Cyprus Civil Defence - Ministry of Interior

1st Capability Assessment Report of the Republic of Cyprus

30 July, 2018

Cyprus Civil Defence

Kennedy 23 Street, 2314 Lakatamia, Nicosia, Cyprus

Telephone center +357 22403450/1

http://www.moi.gov.cy/moi/cd

nparis@cd.moi.gov.cy

Editors:

Nicholas Paris nparis@cd.moi.gov.cy

Maria Ntritsou mdritsou@cd.moi.gov.cy

Published July 30, 2018

Address by the Civil Defence Commissioner

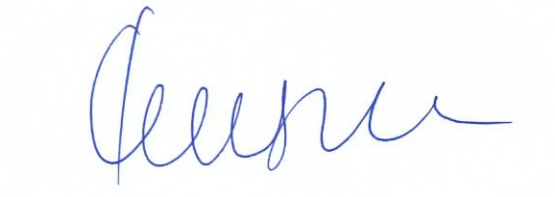
In December 2015 the Republic of Cyprus submitted to the European Commission (DG ECHO) a summary of its national risk assessment that was in progress (The first Approach Report). The summary was submitted in order to fulfill the Decision of the Council and the Euro Parliament 1313/2013/EU (Article 6). The final summary was submitted in January 2017, after the national risk assessment was finalised with the cooperation of different government departments: The Environment Department, the Water Development Department, the Department of Fisheries and Marine Research, the Geological Survey Department and the Office of the Commissioner of Electronic Communications and Postal Regulation, which has now been renamed to Digital Security Authority. Part of the work having to do with climate change, cyber risks and flooding was outsourced.

The national risk assessment included twelve national scale risks: earthquakes, tsunamis, floods, coastal erosion and sea level rise, forest and wild fires, risks for human health, desertification, risks for water resources, risks for biodiversity, risks for energy supply, marine pollution and cyber risks.

The Departments involved in the risk assessment as well as a number of other competent authorities and semi-government organizations were asked to fill in the questionnaire included in the Guidelines of the European Committee for the National Capability Assessment. The questions were gathered and assessed by the Cyprus Civil Defence and specifically by the Senior Officer Nicholas Paris, in cooperation with Officer Maria Ntritsou.

This report is an overall assessment of the Republic of Cyprus of the states' intervention capabilities through all the phases of the disaster cycle: from prevention and preparedness through the recovery phase. The final report was resent to the same government departments for any final comments, reflection and scrutiny.

This publication was finalised thanks to the persistent work of the editors of the Cyprus Civil Defence and the involved government departments' responses.



Andreas Frantzis

Civil Defence Commissioner

Framework

Question 1: *Does the risk assessment fit within an overall framework?*

Explanation: Clarify whether this framework is legal or procedural, and whether it is defined at national and/or at an appropriate sub-national level.

The framework for the risk assessment is procedural and it is derived from the Decision of the Council and the European Parliament 1313/2013/EU. It is defined at a national level because of the size of the island and the fact that it is governed by a central government and there are no regional governments (despite the existence of administrational districts).

The framework provides for three steps: a) a risk assessment which was completed in 2015, b) a capability assessment which is underway and c) the establishment of intervention plans which already exist but need to be revised in view of the possible outcomes and demands that will be identified through the risk assessment ending December 2018.

The body that is responsible for producing and submitting to the European Commission the risk assessment and subsequent capability assessment is the Civil Defence of the Republic of Cyprus. The first risk assessment was conducted in cooperation with the Department of Environment and was completed in 2017 (a preliminary summary was submitted on time in 2015). The cooperation between the two Departments took place due to the fact that the Civil Defence had to submit a summary regarding its risk assessment and the Department of Environment wanted a report produced regarding climate change; the two Departments therefore cooperated and a joint report was produced regarding the first national risk assessment study and the risk assessment for climate change. Other contributing Departments were the Geological Survey Department, the Department of Fisheries and Marine Research, the Water Development Department and the Office of the Commissioner of Electronic Communications and Postal Regulation which has now been renamed to Digital Security Authority.

There was no overlap in the production of the first risk assessment study; the Civil Defence and the Department of Environment agreed on specific risks that were to be included in the study and proceeded with a common public procurement procedure for obtaining the services of external experts. The budget was shared and had been obtained by the Department of Environment through the Planning Bureau (now called Directorate General for European Programs, Coordination and Development). Other departments proceeded with conducting specialized risk assessments such as the risk assessment for floods, which was conducted in accordance with the Flood Directive of the EU. The Civil Defence monitored the whole procedure to avoid overlaps.

As regards the second risk assessment study, which is predicted to be submitted to the European Commission by the end of 2018, a monitoring committee has been established, in which representatives from various governmental departments that have conducted specialized risk assessments or that have established strategies for prevention, preparedness and mitigation participate.

The second risk assessment program is examining risks not studied in the first risk assessment studies, since the first studies were produced with the timeframe being 2020, 2050 and 2100 and was completed in 2017, except where there were new developments; the Civil Defence, therefore, intends to proceed with the study of risks that have been included in the “ZENON” Masterplan for managing risks and other risks that are considered possible to occur at a national level.

It should be noted that intervention plans were in place even before the first national risk assessment took place. However, the risk assessments that have and/or will be produced will be used as a starting point for the amendment of the plans, in order to make them more focused.

Coordination

A risk management structure assigns clear responsibilities to all entities involved in the risk assessment so that overlaps or mismatches between responsibility and capability are avoided.
C 261/8 EN Official Journal of the European Union 8.8.2015

***Question 2**: Are clearly defined responsibilities and roles/functions assigned to the entities participating in the risk assessment?*

Explanation: Describe on which basis responsibilities for the risk assessment are distributed within the administration, if this basis or the corresponding procedures are documented in writing (e.g. in legal texts), if overlaps or needs exist, how these are addressed.

Before the Council Decision 1313/2013/EU a culture supporting the implementation of risk assessments in the public sector required enhancement. However, risk assessments took place based on EU Directives (e.g. the Floods Directive or Climate Change requirements). The relevant Departments proceeded with the implementation of risk assessments due to the above mentioned Directives and the fact that it was an ex ante conditionality for the country to receive funds through the Structural Funds. As a result of this conditionality, it proved easier for the Departments to find the funds for the risk assessments as the Directorate General for European Programmes, Coordination and Development allocated a sum to them. If this had not been the case, the various Departments would have struggled to ensure the necessary funds to produce risk assessments, since Cyprus was undergoing a strict financial programme due to recession.

A legal basis is still not in place and the relevant Departments share information based on their capacity as civil servants, the fact that they regularly need to cooperate with one another as well as their willingness to improve their work. This element was important because the national risk assessment, carried out by outsourced experts, did not produce new knowledge but rather aimed to gather and systematize existing knowledge available within government departments of the Republic of Cyprus. This national risk assessment, besides systematizing knowledge for different specific risks, connected them with climate change, as is the current trend within the European Committee. This was also a necessity because the Eastern Mediterranean is an area that will be affected negatively by climate change, since rain will be reduced and extended periods of dryness will give rise to forest fires.

A legal basis for risk assessment procedures is required for a multiplicity of reasons. First of all, risk assessments will be required in the future for more fields of expertise. Second, all-inclusive national risk assessments will be required every five years, based on the current legislative proposal for the European Civil Protection Mechanism. The contemporary tendency, due to the current economic crisis, is to downsize government departments, contrary to older practices that tended to strengthen them. For all these reasons, bonds with academics and other experts will need to be established and funds for outsourcing secured. This can be ensured through legal procedures or other legislative arrangements, memorandums of understanding etc.

An action that is also required is the establishment of a national methodology for risk assessments. So far, both the first NRA undertaken (by the Cyprus Civil Defence and the Department of

Environment) and the NRA that is currently being produced left it up to the experts/tenderers to propose the methodology for the assessment. In establishing legal procedures for future assessments a national methodology will be agreed upon.

***Question 3**: Are the responsibilities to assess specific risks allocated to the most relevant entities?*

Explanation: Describe the process how the relevant entities are involved the risk assessment, how the responsibility or ownership to deal with specific risks following the risk assessment is ensured.

The different departments, according to their legislation and mandate, promoted the implementation of different risk assessments; the Civil Defence, due to being the responsible authority for the implementation of the Council Decision 1313/2013/EU produced, through outsourcing, risk assessments for the most important risks of the island; however, the risk of floods was assessed by the Water Development Department, due to the latter's mandate. In addition, the Department of Environment was responsible for the implementation of risk assessments regarding climate change; the risk assessment for marine pollution was conducted by the Department of Fisheries and Marine Research, the risk assessment for earthquakes was conducted under the Department of Geological Survey and the Office of the Commissioner of Electronic Communications and Postal Regulation, which has now been renamed to Digital Security Authority, promoted the implementation of the cyber risk assessment study. It is, therefore, obvious that the different risk assessment studies were implemented according to the mandate of each service.

Personnel from the relevant departments provided information to the experts that were conducting the risk assessments and in each stage of the production of the reports were providing comments and insights on how to proceed. More specifically, two intermediate progress reports were submitted for comments to the relevant departments. The final draft was the result of extensive discussion among the departments.

In addition, by legislation and each department's mandate, each department has to deal with the specific risks for which they were responsible of producing risk assessment reports. The reports that were produced are available on the websites of the services responsible/of the Civil Defence and were disseminated, except for information that was deemed sensitive for the security of the Republic of Cyprus. Each service is responsible for promoting the relevant measures to ensure that the risks identified are managed to the extent possible. The reports produced were used by the Department of Environment and the Water Development Department to produce strategic plans, while the Civil Defence intends to use the risk assessment reports to revise the plans for responding to disasters.

