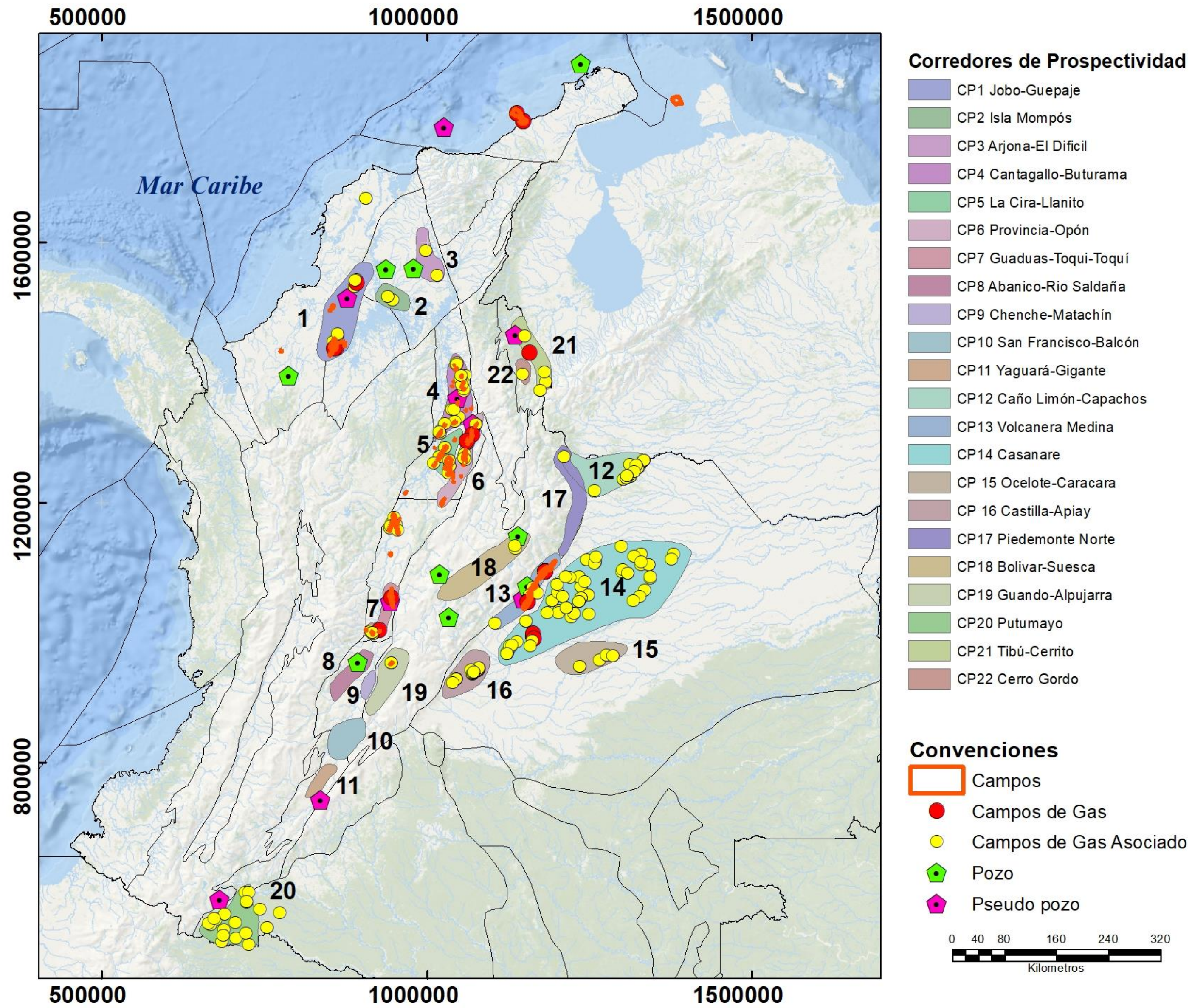
## PROSPECTIVE RESOURCES

- **CHOCO OFFSHORE 4.5 TCFs**
  - **DEEP PACIFIC 4 TCFs**
- **TUMACO OFFSHORE 4 TCFs**

**TOTAL 12.5 TCFs**



# GAS OPPORTUNITIES CONVENTIONAL ONSHORE BASINS

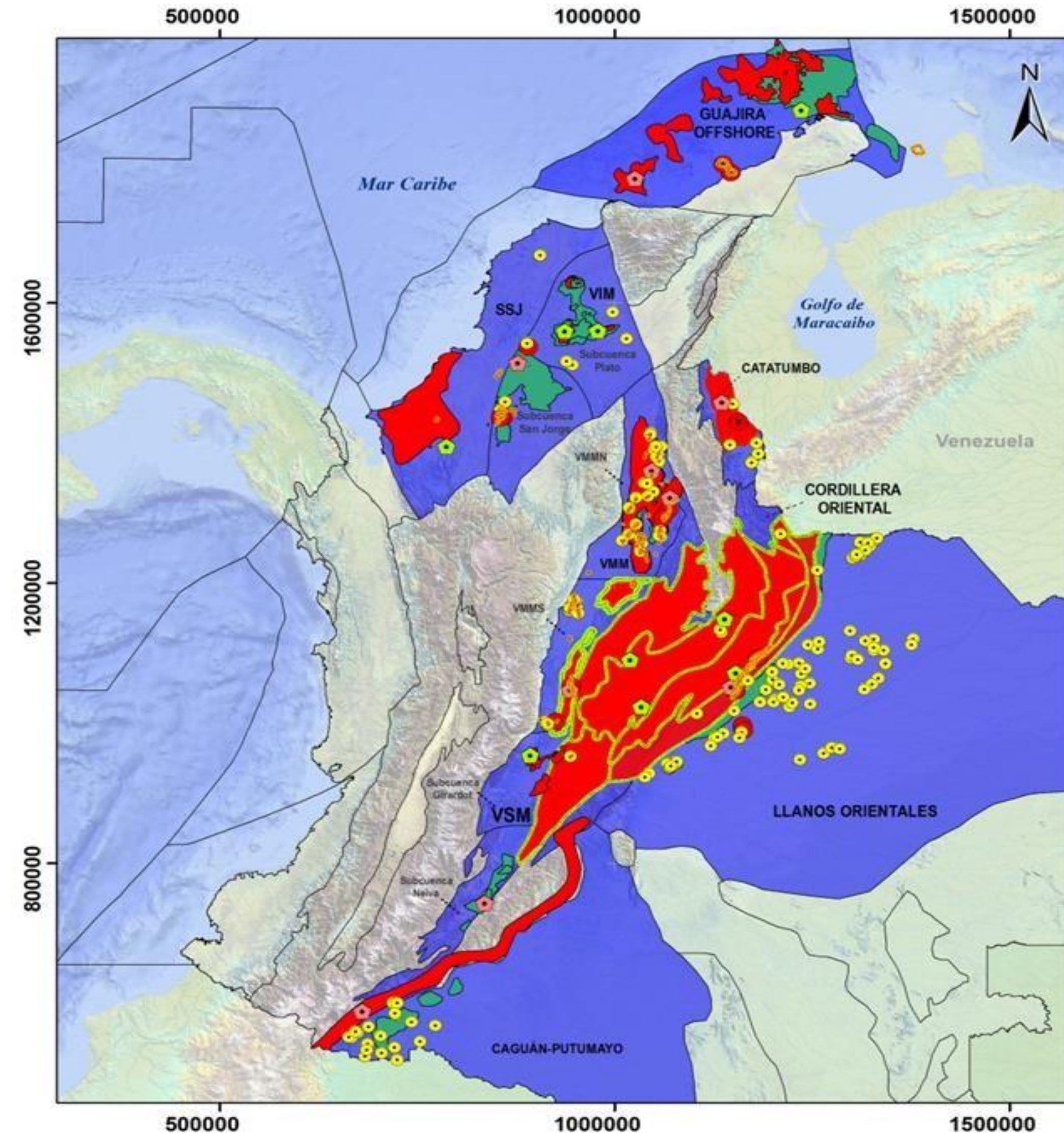


**22 Prospective Gas Play  
Fairways**



# GAS OPPORTUNITIES CONVENTIONAL ONSHORE BASINS

Yet to Find

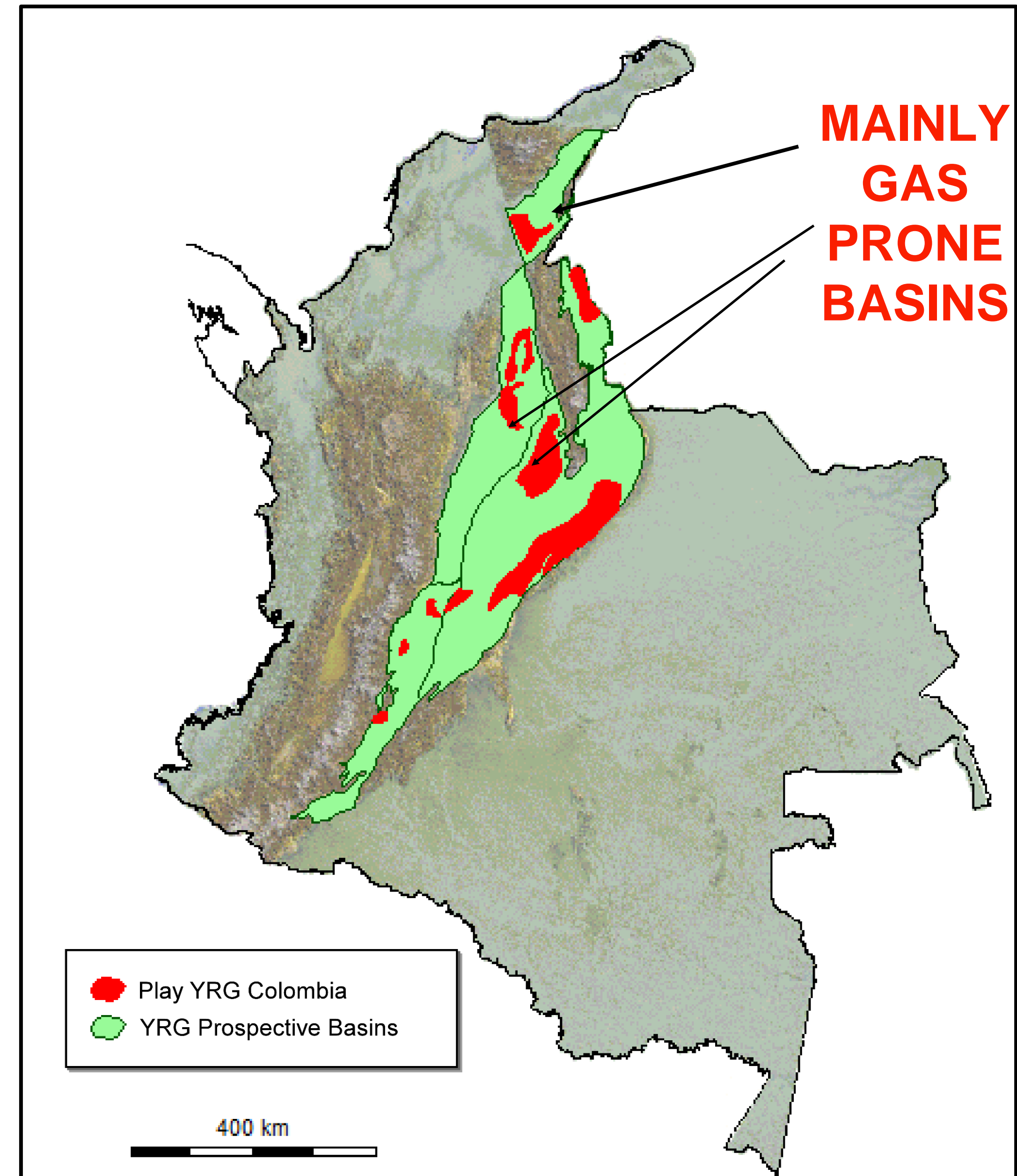
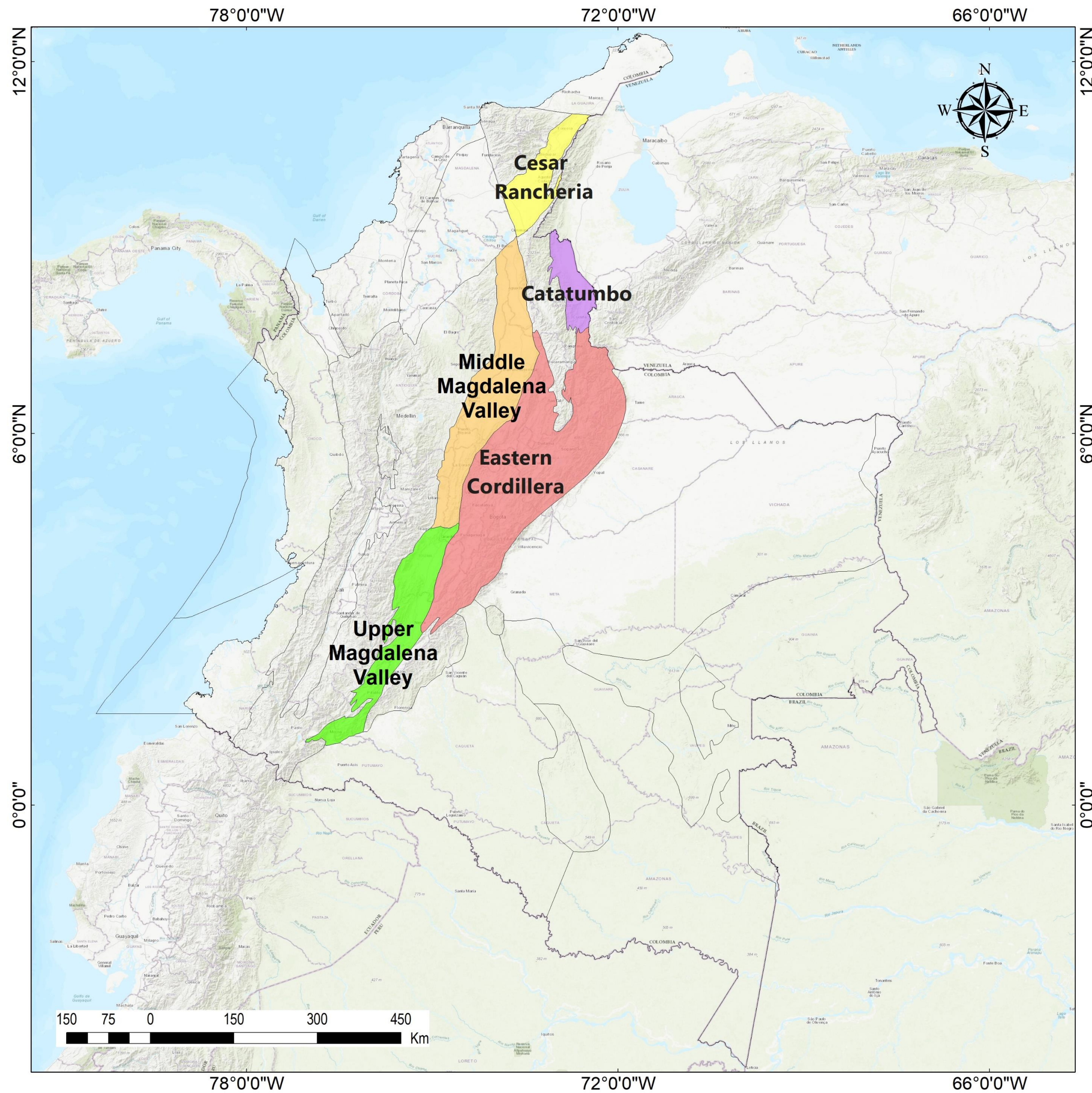


BASIN	Available gas (GOES-GOR) TCFs	Chance of success %	Gas prospective Resources GOES-GOR TCFs	Discovered gas Calculated GOES 2020 TCFs	Gas prospective resources to be discovered (GOES-GOR) TCFs
Caguán-Putumayo	17,58	0,13	2,29	0	2,29
Llanos-Piedemonte-Cordillera	128,05	0,13	16,65	12,6	4,05
Cordillera	48,08	0,13	6,25	0,07	6,18
Catatumbo	23,37	0,13	3,04	0,3	2,74
VSM	14,6	0,13	1,9	0,07	1,83
VMM	81,1	0,15	12,16	2,9	9,26
VIM	39,91	0,15	5,99	3,57	2,42
Totales	352,683		48,27	19,51	28,76

