



FORESTRY IN BIZKAIA PLURIFOR PROJECT BFA DFB BASQUE COUNTRY



CONTRIBUTIONS OF THE PLURIFOR PROJECT IN THE BASQUE COUNTRY COUNTY OF BIZKAIA

- 1. DESCRIPTION OF THE FOREST IN BIZKAIA**
- 2. MAIN DISASTERS THAT HAVE HAPPENED
IN THE COUNTY OF BIZKAIA IN THE LAST 10 YEARS**
- 3. STORMS AND HEAVY WINDS**
- 4. PEST AND DISEASES**
- 5. FOREST FIRES**
- 6. CONCLUSIONS AND LAST REFLEXIONS**

Biscay is the largest Basque province, with its own county government responsible for taxation. Bilbao, its capital, is the business, social and cultural centre of the European South Atlantic area.

Basque Country

Biscay



Bay of Biscay





FORESTRY IN BIZKAIA

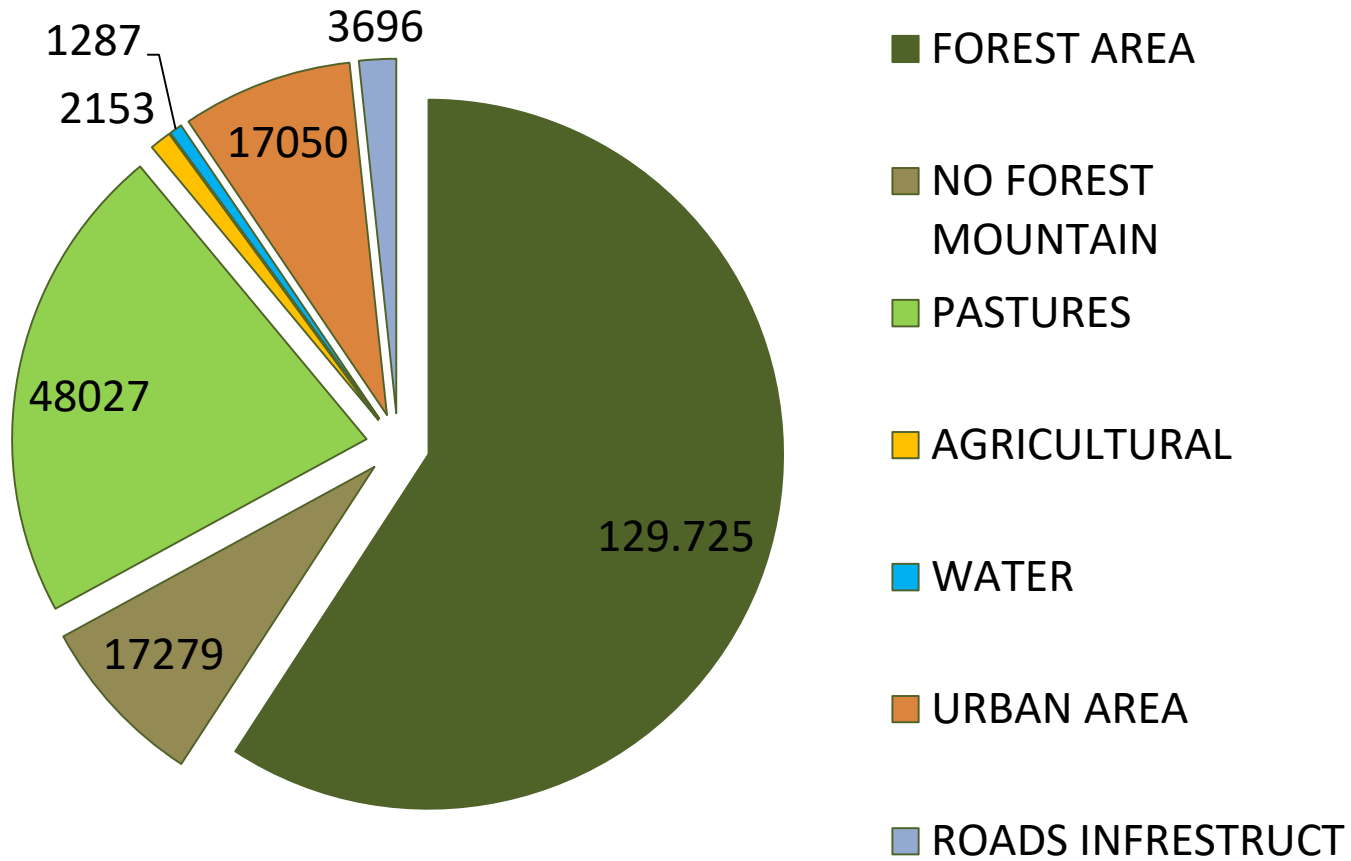


BIZKAIA TOTAL SURFACE

221.493 HA

1.