***Question 4**: Has the cross-sectorial dimension of risks been integrated in the risk assessments? Explanation: Describe which risks assessed include a cross-sectorial and multi risk dimension and to what extent this is included in defining the risk scenario. Where relevant describe the nature of their cooperation with other national and/or appropriate sub-national authorities in carrying out these risk assessments*

A number of risks originate and generally refer to the climate change in the first NRA of the Republic of Cyprus. These risks include: Coastal erosion and sea level rise, forest and wild fires, risks for human health, land desertification, risks for water resources, risks for biodiversity and risks for energy supply. In this manner the cross-sectorial dimension of climate change related risks was demonstrated. The common origin of these risks included horizontal matters concerning climate change models for the Eastern Mediterranean region.

However, no complex risks or domino effect risks were examined in the first NRA. The reason was that it was the first national scale risk assessment undertaken. Other, more specialized risk assessments (for example for the fulfillment of the requirements of the floods directive) were undertaken only during the last years. An exception was the risk of earthquakes, a subject researched for years by the Geological Survey Department.

Future NRAs could include horizontal risks as well as risks co-occurring: earthquakes coinciding with heat-waves, energy supply interruptions leading to the malfunctioning of desalination plants, problems in biodiversity conservation leading to land desertification etc.

In a broader view, future risk assessments should make a distinction between the different types of risks: acute; slow burning; compound risks involving elements of both. For example, an earthquake or a flash flood (of the type occurring in Cyprus) is an acute crisis requiring immediate intervention. On the other hand, land desertification is a slow burning crisis, which may take decades or even centuries to change the morphology of the ground. Forest fires, due to increased dryness of the soil and the burning matter will have both a long term element and a series of acute events occurring during summers of increased temperatures.

Based on the above analysis, future risk assessments could include compound crises, going beyond linear crisis management methods and introducing more dynamic notions. Different types of risks should be examined: Low intensity-long term crises, high intensity-short term crises, and crises involving elements of both, specific to Cyprus. In order to achieve this goal it is necessary to go beyond risk assessment and devise a holistic strategy for crisis prevention, probably within the SENDAI framework. Also, a series of specialized national strategies will be required for specific long and short term interventions concerning water conservation, protection of the environment, sea level rise and coastal erosion, etc.

Expertise

The experts carrying out the risk assessment should have the necessary competencies and responsibilities and received adequate training to carry out the risk assessment.

***Question 5**: Is the distribution of responsibilities for the assessment of the risks regularly reviewed?*

Explanation: Describe which entities or departments participate in the risk assessment, how they are identified/ selected, which competencies are considered when the responsibilities are distributed.

For the first NRA of the Republic of Cyprus the following risks were examined. Next to each risk is the competent authority which either actually made the risk assessment or provided the necessary data for its execution (the actual risk assessment was conducted through public procurement in this case).

S/N	RISK	DEPARTMENT	DESCRIPTION
1	Earthquake	Geological Survey Department	Note 1
2	Tsunami	Geological Survey Department	Note 1
3	Floods	Water Development Department	Note 1
4	Coastal erosion and sea level rise	Public Works Department	Note 2
5	Forest and wild fires	Forest Department, Fire Service	Note 2
6	Risks for human health	Department of Medical & Public Health Serv.	Note 2
7	Land desertification	Department of Environment	Note 2
8	Risks for water resources	Water Development Department	Note 1
9	Risks for biodiversity	Department of Environment	Note 1
10	Risks for Energy Supply	Energy Regulation Authority	Note 2
11	Marine pollution	Department of Fisheries and Marine Research	Note 2
12	Cyber risks	Office of Electronic Communication and Postal Regulations	Note 2

Note 1: The Department conducted the risk assessment itself

Note 2: The Department provided the information for the final risk assessment, which was outsourced

Every competent authority (Ministry/Department/Service) has its own experts in their field of expertise. Furthermore, when deemed necessary, tenders are invited for the provision of services of expertise, in order to gather and systematize the knowledge within the Department and conduct a risk assessment.

For the first risk assessments, conducted during the last few years, there has been no revision of the responsibility for their preparation. However, such revision is not excluded if the field of expertise of a Department changes or if a new organization is formed, as for example the Energy Regulation Authority or the Office of Electronic Communication and Postal Regulation, which were created only in the last few years.

The experts who carried out the first national risk assessment included eighteen academics and doctoral professionals, from a variety of discipline fields. One of the terms of the contract, where risk assessment was outsourced, was to have experience in conducting risk assessment at a national level. This procedure included all risks except the following which were conducted by the relevant authorities and only a summary of them was included in the relevant report to the European Commission: Earthquake, tsunami, floods, marine pollution and cyber risks.

***Question 6**: Are the experts responsible for the risk assessment(s) adequately informed, trained and experienced in the assessment of risks?*

Explanation: Describe if and what kind of training is available for experts, the level of experience of experts, and which technical expertise and tools are used and considered necessary in carrying out risk assessments.

Some of the first risk assessments in the Republic of Cyprus, in the 2010s, were outsourced: Flood risk, climate change, cyber risk. Some other risk assessments were done in-house: for example the risk assessments for earthquakes, tsunamis, marine pollution. For the risks outsourced, the relevant ministries/departments had the expertise to follow the work during the tender period but were unable, for various reasons, to conduct it themselves. For the risks done in-house, the experts have doctoral degrees and relevant work experience in their field of responsibility. Therefore, all experts responsible for risk assessments are considered to have the necessary background, training and experience required.

There is no official governmental training in the Republic of Cyprus concerning risk assessment. A methodology for carrying out risk assessments, though, is in place. However, this methodology is not yet official and compulsory, as the experts are allowed to use their own methodology, as far as it is based on a nationally or internationally recognized one. Besides, other methodologies, like the European Committee Guidelines and ISO 31000, are available and in place.

Other Stakeholders

The capability to assess risks depends increasingly on the involvement of various public and private stakeholders. Entities carrying out risk assessments may cooperate with a range of stakeholders, including from the private sector, academia and other government entities not directly involved in the assessment process.

***Question** 7: Are relevant stakeholders involved in the risk assessment process?*

Explanation: Describe the range of relevant stakeholders involved in the risk assessment process. These can include academia, research organisations, the private sector, as well as government authorities not directly contributing to the assessment process, including from other Member States or international organisations. Member States could underline any lessons learnt that could be shared.

Some government departments conducted their risk assessments in-house (for example the Geological Survey Department and the Department of Fisheries and Marine Research). Their risk assessments were based on theoretical knowledge and vast experience concerning their field of expertise.

Some other government departments outsourced their risk assessments, for example the Water Development Department, the Department for Environment, the Civil Defence and the Office of Electronic Communication and Postal Regulation. The necessary information for carrying out the assessment was provided by a host of other involved government and semi-government departments.

Academia was involved in the risk assessment process that was conducted together by the Civil Defence and the Environment Department. For example, the Agricultural University of Athens was one of the associates of the group that succeeded in obtaining the contract for carrying out the risk assessment. In addition, at the preparation phase the academia, especially the Technological University of Cyprus and the European University were consulted. Other research establishments, like the Cyprus Institute, provided the available climate change models for the Eastern Mediterranean. In addition, the Oceanographic Centre of the University of Cyprus provided data for the sea level rise provided by its marine based sensors at different locations of Cyprus.

The outsourced risk assessments were conducted by private research companies based in Cyprus, Greece and other European countries. Besides that, the private sector was not actively involved in the risk assessment process. Due to the latest changes that were implemented through different privatization acts, especially in the marine sector, future risk assessments are expected to invite the participation of the private sector.

The Cyprus Civil Defence received know how through various European countries before proceeding with outsourcing the risk assessments. Valuable information was derived as regards the methodology and practice of the government of the Netherlands, which were transferred to the Cyprus Civil Defence through an exchange of experts in 2012. In addition, elements of the British methodology and practice were transferred to the Cyprus Civil Defence through electronic communication. As a result, a Cypriot methodology was created based on these data. However, this

methodology was not adopted officially as a national methodology and the successful tenderers were free to propose any international or national (in other Member States) methodology. For example, as regards the climate change risk assessment, the British methodology was used by the successful tenderer and accepted by the Cypriot competent authorities.

Information & Communication

The assessment of risks requires effective information and communication systems. Understanding the required administrative capacity to communicate the results of risk assessments and its relevance to an overall risk communication strategy can help improve information sharing, data sharing and communication with relevant stakeholders.

***Question 8**: Is the necessary administrative capacity available to communicate the results of risk assessments to the public?*

Explanation: Detail how the communication with citizens on the dissemination of risk assessment results is organized.

At the moment there is no official communication strategy to communicate the results of risk assessment to the public, nor is there one entity centrally coordinating the assessments and their dissemination. Each Department conducting risk assessments is responsible for their dissemination to the public. The results of the risk assessments were disseminated to the relevant Departments, for them to promote the appropriate administrative/legislative measures required. Furthermore, the relevant Departments have uploaded the risk assessments to their websites, making them accessible to the public. The summary of the risk assessments that have been uploaded in the Civil Defence website is in English.

In addition, several Departments have organized a number of information events both in the capital, Nicosia, as well as in other cities of the island. The events were also attended by journalists who publicized them and requested interviews with relevant stakeholders.

The adoption of some measures to manage risks identified in the risk assessments might be delayed due to the current financial climate and budget restrictions for the time being, but they are included in the strategic plans of the Departments for the period 2017-2020, for action to be taken. Other measures that require fewer funds or for the adoption of which there are funds available are being promoted.

***Question 9**: Is the necessary administrative capacity available to communicate internally the results of risk assessments, including scenarios, lessons learnt, etc.?*

Explanation: Describe how the information flow is organised between different public authorities and different levels of administration.

It is considered that the administrative capacity within authorities which carried out the assessments is adequate and functional as all Departments are staffed by experts on their respective fields with substantial experience.

As regards the Cyprus Civil Defence, which was responsible for submitting the summary of the risk assessment reports to the Commission in 2015, officers have been assigned the duty to review the report and include it to the different stages of training. The report was sent to different governmental and semi-governmental departments for them to be informed and take any measures deemed appropriate and it was sent again for the purpose of receiving answers to different questions concerning the present study (capability assessment).