  
**28.7 TCFs**  
**Gas Prospective Resources**



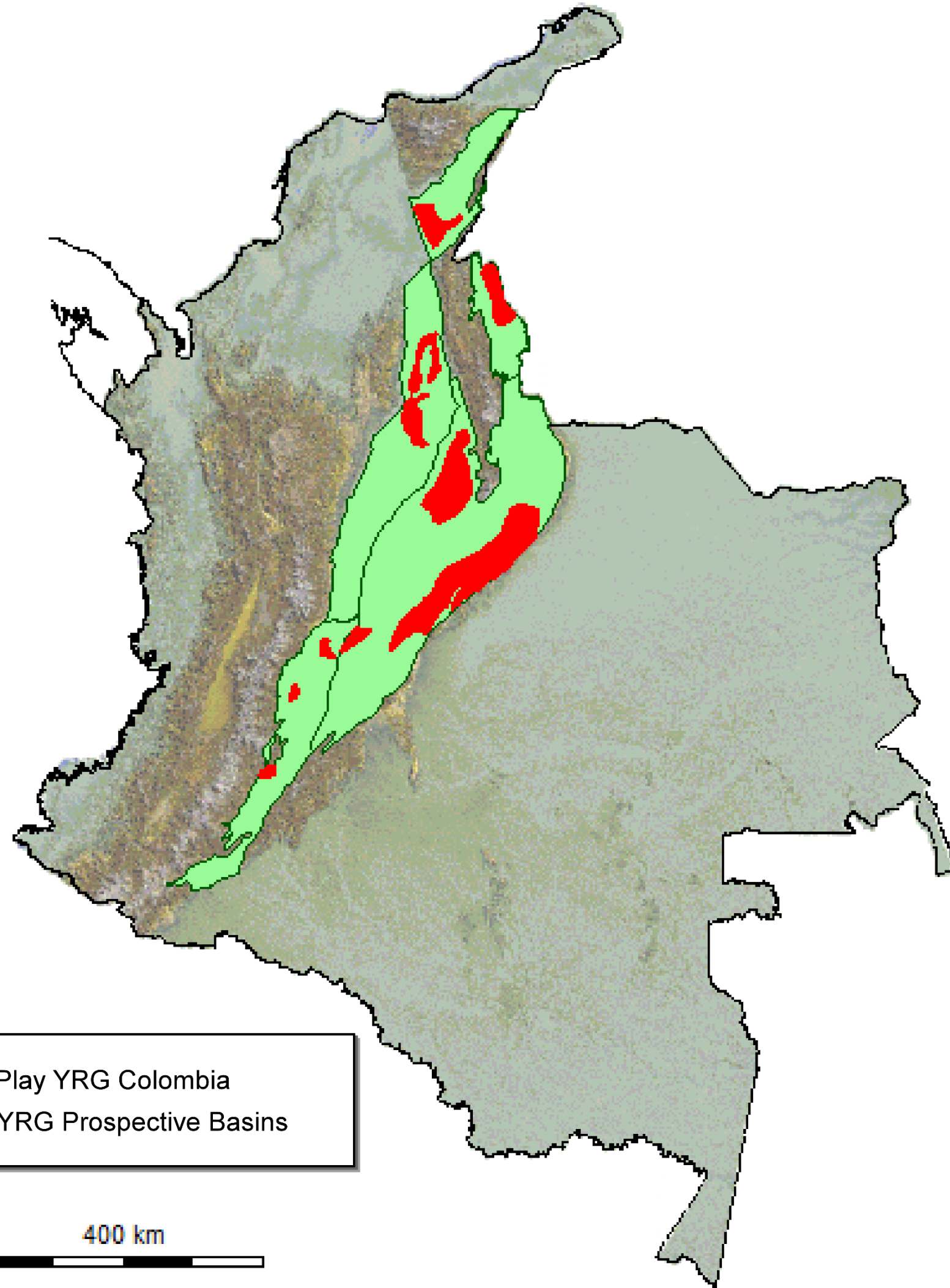
# GAS OPPORTUNITIES UNCONVENTIONAL ONSHORE BASINS



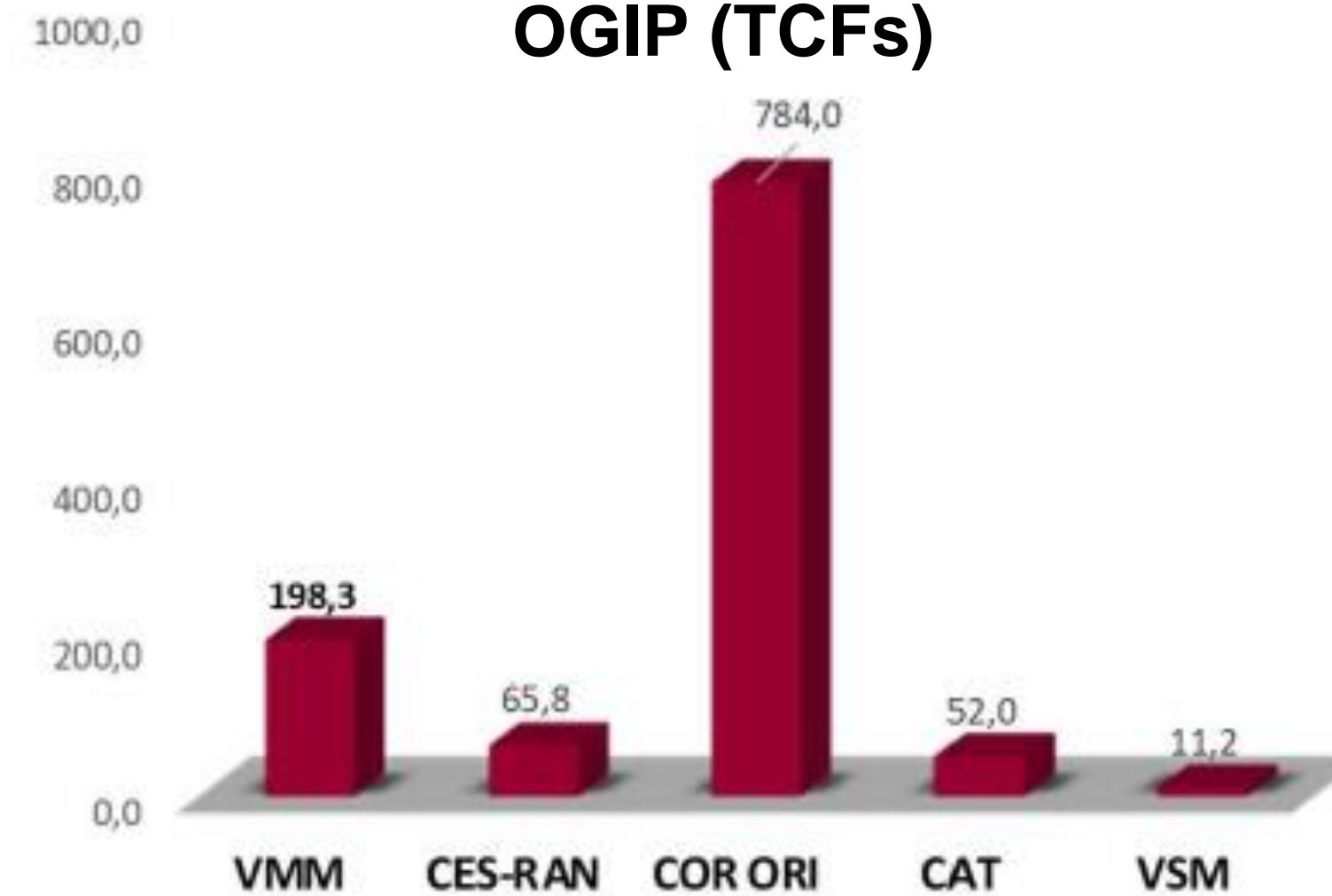


# GAS OPPORTUNITIES UNCONVENTIONAL ONSHORE BASINS SHALE GAS

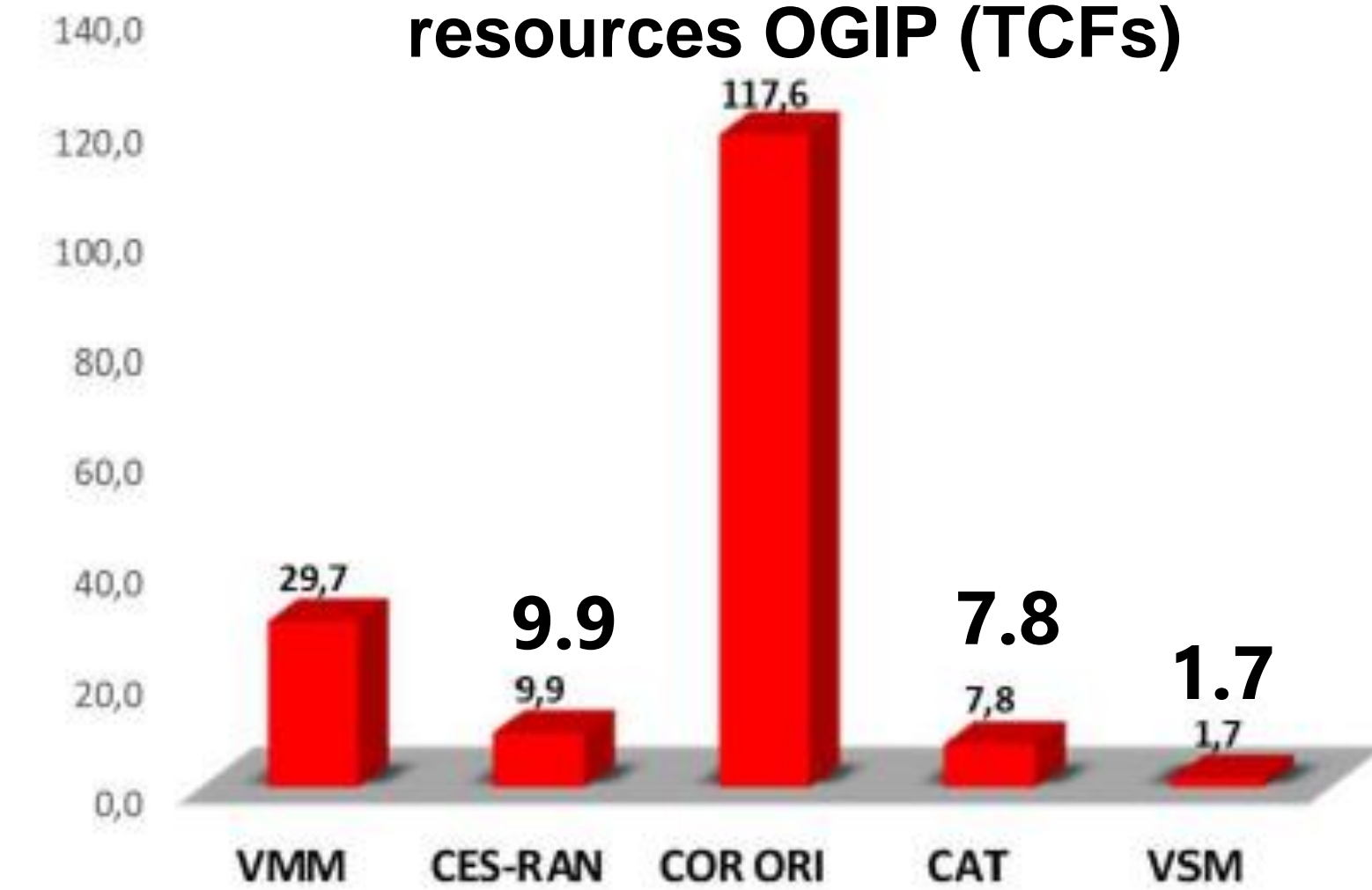
Yet to Find



Recursos Prospectivos Gas OGIP (tcf)  
Prospective resources  
OGIP (TCFs)



Recursos Prospectivos Recuperables Gas (tcf)  
Recoverable prospective  
resources OGIP (TCFs)



