

## E U R O P E A N F O R E S T I N S T I T U T E ATLANTIC EUROPEAN REGIONAL OFFICE – EFIATLANTIC

## Appendix 4: Measures for the management of catastrophic storm damage to forests:

## Summaries for major storms in Europe

Table 1: Summary of different measures relative to the occurrence of storms.

Alert and emergency
Safety measures before, during and after the storm (prohibited
access)
Establishment of crisis committees
Information and communication measures
Clearing in order to re-establish roads and other essential services
Inventory of damages (physical terms, monetary terms, others).
Psychological support if necessary
Rehabilitation
Rehabilitation of forest roads and trails
Rehabilitation of fire infrastructure and equipment
Rehabilitation of recreational infrastructure and equipment
Rehabilitation of other infrastructure and equipment (drainage
network, others)
Salvage operations
Organization of wood removals
Incentives to harvest blown timber
Incentives to acquire new forest machines (harvesters, logging

	machines).			
	Professional retraining and training			
	Creation of new infrastructures in order to enable wood removals			
	Rehabilitation of forest infrastructure damaged by post storm forest			
	operations			
	Adaptation of transportation regulation			
	Long distance transportation			
	Storage of roundwood and other wood raw materials			
	Storage of sawnwood and other processed products.			
Mark	eting of forest products			
	Collective agreements between purchasers and sellers of wood raw			
	materials			
	Financing roundwood removals and logging costs			
	Financial guarantees for roundwood buyers			
	Facilitating exports			
	Limiting imports			
	Promoting the use of wood products			
Supp	porting forest net revenues			
	Direct support of forest income for damaged forests			
	Direct support of forest income for non-damaged forests			
	Reduction of taxes on capital			
	Reduction of taxes on income			
	Reduction of value added tax			
	Accelerated depreciation of logging equipment			
Prote	ection			
	Protection against pests and diseases			
	Prevention against forest fires			
	Restoration of the ecological balance between game species and			
	forests			
	Restoration of the ecological balance between game species and			

Refo	prestation
	Foresight studies
	Restructuring if necessary
	Regulation of forest restoration
	Cleaning of compartments and plots
	Support for regeneration
	Support for nurseries
	Restoration of young plantations (seedlings in upright position
	again)
Prev	vention
	Risk management
	Consideration of forest insurance
	Design and agree a crisis management plan
	Analysis of the potential effects of other policies
Rese	earch studies
	Forest vulnerability assessment and mapping
	Improvement of forest restoration
Cros	ss-cutting measures
	Establishment of special public/private efforts aimed at collecting
	donations
	Reinforcing temporarily forest staff
	Agreements between different public policies
	Agreement between public policies at different scales (Regions,
	States, Europe)
	Agreements between the administration, the forest-based sector
	and the bank system
	Developing post-storm forest plans

Table 1: Summary of different measures for storm of January 1953 in Scotland.