Risk assessment reports were not fully utilized yet, however, plans to do so are in place i.e. it is possible that legislative changes may need to be promoted due to the risk assessments by some Departments. Risk assessment is a relatively recent development in Cyprus, however due to the impetus given (including through EU Directives) it is expected that the risk assessment culture will grow in the public sector, initially, and that it will then extend to the semi-governmental and private sector.

***Question 10**: Are the results of risk assessments integrated in a risk communication strategy? Explanation: Describe how the dissemination of risk assessment results available to the public is included in a national and/or sub-national risk communication strategy.*

No risk communication strategy is yet in place in the Republic of Cyprus. A risk communication strategy will be prepared by the Civil Defence and will be sent for consultation to the relevant Departments; if it is agreed on, it will be implemented. The risk communication strategy is expected to include the following:

Information needs to be provided to the public concerning the cases where scientific facts are available as well as where scientific scenarios are uncertain at this stage. The following elements need to be considered when the information strategy is decided on:

• Explanation of the risk assessment process and results. This will include all risks assessments that took place in the Republic of Cyprus by different governmental departments.

• Incorporation of different strategies with which to make the produced knowledge accessible to the various target sub groups within society. The risk communication strategy that will be adopted will take into consideration the different ways that various groups interpret science.

• Accounting for differing concepts of an 'acceptable' level of risk. A risk communication strategy should involve measures to ensure that the public will be adequately informed about the positive and negative outcomes of a development (risk-benefit analysis). This will assist the public to express their personal opinion on the subject. This will also enable the provision of information about general policies leading to decisions to be made.

• In terms of incident management, this means maximizing appropriate public behavior and minimizing inappropriate public behavior.

Methodology

Question 11*: Has the national or sub-national entity developed a methodology for risk assessment? Is this methodology laid down or published and what are the key elements of this methodology?*

Explanation: Describe the national or sub-national approach to risk assessment (risk-by-risk, scenarios, real life examples, generic), describe the methodology used to analyze possible impacts, the methodology to calculate probabilities, the considerations or methodology to prioritize and to discard risks, describe if risk assessments are reviewed and within which time frame, if the methodology is compiled in a document, if the risk assessment methodology is disclosed and to whom, if any of the information in the risk assessment is accessible to the public.

A national methodology has been developed and provides for the identification of risks, the building of scenarios, the calculation of probabilities and assessment and the creation of a national risk matrix. The Civil Defence has sent the methodology to various departments and has received recommendations for improvements, which are being processed. So far, the Departments have maintained a positive attitude towards the methodology, however the procedure has not yet been finalised. As a result, this methodology has not been officially approved yet and is not yet accessible to the public; it will be accessible once it is officially adopted.

As regards the methodology to analyse possible impacts, for every criterion the impact is measurable using five categories as follows:

Limited impact
Substantial impact
Serious impact
Very serious impact
Catastrophic impact

Usually the threshold is the category E, based on an ABCDE scale; E therefore means the category for the maximum estimated disaster and is 1/5 (1/5 of the territory, 1/5 of the population influenced, 1/5 of GDP, etc.). For the calculation of probabilities, the following categories are used (% probabilities per 5 year period):

<0.05	Very improbable
0.05-0.5	Improbable
0.5-5	Could occur
5-50	Probable
50-100	Very probable

As regards the first national risk assessment of Cyprus, tenderers were free to use their own methodology, as long as they described it in detail and it was approved by the Civil Defence. The successful tenderer used the British methodology with elements from the Committee Guidelines. The same condition was included in the public procurement procedure used for the second risk assessment that Cyprus is conducting.

The report submitted to the European Committee in December 2015 was prepared on a risk-by-risk basis. The risk assessment will be reviewed within the timeframe set by the Commission, i.e. every 3 years after the initial report (until the change in the legislation takes place).

***Question 12**: Has the cross-border dimension of risks been integrated in the risk assessments?*

Explanation: Describe which risks assessed include a cross-border dimension and the extent to which this cross-border dimension is included in the risk assessment (e.g. scenario building). Where relevant, Member States could describe the nature of their cooperation with other Member States in carrying out risk assessments with a cross-border dimension.

Cyprus is a relatively isolated island in the Eastern Mediterranean as regards the other EU Member States. The only EU Member Cyprus shares marine borders with is Greece. The only sectors that are affected at this point are those of ports and airports. No cross border effects were considered for the 1st National Risk Assessment, however marine pollution from neighboring countries (non EU states) is considered in the 2nd NRA.

***Question 13**: Is infrastructure included in the assessment of risks?*

Explanation: Identify which types of critical (both national and European) infrastructure is included in the development of scenarios and the assessment of the risks. These can include, inter alia, roads, buildings, dams, rails, bridges, satellites, underground systems, cables, hospitals, shelter facilities.

Some types of critical infrastructure were examined in the first national risk assessment. More specifically, the possibility of disruptions in the provision of electricity produced by electricity power stations was identified as a risk and examined in a risk assessment study which included the phase of developing scenarios and assessing risks for some types of disasters (whether they would be capable of maintaining the production of electricity or not during the disaster and the level of damage they would sustain). The relevant risk assessment study was "risks for energy supply".

Other infrastructure was examined as sectors in other risk assessment studies (no individual study was assigned to critical infrastructure). More specifically, the ability of potable water pumping stations and sewerage treatment units to sustain damage and how their operation would be affected was examined in the risk assessment studies for earthquakes, tsunamis, risks for human health, risks for energy supply and coastal erosion and sea level rise. Similarly, risks for the general building stock were also examined under the above mentioned risks. Archaeological sites were also mapped for the risk of flooding.

Information and communication technology

Question 14*: Is relevant ICT infrastructure available to carry out risk assessments?*

Explanation: Describe what kind of infrastructure is available to carry out the risk assessments, which can include ICT tools, satellites, etc. Member States could describe ongoing research for the development of new ICT infrastructure to support the assessment of risks. In the event that infrastructure is shared with other countries, Member States could also describe the type of cooperation in place (e.g. satellite imagery).

GIS mapping facilities were used in cooperation with another member state, Greece (MARATHON organization). There is also ongoing cooperation with the Technical University of Cyprus, which undertakes the training of the users of the system for GIS.

This tool will not only be used as an auxiliary element in risk assessment and mapping, but it will also be used at different phases of risk management like modeling of propagation, prevention and command of incident control. These models are often used in the case of forest and wilderness fires and floods.

The Water Development Department used the system LIDAR during the aerial mapping of areas considered to be at risk of flooding.

***Question 15**: Is appropriate information and data (including historical data) available to carry out risk assessments?*

Explanation: Describe what sources of information and data are used and whether databases exist to carry out risk assessments. Member States could describe new developments which are under way to improve the collection of data and information.

As regards the existence of information and data, this varies according to the different types of risks. More specifically, as regards earthquakes, pandemics, forest fires and floods there is an abundance of data, as they have been well documented. As regards forest fires, however, the data kept in the past decades was not sufficiently analytical, something that has now changed as a map concerning fire risk has now been developed.

As regards other risks like tsunamis, there is lack of data due to their rare occurrence; similarly, there is a lack of data for recent risks such as that of desertification and biodiversity loss. For other risks there are mixed and often insufficient data (i.e. for the public health related risks and energy supply).

Within the implementation of the Sendai Framework for Action the relevant departments have been asked to gather data concerning disasters and disaster related losses from 2005 onwards. It is difficult to gather these data since 2005, as some files have been destroyed. It is expected that the requirements of the Sendai framework will highlight the need to keep data in the Republic and will assist the efforts of assessment and management of risks.

Financing

Financing comprises the overall identification, estimation and reservation of funds required to carry out and update risk assessments.

***Question 16**: Is the appropriate financial capacity available to carry out and update work on risk assessments?*

Explanation: Describe if financial resources are available to develop risk assessments and ensure the update of existing assessments.

As Civil Defence is a government Department, it relies on the national budget for funds. As regards risk assessment, a provision through the yearly national budget has been included. The annual budget for 2019 is expected to be approved at the end of 2018 and the Departments will be informed at the beginning of 2019 if their budget has been approved as it was submitted or if and which alterations have taken place.

The Civil Defence expects that at least for some risks (especially those for climate change, flooding and cyber risks) outsourcing will be necessary, however part of the work will be conducted by qualified experts within the relevant departments. The completion and submission of the report will be conducted by the Cyprus Civil Defence.

Coordination

A risk management structure assigns clear responsibilities to all those involved in the risk management planning, so that overlaps or mismatches between responsibility and capability are avoided.

***Question 17**: Are clearly defined responsibilities and roles/functions assigned to the entities participating in the planning of risk prevention and preparedness measures?*

Explanation: Describe on which basis responsibilities for the planning process are distributed within the administration, if this basis or the corresponding procedures are documented in writing (e.g. in legal texts), if overlaps or needs exist, how these are addressed, and if the cross-sectorial dimension is covered.

The responsibility for prevention and preparedness measures are distributed among different departments, belonging to different Ministries. To be more specific, the Civil Defence is under the Ministry of Interior and is responsible in assisting the other services to deal with large scale disasters, as well as to ensure the wellbeing of the population (for example if evacuations need to take place). The Medical and Public Health Services belong to the Ministry of Health and are responsible for treating the population, while the Fire Service belongs to the Ministry of Justice and is responsible for dealing with fires in urban centers and floods. The responsibility for forest fires lies with the Forest Department that belongs to the Ministry of Agricultural Development and Environment.

The legal documents defining responsibilities of each department are the different laws and regulations of government departments; also, the plans for coping with different types of risk are also handled by the different Departments according to their responsibilities. From this point of view, the roles and functions of the different departments concerning risk prevention and preparedness are clearly defined. In case of a large scale incident, the state of “civil defense” can be declared, in which case the Minister of Interior takes over intervention efforts, to coordinate all stakeholders, through the Civil Defence. However, since the Civil Defence Law in 1996 and its Regulations in 1997 were adopted, no such state has been declared.

Question 18: Are the responsibilities to plan for specific risks ensured and regularly assessed?

Explanation: Describe how the responsibility to plan for specific risks is ensured, if there is a process in place to assess the allocation of responsibilities for specific risks.

