Executive Summary

Five Year Plan for Exploration and Production of Oil and Gas Bids 2015-2019

SENER

SECRETARÍA DE ENERGÍA

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Executive Summary

The implementation of the 2013 Energy Reform in Mexico has represented a learning curve for the institutions and the industry. During this historic process, society has also been actively engaged in the design of energy policy and during the drafting of regulations through a public consultation processes. The results of the first four bids of Round One have shown a transparent and sound institutional framework, along with promising acreage and competitive terms. Thus, 38 contracts for the exploration & production have been awarded to 49 Mexican and international companies. In addition, for the first time in history Pemex will have a partnership with another company for exploring and producing in deep water.

In accordance with regulations, the Ministry of Energy (SENER) assessed the implementation of the Five Year Plan for Exploration & Production of Oil & Gas Bids 2015-2019 (Five Year Plan) with technical assistance from the National Hydrocarbons Commission (CNH). Moreover, we incorporated the following:

1. The areas nominated by the industry,
2. The recently acquired geological information,
3. Specific suggestions made by bid participants,
4. Information obtained through surveys answered by companies and states which have potential for oil & gas.

Consequently, the following changes were made:

In terms of procedure, we are now introducing a fully standardized bidding mechanism, strengthening the processes required to benefit from these resources, and simplifying procedures. These three aspects aim to give more assurance to the national and international companies interested in participating in the E&P industry of Mexico. In a nutshell,

- The standardization of procedures is achieved by presetting aspects of the future bids such as; the size of blocks per project type, the requirements for prequalification process and setting a calendar for bidding rounds,

- Strengthening the process entails allowing all areas to be nominated by the industry. The nominated areas will be assessed by the Ministry of Energy and should be included in the next invitation to bid provided they include a sound supporting technical study. This should reduce the time period taken to award areas and help increase production in a shorter time period.

- Simplifying procedures considers aspects such as and maintaining a record of prequalified bidders and continuously assessing capabilities of interested parties.

In geological terms, the extension of areas available for invitations to bid was changed, and existing fields will be included within larger areas. Moreover, the aim for most areas is to have rights for exploration & production of the entire geological column.

Incorporating both the procedural and geological changes, we present the following modifications:

1. The areas have been divided into the next categories:
   i. Deep water
   ii. Shallow water
   iii. Onshore unconventional (Chicontepec & shale)
   iv. Onshore conventional

2. The size of areas has been standardized per category, as it can be shown in the following table:

Table 1: Average area per block.

Category	Surface (km^2)
Deep water	1,000
Shallow water	400
Onshore unconventional	300
Onshore conventional	200

3. The scheduling for invitations to bid has now been simplified, as it will now contemplate two invitations to bid per year according to the type of areas and resources. During the first semester, Deep Water and Onshore unconventional areas will be included in one invitation to bid. In the second semester, Shallow water and Onshore conventional areas will follow suit. The opening of proposals will take place approximately six months after the invitation to bid announcement

4. Prior to the announcement of an invitation to bid there is a three-month period during which companies can nominate areas they wish to be included in the subsequent invitation to bid. These areas must be accompanied by a technical study considering the information available at the National Center for Hydrocarbon Information (Centro Nacional de Información de Hidrocarburos), derived from an Authorization for Surface Exploration (Autorización de Reconocimiento y Exploración Superficial) or from an institutional source.
5. Other aspects of the bidding rounds will be standardized, such as the prequalification requirements, amongst others

To conclude, the above changes are aligned with the Energy Reform in terms of helping Mexico revert the decline in production and increase reserves, whilst encouraging investment, and generating more employment opportunities.

Notes:

- For the official version of the Five Year Plan, please refer to the Spanish version available in the following website: http://www.gob.mx/sener/acciones-y-programas/