themselves         Alert and emergency         Safety measures before, during and after the storm (prohibited access)         Establishment of crisis committees         Information and communication measures         Clearing in order to re-establish roads and other essential services         Inventory of damages (physical terms, monetary terms, others).         Psychological support if necessary         Safety measures before, during and after the storm (prohibited access)         Rehabilitation         Rehabilitation of forest roads and trails         Rehabilitation of recreational infrastructure and equipment         Rehabilitation of other infrastructure and equipment         Rehabilitation of other infrastructure and equipment         Organization of wood removals       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Incentives to acquire new forest machines (harvesters, logging machines).         Professional retraining and training       Creation of new infrastructures in order to enable wood removals	Categories of measures and measures	Comments
Safety measures before, during and after the storm (prohibited access)       Information and communication measures         Information and communication measures       Information and communication measures         Clearing in order to re-establish roads and other essential services       Inventory of damages (physical terms, monetary terms, others).         Psychological support if necessary       Safety measures before, during and after the storm (prohibited access)         Rehabilitation       Image: storm (prohibited access)         Rehabilitation of forest roads and trails       Image: storm (prohibited access)         Rehabilitation of fire infrastructure and equipment       Image: storm (prohibited access)         Rehabilitation of fire infrastructure and equipment       Image: storm (prohibited access)         Rehabilitation of other infrastructure and equipment       Image: storm (prohibited access)         Rehabilitation of recreational infrastructure and equipment       Image: storm (prohibited access)         Rehabilitation of other infrastructure and equipment       Image: storm (prohibited access)         Salvage operations       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Incentives to acquire new forest machines (harvesters, logging machines).         Professional retraining and training       Image: store	themselves	
storm (prohibited access)       information and communication measures         Information and communication measures       information and communication measures         Clearing in order to re-establish roads and other essential services       inventory of damages (physical terms, monetary terms, others).         Psychological support if necessary       inventory of damages (physical terms, monetary terms, others).         Psychological support if necessary       inventory of fore damages (physical terms, monetary terms, others).         Psychological support if necessary       inventory of fore damages (physical terms, monetary terms, others).         Psychological support if necessary       inventory of fore damages (physical terms, monetary terms, others).         Psychological support if necessary       inventory of damages (physical terms, monetary terms, others).         Psychological support if necessary       inventory of damages (physical terms, monetary terms, others).         Rehabilitation of forest roads and trails       inventory of damages (physical terms).         Rehabilitation of forest roads and trails       inventory of damages (physical terms).         Rehabilitation of recreational infrastructure and equipment       interpreterms.         Rehabilitation of other infrastructure and equipment (drainage network, others)       interpreterms.         Salvage operations       Suspension of the licensing of standing softwood timber: concentration on blown timber         Incentives to	Alert and emergency	
Establishment of crisis committees         Information and communication measures         Clearing in order to re-establish roads and other essential services         Inventory of damages (physical terms, monetary terms, others).         Psychological support if necessary         Safety measures before, during and after the storm (prohibited access)         Rehabilitation         Rehabilitation of forest roads and trails         Rehabilitation of fire infrastructure and equipment         Rehabilitation of recreational infrastructure and equipment         Rehabilitation of other infrastructure and equipment         Salvage operations         Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber         Incentives to acquire new forest machines (harvesters, logging machines).         Professional retraining and training         Creation of new infrastructures in order to	Safety measures before, during and after the	
Information and communication measures         Information and communication measures         Clearing in order to re-establish roads and other essential services         Inventory of damages (physical terms, monetary terms, others).         Psychological support if necessary         Safety measures before, during and after the storm (prohibited access)         Rehabilitation         Rehabilitation of forest roads and trails         Rehabilitation of fire infrastructure and equipment         Rehabilitation of other infrastructure and equipment         Incentives to harvest blown timber         Professional retraining and training         Creation of new infrastructures in order to	storm (prohibited access)	
Clearing in order to re-establish roads and other essential services       Inventory of damages (physical terms, monetary terms, others).         Psychological support if necessary       Safety measures before, during and after the storm (prohibited access)         Safety measures before, during and after the storm (prohibited access)       Inventory         Rehabilitation       Rehabilitation         Rehabilitation of forest roads and trails       Inventory         Rehabilitation of other infrastructure and equipment       Inventory         Rehabilitation of other infrastructure and equipment (drainage network, others)       Inventory         Salvage operations       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Incentives to acquire new forest machines (harvesters, logging machines).         Professional retraining and training       Incention of new infrastructures in order to	Establishment of crisis committees	
other essential services       Inventory of damages (physical terms, monetary terms, others).         Psychological support if necessary       Safety measures before, during and after the storm (prohibited access)         Rehabilitation       Image: Second	Information and communication measures	
Inventory of damages (physical terms, monetary terms, others).       Psychological support if necessary         Psychological support if necessary       Safety measures before, during and after the storm (prohibited access)         Rehabilitation       Image: Safety measures before, during and after the storm (prohibited access)         Rehabilitation       Image: Safety measures before, during and after the storm (prohibited access)         Rehabilitation       Image: Safety measures before, during and after the storm (prohibited access)         Rehabilitation of forest roads and trails       Image: Safety measures before, during and trails         Rehabilitation of fire infrastructure and equipment       Image: Safety measures before, during and training         Rehabilitation of other infrastructure and equipment (drainage network, others)       Image: Safety measures         Salvage operations       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Incentives to acquire new forest machines (harvesters, logging machines).         Professional retraining and training       Image: Safety definition of new infrastructures in order to	Clearing in order to re-establish roads and	
monetary terms, others).       Psychological support if necessary         Safety measures before, during and after the storm (prohibited access)       Image: Storm (prohibited access)         Rehabilitation       Image: Storm (prohibited access)         Rehabilitation       Image: Storm (prohibited access)         Rehabilitation       Image: Storm (prohibited access)         Rehabilitation of forest roads and trails       Image: Storm (prohibited access)         Rehabilitation of forest roads and trails       Image: Storm (prohibited access)         Rehabilitation of recreational infrastructure and equipment       Image: Storm (prohibited access)         Rehabilitation of other infrastructure and equipment (drainage network, others)       Image: Storm (prohibited access)         Salestage operations       Image: Storm (prohibited access)       Image: Storm (prohibited access)         Organization of wood removals       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Image: Storm (professional retraining and training         Professional retraining and training       Image: Storm (professional retraining and training         Creation of new infrastructures in order to       Image: Storm (professional retraining and training	other essential services	
Psychological support if necessary       Safety measures before, during and after the storm (prohibited access)         Safety measures before, during and after the storm (prohibited access)       Image: Construct of	Inventory of damages (physical terms,	
Safety measures before, during and after the storm (prohibited access)       Image: Constraint of the storm (prohibited access)         Rehabilitation       Rehabilitation of forest roads and trails         Rehabilitation of forest roads and trails       Image: Constraint of the storm (prohibited access)         Rehabilitation of forest roads and trails       Image: Constraint of the storm (prohibited access)         Rehabilitation of forest roads and trails       Image: Constraint of the storm (prohibited access)         Rehabilitation of forest roads and trails       Image: Constraint of the storm (prohibited access)         Rehabilitation of recreational infrastructure and equipment       Image: Constraint of the storm (prohibited access)         Salvage operations       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Image: Concentration of the licensing and training         Professional retraining and training       Image: Concentration of the licensing and training	monetary terms, others).	
storm (prohibited access)       intervent of the second seco	Psychological support if necessary	
Rehabilitation       Rehabilitation of forest roads and trails         Rehabilitation of fire infrastructure and equipment       and equipment         Rehabilitation of recreational infrastructure and equipment       and equipment         Rehabilitation of other infrastructure and equipment (drainage network, others)       and equipment         Salvage operations       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Incentives to harvest blown timber         Incentives to acquire new forest machines (harvesters, logging machines).       Professional retraining and training         Creation of new infrastructures in order to       Creation of new infrastructures in order to	Safety measures before, during and after the	
Rehabilitation of forest roads and trails         Rehabilitation of fire infrastructure and equipment         Rehabilitation of recreational infrastructure and equipment         Rehabilitation of other infrastructure and equipment (drainage network, others)         Rehabilitation of wood removals         Salvage operations         Suppression of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber         Incentives to acquire new forest machines (harvesters, logging machines).         Professional retraining and training         Creation of new infrastructures in order to	storm (prohibited access)	
Rehabilitation of forest roads and trails         Rehabilitation of fire infrastructure and equipment         Rehabilitation of recreational infrastructure and equipment         Rehabilitation of other infrastructure and equipment (drainage network, others)         Rehabilitation of wood removals         Salvage operations         Suppression of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber         Incentives to acquire new forest machines (harvesters, logging machines).         Professional retraining and training         Creation of new infrastructures in order to		
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and equipmentand equipmentRehabilitation of other infrastructure and equipment (drainage network, others)	equipment	
Rehabilitation of other infrastructure and equipment (drainage network, others)         Salvage operations         Organization of wood removals       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Incentives to harvest blown timber         Incentives to acquire new forest machines (harvesters, logging machines).       Professional retraining and training         Creation of new infrastructures in order to       Creation of new infrastructures in order to	Rehabilitation of recreational infrastructure	
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Salvage operations       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Incentives to acquire new forest machines (harvesters, logging machines).         Professional retraining and training       Creation of new infrastructures in order to	Rehabilitation of other infrastructure and	
Organization of wood removals       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Incentives to harvest blown timber         Incentives to acquire new forest machines (harvesters, logging machines).       Incentives to acquire new forest machines         Professional retraining and training       Creation of new infrastructures in order to	equipment (drainage network, others)	
Organization of wood removals       Suspension of the licensing of standing softwood timber; concentration on blown timber         Incentives to harvest blown timber       Incentives to harvest blown timber         Incentives to acquire new forest machines (harvesters, logging machines).       Incentives to acquire new forest machines         Professional retraining and training       Creation of new infrastructures in order to		
of       standing       softwood         timber;       concentration       on         blown timber       blown timber         Incentives to harvest blown timber       Incentives to acquire new forest machines         (harvesters, logging machines).       Professional retraining and training         Creation of new infrastructures in order to       Incentives to	Salvage operations	
Incentives to harvest blown timber       Incentives to acquire new forest machines         Incentives to acquire new forest machines       Incentives to acquire new forest machines         Incentives to acquire new forest machines       Incentives         Incentives       Incentives	Organization of wood removals	Suspension of the licensing
Incentives to harvest blown timberblown timberIncentives to acquire new forest machines (harvesters, logging machines).(harvesters, logging machines).Professional retraining and trainingCreation of new infrastructures in order to		of standing softwood
Incentives to harvest blown timberIncentives to acquire new forest machines (harvesters, logging machines).Professional retraining and trainingCreation of new infrastructures in order to		timber; concentration on
Incentives to acquire new forest machines         (harvesters, logging machines).         Professional retraining and training         Creation of new infrastructures in order to		blown timber
(harvesters, logging machines).         Professional retraining and training         Creation of new infrastructures in order to	Incentives to harvest blown timber	
Professional retraining and training       Creation of new infrastructures in order to	Incentives to acquire new forest machines	
Creation of new infrastructures in order to	(harvesters, logging machines).	
	Professional retraining and training	
enable wood removals	Creation of new infrastructures in order to	
	enable wood removals	