The overall responsibility to plan for specific risks is included in a master plan named 'Zenon' National Plan. Each one of the twenty two national plans is assigned to a specific Ministry/Department. In this sense, the responsibility to plan for specific risks is allocated. This allocation through a master plan is a fairly recent development (it was approved in 2013) and therefore has not yet been assessed nor is it deemed to be due an amendment.

The responsibility for specific risk assessments will be done by the responsible Department/Ministry, while another will be outsourced and the government Departments/Ministries will be called upon to provide the necessary information and feedback. The overall responsibility for the risk assessment rests with the Cyprus Civil Defence, except regarding specialized risks, such as floods, cyber and climate change related risks.

Expertise

Methodologies for workforce planning should be in place so that optimal staffing is ensured. The experts tasked to carry out the risk management planning should have the necessary information and receive adequate training.

***Question 19**: Are sufficient experts available to carry out the planning of prevention and preparedness measures based on the identified risks in the risk assessment?*

Explanation: Describe which entities or departments participate in the planning process, how they are identified/ selected, if the staffing is considered to be adequate.

The involved Departments have specialists in their field of expertise, as this is a requirement for the hiring procedure, based on the respective schemes of service (i.e. the Department of Forests hires personnel with a degree in Forest Management etc). As a result, the personnel of these Departments is capable of understanding the implications of the risk assessment studies and how to manage these risks. Not all of these experts, however, are capable of carrying out risk assessments. In the case of Departments that are unable to conduct a risk assessment in house, outsourcing is used.

The Departments produce risk assessments and manage the risks, including by producing intervention plans, concerning their field of responsibility. Indicatively, the following Department/Authorities will participate in for the second NRA

Risk	Department
Earthquake	Geological Survey Department
Tsunami	Geological Survey Department
Flooding	Water Development Department
Sea level rise	Public Works Department
Forest fires	Forest Department
Wilderness fires	Fire Fighting Department
Pandemics	Medical and Public Health Services
Adverse weather conditions	Department of Meteorology
Water shortage	Water Development Department
CBRN incidents	Department of Labor Inspection
Provision of power	Energy Regulation Authority
Marine pollution	Department of Fisheries and Marine Research, Department of Commercial Shipping
Cyber security	Office of Electronic Communication and Postal Regulations
Interruption of ports' and airports' services	Civil Aviation Department, Ports Authority
Massive influx of refugees	Asylum Service
Horizontal matters	Civil Defence

***Question 20**: Is there effective training available for the experts at different levels responsible for the planning of prevention and preparedness measures?*

Explanation: Describe if and what kind of training is available for experts carrying our planning activities.

Some training is available within most governmental departments, within their fields of expertise, concerning their daily duties. There is no training available at a strategic level for the management of risks and no such training has been organized centrally by the government. The Departments need (more) risk experts at different levels, to address different disciplines.

***Question 21**: Are the experts involved in the planning of prevention and preparedness measures informed about the overall policy objectives/priorities related to disaster risk management?*

Explanation: Describe if a risk management strategy is in place and if yes, how the objectives, priorities or processes are communicated to the experts involved in planning of prevention and preparedness measures.

There is no unified strategy regarding risk management in Cyprus as the management of different risks is the responsibility of different Departments. Instead of a unified response, there are a series of strategies concerning this issue. For example, the following strategies are in place:

-the strategy for the sustainability of the environment. The strategy includes areas like water resources, biodiversity, forests, agriculture, fisheries, tourism, energy, infrastructure, public health, coastal zones.

- the strategy for the shortage of water resources. It deals with saving water and the preservation of water sources.

- the strategy for forests, which deals with the preservation of forests, including dealing with forest fires, and the revival of rural areas.

- the strategy for cyber security. It deals with the management of cyber risks.

Besides the strategies mentioned above, there is a number of policies for specific risks including the risk of earthquakes, coastal erosion, rise of the sea level, flooding and pollution of the environment.

To manage the risks identified above, national plans have been approved for 22 different risks. They were created based on the master plan "ZENON" which was approved by the Council of Ministers.

Experts are informed about their Department's priorities and strategies as these are the guiding principles for the measures that are taken to deal with these risks. Events are also organized to disseminate knowledge about the risks each Department faces, which ensures that experts from other Departments are informed about actions and targets which affect their own Departments' policies.

***Question 22**: Is there a process in place to ensure that the knowledge of experts tasked with the planning of prevention and preparedness measures is preserved and further developed?*

Explanation: Describe how knowledge is shared among the experts involved in the planning process, how it is ensured that knowledge is preserved.

Each Department assigns duties to several people, thereby ensuring that if restricted staff changes take place then the knowledge will remain in the organization. In addition, the people dealing with specific issues are usually those that are asked to represent the Department in EU meetings/trainings, thereby ensuring that their knowledge is further developed. However, this procedure occurs in place with financial restrictions which means that the Departments cannot send experts to trainings if the cost is too high etc., as well as that often some people need to be moved from one Department to another, which means that part of the knowledge on a specific issue is lost.

In addition to the above, the Departments hold events which representatives from other Departments attend to discuss specific changes that will be promoted/have been implemented, so as to ensure that the cooperation between governmental Departments is maximized.

Lastly, the strategies that have been developed are publicized on the web both for the purpose of conducting a public consultation (before they are approved) as well as for ensuring that knowledge reaches the people that require that information.

Methodology

The national or sub-national entity should have developed a methodology to carry out risk management planning for expected impacts of identified risks which are assessed according to a methodology developed and accordingly prioritized.

***Question 23**: Do the different responsible entities have methodologies developed for risk management planning? What are the key elements of these methodologies?*

Explanation: Describe the national or sub-national approaches to planning, describe the methodologies used to develop prevention and preparedness measures and to analyze their possible impacts on risk mitigation

A national methodology was developed for conducting risk assessment. The key elements of this methodology are:

The creation of scenarios
The calculation of the probabilities of a risk to materialize
The calculation of the expected impact at different probability levels
The construction of a national risk matrix (probability and consequence axes)

The national methodology is not compulsory, as it has not been officially approved yet. The experts called upon for risk assessment are generally outsourced and they are free to use their own methodology, provided it is explained and agreed upon with the relevant Department.

As regards the management or risks, no "methodology" is in place. What has happened is that the Civil Defence prepared guidelines for the creation of risk management plans and a National Master Plan "ZENON" has been approved by the Council of Ministers. Based on this plan, and following the approved structure, several other management plans have been created and approved. The plans that have been created under ZENON and are the Civil Defence's responsibility will be revised. Revised plans will take into consideration the results of the risk assessment, where applicable, so as to quantify the needs and actions to be taken. The plans provide for their evaluation/improvement every year.

***Question 24**: Do methodologies for risk management planning include the identification of infrastructure relevant for the mitigation of identified risks?*

Explanation: Describe how relevant infrastructure is identified, how its condition with view to the mitigation of risks is assessed, if a list of relevant infrastructure is compiled and regularly reviewed, if investment needs are identified.

The present methodology for risk assessment does not include recognition of national critical infrastructure as critical infrastructures have not been declared national. Despite this, the relevant Departments, in cooperation with Cyprus Civil Defence, have identified the infrastructures they consider critical (hospitals, dams, power stations, motorways, bridges, ports, airports etc) and, for some of them, plans for management of risks have been produced.

A separate procedure for the recognition and characterization of national infrastructure has been finalized.

Other Stakeholders

The capability to manage risk increasingly depends on the involvement of and cooperation with various public and private stakeholders, such as disaster risk management agencies, health services, fire services, police forces, transportation/electricity/communication operators, voluntary organizations, citizens/volunteers, scientific experts, the armed forces, or organizations in other Member States.

***Question 25**: Are the relevant public and private stakeholders informed and involved in the planning process?*

Explanation: Describe the approach to public/private stakeholder involvement, which kind of stakeholders contribute to the planning process and any lessons learnt that could be shared.

In the process of planning, government and semi-government organizations are involved. For every plan for coping with possible disasters, an organization is the leading entity and assigns roles to other organizations, depending on their responsibility. The stakeholders have the opportunity to comment on their role and refine their involvement in the planning process.

Private stakeholders are involved in planning for Seveso III cases. In such cases, private stakeholders have to make internal plans in cooperation with the Department of Labour Inspection and external plans in cooperation with the Cyprus Civil Defence.

In addition, private stakeholders and/or NGOs are included in the planning procedure and are called to participate in exercises and/or real events (e.g. the Red Cross for the care of asylum seekers- management of migratory flows, the Scientific Technical Chamber for the plan regarding the response to earthquakes etc).

Strategies are generally submitted to public consultation, including through the internet, prior to their approval. However, the management response plans are restricted and therefore not subjected to public consultation, as they contain sensitive information.

***Question 26**: Are any of the risks identified in the risk assessments shared with public or private companies, and if so, how is it ensured that the planning of prevention and preparedness measures by the public and these companies is encouraged?*

Explanation: Describe the interaction with partner organizations in the planning process, if and which agreements are in place to encourage sufficient quality, how do the prevention and preparedness measures planned by these organizations indeed contribute to the expected risk mitigation.

The risk assessment report submitted to the European Commission is available on the internet. Parts of the body of the report are also available for public knowledge. Other parts of the body of the assessment, however, contain sensitive information and their circulation is limited within government departments. The Cyprus Civil Defence and other Departments that have conducted risk assessments have also organized public events for the dissemination of the risk assessment and these were sometimes also publicized in the media. In addition, a strategy as regards climate change and another for the management of floods was produced, which are again available to the public through the relevant department websites. Lastly, the Civil Defence is continuing to inform the public through informative material regarding common risks (e.g. floods, earthquakes etc), while it also cooperates with the Ministry of Education and Culture to inform pupils regarding risks.