**29.7 TCFs      117.6 TCFs**

**TOTAL: 156.8 TCFs**

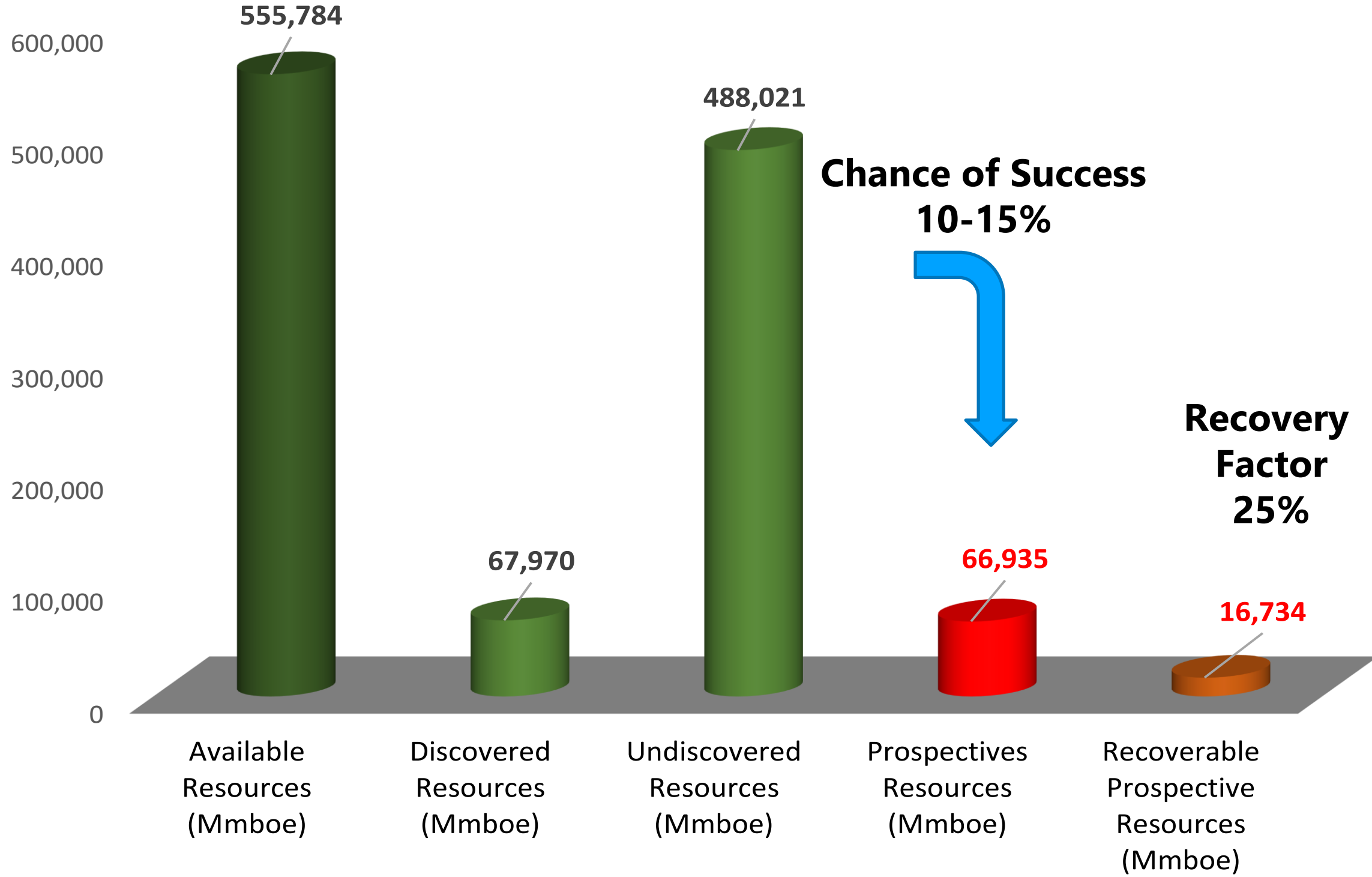


# OIL OPPORTUNITIES CONVENTIONAL ONSHORE & OFFSHORE

## Yet To Find

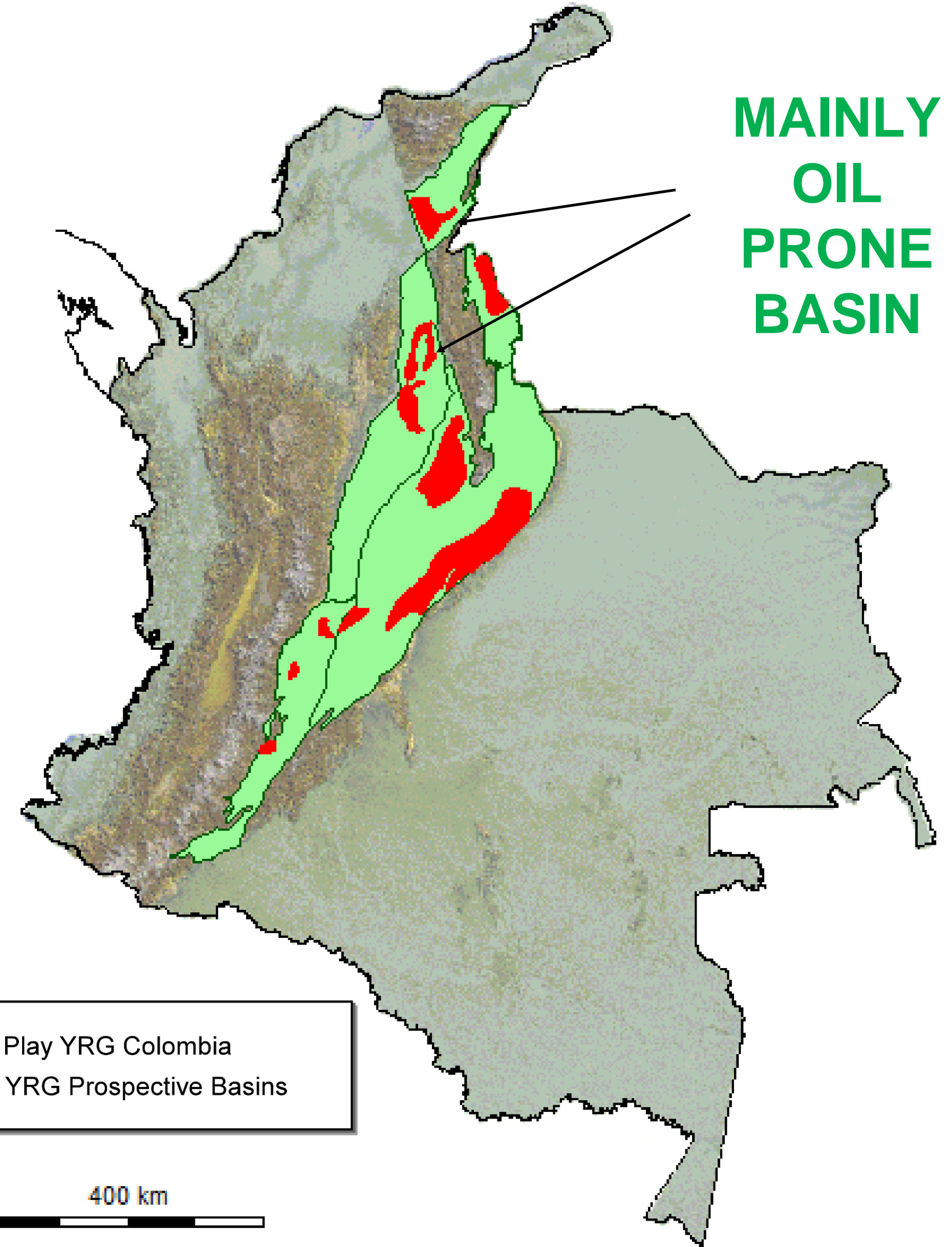
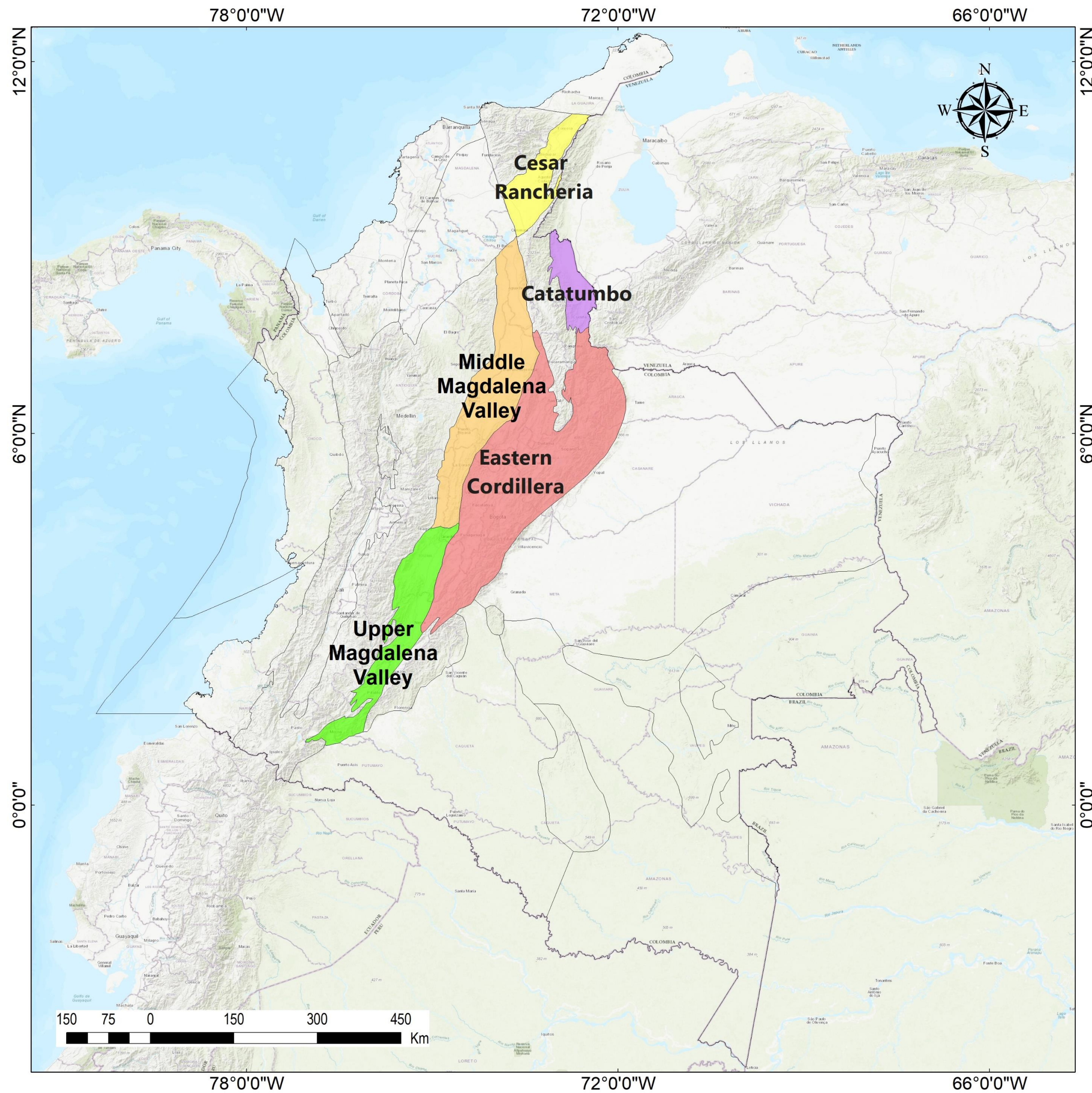
Type	Basin	Available Resources (Mmboe)	Discovered Resources (Mmboe)	Undiscovered Resources (Mmboe)	Prospectives Resources (Mmboe)	Recoverable Prospective Resources (Mmboe)
Basins Commercial Production	VMM	70,052	18,410	51,642	7746	1937
	Llanos	51,833	35,743	16,090	2414	603
	VIM	22,148	915	21,233	2165	541
	Caguan-Putumayo	15,361	3,636	11,725	1524	382
	Cordillera	49,226	737	48,488	6303	1576
	VSM	7,092	3,222	3,870	580	145
	Catatumbo	5,438	1,727	3,710	482	121
Frontier Basins	Guajira (Onshore&Offshore)	162,010	3,562	158,448	23767	5942
	Colombia	59,886	0	59,886	7785	1946
	Sinú Offshore	43,700	0	43,700	5681	1420
	Sinú-San Jacinto	37,874	16	37,858	4922	1230
	Choco	15,292	0	15,292	1835	459
	Cayos	4,071	0	4,071	407	102
	Pacífico Profundo	3,208	0	3,208	321	80
	Tumaco	2,544	0	2,544	305	76
	Cauca-Patía	1,924	0	1,924	250	63
	Choco Offshore	2,447	0	2,447	245	61
	Tumaco Offshore	848	0	848	85	21
	Cesar-Ranchería	595	2	593	89	22
	Uraba	216	0	216	26	6
	Amagá	11	0	11	1	0
	Vaupes-Amazonas	9	0	216	1	0
<b>TOTAL</b>		<b>555,784</b>	<b>67,970</b>	<b>488,021</b>	<b>66,935</b>	<b>16,734</b>