Rehabilitation of forest infrastructure damaged	
by post storm forest operations	
Adaptation of transportation regulation	
Long distance transportation	
Storage of roundwood and other wood raw	
materials	
Storage of sawnwood and other processed	
products.	
Marketing or forest products	
Collective agreements between purchasers	
and sellers of roundwood	
Financing of roundwood removals and logging	
costs	
Financial guarantees for roundwood buyers	
Facilitating exports	
Limiting imports	
Promoting the use of wood products	
Supporting forest net revenues	
Direct support of forest income for damaged	
forests	
Direct support of forest income for non-	
damaged forests	
Reduction of taxes on capital and wealth	
Reduction of taxes on income	
Reduction of value added tax	
Accelerated depreciation of logging equipment	
Protection	
Protection against pests and diseases	
Prevention against forest fires	
Restoring of the ecological balance between	
game species and forests	

Reforestation	
Foresight studies	
Restructuring if necessary	
Regulation of forest restoration	
Cleaning of compartments and plots	
Support for regeneration	
Support for nurseries	
Restoration of young plantations (seedlings in	
upright position again)	
Prevention	
Risk management	
Consideration of forest insurance	
Design and agree a crisis management plan	
Analysis of the potential effects of other	
policies	
Research studies	
Forest vulnerability assessment and mapping	
Improvement of forest restoration	
Cross-cutting measures	
Establishment of special funds aimed at	
collecting donations for the forests	
Reinforcing temporarily forest staff	
Agreements between different public policies	
Agreement between public policies at different	
scales (Regions, States, Europe)	
Agreements between the administration, the	
forest-based sector and the bank system	
Developing post-storm forest plans	

Table 3: Summary of different measures for storms of 1967 in Germany (DE), Austria (AT) and Switzerland (CH).

Categories of measures and m	easures Comments
themselves	
Alert and emergency	
Safety measures before, during and	after the
storm (prohibited access)	
Establishment of crisis committees	
Information and communication meas	ures
Clearing in order to re-establish ro	ads and
other essential services	
Inventory of damages (physical	terms,
monetary terms, others).	
Psychological support if necessary	
Safety measures before, during and	after the
storm (prohibited access)	
Rehabilitation	
Rehabilitation of forest roads and trails	5
Rehabilitation of fire infrastructu	re and
equipment	
Rehabilitation of recreational infra	structure
and equipment	
Rehabilitation of other infrastructu	ure and
equipment (drainage network, others)	
Salvage operations	
Organization of wood removals	CH: Reduction of planned
	cuts for several years
Incentives to harvest blown timber	DE: Interest price reduction
	for the processing of storm
	damaged timber in
	community and large private

		forests. 1.4 M€; additional
		measure in Baden-
		Württemberg
In	centives to acquire new forest machines	AT: support of
(h	arvesters, logging machines).	mechanisation
Pr	ofessional retraining and training	
Cr	eation of new infrastructures in order to	
en	able wood removals	
Re	habilitation of forest infrastructure damaged	
by	post storm forest operations	
Ac	aptation of transportation regulation	
Lo	ng distance transportation	DE: Freight trains for short
		distance hauling authorized
		for long distance; reduction
		of transport taxes
St	orage of roundwood and other wood raw	DE: Timber supply bonus to
m	aterials	promote storage of fir and
		spruce roundwood
St	orage of sawnwood and other processed	
pr	oducts.	
Market	ting or forest products	
Cc	ollective agreements between purchasers	
an	nd sellers of roundwood	
Fir	nancing of roundwood removals and logging	
со	sts	
Fir	nancial guarantees for roundwood buyers	
Fa	cilitating exports	DE: Restrictions towards the
		export to third countries was
		lifted. Financial aid for the
		export of coniferous wood
		was provided by the State
		of Baden-Württemberg
		AT: primary focus on
		development of exports

		CH: 30% of blown timber
		exported to France and Italy
		with the governmental
		support
	Limiting imports	
	Promoting the use of wood products	
Sup	porting forest net revenues	
	Direct support of forest income for damaged	DE: Support of small private
	forests	forest owners (less than 5
		ha) at 2.5 €/m3. Timber
		damage bonus in Baden-
		Württemberg
	Direct support of forest income for non-	
	damaged forests	
	Reduction of taxes on capital and wealth	
	Reduction of taxes on income	
	Reduction of value added tax	
	Accelerated depreciation of logging equipment	
Pro	tection	
	Protection against pests and diseases	
	Prevention against forest fires	
	Restoring of the ecological balance between	
	game species and forests	
Ref	orestation	
	Foresight studies	
	Restructuring if necessary	
	Regulation of forest restoration	
	Cleaning of compartments and plots	
	Support for regeneration	DE: 1.81 M€ (Federal
		government) and 0.6 M€ in
		Baden-Württemberg

	CH: subsidies up to 50% of
	the reforestation costs in
	private forests. Some
	cantons provide guidelines
	for the selection of tree
	species.
Support for nurseries	
Restoration of young plantations (seedlings in	
upright position again)	
Prevention	
Risk management	
Consideration of forest insurance	
Design and agree a crisis management plan	
Analysis of the potential effects of other	
policies	
Research studies	
Forest vulnerability assessment and mapping	
Improvement of forest restoration	
Cross-cutting measures	
Establishment of special funds aimed at	
collecting donations for the forests	
Reinforcing temporarily forest staff	
Agreements between different public policies	
Agreement between public policies at different	
scales (Regions, States, Europe)	
Agreements between the administration, the	
forest-based sector and the bank system	
Developing post-storm forest plans	DE: Forest damage
	compensation act
	(emergency measures,

	equa	alization f	und, tax r	eliefs
	for	forest	owners	and
	ente	rprises)		

Table 4: Summary of different measures for storm of September 1969 in Sweden.