Despite the above, an information strategy for risks has not been produced and targeted actions for companies have not yet been promoted. Lastly, it should be mentioned that two universities were also involved in planning and/or conducting the risk assessment, which is believed to have helped ensure the level of quality for the risk assessments. The risks are common for the island and, therefore, no specific companies were targeted to alert them for the existence of this information. However, the Water Development Department has produced and publicized the areas most at risk from floods and this information featured in articles and the TV, while it was also sent to the municipalities and communities that were identified as being at risk as well as to the relevant authorities, thereby ensuring that the information reached the communities and the population at risk.

In addition, the quality of planning is ensured through three different ways:

The guidelines for producing risk assessments, prepared by the Cyprus Civil Defence

The Master Plan “ZENON” which was approved by the Council of Ministers and which assigns responsibilities for planning/responding to disasters

The fact that the specific plans for responding to disasters have to be approved by the relevant ministers.

***Question 27**: Are the national or sub-national entities involved in cross-border planning of prevention and preparedness measures?*

Explanation: Describe in which cross-border planning actions these entities recently participated, if concrete arrangements for further cooperation resulted from this joint planning process (e.g. memoranda of understanding or service level agreements) as well as any experiences or lessons learnt that could be shared.

Cyprus is an isolated island in the Eastern Mediterranean and has no border with EU Member States. It only has marine borders with Greece and several third countries like Turkey, Syria, Lebanon, Israel and Egypt.

The Republic of Cyprus has signed memoranda of understanding with Greece and Israel, for cooperation in the domain of civil protection and with Lebanon for mutual assistance in the case of forest fires.

Information & Communication

The management of complex risks requires effective information and communication systems for risk management planning of the prevention and preparedness measures. National or sub-national entities therefore need to ensure that they have rules and procedures in place that allow for information sharing, data sharing and communication with various stakeholders.

***Question 28**: Are relevant stakeholders, including citizens, informed about the key elements of risk management planning?*

Explanation: Describe how the information flow between different public and private stakeholders and between different levels of the administration is organized to ensure that the relevant stakeholders are aware and able to contribute their knowledge. Member States could also detail how the communication with citizens on the planning of certain prevention and preparedness measures is organized and any lessons learnt that could be shared.

Different government and semi-government departments and involved non-government organizations are informed about the key elements of risk management planning. Citizens are not generally involved in the planning procedure. However, they are aware that different plans exist. Despite the above, as regards Seveso installations, a public consultation takes place and the citizens are informed of the risks and measures they should take to protect themselves. In addition, depending on the plan and where applicable, relevant business organisations and partners are informed and their opinion is taken into consideration.

The sharing of information about the planning procedure is effected in three ways

The different government and semi-government departments are consulted about their role right from the initial stages of planning

They have the final blueprints of the specific plans

They take part in table top and field exercises

As regards the plans for Seveso III, information is provided to the public regarding measures they can take to protect themselves.

Equipment

The part of the technical capacity assessment evaluates if equipment necessary to plan prevention and preparedness measures is available. This could be software tools to support the planning process.

***Question 29**: Are equipment and tools needed to support and/or carry out the planning of prevention and preparedness measures available?*

Explanation: Describe if and which equipment and tools are available, if there are any further needs, mismatches and/or overlaps.

The relevant services have the necessary hardware and software to bring about their mission. For example, the Fire Service owns ground and aerial means for extinguishing rural, forest and urban fires as well as for search and rescue. The Department of Forests has ground and aerial means for extinguishing forest fires. This Department has also developed software, with the co-operation of the academia as partners, for the monitoring of the progress of fires. The Department of Geological Survey owns seismology stations and the seismology center to record earthquakes that take place in and around Cyprus. Their data are transferred telemetrically.

In addition to the above, the Meteorology Department owns a telemetric system of automated meteorological stations and a network of meteorological radars. The Department of Fisheries and Marine Research owns boats, sea barriers, pumps etc. to manage sea pollution. The Civil Defence owns equipment for search and rescue and area observation with UAVs.

In general, every service owns the necessary equipment in order to fulfill its mission. The gaps in equipment include obtaining floating means for extinguishing fires as well as mobile control and command centers. Some services are in need of vehicles and other equipment and are trying to find the necessary funds through the governmental budget, taking into consideration the financial restrictions that the latter poses. In addition, the need to obtain more aerial means, among other equipment, for firefighting has been identified and a request for information about possible funding from the EU has been submitted.

Financing

Financing comprises the overall identification, estimation and reservation of funds regarded necessary to meet potential financial obligations from the management of risks (financing of prevention and preparedness measures) resulting from the prioritization of risks. It also includes the participation of stakeholders in the financing of risk management where appropriate.

***Question 30**: As part of the planning process, are financing needs for the implementation of prevention and preparedness measures estimated and possible sources of financing identified?*

Explanation: Describe if a methodology exists to estimate financing needs, which sources of financing are identified, if European funding will be or was sought.

The financial needs for prevention and preparedness are identified through the strategic programmes of the Ministries and the strategic targets that are set by the former. The budget of each service is produced through the service's strategic planning which is also linked to its relevant Ministry.

Due to the fact that Cyprus has requested and received financial support from the EU, the financial data and indicators allow only limited approval of financial requests. Funds from European Programmes are used, when they are available, through the Directorate General for European Programmes, Coordination and Development. As regards Civil Defence, the European Programmes which are used at this point concern the use of new technologies for the prevention and preparedness as well as procedures that take into consideration the rescue and restoration of cultural heritage.

In addition, the Civil Defence has submitted a proposal for funding under the Solidarity Funds to improve its preparedness capacity as regards the sudden influx of refugees. The proposal includes the co-funding of vehicles and a mobile command and control centre, among other things.

All Departments have stated that the available funds are enough for their day to day function, however, all Departments also state that these funds are inadequate for prevention and preparedness measures on a Pancyprian basis in case of an emergency of large proportions. For such cases the Ministry of Finance will provide an extra budget to the Departments.

***Question 31**: As part of the planning process, are future investment plans and the possible role of private sector financing considered?*

Explanation: Describe if and how the planning process helps to identify future investment priorities, how far private organizations are involved in this process, if cooperation with the private sector is sought for the financing of prioritized investments.

Currently the financial incentives to the private sector in Cyprus concern alternative means of energy supply. No incentives for the prevention and preparedness as regards risks are in place yet.

***Question 32**: As part of the planning process, are procedures or plans identified or established ahead to ensure financing is in place for the prevention and preparedness measures needed to mitigate the identified risks?*

Explanation: Describe how budgetary and legal questions related to flexible resource allocation are treated in the planning process, if concrete measures are taken or launched that allow for flexibility, if legal or political barriers to such an approach exist.

Financing is planned on a yearly basis, based on the strategic goals of every Department. In special cases, arrangements are in place for planning ahead (3 years beforehand). General prevention and preparedness policies, presided by the Civil Defence, are not yet in place, as the formation of a risk management platform is pending. Prevention and preparedness measures that are the responsibility of the different government departments are included in their yearly budget. Likewise, the Civil Defence implements prevention and preparedness measures, without, however, having adopted an official strategy for doing so, other than what is already its duty based on the relevant legislation.

There are no legal or political barriers to the approval of financing for such actions. There also exists the possibility of the flexible use of financing. If an article of the yearly budget does not exhaust the maximum allocated amount, funds can be transferred, with the permission of the relevant Ministry to similar cost centers.

Strategy/Policy/Methodology

The national or sub-national entities have developed approaches to carry out risk prevention and preparedness measures. Expected impacts of planned prevention and preparedness measures on risk reduction are assessed and measures accordingly prioritized and adapted.

***Question 33**: Is the implementation of prevention and preparedness measures linked to the risk management planning? Is it part of a strategy or policy and was a methodology defined?*

Explanation: Describe the national or sub-national approach that links the planning process to the implementation of measures, describe how the implementation is carried out, how the resulting impacts on risk reduction, adaptation and mitigation are analyzed and fed back into the planning and risk assessment work with due regard to coherence with existing prevention and preparedness measures on adaptation to climate change impacts where available.

The different government departments adopt prevention and preparedness measures according to their area of responsibility. For example, the Department of the Environment has established a strategy for adapting to climate change, after the completion of their relevant risk assessment. Similarly, after their relevant risk assessment, according to the EU Floods Directive, the Water Development Department is studying flood prevention measures. The Civil Defence has completed the risk assessments as well as the plans for managing risks and is now in the process of revising plans to ensure their compatibility with the results of the risk assessments.

A national strategy for prevention and preparedness encompassing the different policies of various government departments is still pending. There is, however, a Ministerial Group for Managing Risks that has been assigned the task of dealing with the management of disasters including through the masterplan “ZENON”.

***Question 34**: Are methods for damage and human loss reporting developed and are the costs of damages estimated, documented and stored?*

Explanation: Describe which methods for damage and human loss reporting are developed, if this data is shared with stakeholders and citizens, if stakeholders contribute to the damage reporting and/or to the estimation of costs, if the damages are regularly or occasionally documented and stored, what time period is covered and if these reports are made available to the public.

The different competent authorities of the Republic of Cyprus record and document the damages caused after the impact of a disaster. The details of these records are documented at the discretion of the responsible department, as there are no specifications in place as to the method of recording. Assets that have been destroyed are written off and the Ministry of Finance is informed, while requests to repair damages, if the funds are not available in the Department's budget, are also submitted to that Ministry. Also, the responsibility of documenting may belong to different departments, e.g. the area of agricultural land burnt may be recorded by one department, the loss of life by another, while compensations to the affected citizens by a third department. There is no central recording of the effects of disasters yet. This is considered as one of the main elements of risk management to be discussed by the risk management platform under formation. Old records are kept by some departments. However other departments delete their records every 10 years, as the regulation is now, or send their records to the National Archives, if considered important enough to be kept. Records are not publicized for the use of the public or even other government departments but are generally available on request.

Coordination

A risk management structure assigns clear responsibilities to all entities involved in the implementation of prevention and preparedness measures so that overlaps or mismatches between responsibility and capability are avoided.