↓  
67 Bboe





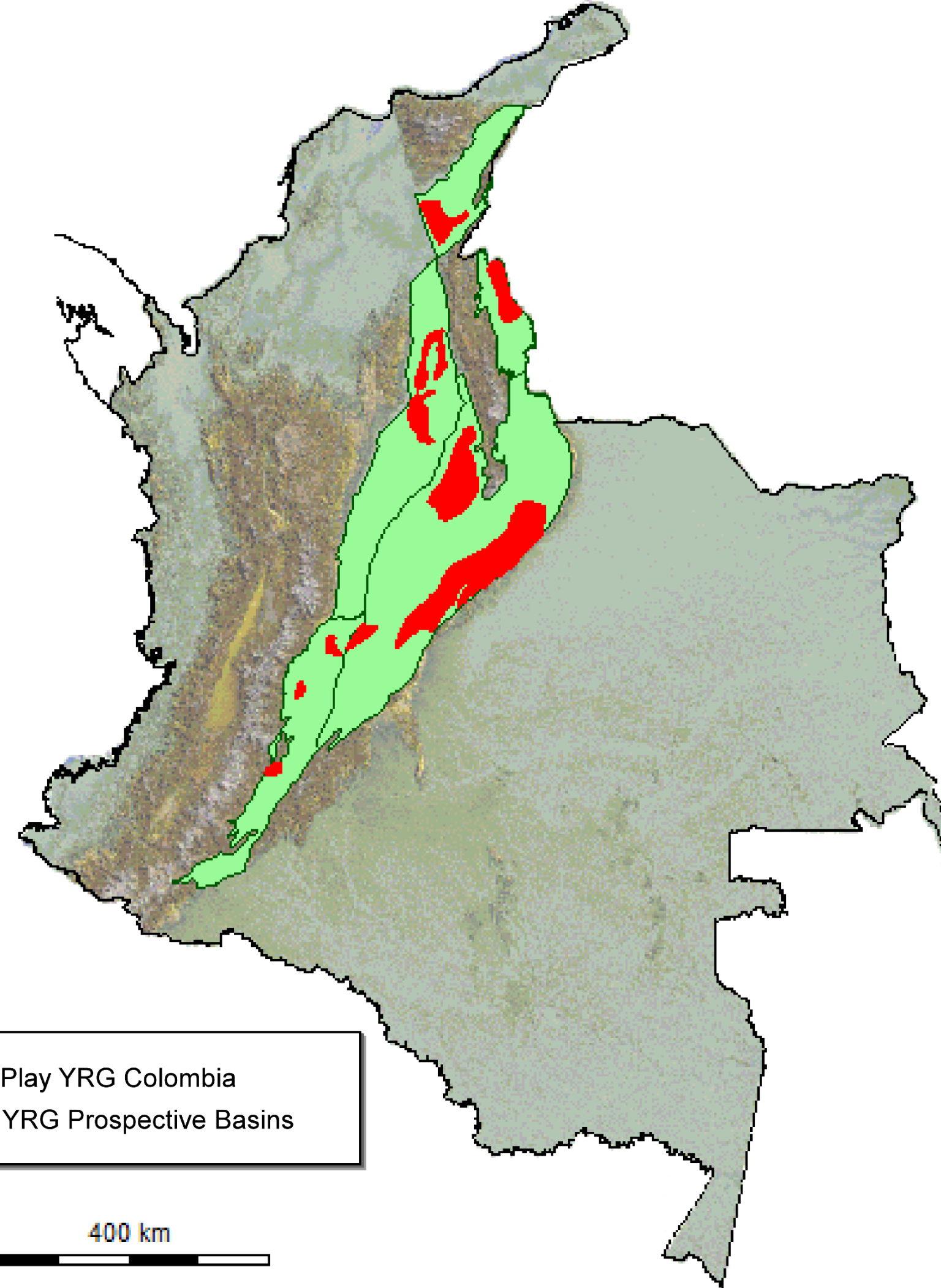
# OIL OPPORTUNITIES UNCONVENTIONAL ONSHORE BASINS





# OIL OPPORTUNITIES UNCONVENTIONAL ONSHORE BASINS SHALE OIL

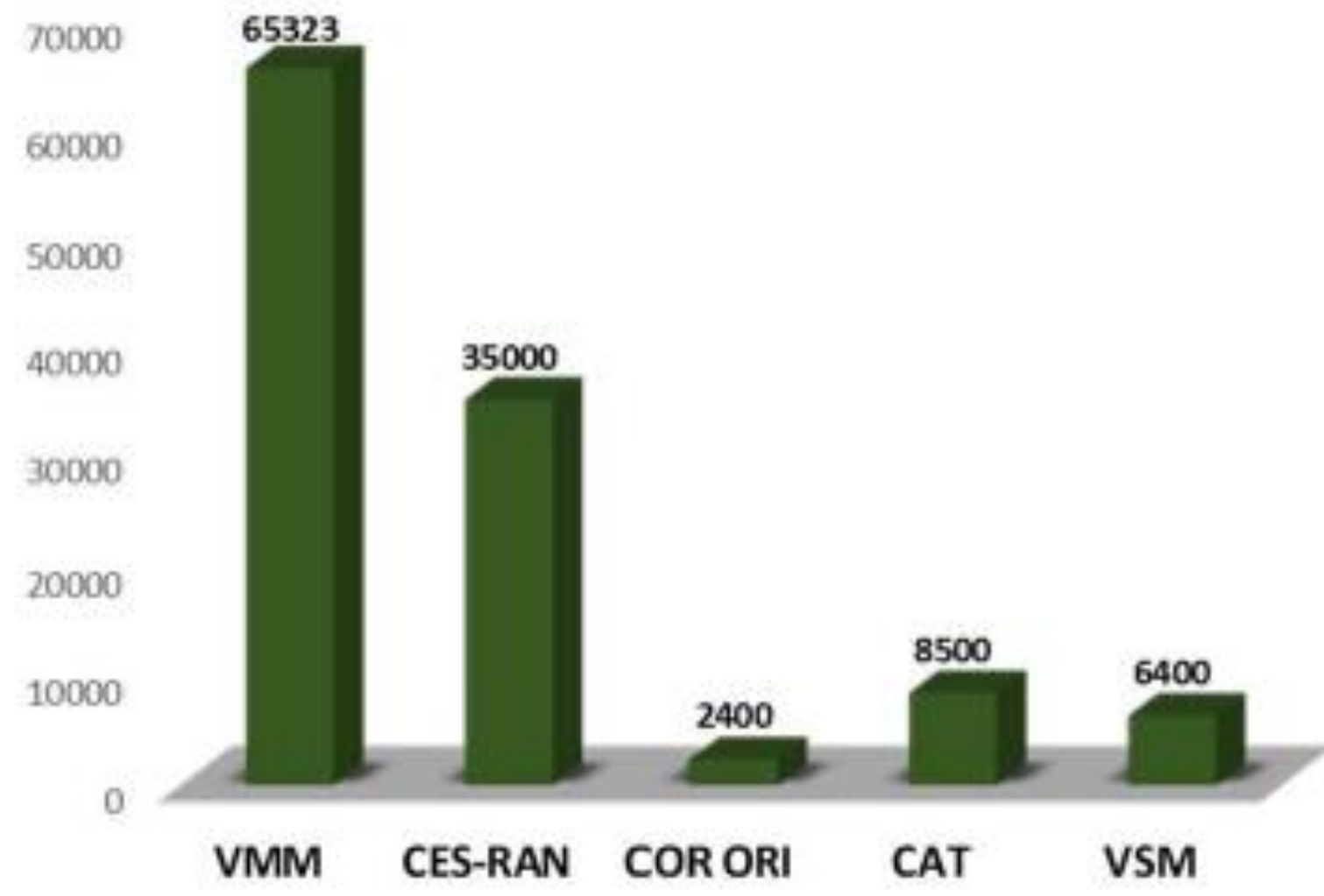
Yet to Find



● Play YRG Colombia  
● YRG Prospective Basins

Prospective resources  
OOIP (MMBP)

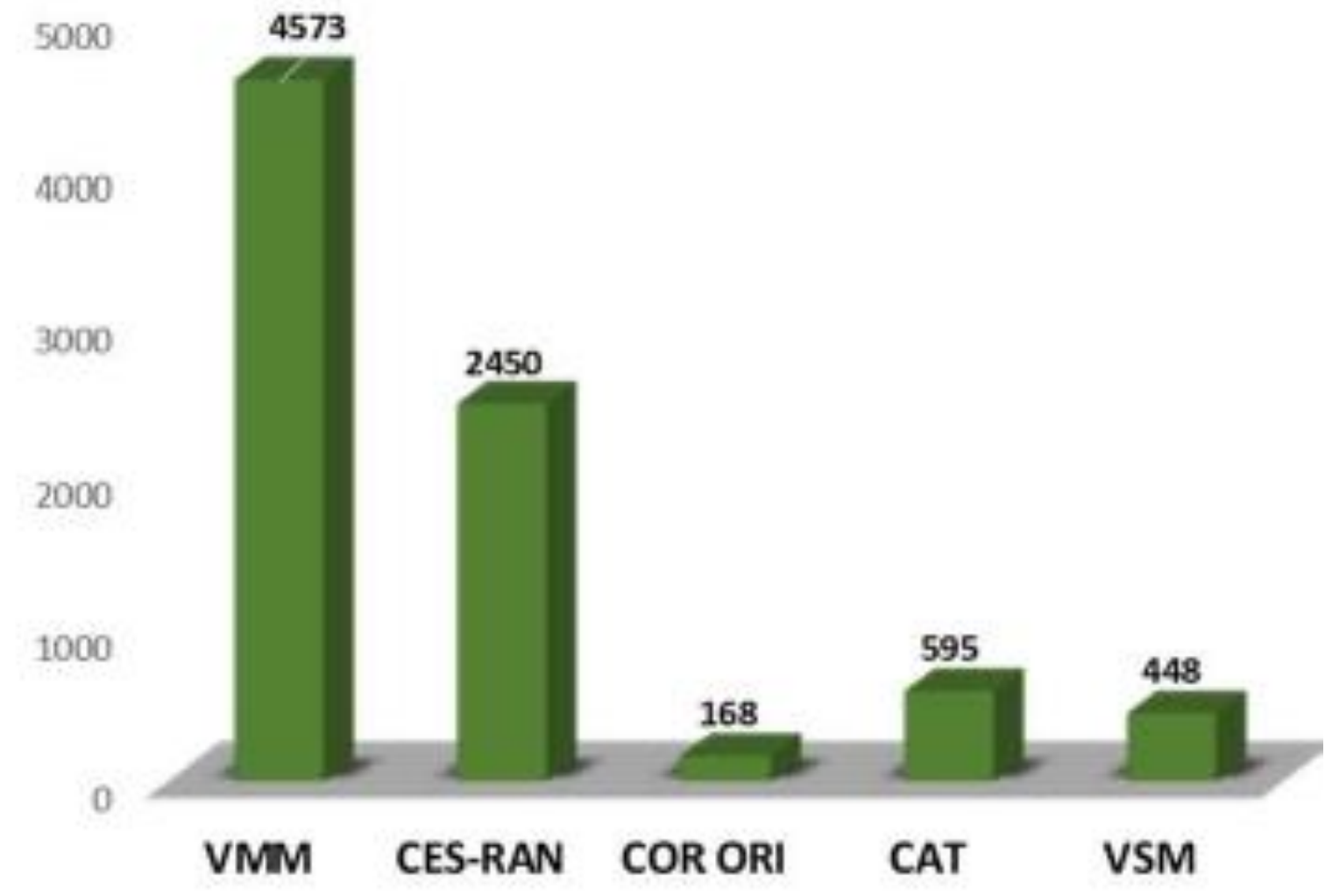
Recursos Prospectivos Crudo OOIP (mbp)



Recoverable prospective  
resources OOIP (MMBP)

Recursos Prospectivos Recuperables Crudo (mbp)

MILLIONS



4.5 BBO 2.4 BBO

TOTAL: 8.11 BBO



# GAS AND OIL PROSPECTIVE RESOURCES

Yet to Find

<b>GAS</b>	<b>OGIP (TCFs)</b>
<b>CONVENTIONAL OFFSHORE CARIBBEAN BASINS</b>	<b>30.0</b>
<b>CONVENTIONAL OFFSHORE PACIFIC BASINS</b>	<b>12.5</b>
<b>CONVENTIONAL ONSHORE</b>	<b>28.7</b>
<b>UNCONVENTIONAL ONSHORE</b>	<b>156.8</b>
<b>TOTAL</b>	<b>228</b>

<b>OIL</b>	<b>OOIP (BBOE)</b>
<b>CONVENTIONAL ONSHORE AND OFFSHORE</b>	<b>67</b>
<b>TOTAL</b>	<b>67</b>

<b>OIL</b>	<b>OOIP (BBO)</b>
<b>UNCONVENTIONAL ONSHORE</b>	<b>8.11</b>
<b>TOTAL</b>	<b>8.11</b>



# COLOMBIAN ROUND STATISTICS

11 bidding rounds since 2007



Caribbean Round 2007

Blocks Offered **13** Signed Contracts **9**



Mini Round 2007

Blocks Offered **38** Signed Contracts **11**



Heavy Oil

Blocks Offered **8** Signed Contracts **8**



Mini Round 2008

Blocks Offered **102** Signed Contracts **41**



Colombia Round 2008

Blocks Offered **43** Signed Contracts **22**



Open Round Colombia 2010

Blocks Offered **229** Signed Contracts **68**



Colombia Round 2012

Blocks Offered **115** Signed Contracts **50**



Colombia Round 2014

Blocks Offered **115** Signed Contracts **50**



Permanent Process for Allocation of Areas 2019

Blocks Offered **70** Signed Contracts **26**

**CYCLE 1 AND 2**



Permanent Process for Allocation of Areas 2020

Blocks Offered **4** Signed Contracts **4**

**CYCLE 3**



Colombia Round 2021

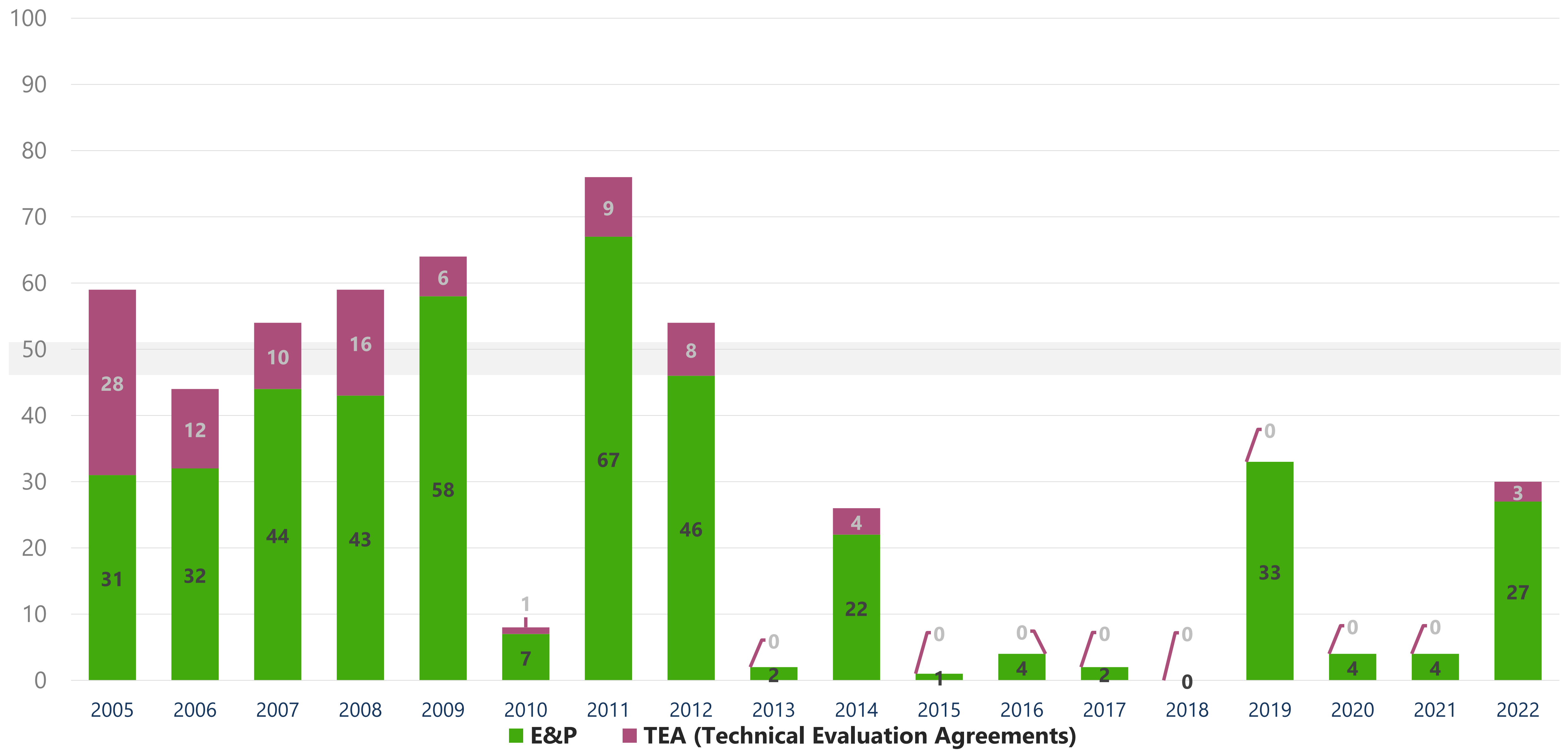
Blocks Offered **53** Signed Contracts **30**