Cat	tegories of measures and measures	Comments
the	emselves	
Ale	rt and emergency	
	Safety measures before, during and after the	
	storm (prohibited access)	
	Establishment of crisis committees	
	Information and communication measures	
	Clearing in order to re-establish roads and	
	other essential services	
	Inventory of damages (physical terms,	
	monetary terms, others).	
	Psychological support if necessary	
	Safety measures before, during and after the	
	storm (prohibited access)	
Reh	nabilitation	
	Rehabilitation of forest roads and trails	
	Rehabilitation of fire infrastructure and	
	equipment	
	Rehabilitation of recreational infrastructure	
	and equipment	
	Rehabilitation of other infrastructure and	
	equipment (drainage network, others)	
Sal	vage operations	
	Organization of wood removals	Felling restrictions in
		remaining forests
	Incentives to harvest blown timber	Subsidies
	Incentives to acquire new forest machines	
	(harvesters, logging machines).	
	Professional retraining and training	
	10	

Creation of new infrastructures in order to	
enable wood removals	
Rehabilitation of forest infrastructure damaged	
by post storm forest operations	
Adaptation of transportation regulation	
Long distance transportation	Subsidies
Storage of roundwood and other wood raw	Subsidies
materials	
Storage of sawnwood and other processed	
products.	
Marketing or forest products	
Collective agreements between purchasers	
and sellers of roundwood	
Financing of roundwood removals and logging	
costs	
Financial guarantees for roundwood buyers	
Facilitating exports	
Limiting imports	
Promoting the use of wood products	
Supporting forest net revenues	
Direct support of forest income for damaged	
forests	
Direct support of forest income for non-	
damaged forests	
Reduction of taxes on capital and wealth	
Reduction of taxes on income	
Reduction of value added tax	
Accelerated depreciation of logging equipment	
Protection	
Protection against pests and diseases	More strict regulation in
	1978, particularly
	concerning unbarked logs:
12	1

		limitation of the period
		during which they can be
		stored in forest,
		transportation rules outside
		of the forest, maximum
		volume left in forests.
		2.7 M€ to control spruce
		bark beetle populations
	Prevention against forest fires	
	Restoring of the ecological balance between	
	game species and forests	
Ref	orestation	
	Foresight studies	
	Restructuring if necessary	
	Regulation of forest restoration	
	Cleaning of compartments and plots	
	Support for regeneration	
	Support for nurseries	
	Restoration of young plantations (seedlings in	
	upright position again)	
Pre	vention	
	Risk management	
	Consideration of forest insurance	
	Design and agree a crisis management plan	
	Analysis of the potential effects of other	
	policies	
Res	search studies	
	Forest vulnerability assessment and mapping	
	Improvement of forest restoration	
Cro	oss-cutting measures	
	Establishment of special funds aimed at	

collecting donations for the forests	
Reinforcing temporarily forest staff	
Agreements between different public policies	
Agreement between public policies at different	
scales (Regions, States, Europe)	
Agreements between the administration, the	
forest-based sector and the bank system	
Developing post-storm forest plans	

Table 5: Summary of different measures for storm of November 1972 in the Netherlands (NL) and Germany (DE).

Categories of measures and measures	Comments
themselves	
Alert and emergency	
Safety measures before, during and after the	
storm (prohibited access)	
Establishment of crisis committees	
Information and communication measures	
Clearing in order to re-establish roads and	
other essential services	
Inventory of damages (physical terms,	
monetary terms, others).	
Psychological support if necessary	
Safety measures before, during and after the	
storm (prohibited access)	
Rehabilitation	
Rehabilitation of forest roads and trails	
Rehabilitation of fire infrastructure and	
equipment	
Rehabilitation of recreational infrastructure	
and equipment	
Rehabilitation of other infrastructure and	
equipment (drainage network, others)	
Salvage operations	
Organization of wood removals	DE: Reduction of planned
	cuttings (-20%)
	NL: Reduction of cutting in
	State forests
Incentives to harvest blown timber	
Incentives to acquire new forest machines	

	(harvesters, logging machines).	
	Professional retraining and training	
	Creation of new infrastructures in order to	
	enable wood removals	
	Rehabilitation of forest infrastructure damaged	
	by post storm forest operations	
	Adaptation of transportation regulation	
	Long distance transportation	
	Storage of roundwood and other wood raw	
	materials	
	Storage of sawnwood and other processed	
	products.	
Mar	keting or forest products	
	Collective agreements between purchasers	
	and sellers of roundwood	
	Financing of roundwood removals and logging	
	costs	
	Financial guarantees for roundwood buyers	
	Facilitating exports	
	Limiting imports	DE: temporary authorization
		of the European Community
		to limit imports
	Promoting the use of wood products	
Sup	porting forest net revenues	
	Direct support of forest income for damaged	NL: Fixed amount of money
	forests	per cubic metre if it is
		harvested and either
		removed from the forest or
		barked within some months
		(21 florins/m3)
	Direct support of forest income for non-	
	damaged forests	
	Reduction of taxes on capital and wealth	DE: Reduction of taxes

Deduction of towns on income	1
Reduction of taxes on income	
Reduction of value added tax	
Accelerated depreciation of logging equipment	
Protection	
Protection against pests and diseases	
Prevention against forest fires	
Restoring of the ecological balance between	
game species and forests	
Reforestation	
Foresight studies	
Restructuring if necessary	
Regulation of forest restoration	NL: Reforestation is not
	compulsory in some places
	because of nature
	conservation or landscape
	management.
Cleaning of compartments and plots	DE: Subsidies
Support for regeneration	NL: Subsidies (50%)
Support for nurseries	
Restoration of young plantations (seedlings in	
upright position again)	
Prevention	
Risk management	
Consideration of forest insurance	
Design and agree a crisis management plan	
Analysis of the potential effects of other	
policies	
Research studies	
Forest vulnerability assessment and mapping	
Improvement of forest restoration	
	1

Cro	ss-cutting measures	
	Establishment of special funds aimed at	
	collecting donations for the forests	
	Reinforcing temporarily forest staff	NL: additional staff for State
		forests; all normal staff let
		for private forests
	Agreements between different public policies	
	Agreement between public policies at different	
	scales (Regions, States, Europe)	
	Agreements between the administration, the	
	forest-based sector and the bank system	
	Developing post-storm forest plans	

Table 6: Summary of different measures for storm of October 1987 in England (UK) and France (FR).

