



*Ministry of Economic Development*

DEPARTMENT FOR COMPETITIVENESS

*Directorate General for Energy and Mining Resources (DGERM)*

National Office for Mining, Hydrocarbons and Geothermal Resources (UNMIG)

## ***UNMIG Report***

# ***Exploration and Production of Hydrocarbons in Italy***

***Year 2007***

June 2008

## Introduction

Every year UNMIG<sup>1</sup> Report depicts the state of hydrocarbons E&P in Italy.

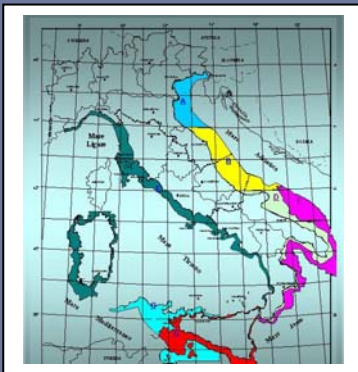
The contribution of domestic reservoirs (both onshore and offshore) to Italian energy balance is not negligible: nearly 6% of oil and 12% of gas consumptions are covered by domestic production. Besides the commercial value of extracted hydrocarbons, the existence of a national upstream sector implies a number of companies working in the field. Their scientific and technological know-how is an important asset for the Country.

In 2007, oil and gas production was similar to the one recorded in 2006. However, the upstream sector is not in good health. Producing gas reservoirs are ageing; in several areas of the Country exploration is not allowed, neither exploitation of proven reserves is. Discovered resources turn into production too slowly.

The main reason for such situation is the hostility of local communities towards E&P activities, which cannot be foreseen by town-planning rules and imply high levels of perceived environmental impact.

The offshore natural gas production (which is the principal share of domestic production) has been decaying for many years, since new discoveries do not balance the depletion of older reservoirs. In the Basilicata Region, new large oil fields have been discovered, but their development has been going on slowly for a long time. So the decay in production from older fields is hardly balanced, and the domestic oil production remains stable around 5 and 6 million tons per year.

It is well known that exploration activities require large investments with high financial risk. It is believed that in Italy good discovery chances still exist and, due to the present high price of oil&gas, the interest in research activities is rising again: this is demonstrated by an increased number of applications for exploration licenses. On the other hand, since bureaucratic procedures are still long and complex, and the rules for obtaining licenses remain uncertain, big companies are likely to turn their interest to countries where discoveries are more likely to be made and production costs may be lower.



<sup>1</sup> UNMIG (National Office for Mining, Hydrocarbons and Geothermal Resources) operates within the Ministry of Economic Development. It was created in 1957 by the law that ruled domestic upstream activities, following the first, encouraging AGIP's discoveries in the early Fifties. UNMIG's mission is to ensure that Italian oil and gas fields are properly exploited, and that companies fulfil all requirements concerning workers' health and safety. This dual task is carried out by a central administrative structure in Rome and three peripheral offices (Bologna, Rome and Naples). Every year, UNMIG publishes a report on the state of upstream activities; such reports are available on line at <http://unmig.sviluppoeconomico.gov.it>.

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## UNMIG Report 2007

### Exploration and Production of Hydrocarbons in Italy

#### 1. Prospecting and exploration

In 2007, 10 exploration wells were drilled in Italy (9 onshore and 1 offshore), for a total of 19'500 drilled meters; such figures are significantly lower than those recorded in 2006 (-28%). Average depth of exploration wells has been about 1950 m.

28 wells were drilled for production, for a total of about 51'000 m. Such value is similar to the one recorded in 2006.

#### 2. Exploration and discoveries

In 2007, 3 discoveries were made in Abruzzo, in areas where previously planned activities had been delayed due to operational and administrative reasons.

#### 3. Mining licenses

As at December 31<sup>st</sup>, 2007, 90 exploration licenses were in force (58 onshore and 32 offshore), totalling about 35'658 km<sup>2</sup> (21'002 onshore and 14'656 offshore). 195 production licenses were effective (129 onshore and 66 offshore), totalling about 18'953 km<sup>2</sup> (9'480 onshore and 9'373 offshore). Such data are described in detail in the tables below.

Onshore exploration licenses spread over about 10% of the national territory. Emilia Romagna, Abruzzo, Piemonte, Basilicata, Lombardia, Lazio, Sicilia, Marche are the Regions where most permits are located.

Offshore, in the sea zones that are subject to national jurisdiction and have been opened to E&P activities, more than 1500 wells have been drilled so far and more than 100 platforms are operating. At the moment, the majority of offshore licenses is concentrated in the A and B zones, in the Adriatic sea.

Compared to 2006, the total number of E&P licenses has slightly decreased (285 vs. 289). However, compared to 1998 (when the legislative decree 625/96 started to rule the new liberalized licensing procedures), a more significant decrease can be observed (nearly 30%).

Recently, evidence has been observed of a renewed interest in exploration, mostly driven by small companies attracted by the high price of crude oil. In 2007, 48 new applications were submitted for exploration licenses (41 onshore and 7 offshore). 113 more applications had been already submitted, but are still being processed.

In accordance with law No. 239/2004, the administrative tools named "Unique Procedure" and "Conference of Administrations" are being used in the licensing process. Nevertheless, authorities involved have often different points of view and therefore achieving consensus is difficult. In 2007, only 9 exploration licenses were granted (4 onshore and 5 offshore), while no new production licenses were granted.

#### 4. Gas production

In 2007, 9.6 billion Sm<sup>3</sup> of natural gas have been produced (-11% compared to 2006), confirming the constant decrease in production that has been experienced since 1994, when the peak production was achieved (20,6 billion Sm<sup>3</sup>). Such trend depends on the natural depletion of older fields, which is not balanced by new producing reservoirs.

Most of the reduction in production which occurred in 2007 has to be blamed on the ageing of offshore reservoirs, which however still provide the largest share (about 75%) of the total domestic production. More precisely, the "A zone" of the Adriatic sea still provides 53% of the total extracted gas. Onshore, the Regions contributing the most are Basilicata, Puglia, Sicilia, Emilia Romagna, Molise, Marche and Abruzzo.

#### 5. Oil production

In 2007, 5.84 million metric tons of oil were produced. This figure is slightly larger than the value recorded in 2006 (+1.4%). Neglecting the peak achieved in 2005 (6.08 million tons), the 2007 production has been the largest over the last 20 years.

Nearly 87% of domestic oil is extracted onshore, mostly from the Basilicata (75%) and Sicilia fields. On the other hand, depletion of the fields in Piemonte is rapidly going on.

A significant increase in production is expected in the coming years, following the start of exploitation of Tempa Rossa reservoir, in Basilicata. For such field an agreement has been finally reached between the Companies and the local Authorities.

## **6. Reserves**

The general, negative trend of recoverable gas reserves that has been recorded in recent years is confirmed. In 1991, exploitable gas reserves were about 370 billion Sm<sup>3</sup>, while now they have more than halved. Despite the decreasing production, even the ratio between annual production and reserves (i.e. the residual life of the reserves themselves) is continuously decreasing: in 1991 it was estimated in 21 years, whereas the current figure is 14 years.

Therefore, the problem of the lack of new gas reservoirs discoveries is increasing. About 68% of existing reserves is offshore, especially in the A zone, in the Northern Adriatic sea, where about 53% of production comes from. In this area, environmental concerns related to land subsidence induced by hydrocarbons production are discouraging new exploration investments. This happens not only offshore, but also in the surrounding coast.

Concerning oil, the variation of reserves in recent years is less worrying: according to the Companies' estimates, recoverable reserves as at December 31<sup>st</sup>, 2007, were about 116 millions of tons, 6% more than the previous year. Such increase has been due mostly to refinement of previous estimates for reservoirs in Southern Italy and in Sicilia.

## **7. Royalties**

Decreasing oil and gas production has led to a corresponding smaller quantity of hydrocarbons due as royalties. However, this has been more than balanced by the increase in prices; as a consequence, there has been a rise in the financial income for the State, after all.

For the first time, royalties coming from gas production in 2006 have been sold on the gas market. This new procedure has led to a larger income compared to the pricing method previously in use. On the other hand, such innovative procedure no longer allows a direct correlation to be established between produced gas and corresponding royalties in financial terms.

Concerning oil, no change has occurred with respect to procedures already in use.

## **8. Gas storage**

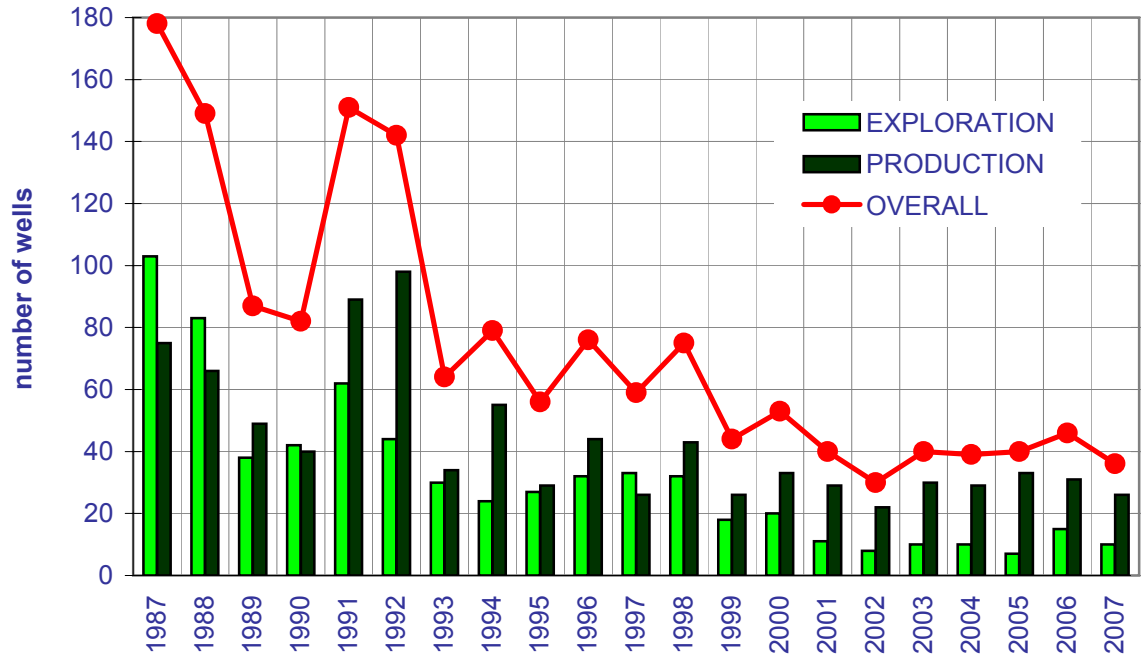
At the moment, 10 storage fields are operating in Italy, totalling about 9 billion Sm<sup>3</sup> of commercial working capacity. Applications for new storage plants have already been submitted.