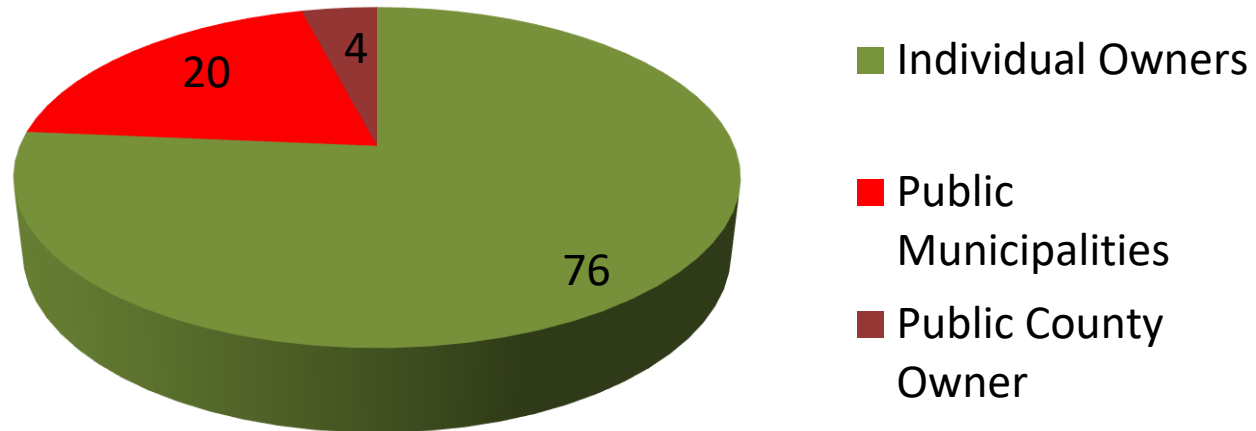
LAND USE



FOREST OWNERSHIP AND STRUCTURE

1.

OWNERSHIP of THE FOREST AREA



Forest Area Bizkaia Total 132.000 ha
Individual Owners
Public Municipalities



Certificación Pais Vasco Total Has 86.028 has nº planes adheridos 1.904 planes



1.

FORESTED AREA IN BIZKAIA. DATA FROM INVENTORY OF 2018

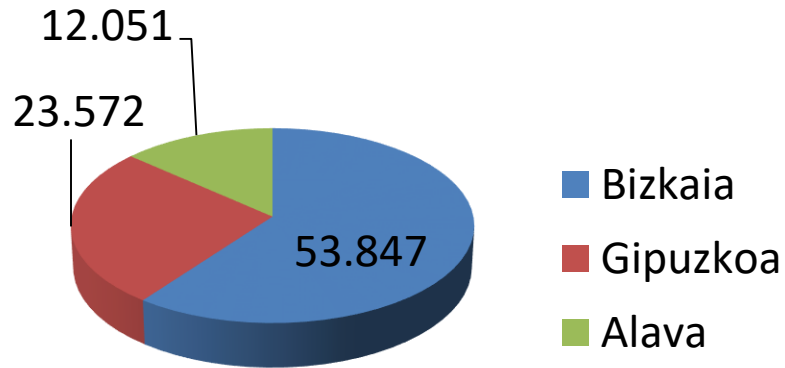
SPECIES	BIZKAIA has	PRIVATE.	PUBLIC	%PRIVATE	%PUBLIC
INSIGNIS PINE	64.599	54.263	10.336	84 %	16 %
ANOTHER CONIFERS	12.333	5.743	6.590	46 %	54 %
TOTAL CONIFERS	76.932	60.006	16.926	78 %	22 %
EUCALIPTUS	17.278	14.340	2.938	83 %	17 %
BEECH	5.218	1.878	3.340	36 %	64 %
MIXED ATLANTIC FOREST	15.053	13.246	11.807	88 %	12 %
HOLM OAK	5.047	3.633	1.414	72 %	28 %
OAK	2.028	1.378	650	68 %	32 %
OTHER BROADLEAFS	8.168	4.591	3.577	56%	44%
TOTAL BROADLEAFS	52.792	39.066	13.726	74 %	26 %
FOREST AREA TOTAL	129.724	99.072	30.652	76 %	24 %