***Question 35**: Are clearly defined responsibilities and roles/functions assigned to the entities participating in the implementation of risk prevention and preparedness measures?*

Explanation: Describe on which basis responsibilities for the implementation process are distributed within the administration, if the corresponding procedures are documented in writing (e.g. in legal texts), if overlaps, further needs and/or mismatches exist, how these are addressed, and if the cross-sectorial dimension is covered.

The responsibilities and roles/functions of the different departments emerge from their respective laws and regulations. As there is no central policy yet, regarding the prevention and preparedness measures, the cross sectorial dimension is covered by the plans of action for the different catastrophes.

In addition, according to the Masterplan "ZENON" and the plans that are derived from it, for each possible disaster the different services that will respond are documented, as well as the tasks that they will undertake, while exercises, at defined periods, also take place to test these plans so as to ensure that preparedness levels are adequate. The Plans also oblige the different Departments to take prevention and preparedness measures.

For example, the Water Development Department is studying measures to prevent floods in different parts of the island, while the Department of Environment has established an adaptation strategy as regards climate change, which includes both prevention and preparedness measures.

Expertise

Methodologies for workforce planning are in place so that optimal staffing is ensured. Staff performance management tools are in place, which include regular reviews of training and development needs.

***Question 36**: Is the distribution of responsibilities of experts involved in the implementation of prevention and preparedness measures up to date and are sufficient resources available to implement prevention and preparedness measures based on the planning process?*

Explanation: Describe which entities (e.g. departments, agencies) participate in the implementation of measures, how these entities are identified/selected, which competencies of personnel are considered when the responsibilities are distributed, if the staffing is considered to be adequate.

Every government Department is responsible for the establishment of prevention and preparedness measures in their respective field of expertise. The Departments are also responsible to ensure that the persons involved are adequately trained as well as to ensure that they allocate appropriate duties to the relevant personnel. In general, the competencies of the personnel involved are examined and managed by the relevant Departments.

Since the financial crisis of 2010 there is a general moratorium in the hiring of new personnel by the government of Cyprus. This moratorium is slowly being lifted. For this reason, almost all government departments claim that they are understaffed due to the retirement of personnel of over 65 years of age and also due to extra duties that pop up as a result of the accession into the European Union. In the last year or so the restrictions on hiring are not as strict, however the requests for hiring personnel are being examined on a case by case basis by the Parliament.

***Question 37**: Are the experts responsible for the implementation of prevention and preparedness measures adequately informed, trained, experienced?*

Explanation: Describe if and what kind of training is available for staff involved in the implementation of measures, how often the persons involved have already been involved carrying out prevention and preparedness measures, how the objectives, priorities or processes have been communicated to the personnel involved in the implementation of prevention and preparedness measures.

The experts responsible for the implementation of prevention and preparedness measures are specialists in their respective fields and trained under the responsibility of each department separately. There is no centrally organized training on prevention and preparedness. The risk reduction strategy, which will be prepared, may end up suggesting generic training for the personnel involved.

Apart from trainings, knowledge is acquired through the participation in different EU funded projects. For example, the Civil Defence experts have been involved in a co-financed European programme for the rescue and preservation of cultural heritage. A number of other government departments have also been involved, including the antiquities department, the national archives and the national gallery. Apart from the above, the Water Development Department is preparing a plan for the creation of retention dams and other infrastructure for the prevention of city floods, which is an example that this Department has enough knowledge to proceed with the implementation of necessary prevention and preparedness measures.

The experts of different Departments have also been involved in the creation of plans for managing disasters (natural and manmade). These plans are assessed through regular exercises, both table top and field. There is a Master plan for managing the effects of disasters called “ZENON” based on which 22 specific plans are in the process of being developed or have already been adopted.

Lastly, the Civil Defence has created a platform for risk reduction, in which several departments participate and which will have the mandate to promote horizontal measures for preventing and managing the effects of risks. It is expected that this platform will assist in ensuring the better dissemination of knowledge and improve the coherence of different governmental departments.

Other Stakeholders

The capability to manage risk depends increasingly on the involvement of and cooperation with various public and private stakeholders, such as disaster management agencies, health services, fire-fighting units, police forces, transportation/electricity/communication operators, voluntary organizations, citizens/volunteers, scientific experts, the armed forces or organizations in other Member States (transnational risk management). Dealing with novel risks requires therefore the building of a response network that can mobilize all required capacities across a variety of stakeholders.

***Question 38**: Are the relevant stakeholders informed and involved in the implementation of prevention and preparedness measures?*

Explanation: Describe the approach to public/private stakeholder's involvement or network management, which kinds of stakeholders contribute to the implementation of measures and any lessons learnt that could be shared.

The risk management procedure in Cyprus involves up to fifty different government, semi-government and other public organizations in the fields of health services, policing, fire-fighting, engineering, transportation, electricity, communication and other essential services.

The private sector, mainly industries that fall under the Seveso III agreement, is involved in the planning for managing technological accidents.

In the case of natural disasters only government services and other public bodies are involved. The private sector is not generally involved. Although the dynamic of the private sector is recognized, this is not yet part of the entire response/management procedure.

Governmental departments have enough experience to ensure that even in the case of new risks the departments will be able, to some extent, to respond to the effects of the disaster. Such scenarios may involve the already identified cyber risks, which are relatively new risks in Cyprus, as well as more complex disasters.

***Question 39**: Is the national or sub-national entity involved in the implementation of cross-border measures for prevention and preparedness?*

Explanation: Describe which cross-border prevention and preparedness measures are carried out, which other stakeholders are involved, if concrete arrangements for further cooperation resulted from the joint implementation of measures (e.g. memoranda of understanding or service level agreements) as well as any experiences or lessons learnt that could be shared.

Due to geographical proximity of Cyprus with the Middle East, memoranda of understanding have been signed with Greece, Israel and France, among others. These memoranda provide for the cooperation in the field of Civil Protection, for natural and man-made disasters. Since this cooperation is a relatively new one, it has mainly been tried in the case of forest and wilderness fires. However, since all countries are in seismogenic areas, it is expected that the cooperation will also be initiated in the case of a strong earthquake occurring in any one of the three countries, since the cooperation is trilateral.

All four countries are currently reinforcing their aerial extinguishing means, not only for national events but also for the exchange of aid in emergencies. In addition, due to actual cooperation in real incidents in one country or the other, all the countries have recognized the importance of improving further our cooperation so as to ensure that the mutual response to a disaster in one of the above mentioned countries is even more effective.

***Question 40**: Is the implementation of prevention and preparedness measures by these public or private stakeholders done in sufficient quality to achieve the expected risk mitigation results?*

Explanation: Are there agreements in place to encourage sufficient quality, how do the prevention and preparedness measures carried out by these organizations indeed contribute to the expected risk mitigation as well as any experiences that could be shared.

Every government department has its own program of prevention and preparedness measures and the experts to implement it. The quality of prevention and preparedness measures is assessed through the chain of command in the civil service but also the good will of the network of cooperating departments. For example, informative weeks as regards fire prevention and protection of forests, as well as TV messages are being broadcasted for public risk awareness, which are believed to be achieving the purpose of sensitizing the public to the need of protecting forests.

The way the civil service in Cyprus functions does not require agreement among the different departments. Some memoranda of understanding have been signed between government and semi government departments or other public organizations.

One of the mandates of the risk reduction platform that has been formed is to ensure the range and quality of the work of the stakeholders, through horizontal assessment.

The work done so far through the risk assessment allows the preparation of more focused management plans for some of the risks, by including quantitative data, to the extent that this is possible. Quantitative data are, of course, approximations that give an estimation of magnitude, for design purposes.

Procedures

Risk management needs to include the development of established processes in order to ensure the functioning of the risk management system. The implementation process of prevention and preparedness measures therefore needs to define procedures that contribute to the reduction of risk.

***Question 41**: Does the implementation of prevention and preparedness measures include the development of procedures for early warning, activation, dispatching, deactivation or monitoring?*

Explanation: Describe if procedures are in place, how they work in practice, if standard operating procedures are developed, for which operation these procedures are developed, any lessons learnt that could be shared.

Plans for coping with different disasters in the Republic of Cyprus include all phases of the disaster cycle: prevention, preparedness, deployment and restoration. For every plan (a total of 22) the stakeholders have to devise their specific plans. Each specific plan includes memoranda of enforceable actions and standard operating procedures. Operating procedures are also in place for actions common to different plans. Examples include fire-fighting and search and rescue.

Examples of plans that include specific plans for the different stakeholders and standard operating procedures include earthquake, forest and wilderness fire-fighting, mass movement of refugees, combating of adverse weather conditions, disruption of energy supply, disruption of communications and internet, just to cite a few.

Lessons learnt include the reinforcement of command and control centers at the three levels of command: gold, silver and bronze. The Civil Defence has a network of sirens that can be used to notify the public for different kind of risks and which can be used to broadcast pre-recorded and live messages according to the situation, among other things. There are also observatory stations in different locations in or near forests so as to spot signs of fire and inform the relevant department, as well as cameras on towers for surveillance of fires in the forest of Akamas as a pilot project. The personnel of different Departments, as well as volunteers, can be asked to be on standby in case a disaster is considered to be imminent or during specific seasons (e.g. summer for forest fires).

Information & Communication

The management of complex risks requires effective information and communication systems for the implementation of prevention and preparedness measures. National or sub-national entities therefore need to ensure that they have rules and procedures in place that allow for information sharing, data sharing and communication with relevant stakeholders including citizens at any time of the implementation of prevention and preparedness measures.

***Question 42**: Is the necessary information available and regularly exchanged inside the national or sub-national entity?*

Explanation: Describe how the information flow between different public entities and between different levels of the administration is organized to ensure that the relevant services are aware and able to contribute their knowledge.

The information network within the government of Cyprus includes

1. Exchange of information through intranet e-COOPERATION
2. Consultations in case of a new or a revised plan of action
3. Specialized meetings among stakeholders for specific subjects
4. Seminars and conferences at the end of projects, for consultation and exchange of ideas
5. Wireless backup systems of communication

The above systems do not include the public. The contact with the public is done through TV ads and notifications, the sites of the different government departments, including the Civil Defence website, as well as social media and information flyers that include mainly self-protection measures. In case of real incidents, where early warning is required, the Cyprus Civil Defence has an electronic system of sirens that can broadcast prerecorded and live messages.