Priority for the use of storage for modulation is given to the production and exploitation of gas fields, with certain limits to allow domestic producers the same degree of modulation available to importers using flexibility of import contracts.

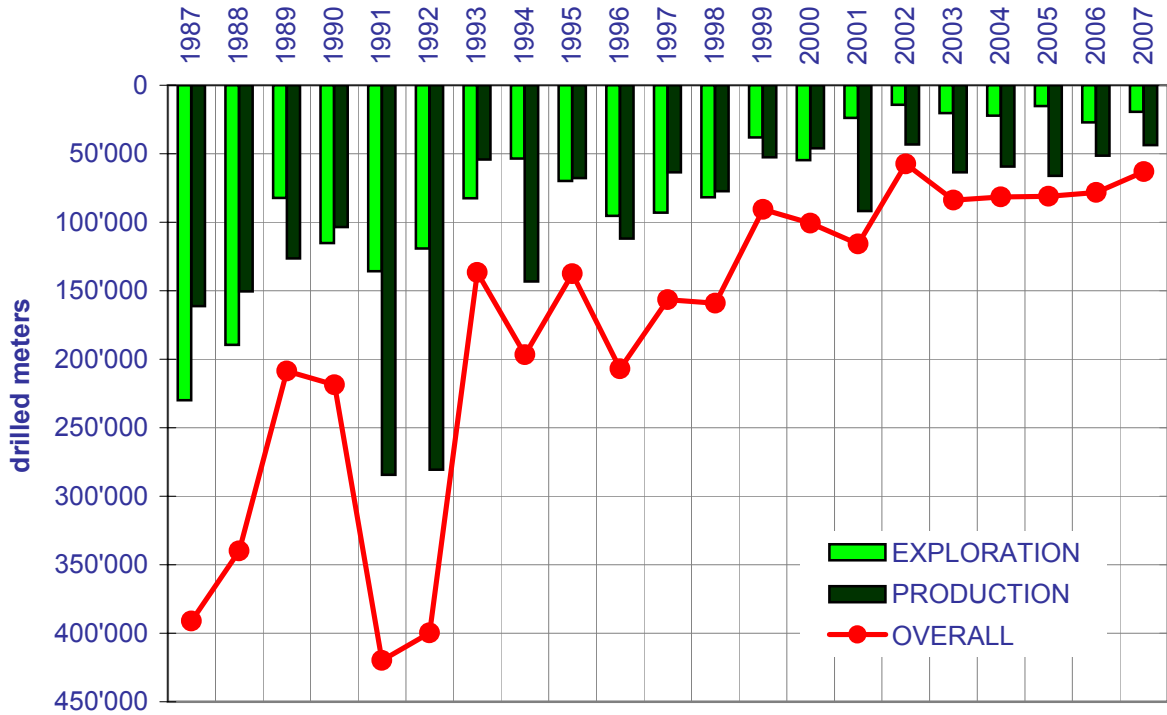
## Drilling activities - years 1987-2007

YEAR	EXPLORATION						PRODUCTION & OTHER PURPOSES						OVERALL					
	ONSHORE			OFFSHORE			ONSHORE			OFFSHORE			Number of wells	Meters drilled	average wells depth			
	Number of wells	Meters drilled	average wells dep	Number of wells	Meters drilled	average wells dep												
TOTAL						TOTAL						TOTAL						
1987	84	174'168	2'233	19	55'784	2'233	103	229'952	34	61'118	41	100'134	75	161'252	2'150	178	391'204	2'198
1988	59	136'697	2'282	24	52'690	2'282	83	189'387	15	35'990	51	114'507	66	150'497	2'280	149	339'884	2'281
1989	29	58'586	2'163	9	23'600	2'163	38	82'186	17	50'301	32	76'074	49	126'375	2'579	87	208'561	2'397
1990	28	78'179	2'742	14	36'989	2'742	42	115'168	16	42'755	24	60'688	40	103'443	2'586	82	218'611	2'666
1991	36	83'547	2'188	26	52'094	2'188	62	135'641	35	97'161	54	187'105	89	284'266	3'194	151	419'907	2'781
1992	29	79'363	2'706	15	39'718	2'706	44	119'081	25	57'642	73	222'934	98	280'576	2'863	142	399'657	2'814
1993	24	72'426	2'752	6	10'123	2'752	30	82'549	13	16'770	21	37'414	34	54'184	1'594	64	136'733	2'136
1994	14	30'142	2'234	10	23'467	2'234	24	53'609	9	14'447	46	128'733	55	143'180	2'603	79	196'789	2'491
1995	19	55'017	2'586	8	14'793	2'586	27	69'810	19	41'380	10	26'375	29	67'755	2'336	56	137'565	2'457
1996	22	67'664	2'975	10	27'550	2'975	32	95'214	17	23'920	27	87'911	44	111'831	2'542	76	207'045	2'724
1997	22	62'800	2'820	11	30'266	2'820	33	93'066	16	34'259	10	29'285	26	63'544	2'444	59	156'610	2'654
1998	23	62'962	2'555	9	18'794	2'555	32	81'756	26	35'912	17	41'448	43	77'360	1'799	75	159'116	2'122
1999	12	25'763	2'119	6	12'374	2'119	18	38'137	14	24'476	12	28'086	26	52'562	2'022	44	90'699	2'061
2000	14	35'721	2'739	6	19'065	2'739	20	54'786	14	18'949	19	27'058	33	46'007	1'394	53	100'793	1'902
2001	9	21'610	2'176	2	2'325	2'176	11	23'935	14	52'781	15	39'086	29	91'867	3'168	40	115'802	2'895
2002	3	3'016	1'777	5	11'200	1'777	8	14'216	15	23'506	7	19'699	22	43'205	1'964	30	57'421	1'914
2003	5	11'576	2'023	5	8'658	2'023	10	20'234	9	35'182	21	28'380	30	63'562	2'119	40	83'796	2'095
2004	10	22'223	2'222	0	0	2'222	10	22'223	7	18'105	22	41'189	29	59'294	2'045	39	81'517	2'090
2005	7	15'085	2'155	0	0	2'155	7	15'085	9	16'632	24	49'399	33	66'031	2'001	40	81'116	2'028
2006	12	17'906	1'803	3	9'139	1'803	15	27'045	14	21'597	17	29'714	31	51'311	1'655	46	78'356	1'703
2007	9	15'925	1'944	1	3'517	1'944	10	19'442	13	17'886	15	33'027	28	50'913	1'818	38	70'355	1'851

### NUMBER OF DRILLED WELLS: YEARS 1987-2007



### DRILLED METERS: YEARS 1987 - 2007

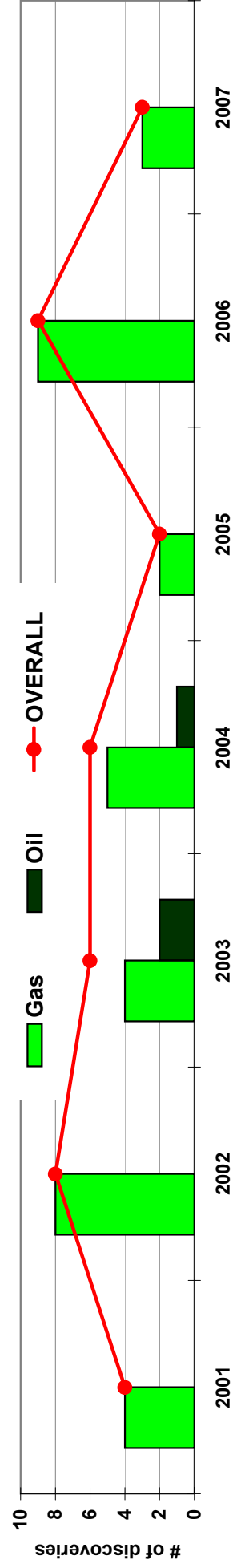


# DISCOVERIES years 2001-2007



	2001	2002	2003	2004	2005	2006	2007
<b>ONSHORE</b>	<ul style="list-style-type: none"> <li>☼ Masseria Petruilla 1 (MT)</li> <li>☼ Miglianico 1 (CH)</li> </ul>	<ul style="list-style-type: none"> <li>☼ Agosta 1dir (FE)</li> <li>☼ Fonte Filippo 1 dir (CH)</li> <li>☼ Muzza 4dirA (MO)</li> <li>☼ San Pietro SW 1 (AN)</li> </ul>	<ul style="list-style-type: none"> <li>● Agri 1 (PZ)</li> <li>● Agri 1orA (PZ)</li> <li>☼ Capparruccia 1dir (AP)</li> </ul>	<ul style="list-style-type: none"> <li>☼ Abbadesse 001 DIR (RA)</li> <li>☼ Civita 001 DIR (FG)</li> <li>☼ Monte dell'Aquila 001 DIR (CT)</li> <li>☼ Monte Guzzo 001 DIR</li> <li>☼ Santa Maddalena 001 DIR (BO)</li> <li>● Tresauro 001 DIR (RG)</li> </ul>	<ul style="list-style-type: none"> <li>☼ Vitalba 001 (CR)</li> <li>☼ Mezzocolle 001 DIR (BO)</li> </ul>	<ul style="list-style-type: none"> <li>☼ Codogno 001 DIR</li> <li>☼ Colle Sciarra 001 DIR A</li> <li>☼ Filici 001 DIR A</li> <li>☼ Fonte Filippo Sud Est 001</li> <li>☼ Longanesi 001</li> <li>☼ Ripalta 61 OR</li> <li>☼ Vitalba 001 DIR</li> </ul>	<ul style="list-style-type: none"> <li>☼ Colle Sciarra 001 DIR B (PE)</li> <li>☼ Monte Pallano 001 DIR (CH)</li> <li>☼ Monte Pallano 002 DIR (CH)</li> </ul>