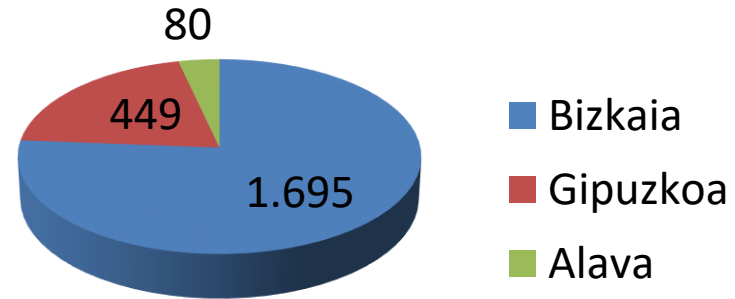
1.

PROGRAM OF THE FOREST CERTIFICATION PEFC

Certified area CAPV



Number of plans CAPV



Superficie certificada Bizkai/Pais Vasco: **60%**

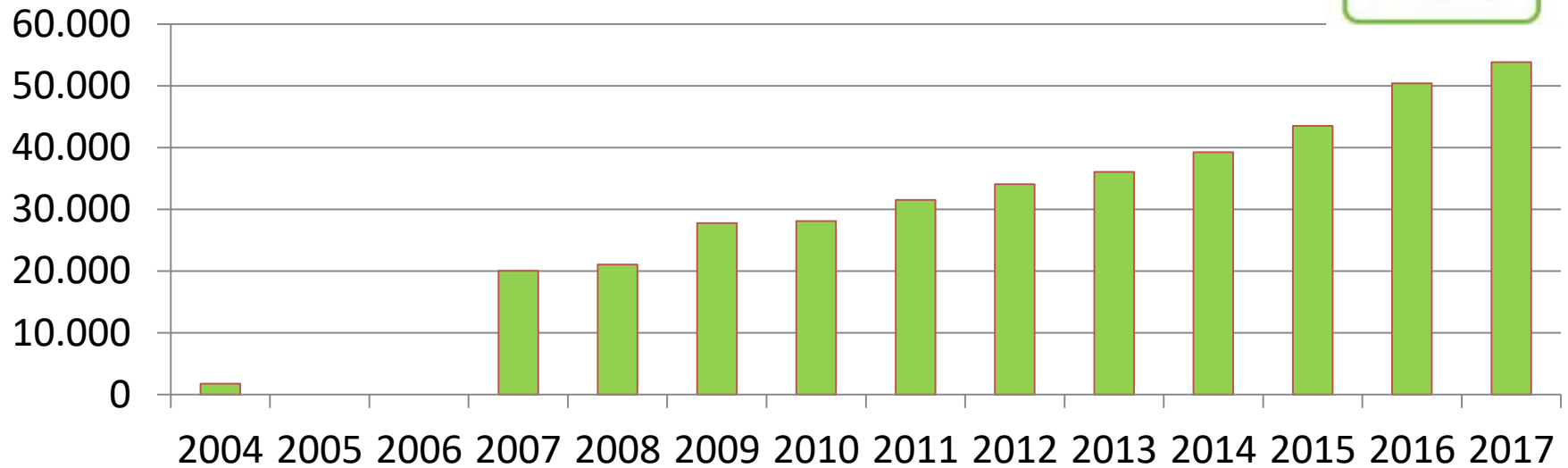
Numero planes Bizkaia/Pais Vasco: **76%**



PROGRAM OF THE FOREST CERTIFICATION PEFC BIZKAIA

1.