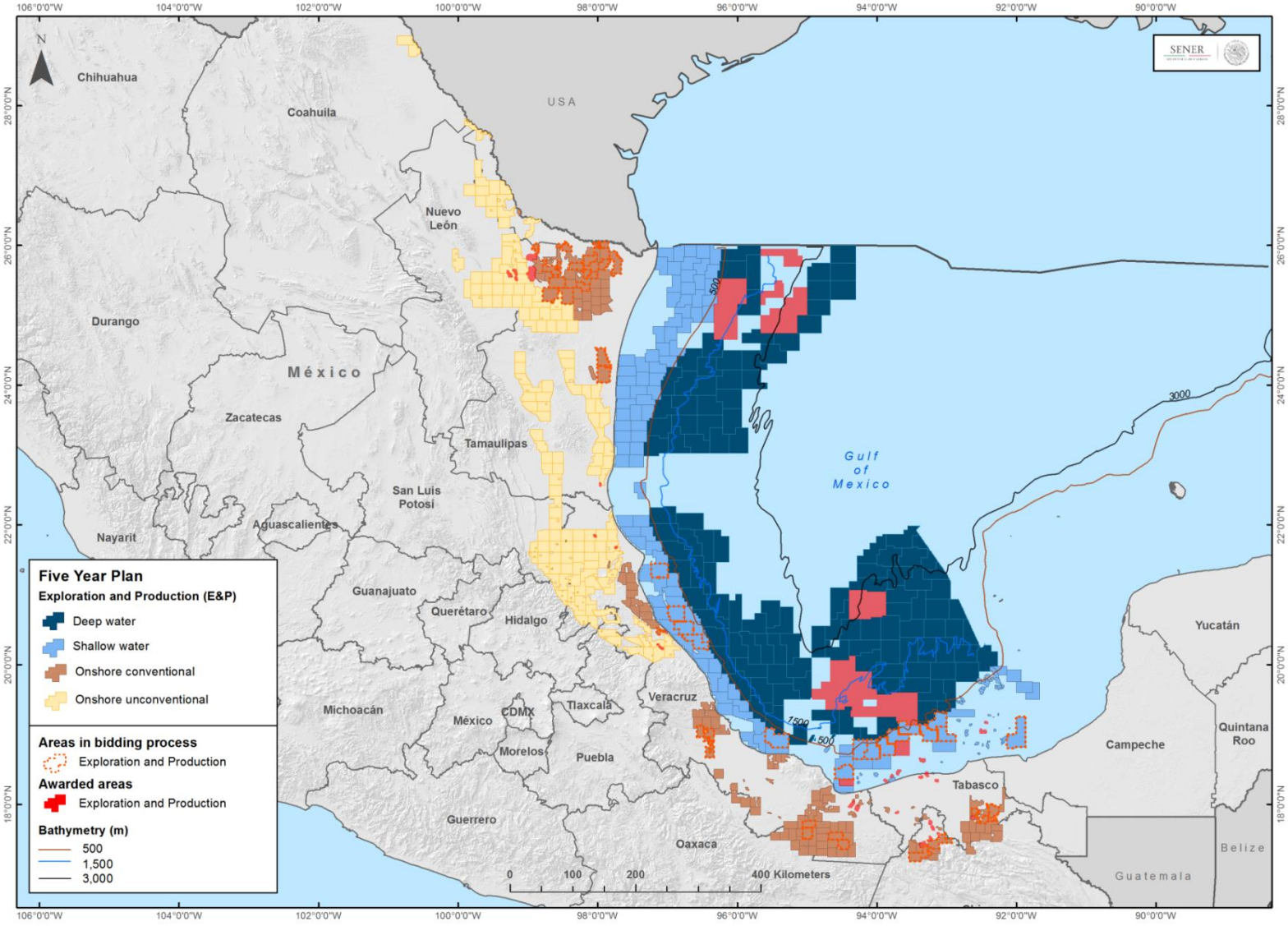
- Appendix A contains maps and tables showing the location of areas considered along with the resources associated to them.

- To view Five Year Plan map and downloadable shape files, please access the following link: http://sigeeh.energia.gob.mx/PLANQUINQUENAL/Inicio.htm

- If you have any questions, please write to us at planquinquenal@energia.gob.mx

Appendix A

Map 1. Five Year Plan for Exploration & Production of Oil and Gas 2015-2019



1.1. Areas available for exploration and production of oil & gas

Table 2 shows the four categories in which the areas are divided along with their main information.

Table 2. Characteristics, prospective resources and remaining hydrocarbons volume of areas considered according to categories.

Category	Basin	# of Areas	Total Surface area (km^2)	Prospective Resources (MMboe)			# of Fields	Remaining volume (MMboe)
				Conventional	Unconventional	Total		
Deep water	Perdido	37	36,860.7	1,661.6	0.0	1,661.6	0	0.0
	Cordilleras Mexicanas	33	33,171.8	2,130.0	0.0	2,130.0	0	0.0
	Cuenca Salina	53	47,293.3	2,802.7	0.0	2,802.7	4	500.1
Shallow water	Burgos Somero	53	21,075.4	1,289.7	0.0	1,289.7	0	0.0
	Cuenca Salina	2	34.5	0.0	0.0	0.0	2	2.9
	Tampico-Misantla-Veracruz	38	16,249.0	1,477.9	0.0	1,477.9	7	217.1
	Cuencas del Sureste Somero	59	11,721.3	787.5	0.0	787.5	41	18,617.5
Onshore unconventional	Sabinas Burgos	66	19,271.6	207.5	7,352.8	7,560.3	47	452.9
	Tampico-Misantla	86	24,179.0	188.1	23,578.6	23,766.7	37	26,503.5
	Sabinas Burgos	41	10,286.3	440.0	0.0	440.0	62	346.1
Onshore conventional	Tampico-Misantla	14	2,207.2	5.6	0.0	5.6	8	75.9
	Veracruz	33	5,851.4	176.1	0.0	176.1	14	55.5
	Cuencas del Sureste-Chiapas	64	10,805.8	582.8	0.0	582.8	31	818.7
	Sabinas Burgos	66	19,271.6	207.5	7,352.8	7,560.3	47	452.9
Total		579	239,007.3	11,749.5	30,931.4	42,680.9	253	47,590.2

Table 3 shows the number of areas available per category and Basin and their respective surface in square kilometers.

The shape of each area has been determined based on prospective resources, remaining volume, the distribution of fields, identified structures and availability of seismic data. The areas have also been evaluated according to the availability of infrastructure for production and transportation, geologic risk, volume and expected hydrocarbon.