	2001	2002	2003	2004	2005	2006	2007	
<b>OFFSHORE</b>	<ul style="list-style-type: none"> <li>☼ Fauzia 1</li> </ul>		<ul style="list-style-type: none"> <li>☼ Annamaria 2</li> <li>☼ Armida 1dirA</li> </ul>					
		<ul style="list-style-type: none"> <li>☼ Calipso 3dirA</li> <li>☼ Calipso 4dirA</li> <li>☼ Didone 2</li> </ul>						
							☼ BENEDETTA 001 DIR	
		☼ Panda 1		☼ Panda Ovest 1			☼ ARGO 001	



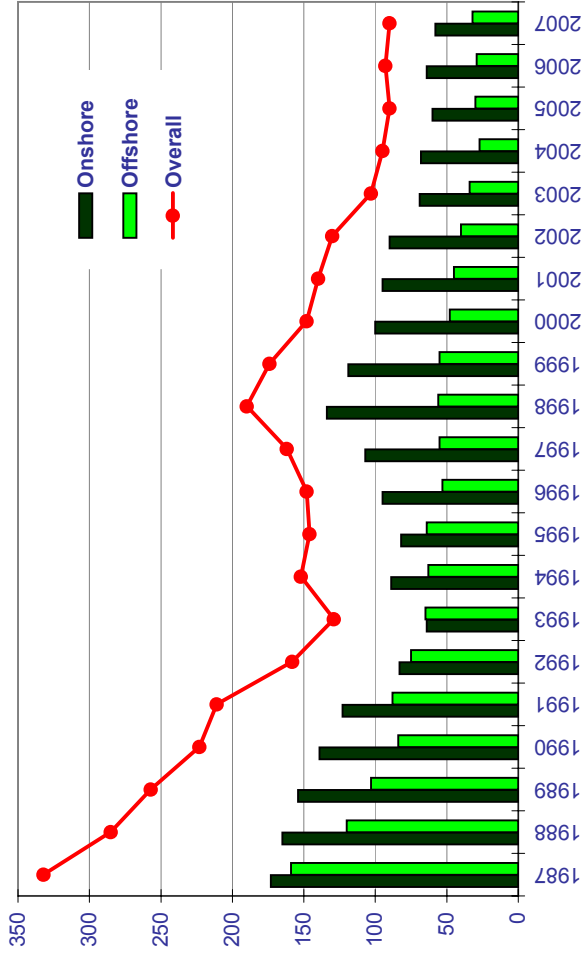




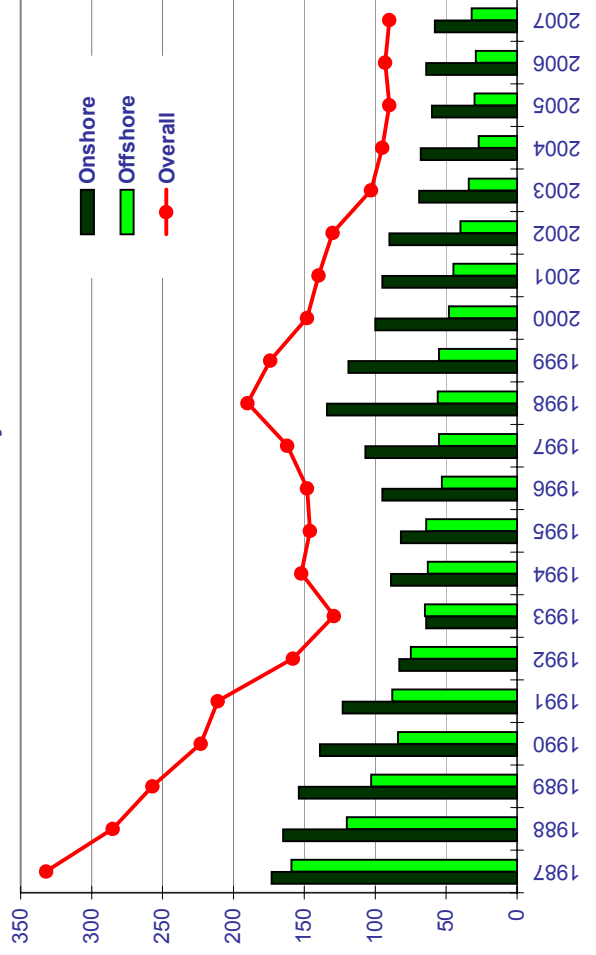
# Mining licenses for hydrocarbons Years 1987 - 2007

Year	EXPLORATION PERMITS			PRODUCTION CONCESSIONS		
	Onshore	Offshore	Total	Onshore	Offshore	Total
1987	173	159	332	107	46	153
1988	165	120	285	113	46	159
1989	154	103	257	120	51	171
1990	139	84	223	123	52	175
1991	123	88	211	129	52	181
1992	83	75	158	135	54	189
1993	64	65	129	138	54	192
1994	89	63	152	133	58	191
1995	82	64	146	126	58	184
1996	95	53	148	125	57	182
1997	107	55	162	137	59	196
1998	134	56	190	156	67	223
1999	119	55	174	153	68	221
2000	100	48	148	150	69	219
2001	95	45	140	135	69	204
2002	90	40	130	146	69	215
2003	69	34	103	140	69	209
2004	68	27	95	140	69	209
2005	60	30	90	133	66	199
2006	64	29	93	129	67	196
2007	58	32	90	129	66	195

Number of Exploration Licenses - years 1987-2007



Number of Production Licenses - years 1987-2007

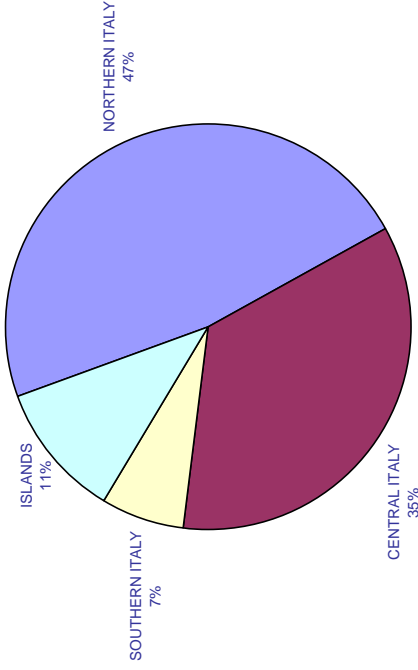


# Onshore licenses

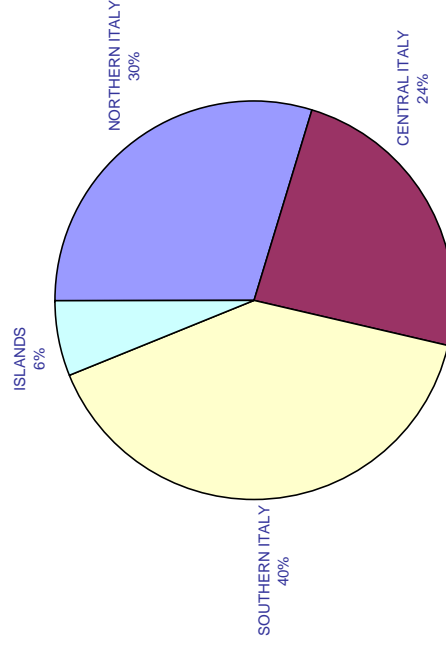
Data as at December 31<sup>st</sup>, 2007

REGIONS		EXPLORATION LICENSES			PRODUCTION LICENSES			OVERALL	
Regional Area (km <sup>2</sup> )	Number (-)	area (Km <sup>2</sup> )	% of Region's area	Number (-)	area (Km <sup>2</sup> )	% of Region's area	total area (km <sup>2</sup> )	Region's area	
VALLE D'AOSTA	3/266	0	0.0%	0	0	0.0%	0.00	0.0%	
PIEMONTE	25/398	3/265.26	12.9%	1	77.71	0.3%	33'342.97	13.2%	
LIGURIA	5/421	0	0.0%	0	0.00	0.0%	0.00	0.0%	
LOMBARDIA	23/861	6	2/270.82	12	973.66	4.1%	32'444.48	13.6%	
TRENTINO-ALTO ADIGE	13/599	0	0.0%	0	0.00	0.0%	0.00	0.0%	
VENETO	18/390	0	0.30	1	164.32	0.9%	164.62	0.9%	
FRIULI-VENEZIA GIULIA	7/712	0	0.00	0	0.00	0.0%	0.00	0.0%	
EMILIA-ROMAGNA	22/122	12	4/440.46	34	1'589.78	7.2%	6'030.24	27.3%	
<b>NORTHERN ITALY</b>	<b>119/769</b>	<b>25</b>	<b>9'976.84</b>	<b>48</b>	<b>2'805.47</b>	<b>2.3%</b>	<b>12'782.31</b>	<b>10.7%</b>	
TOSCANA	22/990	0	0.00	2	307.84	1.3%	307.84	1.3%	
MARCHE	9/695	3	786.83	17	1'107.06	11.4%	1'893.89	19.5%	
UMBRIA	8/454	0	0.00	0	0.00	0.0%	0.00	0.0%	
LAZIO	17/210	5	3'151.35	1	41.14	0.2%	3'192.49	18.6%	
ABRUZZO	10/793	10	3'239.02	6	491.20	4.6%	3'730.22	34.6%	
MOLISE	4/438	1	163.72	4	336.19	7.6%	499.91	11.3%	
<b>CENTRAL ITALY</b>	<b>73/580</b>	<b>19</b>	<b>7'340.92</b>	<b>30</b>	<b>2'283.43</b>	<b>3.1%</b>	<b>9'624.35</b>	<b>13.1%</b>	
CAMPANIA	13/592	0	73.97	1	347.30	2.6%	421.27	3.1%	
PUGLIA	19/364	1	154.55	14	1'253.31	6.5%	1'407.86	7.3%	
BASILICATA	9/992	9	1'209.54	21	2'120.89	21.2%	3'330.43	33.3%	
CALABRIA	15/083	0	0.00	2	103.43	0.7%	103.43	0.7%	
<b>SOUTHERN ITALY</b>	<b>58/031</b>	<b>10</b>	<b>1'438.06</b>	<b>38</b>	<b>3'824.93</b>	<b>6.6%</b>	<b>5'262.99</b>	<b>9.1%</b>	
SICILIA	25/701	4	2'246.35	13	566.64	2.2%	2'812.99	10.9%	
SARDEGNA	24/090	0	0.00	0	0.00	0.0%	0.00	0.0%	
<b>ISLANDS</b>	<b>49/791</b>	<b>4</b>	<b>2'246</b>	<b>13</b>	<b>566.64</b>	<b>1.1%</b>	<b>2'812.99</b>	<b>5.6%</b>	
<b>OVERALL</b>	<b>301/171</b>	<b>58</b>	<b>21'002.17</b>	<b>129</b>	<b>9'480.47</b>	<b>3.1%</b>	<b>30'482.64</b>	<b>10.1%</b>	