Certified area, has 2004-2017



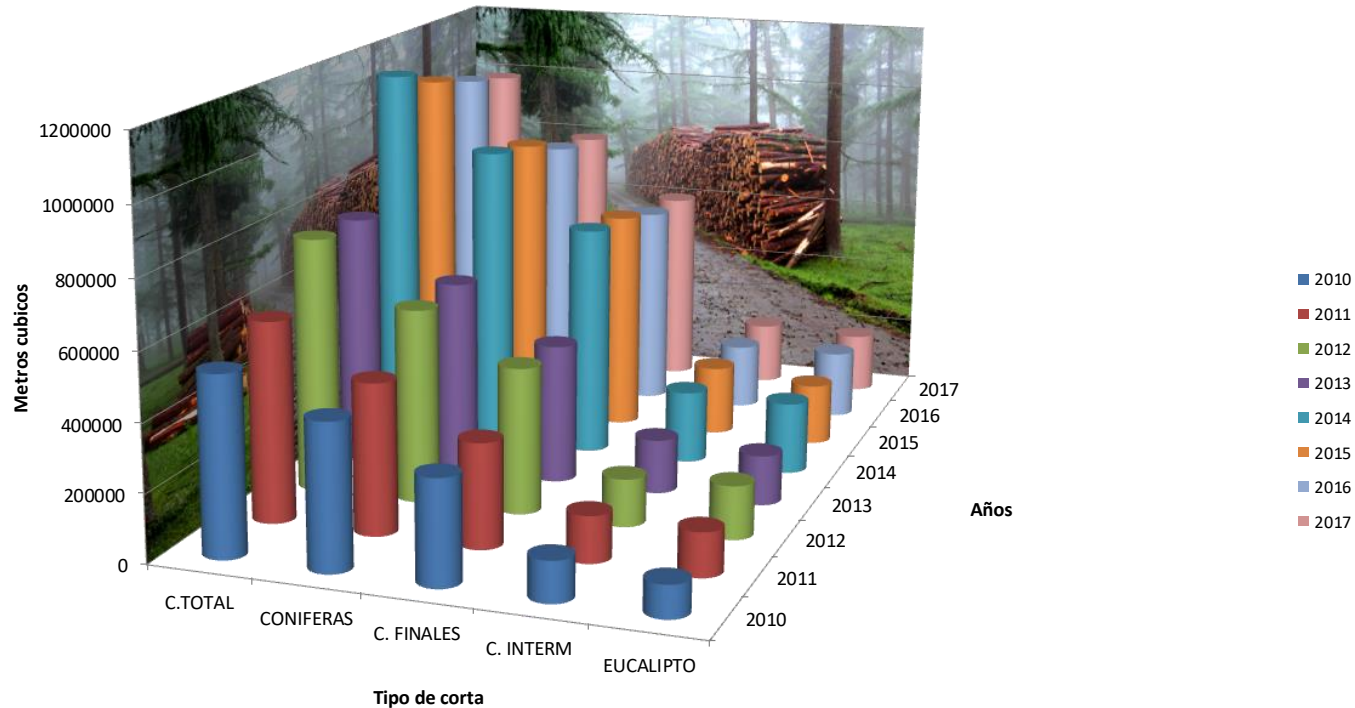
Certificación Basque Country Total Has 89470 has Number of plans 2.224



TOTAL CUTTINGS PUBLIC AND PRIVATE 2010-2017

	C.TOTAL	CONIFERAS	C. FINALES	C. INTERM	EUCALIPTO
2010	530426	430317	309831	120486	95636
2011	595318	448304	310452	137852	130413
2012	761206	577835	435982	141853	158898
2013	752037	579055	417177	161878	149099
2014	1137854	917644	699065	218578	215687
2015	1071642	883277	672993	210284	184459
2016	1024510	816944	619369	197575	205143
2017	986662	791978	602810	189132	182182

HISTORICO CORTAS TOTALES MONTES PRIVADOS Y PUBLICOS TH BIZKAIA M3 PERIODO 2010-2017



1. FOREST SERVICE OF BIZKAIA. Activity

ASSESSMENT AND SUBSIDIES TO PRIVATE FOREST OWNERS, 3mill. €
AUTHORIZATION OF CUTINGS AND REFORESTATION AND APLICATION OF
FOREST LEGISLATION

WORK IN PUBLIC FORESTS DIRECT MANAGEMENT **45.000 HAS**

PLANTATIONS: about 200 has are planted each year in public forests.

