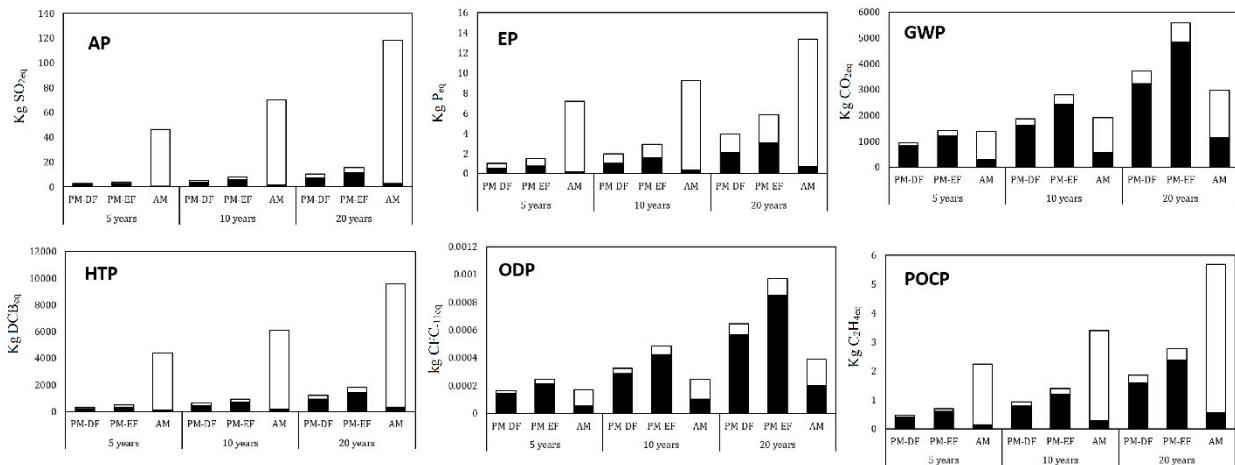
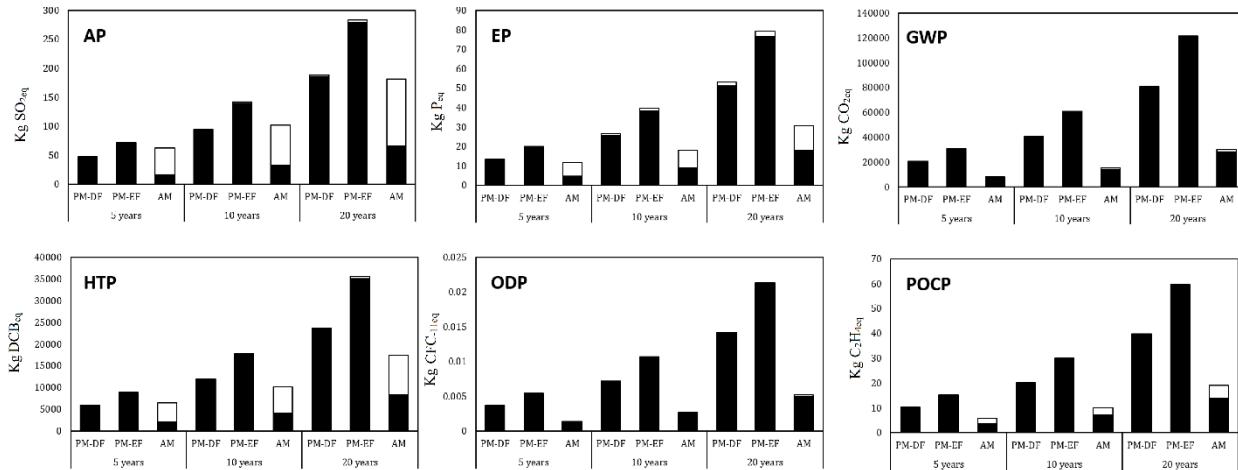


**Figure S1.** Environmental impacts of the two monitoring methods passive (PM) and active (AM) in the three time frames (5, 10, 20 years) at the two scenarios (a-30 km and b-750 Km) on the six impact categories: acidification potential (AP), Eutrophication Potential (EP), Global Warming Potential (GWP), Human Toxicity Potential (HTP), Ozone Layer Depletion Potential (ODP), Photochemical Ozone Creation Potential (POCP). Results for PM is separated into the two forest types deciduous (PM-DF) and evergreen (PM-EF). Bar colours are referred with the input category (white = material; black