**CYCLE 4**



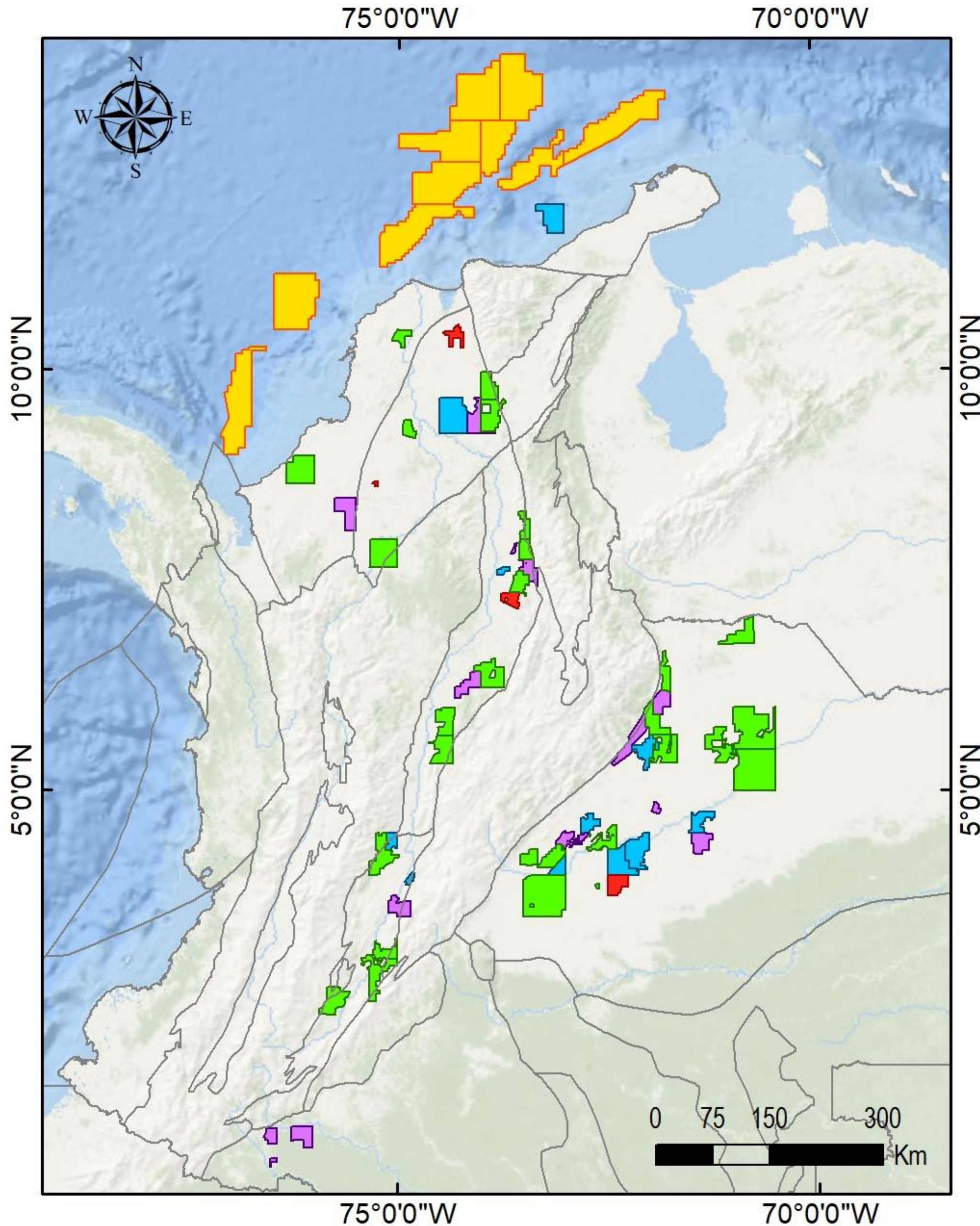
# COLOMBIAN ROUND STATISTICS

~600 E&P Contracts since the creation of the ANH Contracts awarded (2005 – 2022)