Table 3. Average size of areas for each category

Category	Basin	Average size (km^2)	Category Average (km^2)	Total number of areas	Total Surface Area (km^2)
Deep water	Perdido	996	985	119	117,223
	Cordilleras Mexicanas	1,005			
	Cuenca Salina	963			
Shallow water	Burgos Somero	398	428	112	47,995
	Tampico-Misantla-Veracruz Somero	428			
	Cuencas del Sureste Somero	508			
Onshore unconventional	Sabinas Burgos	292	286	150	42,965
	Tampico-Misantla	282			
Onshore conventional	Sabinas Burgos	254	223	128	28,482
	Tampico-Misantla	181			
	Veracruz	206			
	Cuencas del Sureste-Chiapas	216			

*70 areas were not considered because they only have rights to carry out production activities.

Table 4. Resources and surface area for exploration & production

Category	Prospective Resources (MMboe)	Remaining Volume. (MMboe)	Surface area(km^2)
Deep water	6,594.3	500.1	117,325.8
Shallow water	3,555.1	18,837.5	49,080.1
Onshore unconventional	31,327.0	26,956.4	43,450.6
Onshore conventional	1,204.5	1,296.2	29,150.7
Total	42,680.9	47,590.2	239,007.3

1.1.1. Deep water

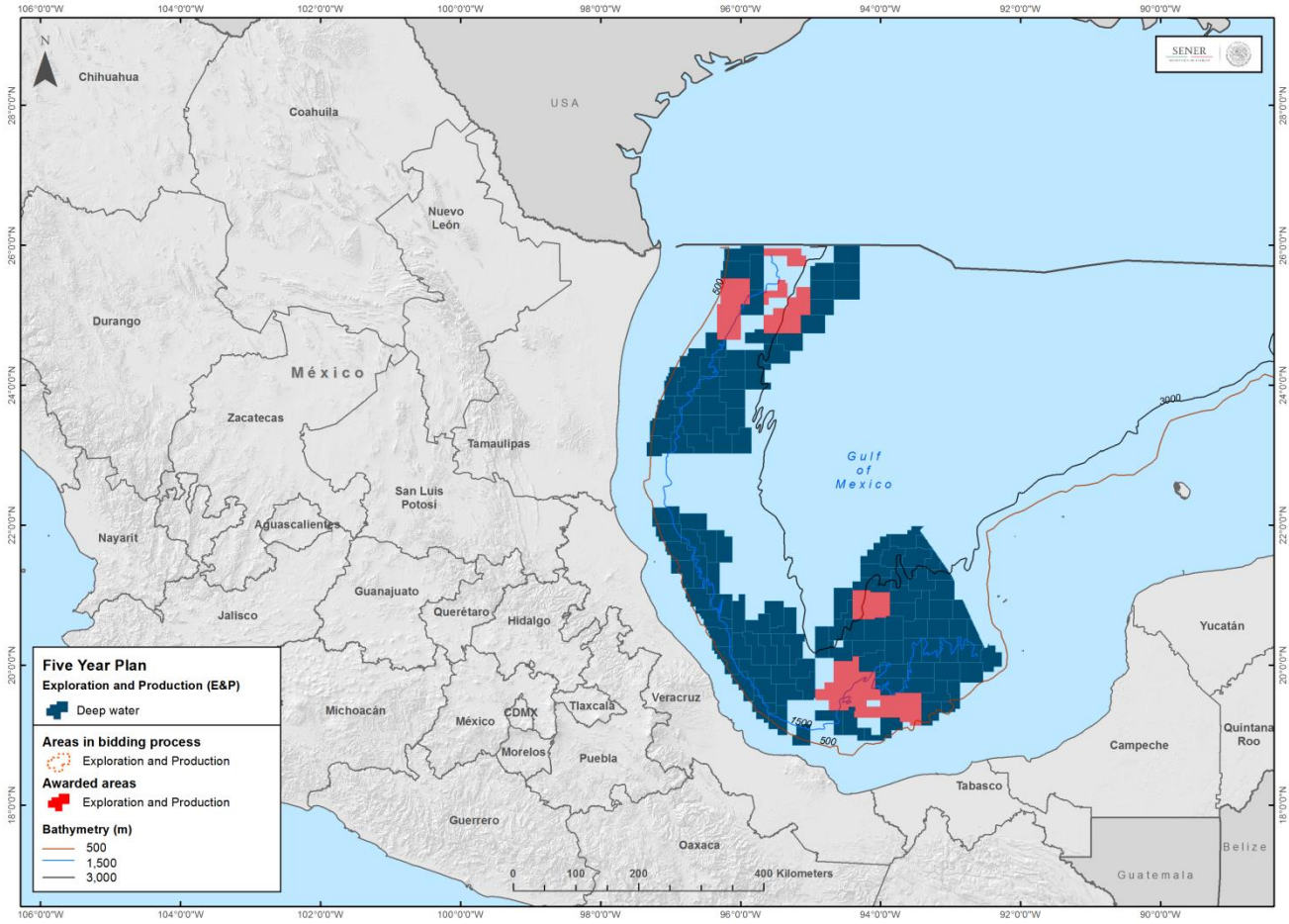
The areas available for exploration & production in deep water are located in front of the coastline of the states of Tamaulipas, Veracruz, Tabasco and Campeche [Map 2]. These areas have an estimated volume of prospective resources of approximately 6,594.3 MMboe and a surface equivalent to 117,223.5 km^2. The areas are located in Área Perdido, Cordilleras Mexicanas and Cuenca Salina del Istmo [Table 5].