Windblow Act         Information and communication measures       UK: publication         "Guidelines for windblow in within 3 monor a Windblow	of the Forest
Safety measures before, during and after the storm (prohibited access)       UK: creation         Establishment of crisis committees       UK: creation         Windblow Act       Windblow Act         Information and communication measures       UK: publication         "Guidelines for windblow in within 3 mon a Windblow       Windblow	
storm (prohibited access)         Establishment of crisis committees       UK: creation         Windblow Act         Information and communication measures       UK: publication         "Guidelines for windblow in within 3 monor a Windblow	
Establishment of crisis committees UK: creation Windblow Act Information and communication measures UK: publication "Guidelines for windblow in within 3 mon a Windblow	
Windblow Act         Information and communication measures       UK: publication         "Guidelines for windblow in within 3 monor a Windblow	
Information and communication measures UK: publication "Guidelines for windblow i within 3 mon a Windblow	
"Guidelines f windblow i within 3 mon a Windblow	tion Committee
windblow i within 3 mon a Windblow	on of a booklet
within 3 mon a Windblow	or dealing with
a Windblow	n woodlands"
	ths; creation of
the Forestry	Task Force at
	Commission's
Research St	ation of Alice
Holt Lodge	(advice and
information	to woodland
owners, tim	ber merchants,
contractors a	nd enquirers.
Clearing in order to re-establish roads and FR: Help of th	ne French Army
other essential services	
Inventory of damages (physical terms, FR: Field asse	essment
monetary terms, others). UK: field ass	sessment within
one month	
Psychological support if necessary UK:	
Safety measures before, during and after the	
storm (prohibited access)	
Rehabilitation	
Rehabilitation of forest roads and trailsFR: subsidies	: 50%
Rehabilitation of fire infrastructure and	
equipment	

Rehabilitation of recreational infrastructure	
and equipment	
Rehabilitation of other infrastructure and	
equipment (drainage network, others)	
Salvage operations	1
Organization of wood removals	UK: the Forest Commission
	deferred harvesting in less
	damaged areas
Incentives to harvest blown timber	
Incentives to acquire new forest machines	FR: subsidies (30%)
(harvesters, logging machines).	
Professional retraining and training	FR: Yes
	UK: Yes for 100 men
Creation of new infrastructures in order to	FR: subsidies (50%) for
enable wood removals	roads, dry storage areas
Rehabilitation of forest infrastructure	
damaged by post storm forest operations	
Adaptation of transportation regulation	
Long distance transportation	FR: reduction of the
	transportation cost by rail;
	from 18% to 65% of the
	normal rail price.
	UK: Subsidies for road and
	rail but with a delayed
	announcement (8 months);
	shortage of haulage
	capacity.
Storage of roundwood and other wood raw	FR: reduced interest loans
materials	(6%) for local sawmills and
	two years; financial
	guarantee (2/3) by regional
	and departmental councils;
	building of storage areas by
	the administration.

	UK: one site (wet storage) of
	50 000 m3 for about 0.1
	actual M€
Storage of sawnwood and other processed	
products.	
Marketing or forest products	I
Collective agreements between purchasers	FR: monitoring of roundwood
and sellers of roundwood	markets; virtual market
	place for roundwood and
	workers
	UK: list of contractors
Financing of roundwood removals and logging	FR: reduced interest loans; ;
costs	financial guarantee (2/3) by
	regional and departmental
	councils
Financial guarantees for roundwood buyers	
Facilitating exports	
Limiting imports	
Promoting the use of wood products	
Supporting forest net revenues	1
Direct support of forest income for damaged	
forests	
Direct support of forest income for non-	
damaged forests	
Reduction of taxes on capital and wealth	
Reduction of taxes on income	
Reduction of value added tax	
Accelerated depreciation of logging equipment	
Protection	
Protection against pests and diseases	FR: some measures taken
Prevention against forest fires	
Restoring of the ecological balance between	
	<u> </u>

	game species and forests	
Ref	orestation	
	Foresight studies	
	Restructuring if necessary	
	Regulation of forest restoration	
	Cleaning of compartments and plots	
	Support for regeneration	FR: yes in the frame of the
		French forest fund.
		UK: grant aids for non
		woodlands and woodlands
		(about 15 actual M€)
	Support for nurseries	
	Restoration of young plantations (seedlings in	
	upright position again)	
Pre	vention	
	Risk management	
	Consideration of forest insurance	
	Design and agree a crisis management plan	
	Analysis of the potential effects of other	
	policies	
Res	earch studies	
	Forest vulnerability assessment and mapping	
	Improvement of forest restoration	
Cro	ss-cutting measures	
	Establishment of special funds aimed at	
	collecting donations for the forests	
	Reinforcing temporarily forest staff	FR: important because
		Brittany is not a major forest
		region
	Agreements between different public policies	
	Agreement between public policies at different	

scales (Regions, States, Europe)	
Agreements between the administration, the	FR: yes for reduced interest
forest-based sector and the bank system	loans
Developing post-storm forest plans	UK: lessons to be drawn
	from the storm and the
	activities of the Forest
	Windblow Action Committee

Table 7: Summary of different measures for storms of the Winter 1990 in Germany (DE) and Switzerland (CH).

Cat	egories of measures and measures	Comments
the	mselves	
Aler	t and emergency	
	Safety measures before, during and after the	
	storm (prohibited access)	
	Establishment of crisis committees	
	Information and communication measures	
	Clearing in order to re-establish roads and	
	other essential services	
	Inventory of damages (physical terms,	
	monetary terms, others).	
	Psychological support if necessary	
	Safety measures before, during and after the	
	storm (prohibited access)	
Reh	abilitation	
	Rehabilitation of forest roads and trails	
	Rehabilitation of fire infrastructure and	
	equipment	
	Rehabilitation of recreational infrastructure	
	and equipment	
	Rehabilitation of other infrastructure and	
	equipment (drainage network, others)	
Salv	/age operations	
	Organization of wood removals	CH: Avoidance of any
		planned harvests
	Incentives to harvest blown timber	DE Yes
		CH: 370 M Swiss francs
	Incentives to acquire new forest machines	CH: Yes
	(harvesters, logging machines).	

Professional retraining and training	
Creation of new infrastructures in order to	CH; Timber yards
enable wood removals	
Rehabilitation of forest infrastructure damaged	
by post storm forest operations	
Adaptation of transportation regulation	
Long distance transportation	
Storage of roundwood and other wood raw	CH: Subsidies for storage
materials	areas and transportation to
	them.
Storage of sawnwood and other processed	
products.	
Marketing or forest products	
Collective agreements between purchasers	
and sellers of roundwood	
Financing of roundwood removals and logging	
costs	
Financial guarantees for roundwood buyers	
Facilitating exports	
Limiting imports	
Promoting the use of wood products	CH: Support of procurement
	and purchase of storm
	damaged timber.
Supporting forest net revenues	
Direct support of forest income for damaged	DE: particularly for
forests	communal forests (Länder)
Direct support of forest income for non-	
damaged forests	
Reduction of taxes on capital and wealth	
Reduction of taxes on income	
Reduction of value added tax	
Accelerated depreciation of logging equipment	