# COLOMBIAN ROUND STATISTICS

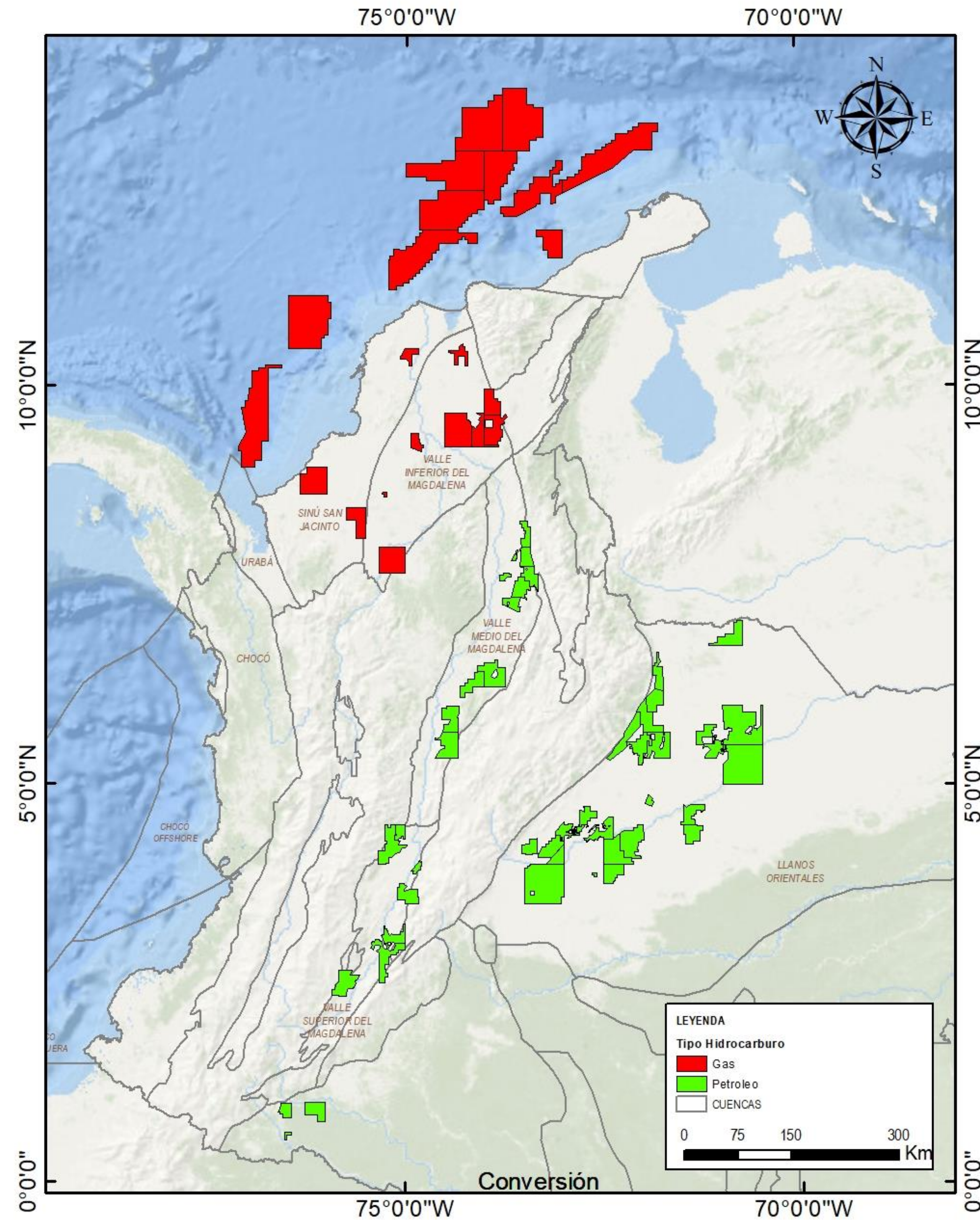


## PPAA 69 SIGNED CONTRACT ASSIGNED AREAS PER CYCLE

	Conversión TEA-E&P	= 9
	PPAA 2019 CICLO 1	= 11
	PPAA 2019 CICLO 2	= 15
	PPAA 2020 CICLO 3	= 4
	PPAA 2021 CICLO 4	= 30



# COLOMBIAN ROUND STATISTICS



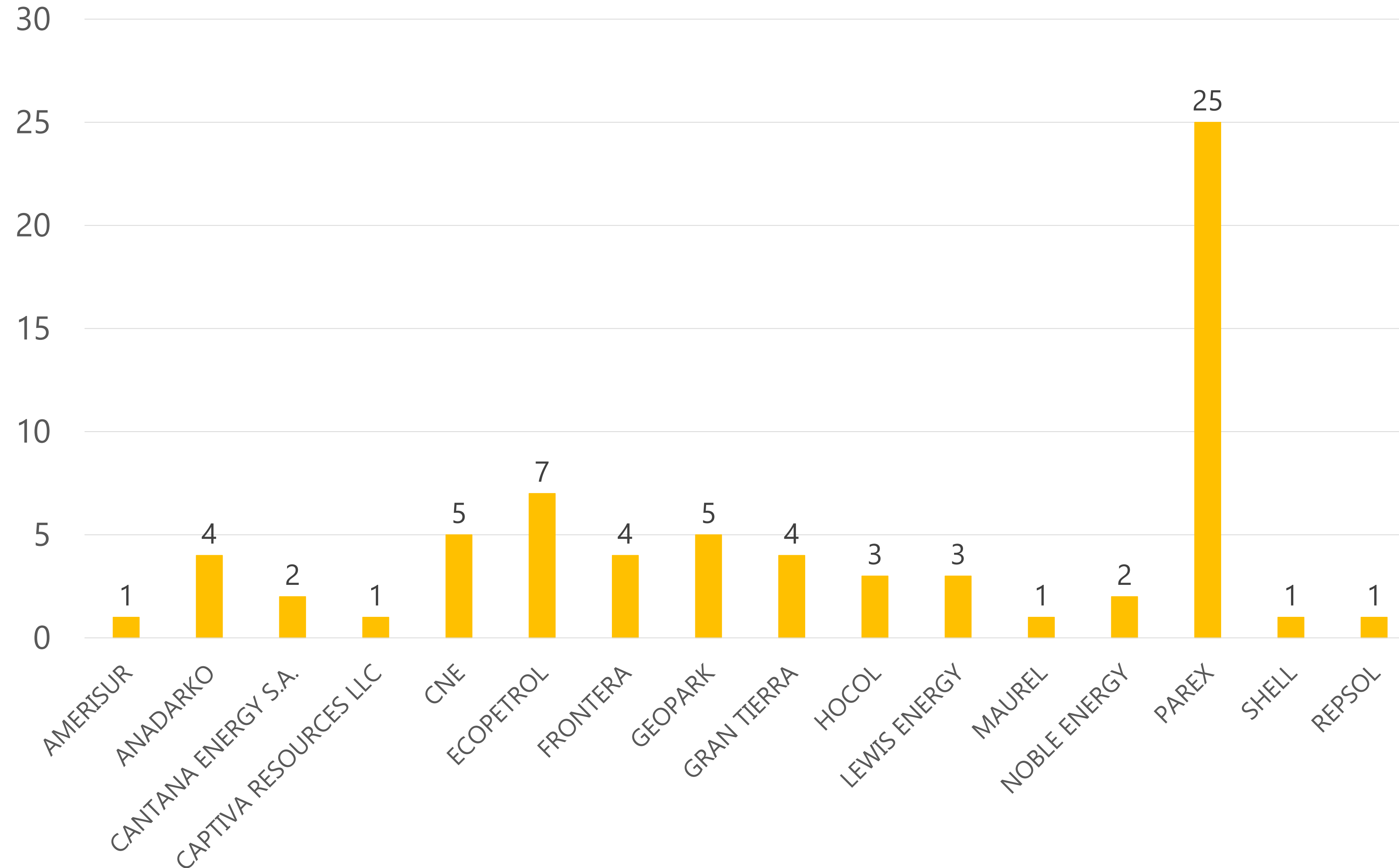
## PPAA 69 SIGNED CONTRACTS

- 20 GAS PRONE AREAS
- 49 OIL PRONE AREAS



# COLOMBIAN ROUND STATISTICS

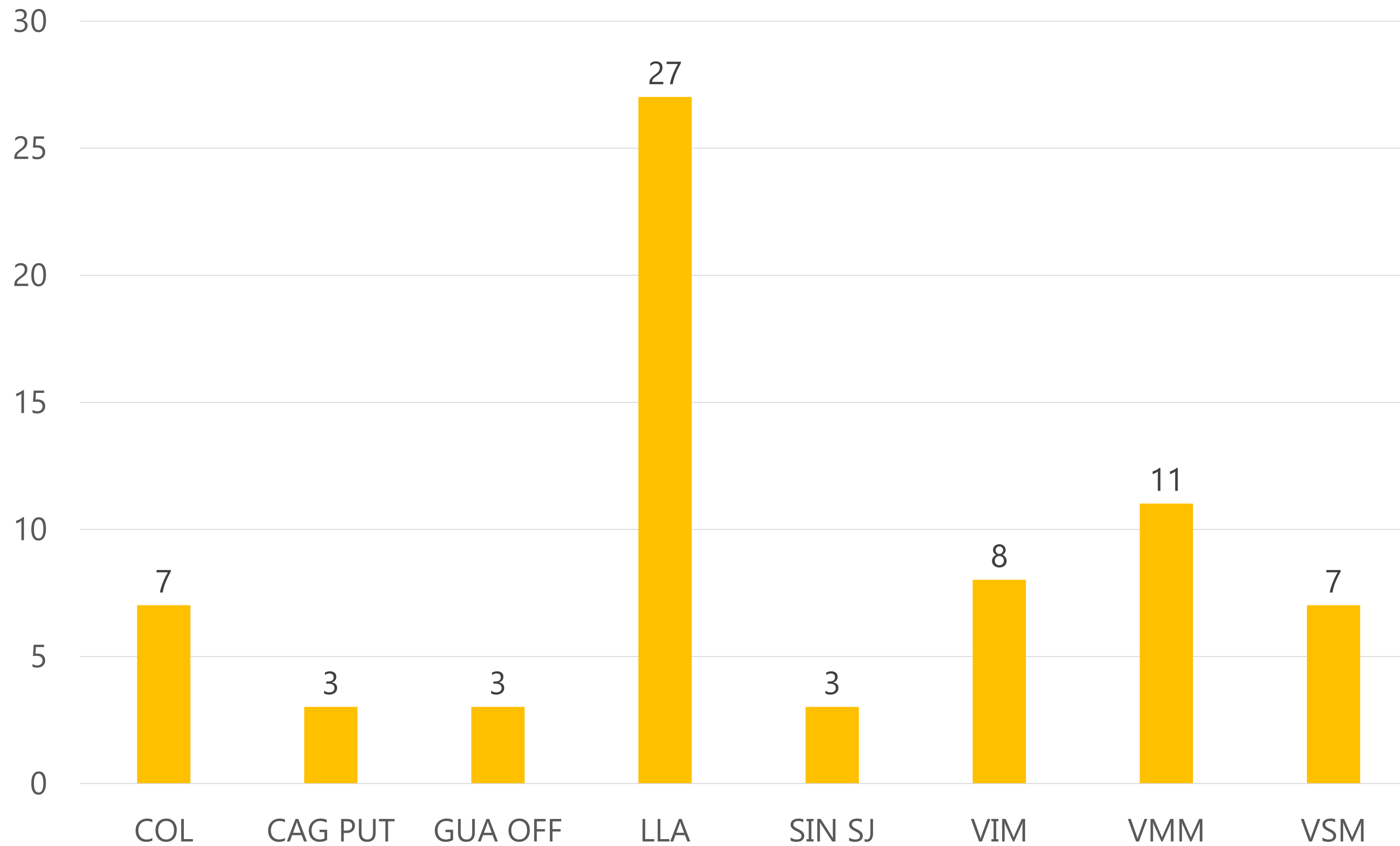