***Question 43**: Are communication strategies in place, including the use of various media tools (including social media) to effectively share information with citizens to increase awareness and to build trust and confidence?*

Explanation: Detail how the information and communication with citizens before, during and after the implementation of measures is organized and any lessons learnt that could be shared.

A communication strategy for public risk awareness will be prepared. For the development of the new strategy, research, as part of a bottom up approach, will be conducted. For the time being, risk awareness is built through different internet sites, on the spot lectures to citizens on risk areas and the publication of flyers with self-protection measures. In addition, lectures are also given by Civil Defence members to other governmental services and public organizations. Last but not least, the Civil Defence has utilized its Neighbourhood Watch at different civil defence stations, where conscripts and volunteers serve, for the circulation of flyers and the collection of information.

The need for a new strategy is led by the fact that within the Cypriot society the risk awareness of the public, as measured by specific research, is relatively low, compared with that of other Member – States.

After the implementation of the new strategy, a new assessment will take place, in order to measure the results of the new campaign.

It should be noted that activities for the provision of information to the citizens for risks continue to take place. For example, the Civil Defence is continuing to inform the public through informative material regarding common risks (e.g. floods, earthquakes etc), while it also cooperates with the Ministry of Education and Culture to inform pupils regarding risks. In addition, several departments promote measures such as advertisements on TV, information weeks and other informative material. They also utilize their websites to provide relevant information to the public. Some departments edit the data they publish through the internet for public use, while keeping more detailed versions for use only by governmental departments, where this is deemed necessary. In addition, the Civil Defence has created a website under the Europa Major Hazards Agreement, which is interactive and targets teenagers aged 12-15. Civil Defence personnel also gives lectures to schools as regards risks and prevention and preparedness measures, while there is also a Civil Defence Department within the Ministry of Education and Culture.

Infrastructure including IT

This part of the technical capacity assessment evaluates if the infrastructure in place, such as roads, buildings, dams, rails, bridges, satellites, underground pipes, cables, hospitals, shelter facilities, early warning systems, etc. that is regarded as relevant for the mitigation of the identified risks fulfils certain security, safety or performance standards.

***Question 44**: Is the condition of the infrastructure relevant for the implementation of prevention and preparedness measures analyzed?*

Explanation: Describe how infrastructure that is critical with view to the mitigation of specific risks is identified, how its condition with view to the mitigation of risks is assessed, if a list of relevant infrastructure is compiled and regularly reviewed, if investment needs are identified, if the Member States have a critical infrastructure policy in place.

A program for the characterization of national infrastructure is progressing for the fields of energy, transportation, water supply and communications. The program has been concluded in mid 2018. Even though the national critical infrastructures have not been officially declared as such at a national level, the different departments have identified their own critical infrastructures and have set procedures in place so as to ensure their protection. For example, for some infrastructure, plans for managing failures in their operation are in place. In addition, the governmental departments are checked for their safety and security by the National Security and Safety Authority.

Locations for the hosting of people becoming homeless, after a disaster, have been identified. Also, Cyprus, due to its proximity to the Middle East welcomes a number of refugees and asylum seekers, mainly from Syria. For this category of people there are temporary and permanent installations in place, for short or long stay. Also there is an extensive network of shelters for the population in urban areas and sizable villages, for emergencies of a military nature.

Regarding the provision of hospital care for the injured, after a disaster strikes, the Ministry of Health has a plan to utilise all government and private hospital beds, for the worst case scenario, which is either a strong earthquake or armed clashes.

A network of highways is in place, for easy deployment of intervention forces and for the transfer of aid, in case of an emergency. At the same time, there is a secondary road system, as a backup to the network of highways.

Water supply is secured through purification plants that receive water from water dams and boreholes. An alternative supply source is four desalination plants along the south coast of Cyprus.

Two satellites of joint Cypriot and Greek ownership are in orbit and a third one is expected to be put in orbit in 2019. A back up communication system is also in place.

All the above are regularly inspected as to their compliance with set standards.

Equipment and Supplies

The part of the technical capacity assessment evaluates if the equipment for prevention and preparedness fulfils the required standards necessary to implement prevention and preparedness measures.

***Question 45**: Is there an inventory of available equipment needed to carry out the planned prevention and preparedness measures? Does the implementation of prevention and preparedness measures include the identification of possible equipment needs based on the existing inventory?*

Explanation: Describe if an inventory of available equipment and its use is compiled and kept up to date. Describe if and which equipment needs are identified in the implementation process to adequately mitigate the risks addressed in the planning process, if an inventory of available equipment is compiled and analyzed with view to its adequacy to discover additional needs or mismatches, which steps are taken to meet the needs.

There is no single inventory for the equipment necessary for prevention and preparedness. Every Department has its own inventory, used to fulfill their specific tasks. Every Department sets its own standards for their equipment, taking into consideration, among other parameters, whether the equipment can be used in the context of European co-deployment of forces. The inventories are kept up to date, a fact that is ensured by the Internal Audit Department of every Ministry and by an external auditor, the General Auditor's office.

As every Department keeps its own inventory, it is also responsible for recognizing needs for equipment to be used for all phases of a disaster cycle, i.e. prevention, preparedness, intervention and restoration. The suitability of the equipment is tested either in real incidents, if it applies, or in simulation exercises. With the contemporary pace of technological development, some equipment became obsolete during the last few years. In such cases, there are plans in place for the replacement of the equipment, with a time horizon up to 2022.

The assessment of needs is generally based on the intervention and mitigation plans for different disasters. These plans set the standards against which the need for equipment is assessed. Also, the cooperation with neighboring countries sets the threshold for considering the purchase of equipment.

A provision for the engagement of the private sector through tenders, mainly by the Forest Department and the Public Works is in place. In addition, in case a "state of civil defence" is declared, which means that the Republic is facing an unprecedented disaster which makes it difficult for the government to respond to, then the Civil Defence is allowed to utilize assets from the private sector.

***Question 46**: Are supply chain risks identified during the implementation of prevention and preparedness measures and were measures taken to reduce the risk of supply shortages?*

Explanation: Describe if and which supply chain risks are identified, how the impact of these risks is analysed, if and which measures are taken to reduce these risks, if cross-border arrangements or cooperation agreements are concluded to reduce such risks.

Some main supply chain risks have been analyzed and specific management plans concerning them have been approved. These include, for example, the interruption of the services provided by the main ports and airports, which may impede incoming assistance, the damage of the built environment in case of a strong earthquake and the interruption of communications or energy supply, which again may pose threats for incoming assistance. Other risks include the interruption of ports and airports abroad, which may affect or make impossible the procedure of importing goods in Cyprus and strikes and civil unrest within the island which may make it harder to import or transport goods all over the island.

As mentioned above, for some of these risks there are management plans in place. In addition, by law, some sectors can only strike if they leave enough personnel to perform basic duties so as to ensure that critical services are not affected (such sectors include the police, hospitals etc). As regards civil unrest, so far, demonstrations have always been controlled and did no serious damage to the economy, also because there is a consensus in Cyprus that the interests of the state and other social groups should not be seriously affected negatively by strikes from one social group. However, the possibility of extended strikes which seriously affect the state cannot be eliminated nor can the possibility that strikes or other disruptions in the services provided in ports and airports abroad will occur. These risks concerning the supply chain may affect the Republic in case of a disaster in terms of providing for example specific medicines etc. to affected people.

Technical Expertise

The technical expertise comprises the skills available and the methodologies developed for the implementation of prevention and preparedness measures. Given that technical expertise is an intangible capacity, this requirement also necessitates the safeguarding of this capacity, be it through documentation or sharing and learning.

***Question 47**: Do the experts tasked with the implementation of prevention and preparedness measures have the necessary technical expertise to ensure the adequate implementation of the measures and is ensured that this knowledge is preserved and further developed?*

Explanation: Describe which technical expertise is used and considered necessary to implement the prevention and preparedness measures, if and which technical tools are used for the implementation, if experts receive training to continuously update the knowledge to be able to adequately use the technical tools, how knowledge is shared among the persons involved in the implementation of prevention and preparedness measured, how professional development is encouraged.

Every government department is staffed with the experts necessary for the implementation of prevention and preparedness measures, but also for other phases of the disaster cycle, like intervention and restoration. For example, the Water Development Department has hired hydrologists and hydraulic engineers and their knowledge is utilized to promote measures relating to preventing floods etc. They also promote awareness as regards floods and water consumption for the public. Likewise, the fire department is staffed by firefighting officers and engineers who not only fight fires but also disseminate information regarding fire prevention and prepare relevant response plans. Similarly, the forest department is staffed by forest and other specialists who design and implement measures for the prevention of forest fires etc.

Sensitive information is shared on a need to know basis among government departments and other organizations. Seminars are organized as well as meetings for the exchange of knowledge among governmental departments.

Professional development is encouraged, either in-house or from external organizations, in Cyprus and abroad, within the limits placed by the departments' budgets.

***Question 48**: Do the experts tasked with the implementation of prevention and preparedness measures have the knowledge to apply procurement and logistics procedures to carry out these tasks and have the experts adequately been trained to apply these procedures?*

Explanation: Describe how and which training is provided to build up or develop this expertise or any other measures in place that would help to acquire this knowledge.

Every government department proceeds with procurement procedures on its own. They are obliged to follow the public procurement rules that are set by the Ministry of Finance and which set different thresholds and procedures to be followed.

Some experts do have the knowledge to apply procurement and logistics procedures but even if they do not, each Department has people dealing with these issues who support the rest of the personnel with procurement procedures.

The Treasury, the Directorate General for European Programmes, Coordination and Development as well as the Government IT Department organize, on a regular basis, relevant trainings to ensure that the personnel dealing with relevant issues is up to date with developments regarding procurement procedures.