Table 5. Deep water areas available for exploration and production *

Basin	Prospective Resources (MMboe)	Area (km^2)	Number of blocks
Área Perdido	1,661.6	36,860.7	37
Cordilleras Mexicanas	2,130.0	33,171.8	33
Salina del Istmo	2,802.7	47,191.0	49
Total	6,594.3	117,223.5	119

*Includes areas not awarded in fourth invitation to bid of Round one.

Map 2. Deep water areas available for exploration and production



1.1.2. Shallow water

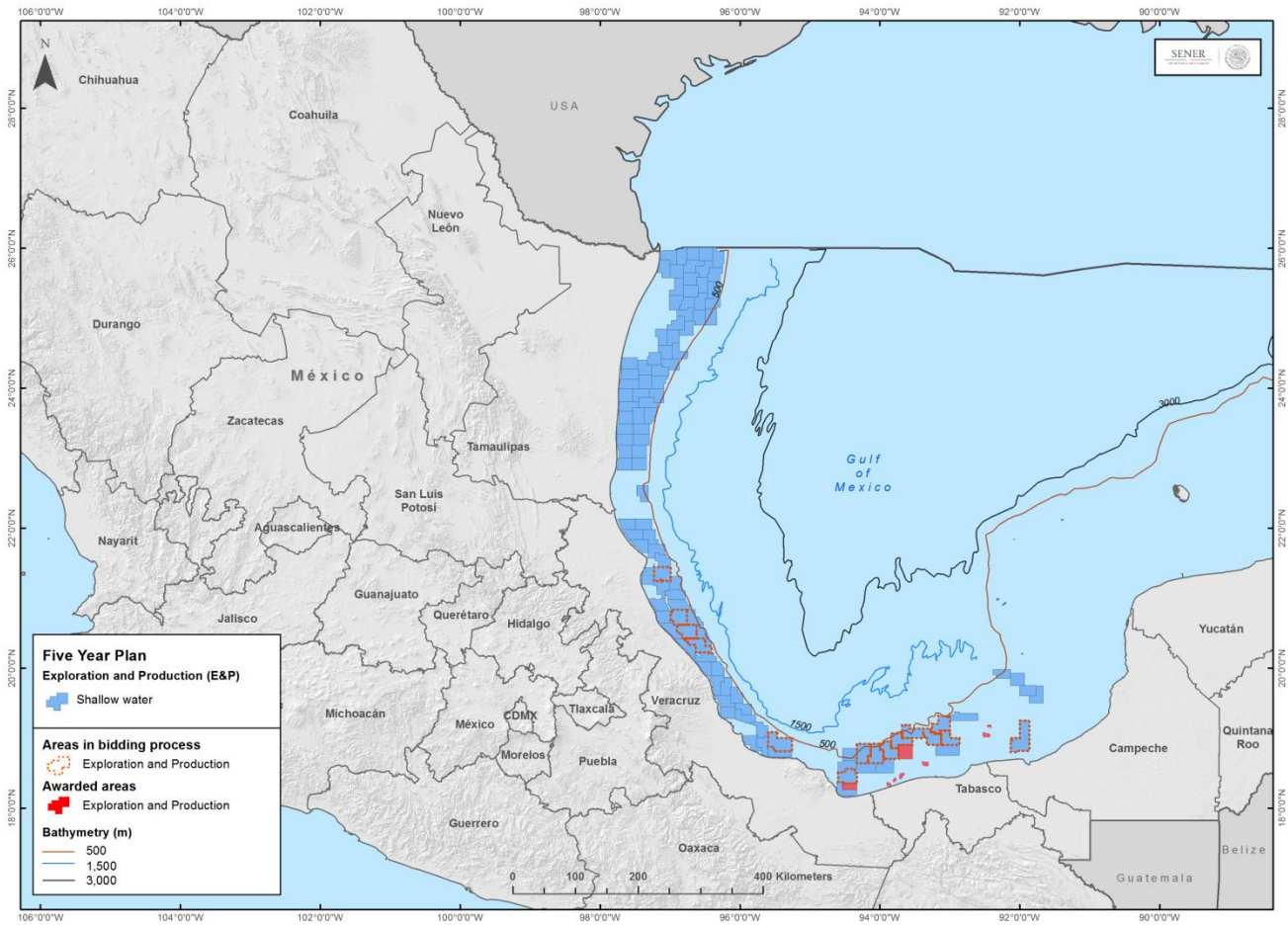
The areas located in shallow water have an estimated volume of 3,555.1 MMboe of prospective resources and a remaining volume of 960.4 MMboe in a surface area of 47,995.5 km^2 [Table 6]. These areas are next to fields with commercial discoveries, thus more success is expected to follow in the proven plays and commercial viability in the hypothetical plays [Map 3].