## PPAA NUMBER OF CONTRACTS SIGNED BY COMPANY





# COLOMBIAN ROUND STATISTICS

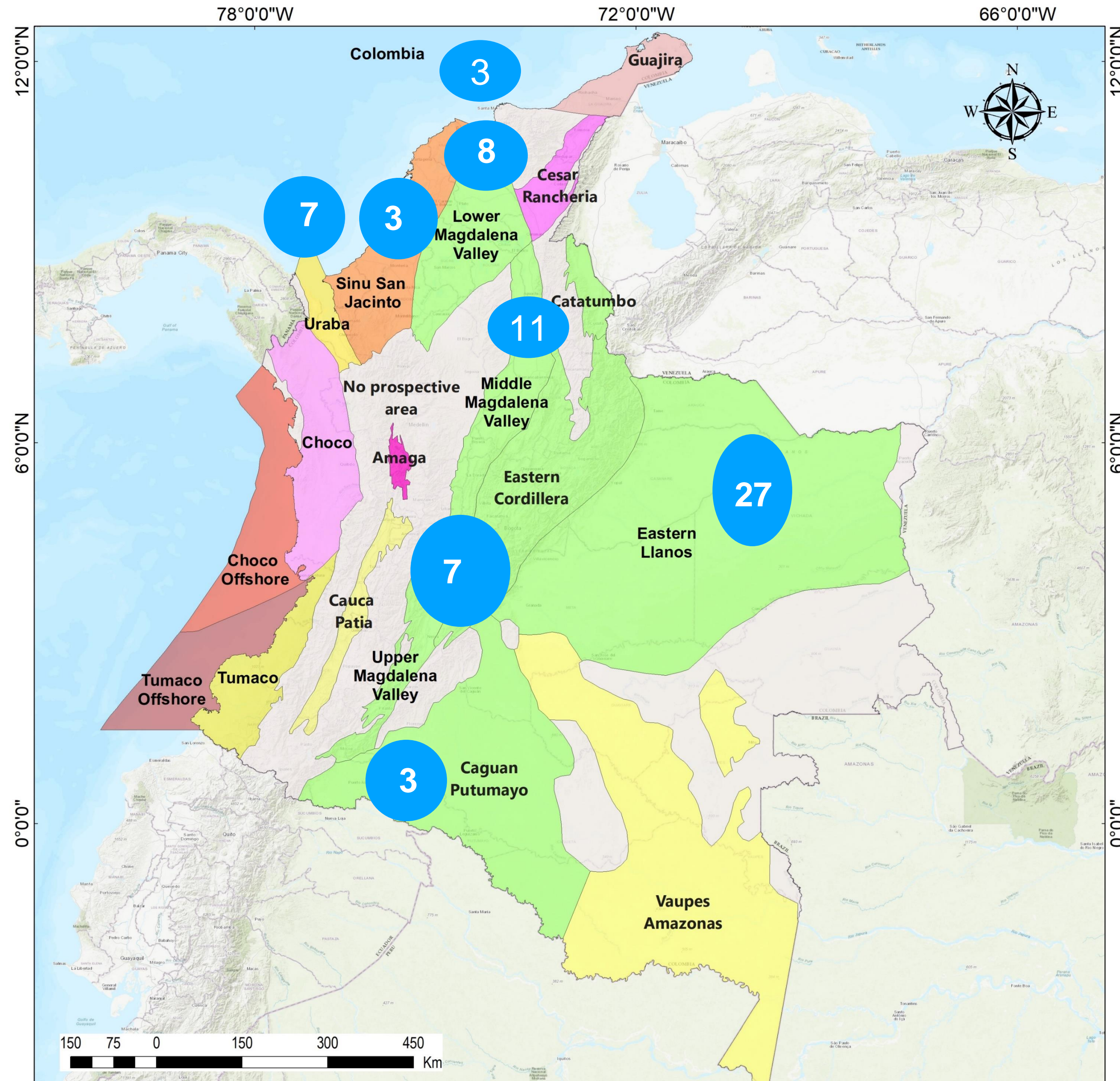
## ÁREAS



**PPAA ASSIGNED  
AREAS PER BASIN**

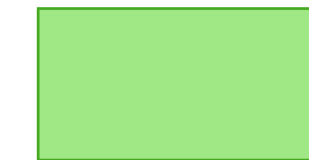


# COLOMBIAN ROUND STATISTICS



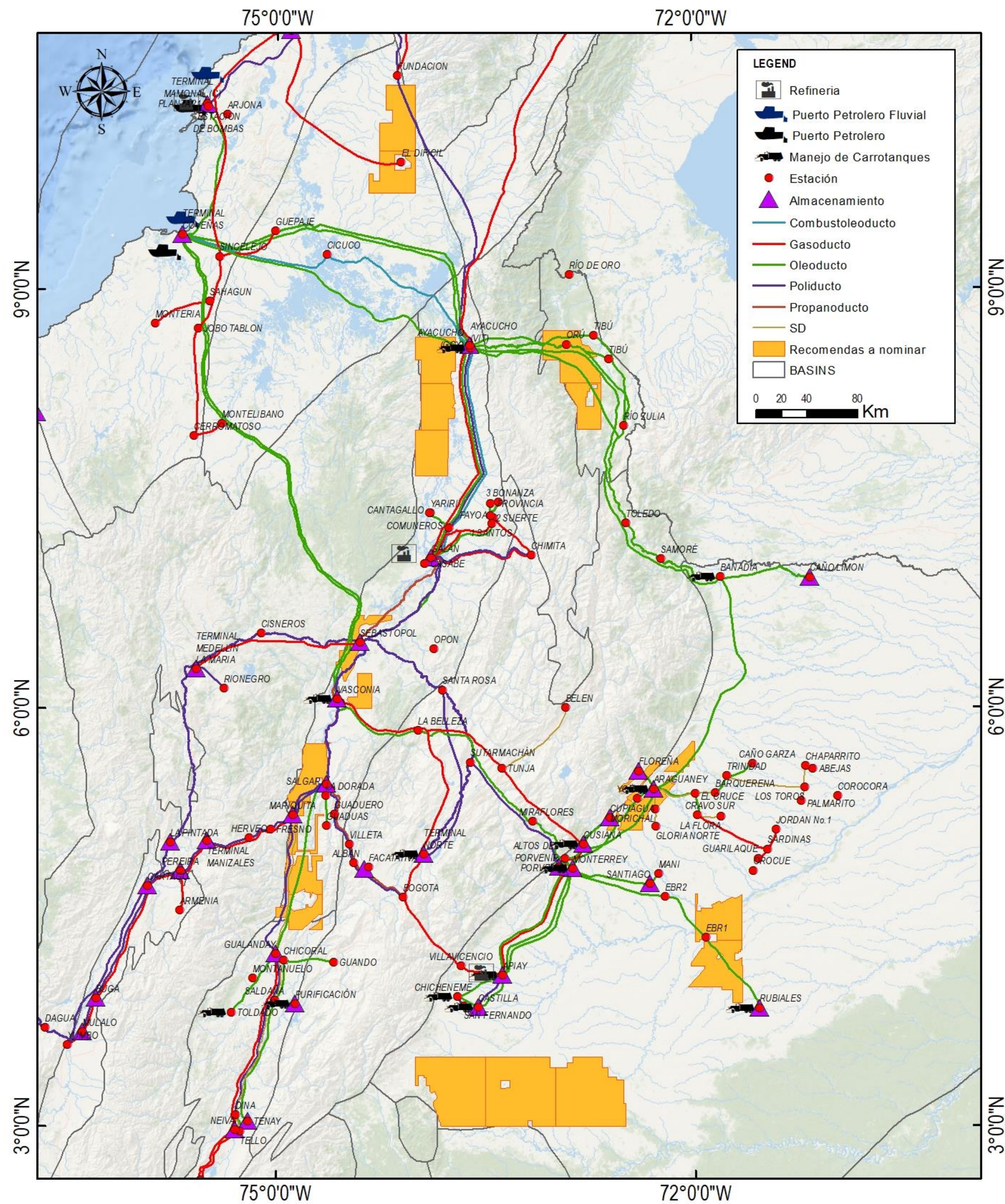
27

**PPAA ASSIGNED AREAS PER BASIN**



Eastern Llanos  
Middle Magdalena  
Upper Magdalena  
Lower Magdalena  
Caguan Putumayo  
Catatumbo