Onshore exploration licenses: areas

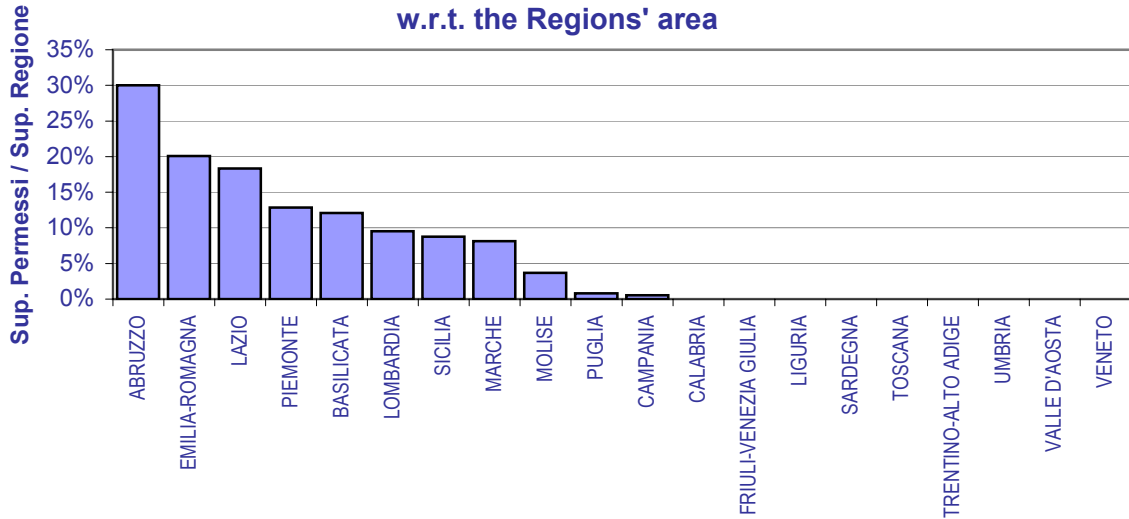


Onshore production licenses: areas

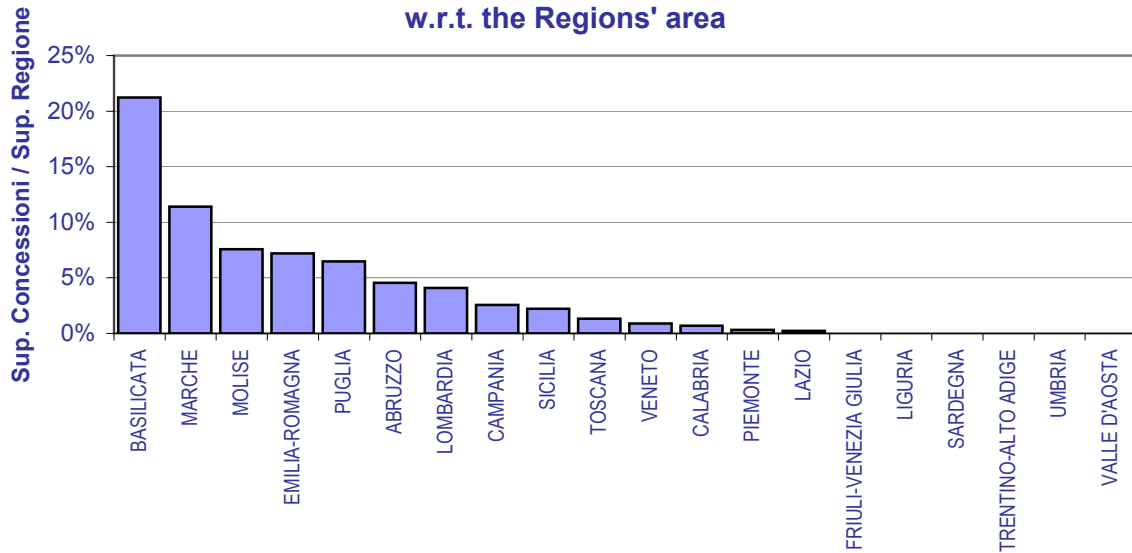


N.B.  
In case of licenses extending over two or more zones, the surface shares are attributed to the zones they belong to, while the mining unit is assigned to the zone including the largest surface share.

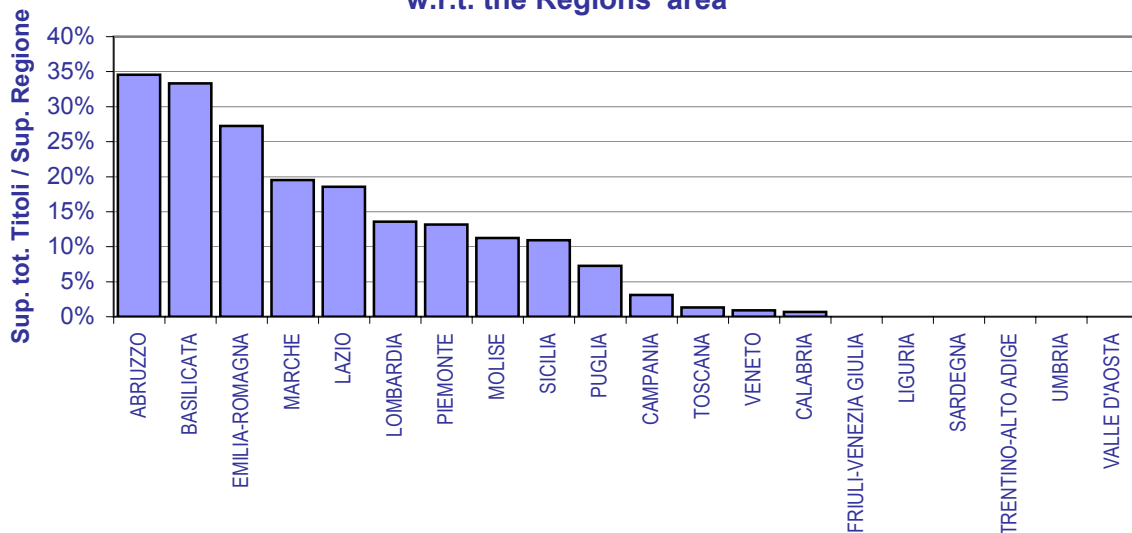
**Areas occupied by Exploration Licenses  
w.r.t. the Regions' area**



**Areas occupied by Production Licenses  
w.r.t. the Regions' area**



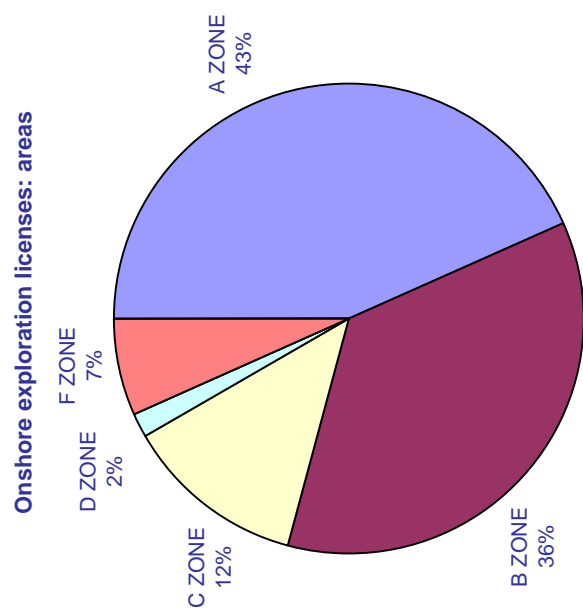
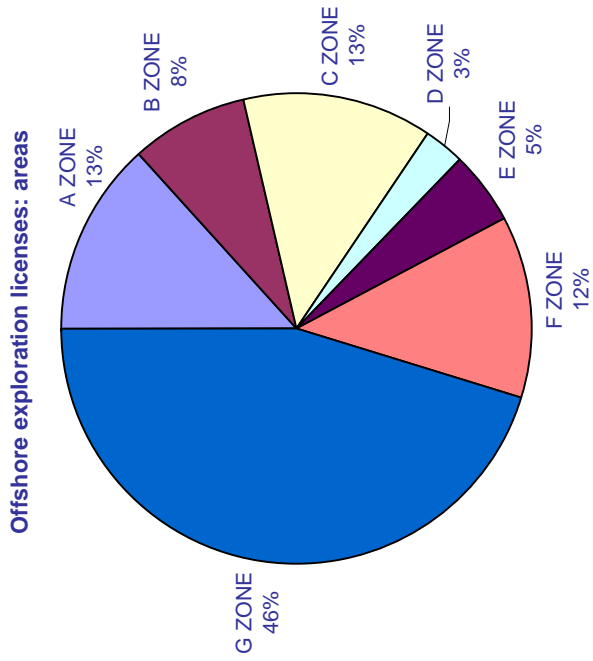
**Overall areas occupied by Hydrocarbons Licenses  
w.r.t. the Regions' area**