Table 6.Shallow water areas available for exploration & production *

Basin	Prospective Resources (MMboe)	Remaining volume (MMboe)	Area (km^2)	Number of blocks
Burgos Somero	1,289.7	-	21,075.4	53
Tampico-Misantla-Veracruz	1,477.9	217.1	16,249.0	38
Cuencas del Sureste Somero	787.5	743.4	10,671.1	21
Total	3,555.1	960.4	47,995.5	112

*Includes areas considered in Round 2.

Map 3. Shallow water areas available for exploration & production



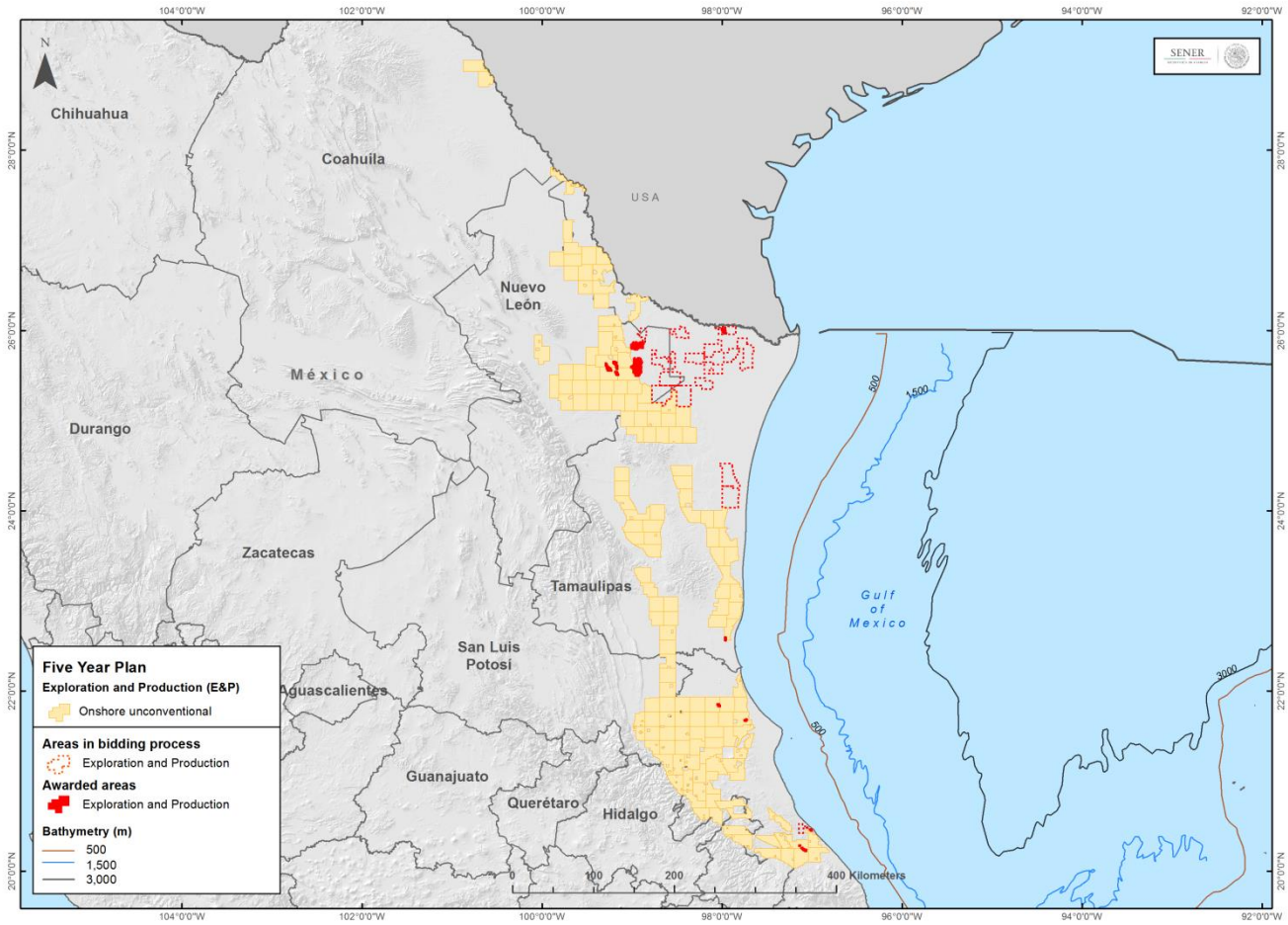
1.1.3. Onshore unconventional

These areas are located in the states of Coahuila, Nuevo León, Tamaulipas, San Luis Potosí, Veracruz, Hidalgo and Puebla [Map 4]. These areas include the regions identified to have the greatest volume of shale prospective resources, and the resources associated to Chicontepec. Additionally, other objectives located at depths between 1000 and 4000 meters below ground level were included.