SILVICULTURAL WORKS, BRUSH CLEANING, PRUNING THININGS: 2.587 has

INFRAESTRUCTURE FOREST ROADS: 256 kms

PUBLIC OWNERSHIP, DELIMITATION AND PROTECTION OF PUBLIC POPERTY

HEALTH OF FOREST AGAINST PEST AND DISEASES. Caterpillar Moth:

PROJECT OF GENETIC IMPROVEMENT MAINLY WITH RADIATA PINE

AGREEMENTS WITH FOREST OWNERS ASOTIATIONS , USSE

WORK WITH THE INDUSTRY IN THE FOREST ADVISORY GROUP

FIGHT AGAINST FIRES PREVENTION AND SUPRESION



2. MAIN DISASTERS THAT HAVE HAPPENED IN THE COUNTY OF BIZKAIA IN THE LAST 15 YEARS

STORMS AND HEAVY WINDS

- . 2009 Klauss storm 500 has affected
- . 2010 Xinthya storm 150 has affected
(near 2000 has in Alava)



PESTS and DISEASES

- . 2007 Fusarium Circinatum The affection on the forest has diminished 5 points now
- . Each year Pine Caterpillar Thaumetopoea around 2.000 has are affected .
- . 2018 Cryptogamic disease Dothistroma



FOREST FIRES

- .2015 Berango 200 has
- .2019 Muskiz 110 has



3. STORMS AND HEAVY WINDS (Klauss 2009, Xinthya 2010)

ACTIONS THAT WERE TAKEN BY THE DFBIZKAIA THE COUNTY ADMINISTRATION TO PALIATE THE EFFECTS OF THESE DISASTERS

1-Evaluation of the damage on the ground. Forest rangers and technicians using catastral data.

2. In collaboration with the Forest Owners Association of Bizkaia assesment to private owners to mobilizate the damaged wood out of the forest to avoid diseases.

3. Establishment of the especific measures and subsidies under de Rural Development Plan 2010-2015 to help afected owners to restore their damaged forest.

4. To stop the comercialization of wood from Public Forest to facilitate the sales



4. PEST AND DISEASES

PREVENTION AND MEASURES IMPLEMENTED ACTIONS THAT WERE TAKEN TO PALIATE THE EFFECTS OF THESE DISASTERS

1. Fusarium Circinatum 2007

Evaluation and detection of the presence of the pest or diseases on the forest. Prospection done by the Forest Rangers and technicians using prefixed evaluation table.

2. Analisis of the patogen in the laboratory and confirmation of its presence.

3. Declaration of the presence of the disease.

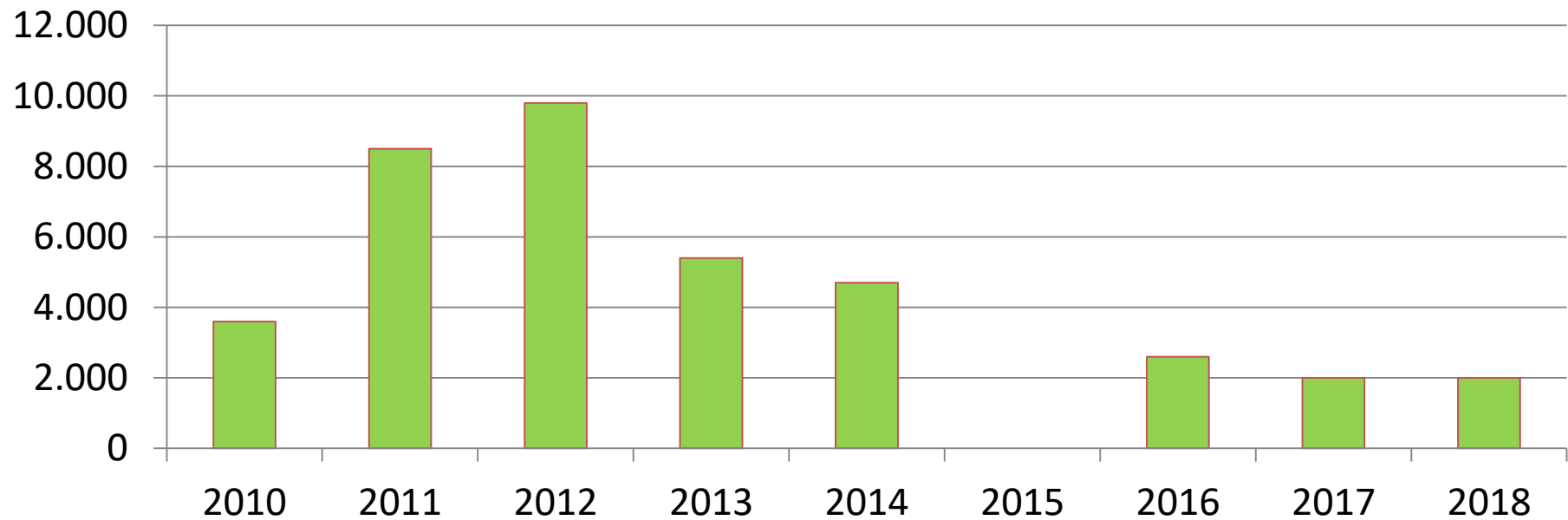
4. Publication of the legal measures for the control and eradication of the disease. Establishment of the control of the movement of good to authorized saw mills with heat systems to trat the wood.