# Offshore licenses

Data as at December 31<sup>st</sup>, 2007

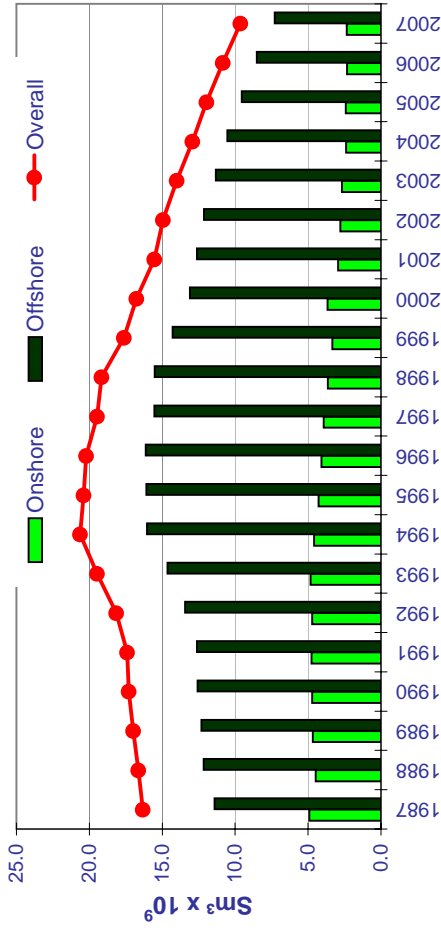
SEA ZONES	EXPLORATION LICENSES		PRODUCTION LICENSES		TOTAL AREA (km <sup>2</sup> )
	Number of permits	area (km <sup>2</sup> )	Number of concessions	area (km <sup>2</sup> )	
A ZONE	10	1'938.28	37	4'066.79	6'005.07
B ZONE	5	1'211.48	19	3'365.13	4'576.61
C ZONE	3	1'911.65	4	1'168.55	3'080.20
D ZONE	0	393.43	3	153.41	546.84
E ZONE	1	724.37	0	0.00	724.37
F ZONE	3	1'823.38	3	618.67	2'442.05
G ZONE	10	6'653.28	0	0.00	6'653.28
<b>TOTAL</b>	<b>32</b>	<b>14'655.87</b>	<b>66</b>	<b>9'372.55</b>	<b>24'028.42</b>



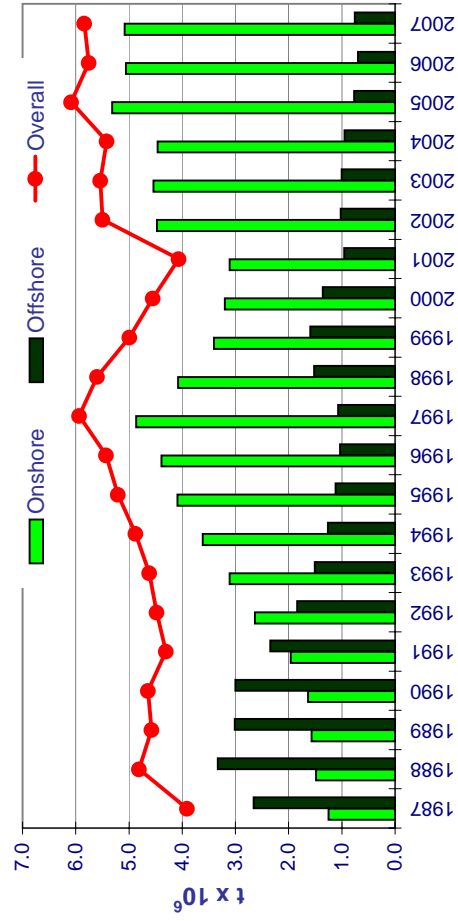
# Production of Hydrocarbons years 1987 - 2007

YEAR	GAS (Sm <sup>3</sup> x 10 <sup>6</sup> )			OIL (t x 10 <sup>6</sup> )			GASOLINE (t x 10 <sup>3</sup> )		
	Onshore	Offshore	Overall	Onshore	Offshore	Overall	Onshore	Offshore	Overall
1987	4.9	11.4	16.3	1.3	2.7	3.9	20.0	7.0	27.0
1988	4.5	12.2	16.6	1.5	3.3	4.8	19.0	8.0	27.0
1989	4.7	12.3	17.0	1.6	3.0	4.6	19.0	7.0	26.0
1990	4.7	12.6	17.3	1.6	3.0	4.6	19.0	8.0	27.0
1991	4.8	12.6	17.4	2.0	2.3	4.3	17.0	8.0	25.0
1992	4.7	13.4	18.2	2.6	1.8	4.5	16.0	6.0	22.0
1993	4.8	14.7	19.5	3.1	1.5	4.6	13.0	7.0	20.0
1994	4.6	16.1	20.6	3.6	1.3	4.9	12.0	6.0	18.0
1995	4.3	16.1	20.4	4.1	1.1	5.2	22.0	6.0	28.0
1996	4.1	16.1	20.2	4.4	1.0	5.4	17.0	5.0	22.0
1997	3.9	15.5	19.5	4.9	1.1	5.9	17.0	5.0	22.0
1998	3.6	15.5	19.2	4.1	1.5	5.6	18.0	4.0	22.0
1999	3.3	14.3	17.6	3.4	1.6	5.0	17.0	5.0	22.0
2000	3.7	13.1	16.8	3.2	1.4	4.6	25.0	6.0	31.0
2001	2.9	12.6	15.5	3.1	1.0	4.1	23.0	8.0	31.0
2002	2.8	12.1	14.9	4.5	1.0	5.5	22.0	11.0	33.0
2003	2.7	11.3	14.0	4.5	1.0	5.5	24.7	5.6	30.3
2004	2.4	10.5	12.9	4.5	1.0	5.4	23.0	6.0	29.0
2005	2.4	9.5	12.0	5.3	0.8	6.1	22.6	4.0	26.6
2006	2.3	8.5	10.8	5.1	0.7	5.8	20.9	3.0	23.9
2007	2.4	7.3	9.6	5.1	0.8	5.8	20.2	1.4	21.5