Protection	
Protection against pests and diseases	DE: protection against bark
	beetle of storm damaged
	timber
Prevention against forest fires	
Restoring of the ecological balance between	
game species and forests	
Reforestation	
Foresight studies	
Restructuring if necessary	
Regulation of forest restoration	
Cleaning of compartments and plots	
Support for regeneration	
Support for nurseries	
Restoration of young plantations (seedlings in	CH: tending of young stands
upright position again)	
Prevention	
Risk management	
Consideration of forest insurance	
Design and agree a crisis management plan	
Analysis of the potential effects of other policies	
Research studies	
Forest vulnerability assessment and mapping	
Improvement of forest restoration	
Cross-cutting measures	
Establishment of special funds aimed at	
collecting donations for the forests	
Reinforcing temporarily forest staff	CH: Military personnel for
	assistance in salvage

	logging; promotion towards
	foreign contractors
Agreements between different public policies	
Agreement between public policies at different	
scales (Regions, States, Europe)	
Agreements between the administration, the	
forest-based sector and the bank system	
Developing post-storm forest plans	

Categories of measures and measures	Comments
themselves	
Alert and emergency	
Safety measures before, during and after the	Regulation
storm (prohibited access)	
Establishment of crisis committees	Not really
Information and communication measures	Not really
Clearing in order to re-establish roads and	General weather forecasts.
other essential services	
Inventory of damages (physical terms,	12,7 M€
monetary terms, others).	
Psychological support if necessary	3,1 M€
Safety measures before, during and after the	Not organised
storm (prohibited access)	
Rehabilitation	
Rehabilitation of forest roads and trails	Nothing else than clearing
	(see above)
Rehabilitation of fire infrastructure and	
equipment	
Rehabilitation of recreational infrastructure	4,6 + 11,4 M€ (State +
and equipment	Region)
Rehabilitation of other infrastructure and	
equipment (drainage network, others)	
Salvage operations	
Organization of wood removals	Priority to blown timber
	Priority to communal
	forests/state forests
Incentives to harvest blown timber	
Incentives to acquire new forest machines	57 M€
(harvesters, logging machines).	

	Professional retraining and training	Yes
	Creation of new infrastructures in order to	56,3 M€
	enable wood removals	
	Rehabilitation of forest infrastructure	
	damaged by post storm forest operations	
	Adaptation of transportation regulation	From 40 to 48 tons
	Long distance transportation	198,0 M€
	Storage of roundwood and other wood raw	27,1 + 50,6 (interest
	materials	subsidy) = 77,7 M€
	Storage of sawnwood and other processed	No
	products.	
Mai	keting or forest products	
	Collective agreements between purchasers	Yes
	and sellers of roundwood	
	Financing of roundwood removals and logging	26,5 M€ (interest subsidy)
	costs	
	Financial guarantees for roundwood buyers	3,0 M€ (State + Region)
	Facilitating exports	No
	Limiting imports	No
	Promoting the use of wood products	1,5 M€ and Framework
		agreement
Sup	oporting forest net revenues	
	Direct support of forest income for damaged	53,2 M€
	forests	
	Direct support of forest income for non-	7,0 M€ (interest subsidy)
	damaged forests	
	Reduction of taxes on capital and wealth	Yes (land tax for two years
		and general delay ;
		confirmation of past
		reductions on wealth despite
		the stand destruction)
	Reduction of taxes on income	Yes (minus 10 €/harvested
		cum)
L		

Reduction of value added tax	Yes (reduced rate for all
	forest investments)
Accelerated depreciation of logging	Yes (intensive use)
equipment	
Protection	
Protection against pests and diseases	15.2 M€
Prevention against forest fires	Reinforced cleaning
Restoring of the ecological balance between	Marked recommendations
game species and forests	
Reforestation	
Foresight studies	Yes (0,05 M€)
Restructuring if necessary	8,2 M€ (State + Regions) +
	Law
Regulation of forest restoration	Yes
Cleaning of compartments and plots	155.9 M€ (State + Regions)
Support for regeneration	450,9 M€
Support for nurseries	4.4 M€ (State + Regions) +
	0.3 M€ (interests.)
Restoration of young plantations (seedlings in	0.8 M€
upright position again)	
Prevention	
Risk management	Research and studies
Consideration of forest insurance	Debate
Design and agree a crisis management plan	Yes for ONF
Analysis of the potential effects of other	No
policies	
Research studies	
Forest vulnerability assessment and mapping	2,4 M€
Improvement of forest restoration	

Cros	ss-cutting measures	
	Establishment of special funds aimed at	Yes 17.7 M€
	collecting donations for the forests	(State+Regions), 0,3 M€
		(private)
	Reinforcing temporarily forest staff	Yes (+912 persons. years)
		and 33,0 M€
	Agreements between different public policies	Some conflicts in the
		environment field
	Agreement between public policies at	EU agreement, State/Regions
	different scales (Regions, States, Europe)	agreements
	Agreements between the administration, the	Yes (interest subsidies)
	forest-based sector and the bank system	
	Developing post-storm forest plans	Not really

Table 9: Summary of different measures for storm of December 1999 in Germany.

Categories of measures and measures	Comments
themselves	
Alert and emergency	
Safety measures before, during and after the	Yes
storm (prohibited access)	
Establishment of crisis committees	
Information and communication measures	Frequent informative
	meetings between forest
	authorities and district
	foresters or with
	representatives of communal
	forests, private forest
	owners.
Clearing in order to re-establish roads and	fast opening of public roads
other essential services	through personnel of State
	forest administration.
Inventory of damages (physical terms,	aerial survey (helicopters);
monetary terms, others).	additional aerial surveys 5
	months later
Psychological support if necessary	
Safety measures before, during and after the	
storm (prohibited access)	
Rehabilitation	I
Rehabilitation of forest roads and trails	Repair of forest roads;
	subsidies for private owners
	under 200ha (40% under
	25 565 € and 50% above);
	other subsidies up to 70%.
Rehabilitation of fire infrastructure and	
equipment	