5. Subsidies under the Rural Development Plan 2005-2010



4. ACTIONS AGAINST PINE PROCESSIONARY CATERPILLAR *Thaumetopoea pityocampa*

Aerial treatment:
Total number of has aerial treatment helicopter



5. FOREST FIRES

PREVENTION AND SUPPRESSION OF FOREST FIRES

PLAN OF PREVENTION AND SUPPRESSION OF FOREST FIRES IN THE CONUTY OF BIZKAIA
INFOBI

RESOURCES

FOREST SERVICE Forest Rangers, Forest Technicians 100 people

BASALAN Public company 40 people

FIREFIGHTERS 400 people, 8 locations 8 engins unimogs..

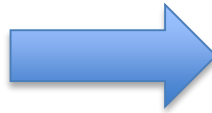
THE PLAN ANALIZES THE RISK OF FOREST FIRES IN BIZKAIA TAKING INTO ACCOUNT

- The statistics of fires
- The places were there is a big frecunecy of fires
- The season in wich these fires occur



RISK ANALYSIS AND LOCATION

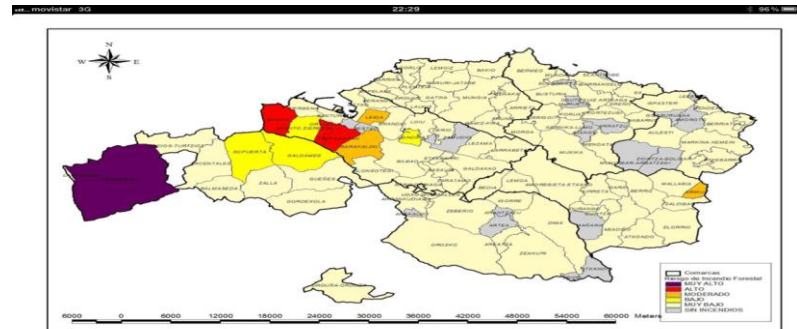
STATISTICS
OCURRENCY INDEX
DIMENSION INDEX
CAUSE INDEX



DATA FROM THE PERIOD 1999-2008

MUNICIPALITIES OF BIZKAIA

- 1 KARRANTZA
- 2 MUSKIZ
- 3 TRAPAGARAN/VALLE TRAPAGA
- 4 ORTUUELLA



RISK SEASONS



INTERVENTION GROUP / ACTION CREW

**D T EX TECHNICIANS
FOREST SERVICE/ 15 P**

**SURVELIANCE AND
SUPRESION CREWS/90P**



FIRE FIGHTERS/400 P

**COMUNICACION CENTER
/15**

**PUBLIC COMPANY
BASALAN/40 P**

**TOTAL
560
PEOPLE**



FIGHT AGAINST FIRES PREVENTION AND SUPPRESSION

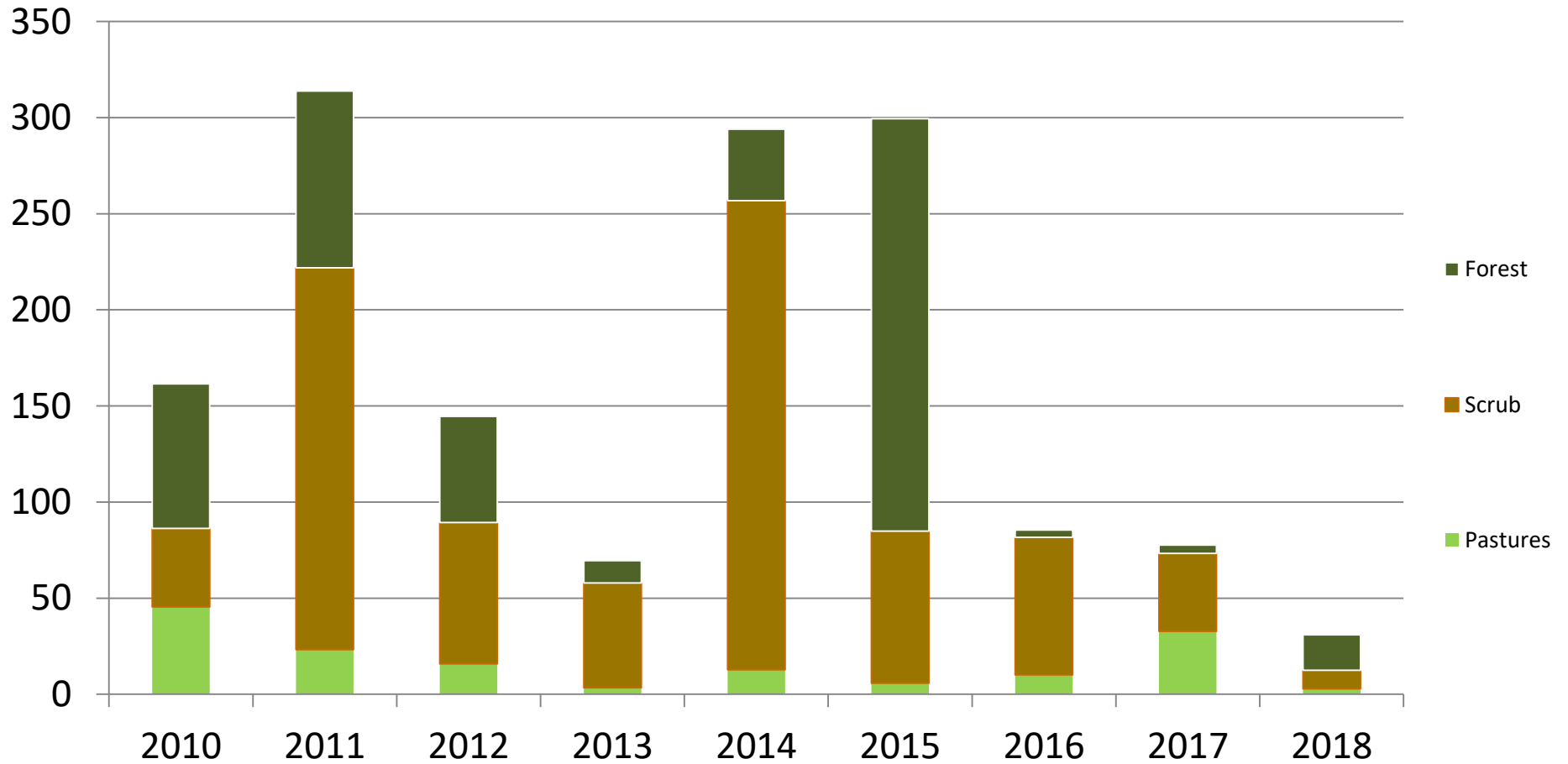
CONTROLLED BURNING AUTHORIZATIONS: 4.031