Gas production - years 1987 - 2007

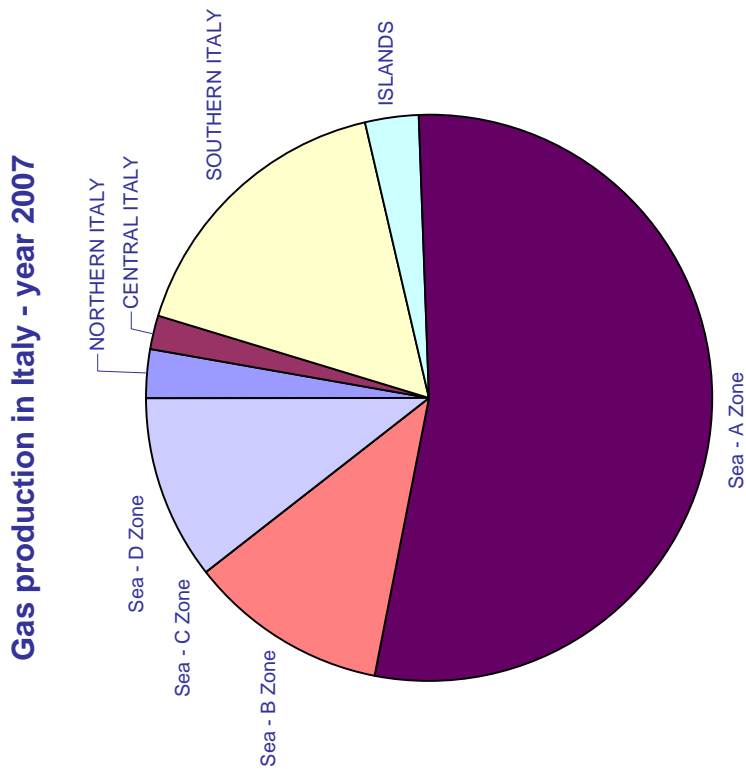


Oil production - years 1987 - 2007



## Gas production years 2005-2007

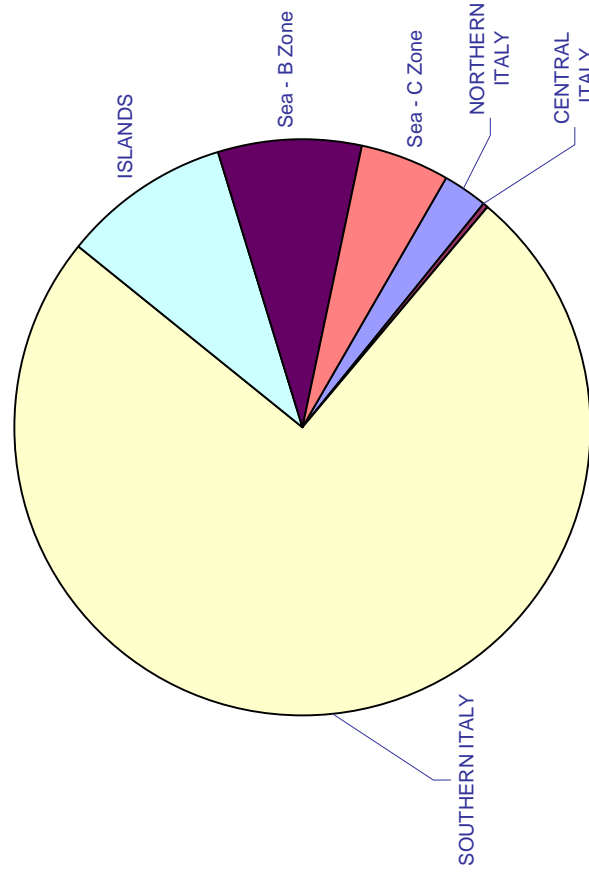
GAS (Millions of Sm <sup>3</sup> )					
Region / Sea Zone	Year 2007	Year 2006	Year 2005	Variation % 2007/2006	
VALLE D'AOSTA	0.0	0.0	0.0	-	
PIEMONTE	17.1	21.8	28.7	-21.7%	
LIGURIA	0.0	0.0	0.0	-	
LOMBARDIA	32.7	34.9	33.6	-6.4%	
TRENTINO-ALTO ADIGE	0.0	0.0	0.0	-	
VENETO	0.9	1.0	4.0	-11.6%	
FRIULI-VENEZIA GIULIA	0.0	0.0	0.0	-	
EMILIA-ROMAGNA	217.1	221.6	241.9	-2.0%	
<b>NORTHERN ITALY</b>	<b>267.7</b>	<b>279.3</b>	<b>308.1</b>	<b>-4.2%</b>	
TOSCANA	1.4	1.1	1.5	22.6%	
MARCHE	58.2	74.8	87.2	-22.3%	
UMBRIA	0.0	0.0	0.0	-	
LAZIO	0.0	0.0	0.0	-	
ABRUZZO	43.7	67.6	71.4	-35.3%	
MOLISE	89.0	90.9	101.4	-2.0%	
<b>CENTRAL ITALY</b>	<b>192.3</b>	<b>234.4</b>	<b>261.4</b>	<b>-18.0%</b>	
CAMPANIA	0.0	0.0	0.0	-	
PUGLIA	376.3	370.6	398.0	1.5%	
BASILICATA	1210.0	1103.5	1070.1	9.6%	
CALABRIA	18.8	20.6	19.6	-8.4%	
<b>SOUTHERN ITALY</b>	<b>1605.2</b>	<b>1494.7</b>	<b>1487.7</b>	<b>7.4%</b>	
SICILIA	285.6	322.1	356.4	-11.3%	
SARDEGNA	0.0	0.0	0.0	-	
<b>ISLANDS</b>	<b>285.6</b>	<b>322.1</b>	<b>356.4</b>	<b>-11.3%</b>	
<b>TOTAL ONSHORE</b>	<b>2350.8</b>	<b>2330.5</b>	<b>2413.7</b>	<b>0.9%</b>	
Sea - A Zone	5166.5	5908.1	6357.9	-12.6%	
Sea - B Zone	1096.4	1334.4	1743.9	-17.8%	
Sea - C Zone	4.4	4.5	4.3	-1.4%	
Sea - D Zone	1016.2	1251.9	1427.7	-18.8%	
Sea - E Zone	0.0	7.5	14.9	-100.0%	
Sea - F Zone	0.0	0.0	0.0	-	
Sea - G Zone	0.0	0.0	0.0	-	
<b>TOTAL OFFSHORE</b>	<b>7283.6</b>	<b>8506.4</b>	<b>9548.8</b>	<b>-14.4%</b>	
<b>OVERALL</b>	<b>9634.3</b>	<b>10836.8</b>	<b>11962.5</b>	<b>-11.1%</b>	



## Oil production years 2005-2007

OIL (thousands of metric tons)				
Region / Sea Zone	Year 2007	Year 2006	Year 2005	Variation % 2007/2006
VALLE D'AOSTA	0.0	0.0	0.0	-
PIEMONTE	108.1	140.2	214.7	-22.9%
LIGURIA	0.0	0.0	0.0	-
LOMBARDIA	0.0	0.0	0.0	-
TRENTINO-ALTO ADIGE	0.0	0.0	0.0	-
VENETO	0.0	0.0	0.0	-
FRIULI-VENEZIA GIULIA	0.0	0.0	0.0	-
EMILIA-ROMAGNA	35.0	36.3	42.8	-3.6%
<b>NORTHERN ITALY</b>	<b>143.1</b>	<b>176.5</b>	<b>257.4</b>	<b>-18.9%</b>
TOSCANA	0.0	0.0	0.0	-
MARCHE	0.0	0.0	0.0	-
UMBRIA	0.0	0.0	0.0	-
LAZIO	0.2	0.3	0.2	-
ABRUZZO	0.0	0.0	0.0	-
MOLISE	26.1	28.5	30.0	-8.3%
<b>CENTRAL ITALY</b>	<b>26.4</b>	<b>28.8</b>	<b>30.2</b>	<b>-8.4%</b>
CAMPANIA	0.0	0.0	0.0	-
PUGLIA	0.0	0.0	0.0	-
BASILICATA	4360.8	4312.7	4386.0	1.1%
CALABRIA	0.0	0.0	0.0	-
<b>SOUTHERN ITALY</b>	<b>4360.8</b>	<b>4312.7</b>	<b>4386.0</b>	<b>1.1%</b>
SICILIA	543.7	539.1	642.7	0.9%
SARDEGNA	0.0	0.0	0.0	-
<b>ISLANDS</b>	<b>543.7</b>	<b>539.1</b>	<b>642.7</b>	<b>0.9%</b>
<b>TOTAL ONSHORE</b>	<b>5073.9</b>	<b>5057.1</b>	<b>5316.4</b>	<b>0.3%</b>
Sea - A Zone	0.0	0.0	0.0	-
Sea - B Zone	467.3	331.9	341.6	40.8%
Sea - C Zone	296.7	309.2	307.3	-4.1%
Sea - D Zone	0.0	0.0	0.0	-
Sea - E Zone	0.0	59.3	118.8	-100.0%
Sea - F Zone	0.0	0.0	0.0	-
Sea - G Zone	0.0	0.0	0.0	-
<b>TOTAL OFFSHORE</b>	<b>764.0</b>	<b>700.4</b>	<b>767.7</b>	<b>9.1%</b>
<b>OVERALL</b>	<b>5837.9</b>	<b>5757.5</b>	<b>6084.1</b>	<b>1.4%</b>

Oil production in Italy - year 2007

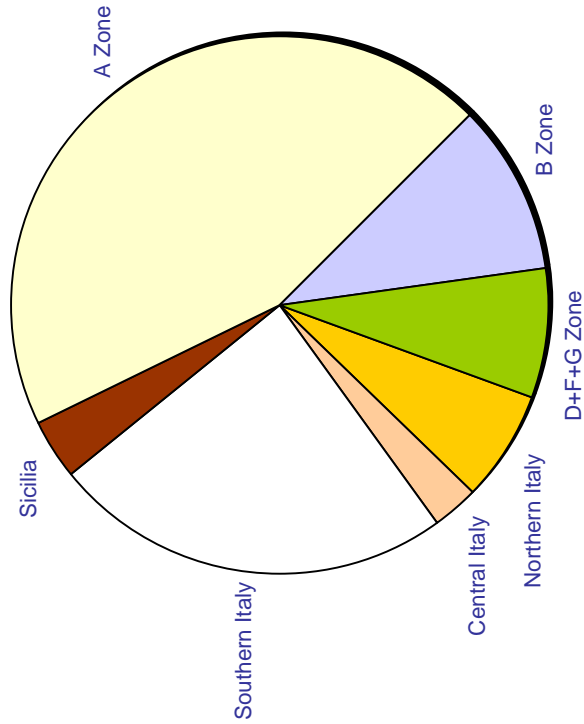




# Reserves (as at December 31<sup>st</sup>, 2007)

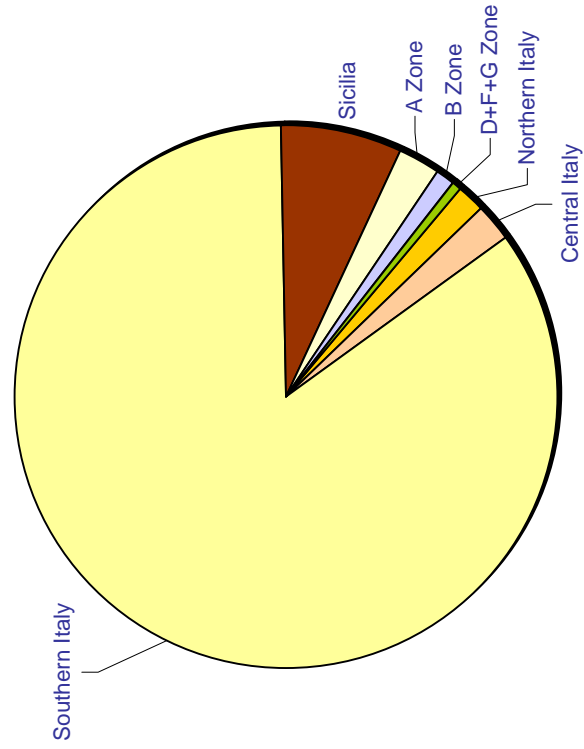
GAS (Millions of Sm <sup>3</sup> )					
	PROVEN	PROBABLE	POSSIBLE	RECOVERABLE	%
Northern Italy	4'629	6'334	3'735	8'543	6.7
Central Italy	2'040	2'116	3'163	3'731	2.9
Southern Italy	20'479	12'795	20'029	30'882	24.1
Sicilia	3'632	1'626	204	4'486	3.5
<b>Total Onshore</b>	<b>30'780</b>	<b>22'871</b>	<b>27'131</b>	<b>47'642</b>	<b>37.2</b>
A Zone	38'728	19'791	44'955	57'615	44.9
B Zone	8'645	8'378	1'475	13'129	10.2
D+F+G Zone	5'648	7'674	1'833	9'852	7.7
<b>Total Offshore</b>	<b>53'021</b>	<b>35'843</b>	<b>48'263</b>	<b>80'595</b>	<b>62.8</b>
<b>TOTAL Italy</b>	<b>83'801</b>	<b>58'714</b>	<b>75'394</b>	<b>128'237</b>	<b>100.0</b>

## Recoverable Gas Reserves



OIL (Thousands of metric tons)					
	PROVEN	PROBABLE	POSSIBLE	RECOVERABLE	%
Northern Italy	1'232	1'485	36	1'982	1.7
Central Italy	2'001	561	813	2'444	2.1
Southern Italy	50'075	62'616	84'511	98'285	84.7
Sicilia	4'829	5'735	4'676	8'632	7.4
<b>Total Onshore</b>	<b>58'137</b>	<b>70'397</b>	<b>90'036</b>	<b>111'343</b>	<b>96.0</b>
A Zone	1'100	1'900	2'754	2'601	2.2
B Zone	760	797	1'107	1'380	1.2
D+F+G Zone	312	699	185	698	0.6
<b>Total Offshore</b>	<b>2'172</b>	<b>3'396</b>	<b>4'046</b>	<b>4'679</b>	<b>4.0</b>
<b>TOTAL Italy</b>	<b>60'309</b>	<b>73'793</b>	<b>94'082</b>	<b>116'022</b>	<b>100.0</b>