Table 7. Onshore unconventional areas available for exploration & production

Basin	Prospective Resources (MMboe)	Remaining volume (MMboe)	Area (km^2)	Number of blocks
Sabinas-Burgos	7,560.3	452.9	19,271.6	66
Tampico-Misantla	23,766.7	20,869.7	23,693.0	84
Total	31,327.0	21,322.6	42,964.6	150

Map 4. Onshore unconventional areas available for exploration & production



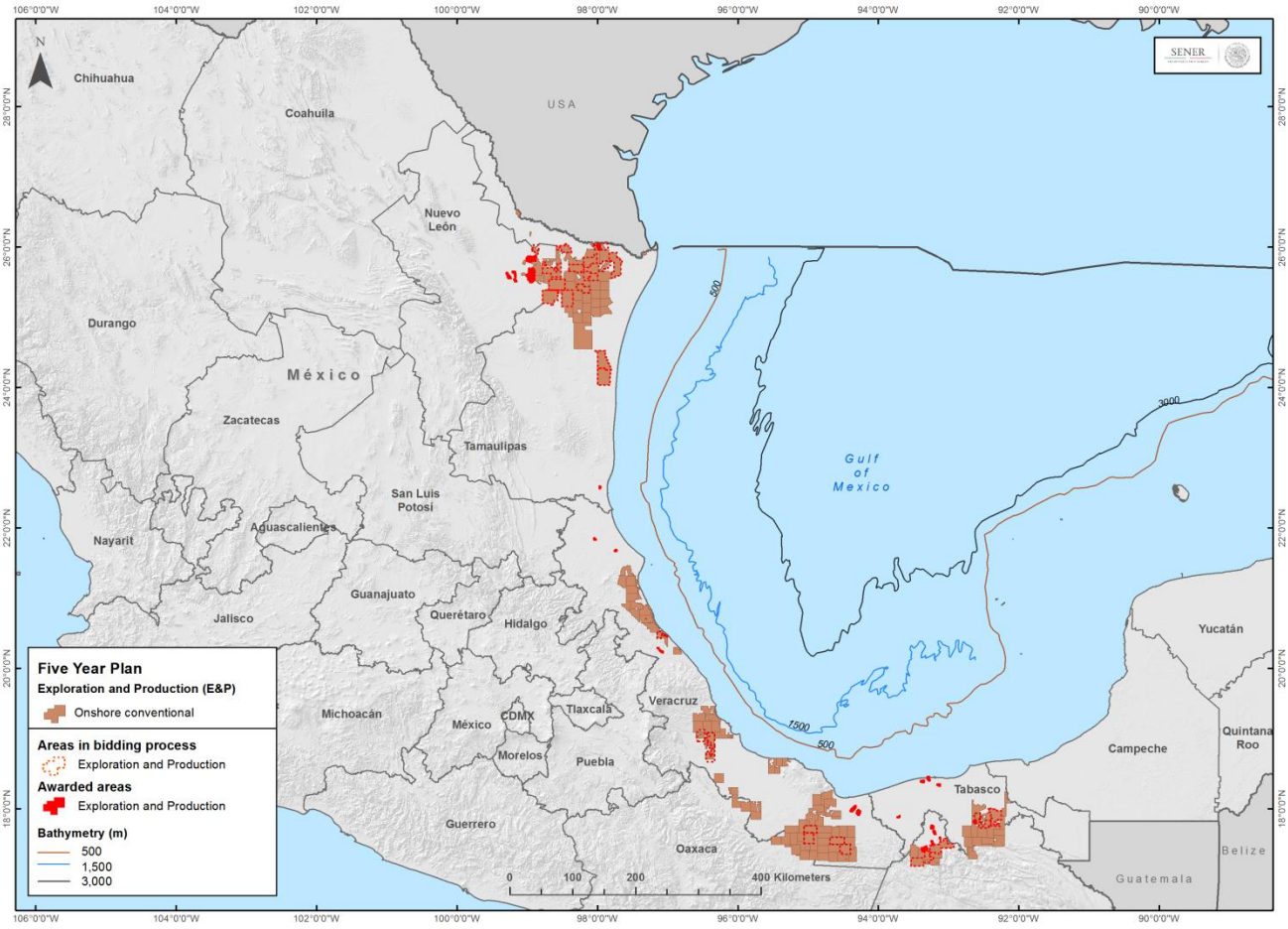
1.1.4. Onshore conventional

The onshore conventional areas are shown in Map 5 and have prospective resources for 1,204.5 MMboe, and a remaining volume of 530.4 MMboe in a total of 128 blocks covering a surface area of 28,482.2 km^2 [Table 8].

Table 8. Onshore conventional areas available for exploration and production

Basin	Prospective Resources (MMboe)	Remaining volume (MMboe)	Area (km^2)	Number of blocks
Sabinas-Burgos	440.0	296.3	10,165.7	40
Tampico-Misantla	5.6	67.2	2,172.4	12
Veracruz	176.1	41.0	5,761.3	28
Cuencas del Sureste-Chiapas	582.8	125.9	10,382.8	48
Total	1,204.5	530.4	28,482.2	128

Map 5. Onshore conventional areas available for exploration & production



1.2. Fields available for production of oil and gas

The Five Year Plan includes fields where only production can be carried out as a result of coexistence of the exploration entitlements allocated to Pemex.