FOREST FIRES BIZKAIA 2018

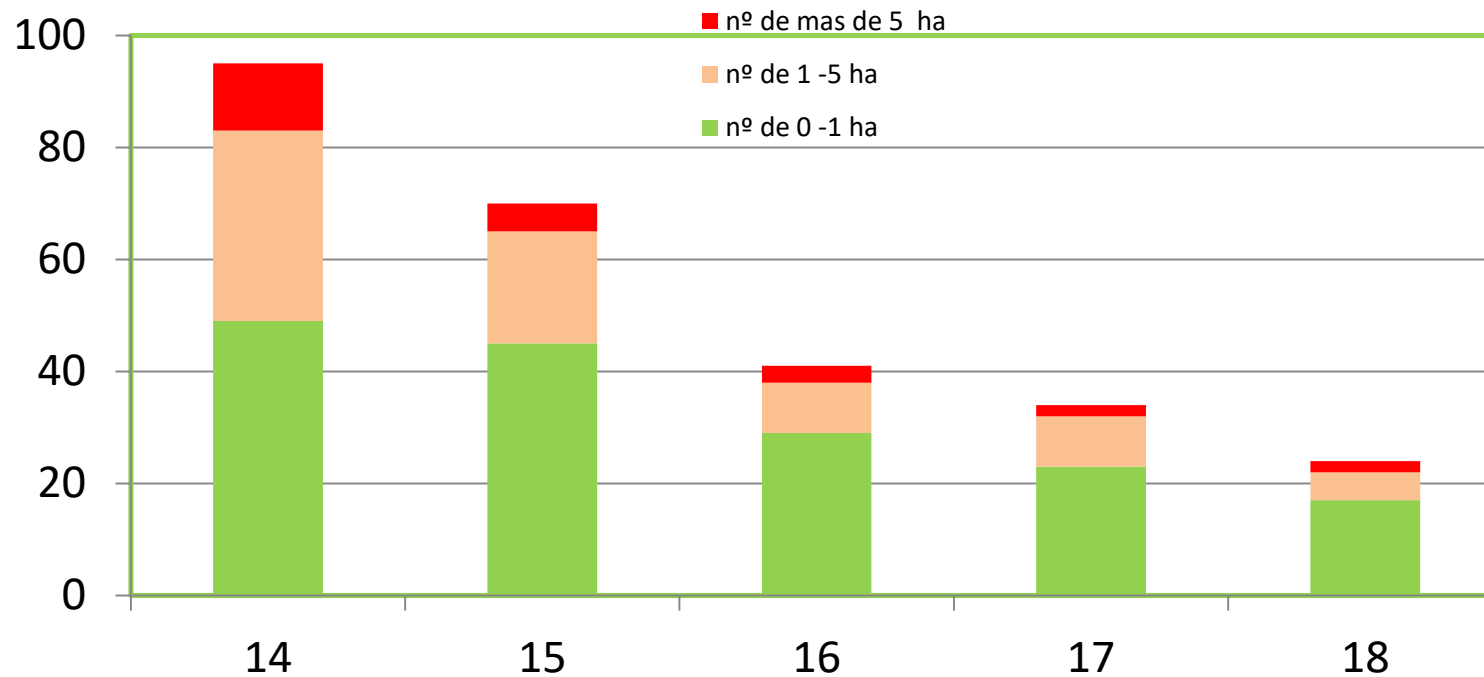
<u>MONTH</u>	<u>FIRE NUMBER</u>	<u>BURNED FOREST</u>	<u>BRUSHES</u>	<u>PASTURE LAND</u>	<u>TOTAL HA</u>
JANUARY	0	0,00	0,00	0,00	0,00
FEBRUARY	0	0,00	0,00	0,00	0,00
MARCH	6	2,25	2,61	1,62	6,48
APRIL	3	0,00	0,37	0,00	0,37
MAY	4	9,17	2,87	0,00	12,04
JUNIE	0	0,00	0,00	0,00	0,00
JULY	1	0,00	0,12	0,10	0,12
AUGUST	0	0,00	0,00	0,00	0,00
SEPTEMBER	0	0,72	0,13	0,74	1,59
OCTOBER	3	6,36	0,94	0,10	7,40
NOIEMBER	5	0,00	2,55	0,42	2,97
DECEMBER	2	0,00	0,00	0,00	0,00
TOTAL	24	18,50 ha	9,59 ha	2,88 ha	30,97 ha



Burnt area in Bizkaia 2010-2018



Number of Fires in TH of Bizkaia 2014-2018



• **6 CONCLUSIONS AND FINAL REFLEXIONS.**

PLURIFOR CONTRIBUTION

- **5.1.** It has provide us with a lot of information about the status quo in Risk Prevention and mitigation in different regions.
- **5.2** It has provide us with diferent advanced technological tools to assest int decision making, for example in forest fire simulations, satelital photography, GIS mapes, and so on.
- **5.3** Investing in Risk Prevention is vital to preserve the capacity for further socio-economic development, not only socialy and enviromentaly but from an economic point of view:
- **1 EUR spent on prevention, 4 EUR or more will be saved** on response.
- **5.4** It is important to analyze the escenario and the local conditions and make Contingency Plans with the apropiate scale to be efective.
- **5.5.** It is important to work ahead organaizing multinteristitucional and multisectorial groups from diferent organizations because the risks that we are dealing with affect different sectors. All the responsables of different sectorrs have to know about these Contingency Plans.
- **5.6** It is important to emphasiize that the work done in the PLURIFOR project it is very important and has to be continued in the next years to provide contriibutions for **the**

SUSTAINABILITY OF THE FORESTS

Thank you !!!



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