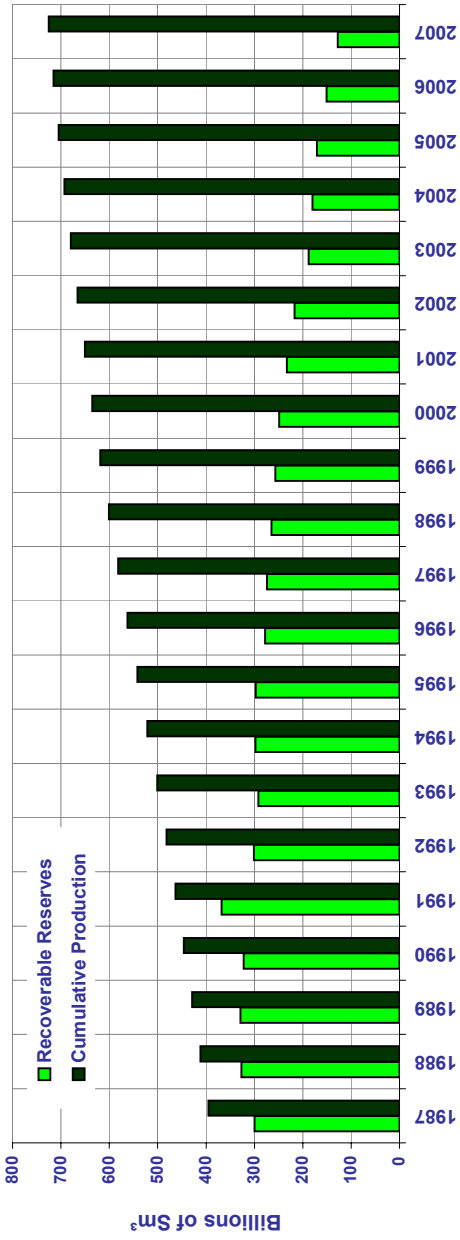
## Recoverable Oil Reserves



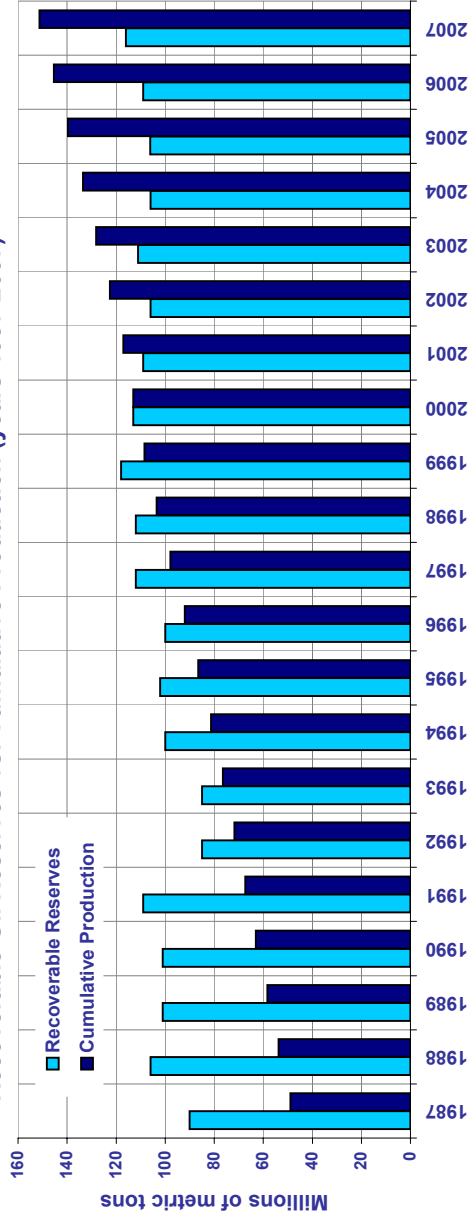
N.B. The Recoverable Reserves are calculated as follows: Proven + 50% Probable + 20% Possible.  
 At the beginning of the exploitation of a reservoir, uncertainty is larger. The estimation of reserves is updated during the exploitation without a precise scheduling.

# Recoverable Reserves vs. Cumulative Production years 1987-2007

Recoverable Gas Reserves vs. Cumulative Production (years 1987-2007)

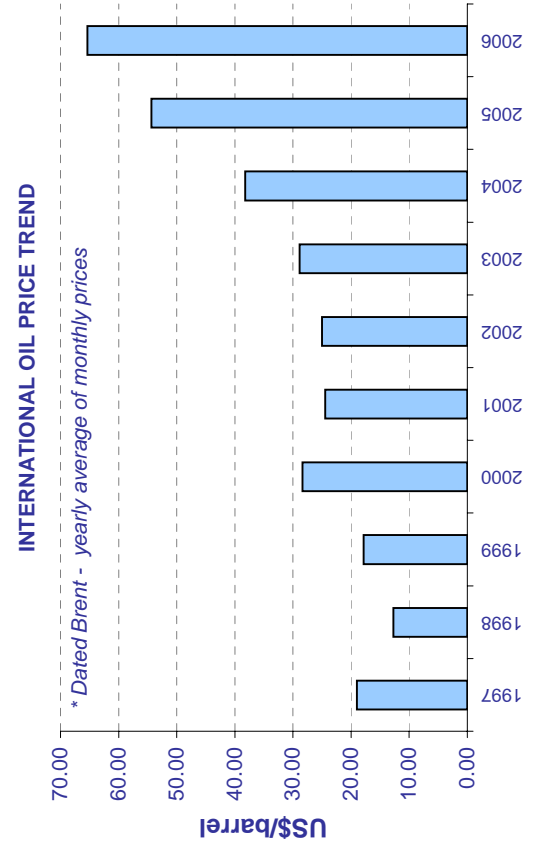
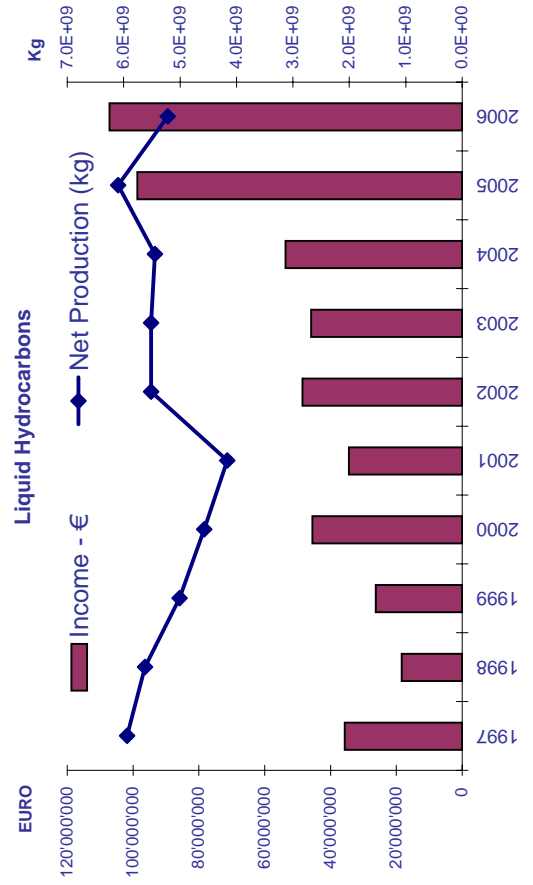
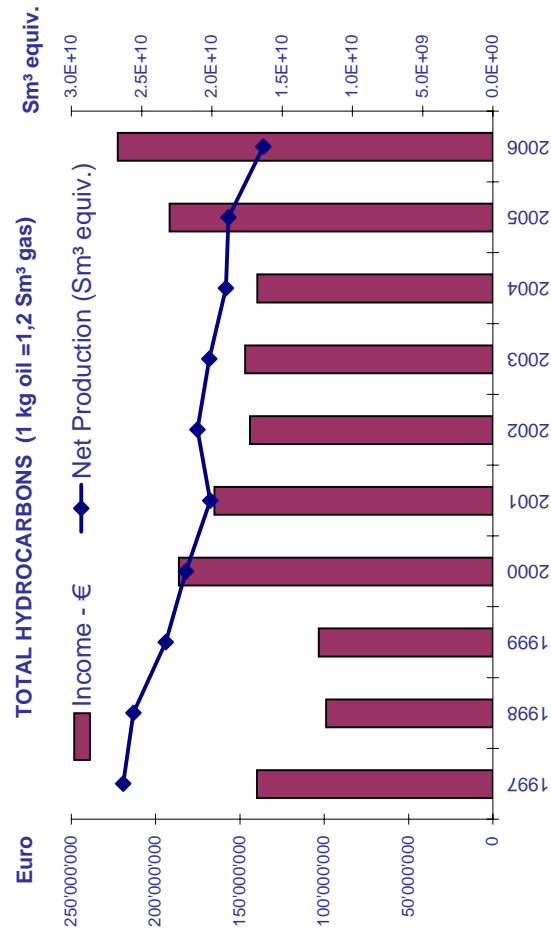
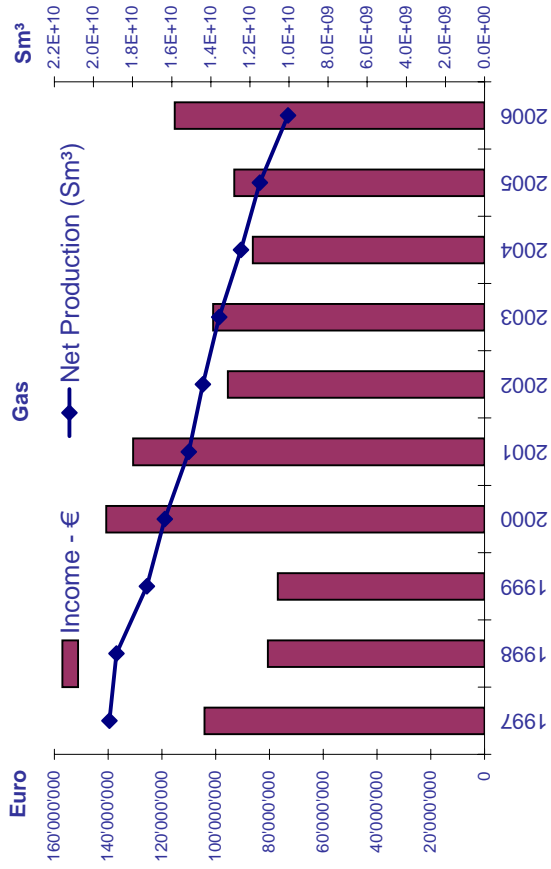