1.2.1. Production in Deep water

The fields for production in deep water are located at a distance of 30-60 km from the coastline and have a volume of 500MMboe with a surface of 102.3km^2 [Table 9].

Table 9. Fields available for production in deep water

Basin	Number of fields	Remaining Volume (MMboe)	Surface (km^2)
Cuenca Salina	4	500.1	102.3
Total	4	500.1	102.3

The four fields available are located in front of the coastline of the state of Veracruz in the provinces Cuenca Salina del Istmo and Cinturón Plegado de Catemaco [Map 6].

Map 6. Fields available for production in deep water

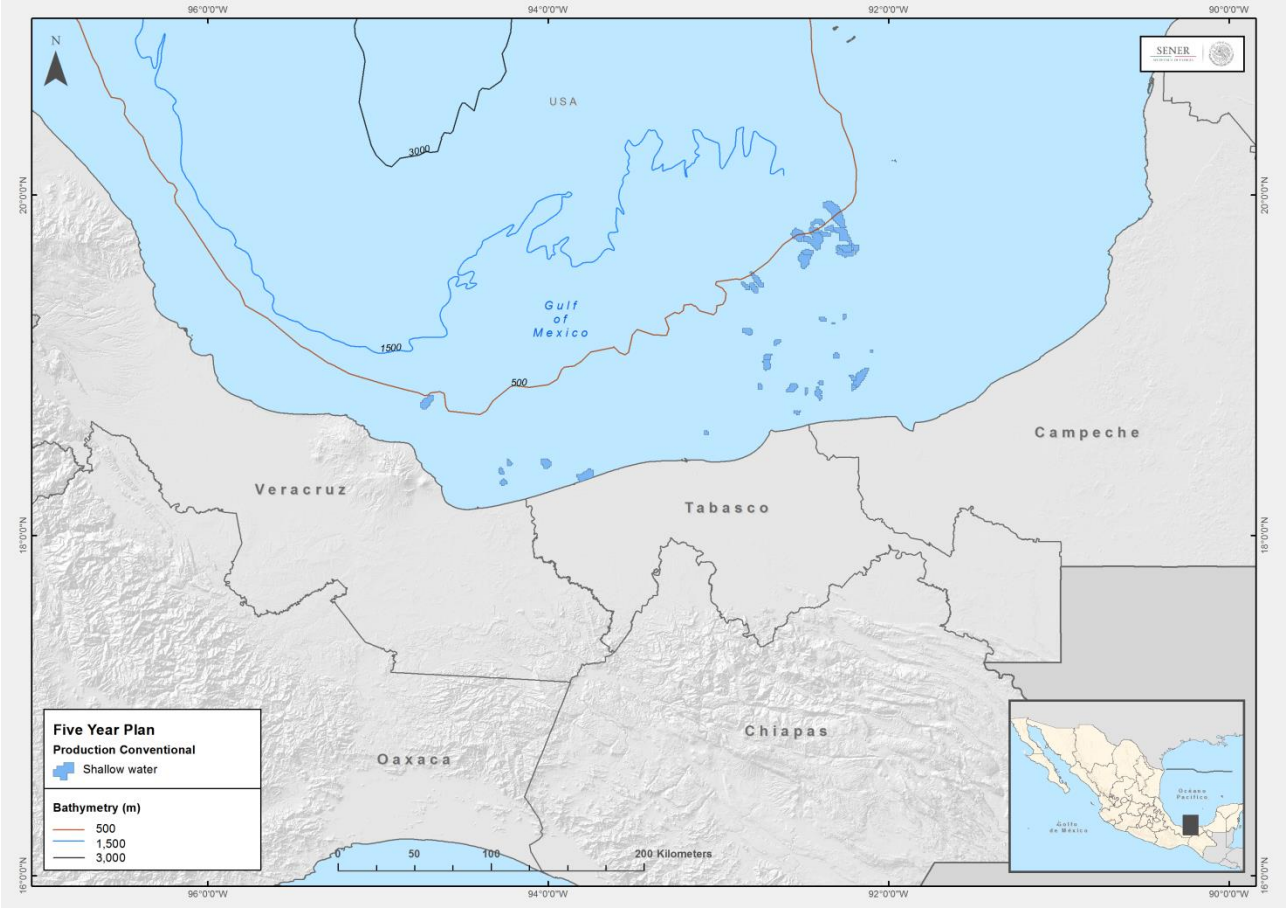
1.2.2. Production in Shallow water

The fields located in shallow water are located where the depth to the sea bed is below 500 meters [Table 10] and hold resources composed of medium to super light crude and associated gas with an estimated remaining volume of 17,877.1 MMboe. The surface are of these fields is 1,084.6 km^2. These fields are located in front of the coastlines of the states of Campeche, Tabasco y Veracruz [Map 7].