## KNOWLEDGE DIVULGATION THROUGH

### ANH FRIDAY TECHNICAL TALKS 8 AM EVERY FRIDAY

**NEW PROMOTED AREAS**

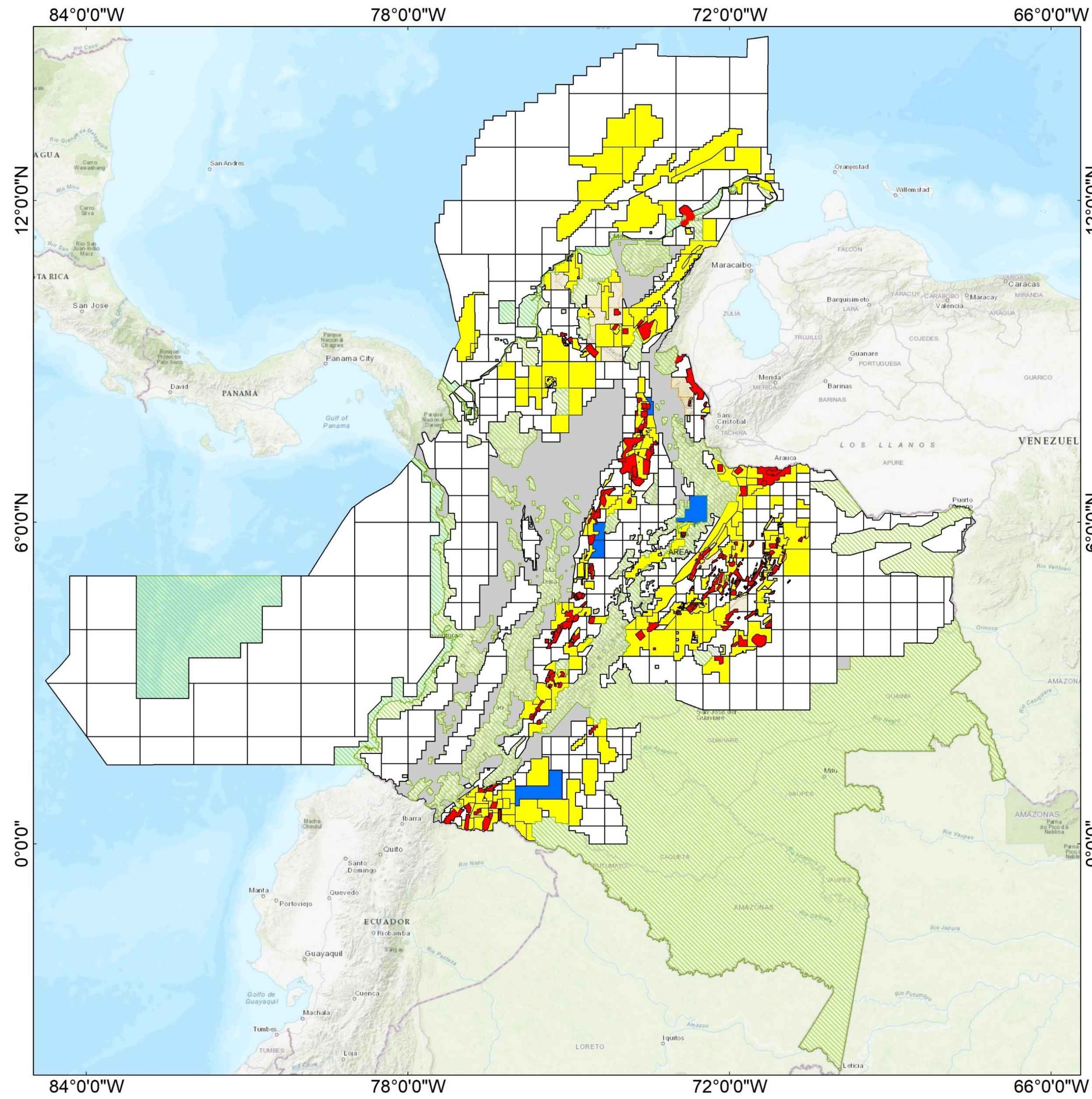
**MIDDLE MAGDALENA : 9 AREAS**

**LLANOS: 8 AREAS**

**CATATUMBO: 2 AREAS**

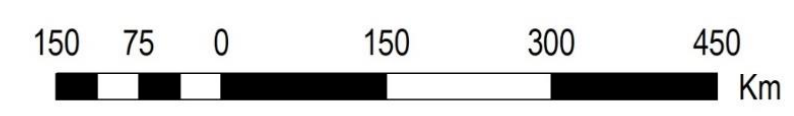
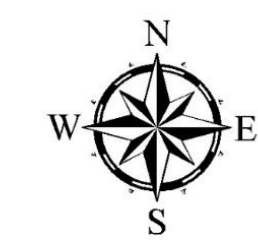
**LOWER MAGDALENA: 2 AREAS**





### Layer\_Tierras\_110322

- ÁREA DISPONIBLE
- ÁREA EN EXPLORACIÓN
- ÁREA EN PRODUCCIÓN
- EVALUACIÓN TÉCNICA
- ÁREA RESERVADA
- ÁREA RESERVADA AMBIENTAL
- TRÁMITE AMPLIACIÓN
- PROYECTO INVESTIGACIÓN CEPI
- BASAMENTO CRISTALINO



## 415 AVAILABLE BLOCKS



# 2022 ANH NOMINATION STRATEGY

## ANH TECHNICAL WORKSHOPS APRIL

### ❖ ICE CARTAGENA ANH STAND 11 AM

**APRIL 19th Oil and Gas opportunities through nomination of onshore and offshore areas in Colombia**

**APRIL 20th Sinu San Jacinto/Lower Magdalena new hydrocarbon opportunities**

**APRIL 21st Llanos Southwestern new hydrocarbon opportunities**

### ❖ APRIL 29 th ANH WORKSHOP No 11 8 AM

**Seismic interpretation in areas reserved by the ANH Lower Magdalena Perdices Program**

**Llanos Hydrocarbon Opportunities: Foreland areas LLA 98, LLA 15, NISCOTA, COR 68 areas**

**Sinu San Jacinto Hydrocarbon Opportunities: Floresanto and Jaraguay SSJS 1-3 and SSJS 7-2 areas**



# 2022 ANH NOMINATION STRATEGY

## ANH TECHNICAL WORKSHOPS MAY

### ❖ **MAY 6th ION WORKSHOP No 12 8 AM**

**Offshore Colombia highlights of prospective margin segments using newly reprocessed 2D seismic data**

### ❖ **MAY 13th SGC WORKSHOP No 13 8 AM**

**Thermal history of exhumation of the Garzon Massiff and the evolution of the Caguan – Putumayo basin**

### ❖ **MAY 20th SGC WORKSHOP No 14 8 AM**

**Colombia Caribbean Play Fairways**

### ❖ **MAY 27th ANH WORKSHOP No 15 8 AM**

**Seismic interpretation in areas reserved by the ANH**

**Putumayo hydrocarbon opportunities**



# 2022 ANH NOMINATION STRATEGY

## GAS TRANSITION FUEL IN COLOMBIA

### ❖ **MAY 6th ION SEISMIC MULTICLIENT – GAS 8 AM**

**Offshore Colombia highlights of prospective margin segments using newly reprocessed 2D seismic data**

### **MAY 20th SGC WORKSHOP No 14 8 AM**

**Colombia Caribbean Play Fairways**

### ❖ **JUNE 3rd MINCIENCIAS RESEARCH GROUP – GAS 8 AM**

**Geological hábitat, prospectivity, socio-environmental and economic sustainability of wet gas (LPG) in Colombia as an energy transition fuel.**

### ❖ **JULY 8th ANH – GAS 8 AM**

**Giant gas potential in Cretaceous rocks along the Eastern Cordillera of Colombia**



# 2022 ANH NOMINATION STRATEGY

## LINKS OF LAST YEAR AND THIS YEAR PRESENTATIONS AND OTHERS

### 2021

- <https://www.anh.gov.co/Asignacion-de-areas/Paginas/RondaColombia2021.aspx>

### 2022

- [https://www.anh.gov.co/Asignacion-de-areas/Paginas/Technical\\_presentation\\_inviting.aspx](https://www.anh.gov.co/Asignacion-de-areas/Paginas/Technical_presentation_inviting.aspx)



# 2022 ANH NOMINATION STRATEGY

## LIST OF TECHNICAL TALKS 2021 - 2022 LOADED IN THE ANH WEBSITE

### Technical Workshops

✓ Contenido Workshop

▷ **Título : 01. Sinú San Jacinto Mega Área - 23 de Abril (1)**

▷ **Título : 02. Chocó Mega Área - 30 de Abril (1)**

▷ **Título : 03. Valle Inferior del Magdalena - 7 de Mayo (1)**

▷ **Título : 04. Valle Medio del Magdalena - 14 de Mayo (1)**

▷ **Título : 05. Valle Superior del Magdalena - 21 de Mayo (1)**

▷ **Título : 06. Llanos - 28 de Mayo (1)**

▷ **Título : 07. Pacific Coast - 04 de Junio (1)**

▷ **Título : 08. Caribbean and Pacific - 18 de Junio (1)**

▷ **Título : 09. Cauca Patía - 25 de Junio (1)**

▷ **Título : 10. Caguan - Cordillera Oriental - 2 de julio (1)**

▷ **Título : 11. Guajira y Guajira Offshore - 16 de julio (1)**

▷ **Título : 12. Putumayo Mega Area - 30 de julio (1)**




▷ **Título : 13. Caribe, Cordillera, Cesar Ranchería - 6 de agosto (1)**

▷ **Título : 14. VMM, Llanos, Putumayo - 13 de agosto (1)**

### Technical Presentation inviting to nominate areas

#### Presentations

February 4/2022

-  Pacific Project introduction
-  Seismic program acquired in the Bosconia área Lower Magdalena Basin
-  Area with production returned to the ANH Atrarraya Llanos Basin



February 11/2022

-  Northern middle Magdalena and Cesar - Ranchería

February 18/2022

-  Areas advertisement 2022 - Middle Magdalena Valley Basin

February 25/2022

-  Seismic program acquired in the Las Mercedes área Catatumbo Basin
-  Area with production returned to the ANH Morichito Llanos Basin



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