	Rehabilitation of recreational infrastructure	[]
	and equipment	
	Rehabilitation of other infrastructure and	
	equipment (drainage network, others)	
Sal	vage operations	
	Organization of wood removals	Duly processing of all
		perishable, valuable hard
		wood for all types of forest
		ownership: planned delay in
		processing of coniferous
		timber in State forests to
		ensure priority processing,
		transportation and sale
		capacities for other forest
		owners. Restriction of the
		timber harvest of the current
		year to avoid excess supply
	Incentives to harvest blown timber	loans from the State (4-6
		years, on year without
		repayment)
	Incentives to acquire new forest machines	Loan programme subsidized
	(harvesters, logging machines).	by the State (term up to 20
		years, 3 years without
		repayment, maximum
		amount 0.26 M€)
	Professional retraining and training	Information about safety for
		communal foresters and
		private forest owners.
	Creation of new infrastructures in order to	
	enable wood removals	
	Rehabilitation of forest infrastructure	
	damaged by post storm forest operations	
	Adaptation of transportation regulation	load limit increased from 40
		to 46 tons (federal state);

	exemptions to the ban of
	driving on Sunday and public
	holidays as well as from the
	holiday travel ordinance.
Long distance transportation	organization of logistics in
	railway, ship and truck by
	the federal stat forest service
	for all types of forest owners
	; the Deutsche Bahn is asked
	to provide capacities for
	increased timber haulage by
	train.
Storage of roundwood and other wood raw	Establishment of wet and
materials	storages in small scale
	private forests and in state
	forests (in this latter case,
	blown timber comes from
	various ownership
	categories; financial support
	(40% of costs); reduced
	interest loans (3-4 years,
	minimum loans of 5 113 € or
	30.70 €/m3; annual
	subsidies to cover current
	storage costs (3.1 €/m3 but
	8.2 €/m3 in first year);
	development of new storage
	methods (wrapping timber in
	foil)
Storage of sawnwood and other processed	reduced interest loan
products.	(federal state bank, federal
	subsidy bank)
Marketing or forest products	
Collective agreements between purchasers	

	and sellers of roundwood	
	Financing of roundwood removals and logging	loans
	costs	
	Financial guarantees for roundwood buyers	
	Facilitating exports	distance selling of timber in
		other states and in near
		neighbor countries
		depending on the market
		conditions. Nes customers
		for all kinds of forest owners.
	Limiting imports	
	Promoting the use of wood products	Sale promotion of blown
		timber.
Sup	porting forest net revenues	
	Direct support of forest income for damaged	direct subsidies for private
	forests	forests in monetary form.
	Direct support of forest income for non-	
	damaged forests	
	Reduction of taxes on capital and wealth	
	Reduction of taxes on income	Partial remission of income
		tax; reduced tax rate for
		processing blown timber
	Reduction of value added tax	
	Accelerated depreciation of logging equipment	
Dro	tection	
	Protection against pests and diseases	debarking aid (2.56 €/m3)
	Prevention against forest fires	
	Restoring of the ecological balance between game species and forests	
Ref	orestation	
	Foresight studies	
	Restructuring if necessary	
	26	

Regulation	of forest restoration	
Cleaning of	compartments and plots	about 1000 €/ha with a
		maximum of 80% of the
		costs;
Support for	regeneration	Subsidies for natural
		regeneration, under planting
		or afforestation for all kinds
		of forest ownership with
		differences according to the
		stand: about 4000 €/ha for
		deciduous plantations, 2500
		€/ha for mixed plantations
		with at least 40% deciduous,
		767 €/ha for natural
		regeneration; nothing for
		pure conifer plantation; free
		reforestation planning for
		severely affected communal
		forests; special loan
		programme for reforestation;
		subsidies from the State
Support for	nurseries	
Restoration	of young plantations (seedlings in	
upright pos	ition again)	
Prevention		Г <u> </u>
Risk manag		
Consideratio	on of forest insurance	
Design and	agree a crisis management plan	
Analysis of	f the potential effects of other	
policies		
Deeesreb		
Research studie		an under the state of the state
Forest vulne	erability assessment and mapping	several studies, for example
		to reduce the risk of storm

		damages in forests			
	Improvement of forest restoration	Studies on natural			
		regeneration			
Cros	ss-cutting measures				
	Establishment of special funds aimed at				
	collecting donations for the forests				
	Reinforcing temporarily forest staff	additional service personnel			
		to provide advice for private			
		forests.			
	Agreements between different public policies				
	Agreement between public policies at different				
	scales (Regions, States, Europe)				
	Agreements between the administration, the				
	forest-based sector and the bank system				
	Developing post-storm forest plans	Development of a storm			
		handbook on first measures			
		and survey of damages,			
		strategies and personnel			
		management, salvae loging			
		and work safety, timber			
		storage, forest protection,			
		timber transportation,			
		regeneration and			
		reforestation, subsidies and			
		public policies.			

Table 10: Summary of different measures for storm of 2005 in Germany.