Table 10. Fields available for production in shallow water

Basin	Number of fields	Remaining Volume (MMboe)	Surface (km^2)
Cuencas del Sureste Somero	38	17,874.2	1,050.2
Cuenca Salina	2	2.9	34.5
Total	40	17,877.1	1,084.6

Map 7. Fields available for production in shallow water



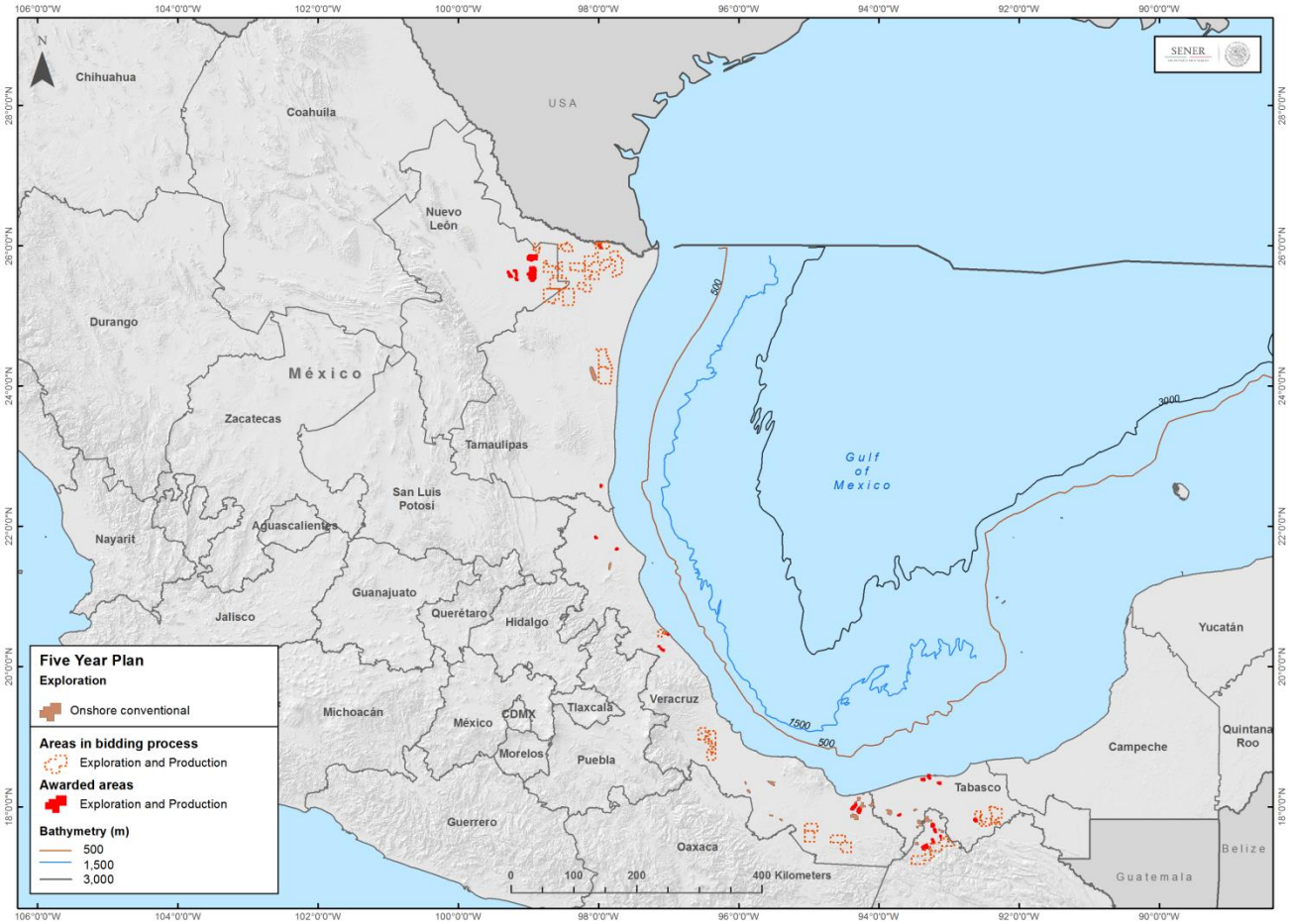
1.2.3. Production in Onshore conventional areas

The conventional fields available for production onshore are located in the states of Chiapas, Puebla, Tabasco, Tamaulipas and Veracruz [Map 8]. Their total remaining volume is equivalent to 765.8 MMboe and the sum of their surface is 668.5 km^2 [Table 11].

Table 11. Onshore conventional fields available for production

Basin	Number of fields	Remaining Volume (MMboe)	Surface (km^2)
Sabinas-Burgos	3	49.8	120.6
Tampico-Misantla	2	8.7	34.8
Veracruz	5	14.5	90.0
Cuencas del Sureste-Chiapas	22	692.8	423.0
Total general	32	765.8	668.5

Map 8. Onshore conventional fields available for production



1.2.4. Production in Onshore unconventional areas

The only fields available are located in the Tampico-Misantla province. They only have rights for production since they coexist with Pemex's exploration entitlements [Map 9]. The oil and gas resources of these fields are 5,633.8 MMboe in a surface of 486.0 km^2 [Table 12].

Table 12: Onshore unconventional fields available for production

Basin	Number of fields	Remaining Volume (MMboe)	Surface (km^2)
Tampico-Misantla	6	5,633.8	486.0
Total	2	5,633.8	486.0

Map 9. Onshore unconventional fields available for production