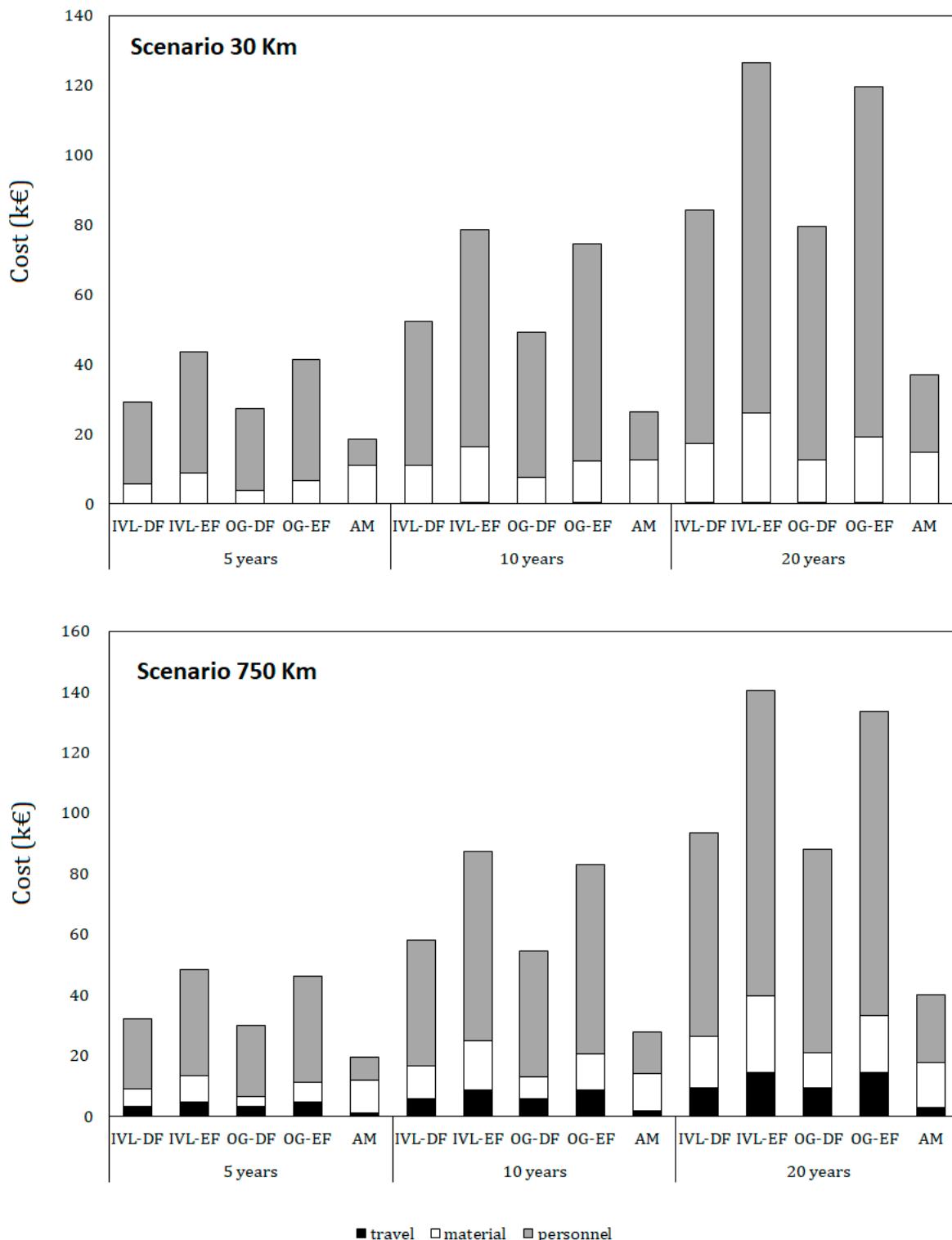
## Scenario 30 Km



## Scenario 750 Km



**Figure S2.** Monetary costs (€) of the monitoring systems i.e. passive monitoring with either IVL (IVL) or Ogawa (OG) sensors, and active monitoring (AM) for deciduous (DF) and evergreen (EF) forests over 5, 10 and 20 years of activity at the two distance scenarios, i.e. 30 km and 750 km from the forest site to the control base.



**Figure S3.** Social cost of carbon in active (AM) and passive monitoring (PM), the latter is divided into deciduous forest (DF) and evergreen Mediterranean forest (EF), when the monitoring site is 400, 30 or 750 km distant from the control base, at 5, 10 and 20 years from installation, and with different discount rates (5, 3, 2.5 and HI, high impact, e.g. 95th percentile at 3%)

		AM				PM-DF				PM-EF			
		5%	3%	2.50%	HI	5%	3%	2.50%	HI	5%	3%	2.50%	HI
400 km	20 years	227.81	732.68	1067.10	2201.91	576.06	1841.08	2678.56	5543.98	862.61	2756.44	4010.19	8300.79
	10 years	133.70	446.79	658.78	1330.20	321.09	1066.45	1572.21	3182.11	480.15	1594.49	2350.66	4757.97
	5 years	77.88	267.08	394.43	788.18	169.84	579.52	855.96	1713.52	253.28	864.10	1276.28	2555.09
scenario 30 km	20 years	41.76	137.57	201.16	410.35	49.38	157.85	229.66	475.31	73.91	236.20	343.64	711.27
	10 years	29.26	99.59	146.91	294.54	27.56	91.55	134.97	273.16	41.17	136.75	201.60	408.04
	5 years	21.84	75.72	111.79	222.54	14.62	49.88	73.67	147.47	21.76	74.23	109.64	219.50
scenario 750 km	20 years	403.80	1295.63	1886.24	3896.62	1074.27	3433.33	4995.09	10338.67	1608.68	5140.45	7478.55	15480.06
	10 years	232.50	775.22	1142.98	2309.87	598.75	1988.65	2931.75	5933.81	895.40	2973.44	4383.55	8872.78
	5 years	130.89	448.09	661.79	1323.25	316.68	1080.54	1595.96	3194.92	472.29	1611.26	2379.86	4764.44