storm (prohibited access) unclean forest rods is forbidden. Access on clear forest rad on own risks. Establishment of crisis committees Crisis committee at the ministerial leve (coordination). Crisis Committee in Southwestphalia (cooperation between the ministry, the federal fores office, forest federations and others. Information and communication measures Information center fo security, communication and coordination immediately after the storm event to provide information and serve as a logistic center fo forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid	Categories of measures and measures	Comments		
Safety measures before, during and after the storm (prohibited access)       Access to forest stands and unclean forest rods is forbidden. Access on clear forest rad on own risks.         Establishment of crisis committees       Crisis committee at the ministerial leve (coordination). Crisis Committee in Southwestphalia (cooperation between the ministry, the federal fores office, forest federations and others.         Information and communication measures       Establishmenent of an information center fo security, communication and coordination immediately after the storm event to provide information and serve as a logistic center fo forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline	themselves			
storm (prohibited access)       unclean forest rods is forbidden. Access on clear forest rad on own risks.         Establishment of crisis committees       Crisis committee at the ministerial level (coordination). Crisis Committee in Southwestphalia (cooperation between the ministry, the federal fores office, forest federations and others.         Information and communication measures       Establishment of arr information center for security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center holline	Alert and emergency			
forbidden. Access on clear forest rad on own risks.         Establishment of crisis committees       Crisis committee at the ministerial leve (coordination). Crisis Committee in Southwestphalia (cooperation between the ministry, the federal fores office, forest federations and others.         Information and communication measures       Establishment of an information center for security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aic programmes; establishmen of a call center hotline	Safety measures before, during and after the	Access to forest stands and		
Establishment of crisis committees       Crisis committee at the ministerial level (coordination). Crisit Committee in Southwestphalia (cooperation between the ministry, the federal fores office, forest federations and others.         Information and communication measures       Establismenent of ar information center for security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, ado programmes; establishmen of a call center hotline	storm (prohibited access)	unclean forest rods is		
Establishment of crisis committees       Crisis committee at the ministerial level (coordination). Crisis Committee in Southwestphalia (cooperation between the ministry, the federal fores office, forest federations and others.         Information and communication measures       Establismenent of ar information center for security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		forbidden. Access on clean		
ministerial       level         (coordination).       Crisit         Committee       in         Southwestphalia       (cooperation between the         (cooperation between the       ministry, the federal fores         office, forest federations and       others.         Information and communication measures       Establismenent of ar         Information center for security, communication and       coordination immediately         after the storm event to       provide information and         serve as a logistic center for       forest owners, logging         enterprises, timber trade       companies etc for technica         questions:       damage         assessment, work security       logistics, timber marketing         timber conservation, staf       management, aid         programmes; establishmen       of a call center hotline		forest rad on own risks.		
<ul> <li>(coordination). Crisis Committee in Southwestphalia</li> <li>(cooperation between the ministry, the federal fores office, forest federations and others.</li> <li>Information and communication measures</li> <li>Establismenent of ar information center fo security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline</li> </ul>	Establishment of crisis committees	Crisis committee at the		
Committee in Southwestphalia (cooperation between the ministry, the federal fores office, forest federations and others. Information and communication measures Establismenent of ar information center fo security, communication and coordination immediately after the storm event to provide information and serve as a logistic center fo forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		ministerial level		
Southwestphalia (cooperation between the ministry, the federal fores office, forest federations and others. Information and communication measures Establismenent of ar information center fo security, communication and coordination immediately after the storm event to provide information and serve as a logistic center fo forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		(coordination). Crisis		
Information and communication measures       Establismenent of arrinformation center for security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		Committee in		
Information and communication measures Information and communication measures Information and communication measures Information center for security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		Southwestphalia		
office, forest federations and others.         Information and communication measures       Establismenent of ar information center for security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		(cooperation between the		
Information and communication measures       Establismenent of an information center for security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		ministry, the federal forest		
Information and communication measuresEstablismenentofarinformationcenterfosecurity, communication and coordinationimmediatelyafterthestormeventtoprovideinformationandserve as a logistic center foforestowners,loggingenterprises,timbertradecompaniesetcfortechnicaquestions:damageassessment,worksecuritylogistics,timbermarketingtimberconservation,stafmanagement,aiprogrammes;establishmenof a call center hotlineof		office, forest federations and		
information center for security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		others.		
security, communication and coordination immediately after the storm event to provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline	Information and communication measures	Establismenent of an		
coordination immediately after the storm event to provide information and serve as a logistic center fo forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		information center for		
after the storm event to provide information and serve as a logistic center fo forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		security, communication and		
provide information and serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		coordination immediately		
serve as a logistic center for forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		after the storm event to		
forest owners, logging enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		provide information and		
enterprises, timber trade companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		serve as a logistic center for		
companies etc for technica questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		forest owners, logging		
questions: damage assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		enterprises, timber trade		
assessment, work security logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		companies etc for technical		
logistics, timber marketing timber conservation, staf management, aid programmes; establishmen of a call center hotline		questions: damage		
timber conservation, staf management, aid programmes; establishmen of a call center hotline		assessment, work security,		
management, aid programmes; establishmen of a call center hotline		logistics, timber marketing,		
programmes; establishmen of a call center hotline		timber conservation, staff		
of a call center hotline		management, aid		
		programmes; establishment		
Clearing in order to re-establish roads and Yes		of a call center hotline		
	Clearing in order to re-establish roads and	Yes		
other essential services	other essential services			

Inventory of	damages (physical terms	s, Centrally organized, based		
monetary terms	, others).	on aerial photos		
Psychological su	pport if necessary			
Safety measure	s before, during and after th	e		
storm (prohibite	d access)			
Rehabilitation				
Rehabilitation of	forest roads and trails	Yes		
Rehabilitation	of fire infrastructure an	d		
equipment				
Rehabilitation of	of recreational infrastructur	e		
and equipment				
Rehabilitation	of other infrastructure an	d Yes		
equipment (drai	nage network, others)			
Salvage operations				
Organization of	wood removals	Priority to blown timber		
Incentives to ha	rvest blown timber			
Incentives to a	acquire new forest machine	s Special loan from the State		
(harvesters, log	ging machines).	to purchase necessary		
		machines (20 teays, 5 years		
		without repayment.		
Professional retr	aining and training	Yes		
Creation of new	w infrastructures in order t	0		
enable wood rer	novals			
Rehabilitation	of forest infrastructur	e		
damaged by pos	st storm forest operations			
Adaptation of tr	ansportation regulation	Temporary suspension of the		
		cabotage ban. The load limit		
		for timber transport is 44		
		tons instead of 40;		
		exemptions to the ban of		
		driving on Sundays and		
		public holidays as well as		
		from the holiday travel		

	ordinance.
Long distance transportation	Increase of transport
	capacities, use of intermodal
	transportation
Storage of roundwood and other wood raw	Financial support for the
materials	building of storage places;
	waiving of collection of fees
	for water use.
Storage of sawnwood and other processed	
products.	
Marketing or forest products	
Collective agreements between purchasers	Yes
and sellers of roundwood	
Financing of roundwood removals and logging	9 M€ (wood removals and
costs	forest protection)
Financial guarantees for roundwood buyers	
Facilitating exports	
Limiting imports	
Promoting the use of wood products	
Supporting forest net revenues	
Direct support of forest income for damaged	
forests	
Direct support of forest income for non-	
damaged forests	
Reduction of taxes on capital and wealth	
Reduction of taxes on income	Tax relief for undue
	hardship: 25% or 50%
	reduction
Reduction of value added tax	
Accelerated depreciation of logging equipment	
Dratastian	
Protection	
Protection against pests and diseases	General allowance for

		burning of residues under strict requirements; measures for insecticide-free combating of pests as well as chemical treatments with insecticides on an area of 3300 ha
	Prevention against forest fires	Cleaning and repairing of forest roads; restoration of water intake points; generating of "forest fire prevention map Kyrill 2007"
	Restoring of the ecological balance between	
	game species and forests	
Ref	orestation	
	Foresight studies	
	Restructuring if necessary	
	Regulation of forest restoration	
	Cleaning of compartments and plots	
	Support for regeneration	Aid programme for private and communal forest owners for reforestation with broadleaves (56 M€); in 2010, this programme is still running as many forest owners wait how natural regeneration develops; furthermore planting material was not sufficiently available for all species; special loan programme for reforestation with conifers (2 M€); 16% increase of support for forest seedlings and bushes

Support for nurseries	
Restoration of young plantations (seedlings in	
upright position again)	
Prevention	
Risk management	Development of a manual on
	storms
Consideration of forest insurance	
Design and agree a crisis management plan	Development of formal
	procedures in cas of storm
	events in North-Rhine-
	Westphalia.
Analysis of the potential effects of other	
policies	
Research studies	I
Forest vulnerability assessment and mapping	
Improvement of forest restoration	
Cross-cutting measures	I
Establishment of special funds aimed at	
collecting donations for the forests	
Reinforcing temporarily forest staff	Additional service personnel
	to provide advices to private
	forest owners;
	unbureaucratic allocation of
	seasonal workers from
	eastern Europe
Agreements between different public policies	
Agreement between public policies at	
different scales (Regions, States, Europe)	
different scales (Regions, States, Europe)Agreements between the administration, the	

					storms	for	North-Rhine-
					Westpha	lia	
 Developing	forest	guidelines	adapted	to			
storms.							