Recoverable Oil Reserves vs. Cumulative Production (years 1987-2007)



YEAR	GAS (Billions of Sm³)		OIL (Millions of metric tons)	
	Recoverable Reserves	Cumulative Production	Recoverable Reserves	Cumulative Production
1987	300	395	90	49
1988	327	412	106	54
1989	329	429	101	58
1990	322	446	101	63
1991	368	463	109	67
1992	301	481	85	72
1993	292	501	85	76
1994	298	522	100	81
1995	297	542	102	87
1996	278	562	100	92
1997	274	582	112	98
1998	265	601	112	103
1999	257	618	118	108
2000	249	635	113	113
2001	233	651	109	117
2002	217	666	106	123
2003	188	680	111	128
2004	180	693	106	134
2005	170	705	106	140
2006	151	715	109	145
2007	128	725	116	151

# ROYALTIES - hystorical data series: years 1997 - 2006

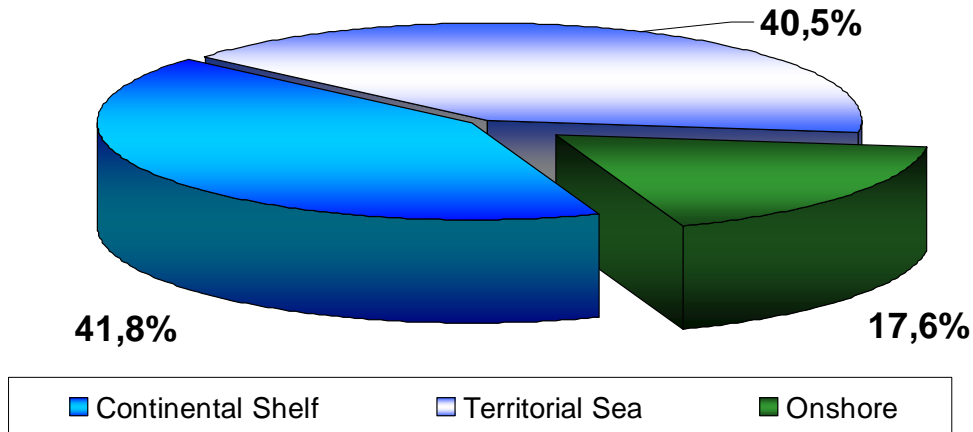


# ROYALTIES YEAR 2006

Warning: The following correction page has been announced on 9 October 2008

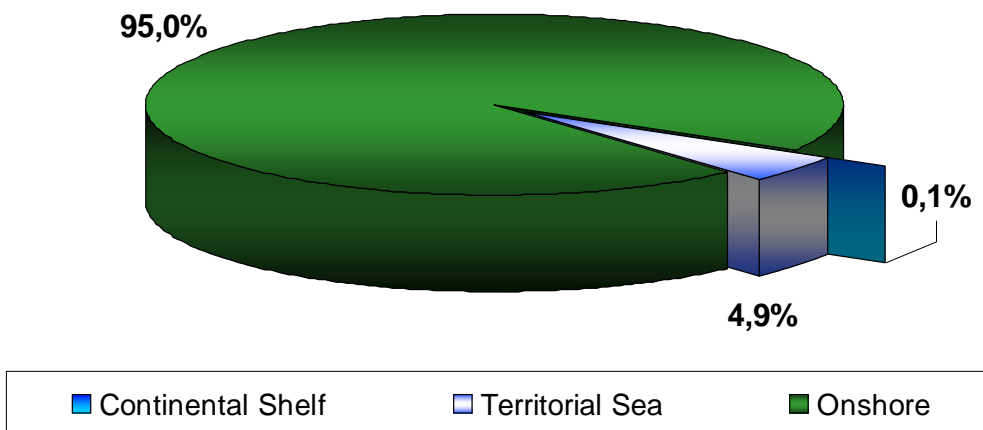
## ROYALTIES IN COMMODITIES

- Gas -

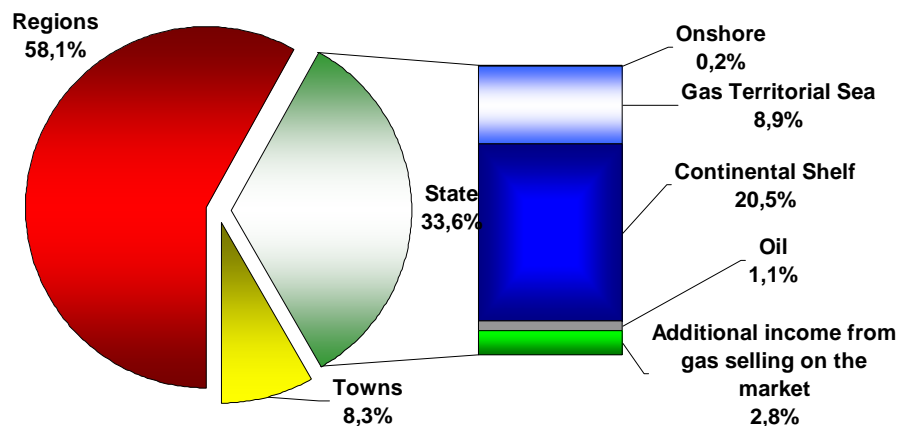


## ROYALTIES IN COMMODITIES

- Liquid Hydrocarbons -

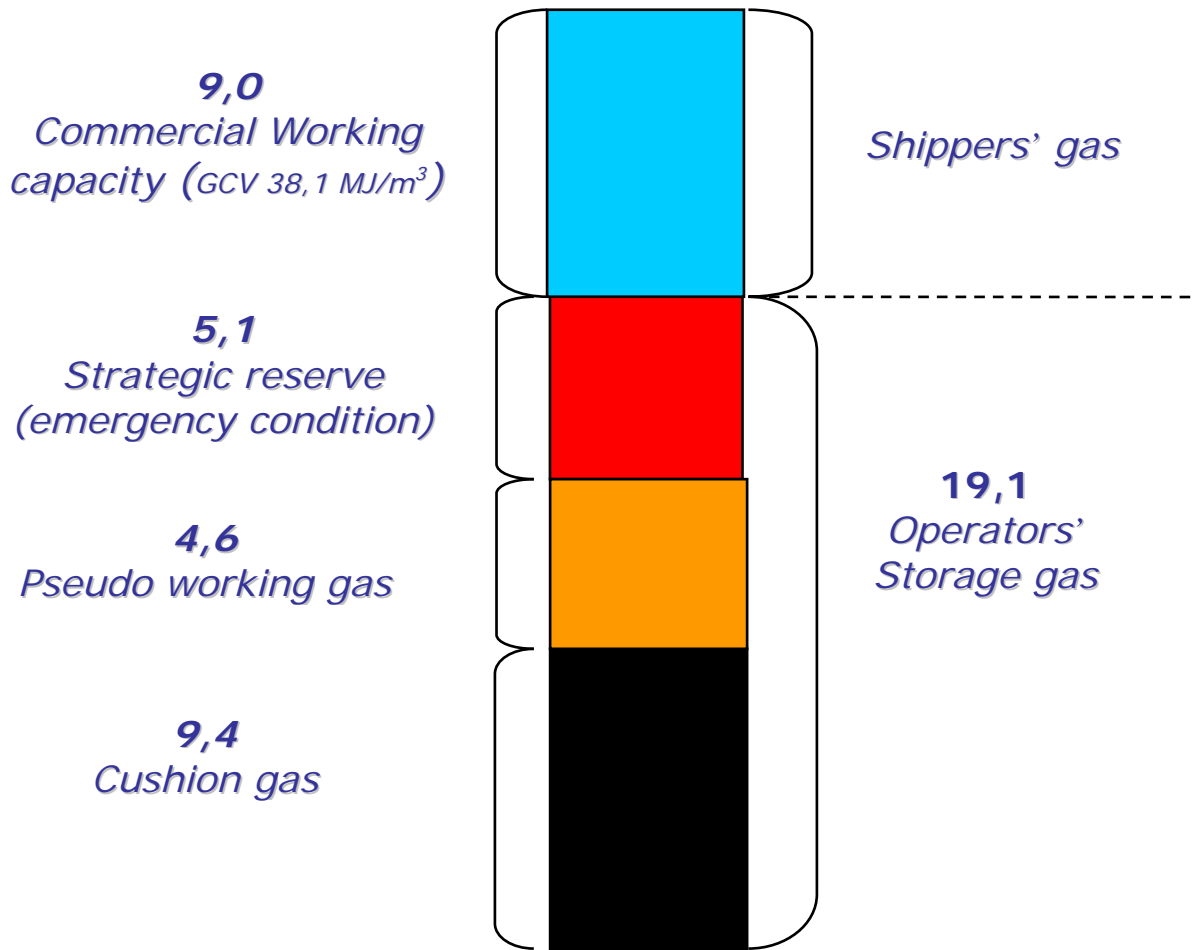


## DESTINATION OF FINANCIAL INCOME FROM ROTALTIES MONETIZATION



# ITALIAN GAS STORAGE 2007-2008

(Billions of standard cubic meters)



# ITALIAN GAS STORAGE FIELDS

(depleted gas reservoirs)



Storage capacity by region