***Question 49**: Do the experts tasked with the implementation of prevention and preparedness measures have the knowledge to do life cycle and surge capacity planning and are these methodologies applied to review the functioning of equipment and systems and to be able to increase capacity in the case of an emergency?*

Explanation: Describe if these methods are applied with view to prevention and preparedness measures, if and which training is provided to build up or to develop this expertise or any other measures in place that would help to acquire this knowledge.

Experts at different levels of management are available, in different government and semi-government departments and they plan for the life cycle and surge capacity of equipment and systems. The revision of the functioning of equipment and systems is done on a regular basis. Similarly, the assessment of future needs is also conducted regularly. The increased capacity of equipment and systems in case of an emergency is also ensured through the above mentioned processes. In-house training and training by the providers of equipment and systems is provided. Despite the above, in some cases equipment and systems may remain in use despite their being judged as obsolete, to ensure that there is backup if necessary or because, due to budget restrictions, their replacement has been delayed.

Financing of Implementation Measures

This requirement assesses if it is ensured that financial means are available and can be quickly accessed to finance likely emergency situations as identified in the risk assessment and planning.

***Question 50**: When carrying out prevention and preparedness measures needed to reduce, adapt to and mitigate the identified risks, are a budget, a legal base and procedures identified or established to plan ahead for flexible resource allocation?*

Explanation: Describe how budgetary and legal questions related to flexible resource allocation are treated in the implementation process, if concrete measures are taken or launched that allow for flexibility, if mismatches or further needs, legal or political barriers to such an approach exist.

The yearly budget is set by government and semi-government departments and approved by the Council of Ministers and the National Parliament. There are provisions in it for building capacities for prevention and preparedness measures (including the purchase of equipment and systems) and extra sums can be requested by the Departments, even after the budget is approved and in place, if necessary (under specific conditions). There is flexibility in the Departments' budget, or even the Ministries' budget, to transfer sums of financing means from one article of the budget to another, if necessary.

The yearly budget also includes provisions for emergency situations, based on past records, while the Council of Ministers can also approve the further provision of sums preceding or following a disaster, if necessary.

***Question 51**: Does the implementation of prevention and preparedness measures include the preparation of agreements with stakeholders that regulate the sharing of costs?*

Explanation: Describe if any plans are in place regarding the sharing of the financial burden; if Member States approached stakeholders, which stakeholders are approached and if any agreements are sought or in place to cover these costs.

Different arrangements for co-financing are in place. These include, for example co-financing received by the European Union through the Cohesion Funds. For example, the joint study for the national risk assessment which included climate change and which was conducted by the Civil Defence and the Department of Environment was co-financed by the European Union.

In addition, awareness raising measures as regards the SEVESO III external plans are financed by corporations. However, the government has not requested any funding from the private sector as regards prevention and preparedness measures. Despite the above, the government requests that risk assessments and measures to address risks are taken as regards the implementation of large projects that the government undertakes (this is a condition in the public procurement procedure).

In addition, for the implementation of some measures, different governmental and semi-governmental departments contribute through their yearly budgets.

Page left intentionally blank

Questions	Levels				Comments
Q1: Does the risk assessment fit within an overall framework?			3		Risk management procedure basically implemented., pending legislative arrangements
Q2: Are clearly defined responsibilities and roles/functions assigned to the relevant entities participating in the risk assessment?			3		Roles are assigned to the relevant entities, pending legislative arrangements
Q3: Are the responsibilities to assess specific risks allocated to the most relevant authorities?				4	Each authority provided input for the overall risk assessment according to their field of expertise
Q4: Has the cross-sectorial dimension of risks been integrated in the risk assessments?			3		Cross sectorial and compound risks have been streamlined to be introduced into the 2018 NRA
Q5: Is the distribution of responsibilities for the assessment of the risks regularly reviewed?				4	The distribution of responsibilities is reviewed whenever required
Q6: Are the experts responsible for the risk assessment(s) adequately informed, trained and experienced in risk assessments?		2			Official training for risk assessments not offered yet. Methodology for risk assessment not official yet
Q7: Are the relevant stakeholders involved in the risk assessment process?				4	Relevant stakeholders as well as academia were involved in the risk assessment process
Q8: Is the necessary administrative capacity available to communicate the results of the risk assessment to the public?				4	The outcome of the risk assessments is made available to the public (Presentations, publication online, etc.)
Q9: Is the necessary administrative capacity available to communicate internally the results of risk assessments?				4	The outcome of the risk assessments is made available in-house and to other public departments
Q10: Are the results of risk assessments integrated in a risk communication strategy?			3		A risk communication strategy is still underway
Q11: has the national entity developed a methodology for risk assessment? What are the key elements? Has it been published?		2			A methodology has been developed but is not yet official. Hence, it has not been published
Q12: Has the cross-border dimension of risks been integrated in the risk assessment?	na				Cross border effects are very limited due to the relevant isolation of the island
Q13: Is infrastructure included in the assessment of risks?				4	Infrastructure was examined as part of a broader assessment of sectors
Q14: Is relevant ICT infrastructure available to carry out risk assessments?			3		This capacity was implemented in key areas (disaster monitoring, risk assessment for floods
Q15: Is appropriate information and data (including historical data) available to carry out risk assessments?			3		Capacity was implemented in areas like forest fires and floods. Other areas like tsunamis are under examination
Q16: Is the appropriate financial capacity available to carry out and update work of risk assessments?				4	Funds are devoted for risk assessment through the yearly budgets of the Republic of Cyprus

NOTE p&p: prevention and preparedness

Questions	Levels				Comments
Q17: Are defined responsibilities and roles/functions assigned to the entities participating in prevention/preparedness measures?			3		Clearly defined responsibilities are assigned for specific risks. The responsibility for compound crises is pending
Q18: Are the responsibilities to plan for specific risks ensured and regularly assessed?				4	The responsibility for specific risks is assigned to different Ministries of the Republic of Cyprus
Q19: Are sufficient experts available to carry out the planning of prevention and preparedness measures on the identified risks?				4	Sufficient experts are available to plan for prevention and preparedness for specific risks
Q20: Is there effective training available for the experts at different levels responsible for the planning of p&p measures?			3		There is effective training for day to day risks. There is a need for training at a strategic level
Q21: Are the experts involved in the p&p process informed about the overall policy priorities related to disaster risk management?			3		Experts are involved in the disaster management process. There is a gap concern the overall policy
Q22: Is there a process in place to ensure that the knowledge of experts tasked with the p&p measures is preserved and developed?				4	Although the processes are not legislative, they still do the job
Q23: Do the responsible entities have methodologies developed for risk management planning? What are the key elements?			3		Risk management planning does not take into consideration, yet, risk assessments
Q24: Do methodologies for risk management planning include the identification of infrastructure relevant for the mitigation of risks?			3		The recognition of critical infrastructure has been completed and will be taken into consideration
Q25: Are the relevant public and public stakeholders informed and involved in the planning process?				4	Public and private stakeholders are duly informed, on a need to know basis
Q26: Are any of the risks identified in the risk assessments shared with public or private companies				4	An extended summary of the risk assessment is shared on the internet, excluding sensitive information
Q27: Are the national or sub-national entities involved in cross border planning of prevention and preparedness measures?	na				Cross border effects are very limited due to the relevant isolation of the island
Q28: Are relevant stakeholders, including citizens, informed about the key elements of risk management planning?				4	Stakeholders are adequately informed on a need to know basis
Q29: Are equipment and tools needed to support and/or carry out the planning of p&p measures available?				4	Equipment and tools are considered satisfactory, taking into consideration the risks examined
Q30: Are financing needs for the implementation of of p&p measures estimated and possible sources of financing identified?			3		Financing needs are satisfied within the financial competencies of the Republic of Cyprus
Q31: As part of the planning process, are future investment plans and the possible role of private sector financing considered?		2			The private sector in Cyprus is not yet involved in the financing of p&p measures
Q32: Are procedures/plans identified/established ahead to ensure financing is in place for the p&p measures needed for mitigation?			3		Planning p&p measures ahead is expected to improve after the establishment of a national strategy

NOTE p&p: prevention and preparedness

Questions	Levels				Comments
Q33: Is the implementation of p&p measures linked to the NRA? Is it part of a strategy or policy and was a methodology defined?			3		The implementation of p&p measures is linked to relevant risk assessments, an overall policy pending
Q34: Are methods for damage and human loss reporting developed and are costs of damages estimated, documented and stored?			3		For the time being data are collected by the Cyprus Civil Defence Department
Q35: Are clearly defined roles/functions assigned to the entities participating in the implementation of p&p measures?				4	Clearly defined roles are assigned, although a horizontal disaster prevention strategy is pending
Q36: Is the distribution of responsibilities up to date and are sufficient resources available to implement p&p measures?			3		Distribution of responsibilities are up to date. Resources depend on strategic planning adopted
Q37: Are the experts responsible for the implementation of p&p measures adequately informed, trained, experienced?				4	Experts are informed, trained and experienced in their respective fields of expertise
Q38: Are the relevant stakeholders informed and involved in the implementation of p&p measures?				4	Relevant stakeholders are involved on a need to know basis
Q39: Is the national or sub-national entity involved in the implementation of cross-border measures for p&p?				4	Memorandums of understanding are signed with Eu and third countries in the area
Q40: Is the implementation of p&p measures by stakeholders done in sufficient quality to achieve the expected risk mitigation results?				4	The quality is assured through government procedures
Q41:Does the implementation of p&p measures include the development of procedures for early warning, activation, etc.				4	The implementation of prevention and preparedness measures includes early warning, activation, etc.
Q42: Is the necessary information available and regularly exchanged into the national or subnational entity?				4	The necessary information is available and regularly exchanged
Q43: Are communication strategies in place, including the use of various media tools to share information with citizens?			3		Communication measures are in place. A novel communication strategy is under preparation
Q44: Is the condition of the infrastructure relevant for the implementation of p&p measures analyzed?				4	The condition of the infrastructure relevant for the implementation of p&p measures is analyzed
Q45: Is there an inventory of available equipment needed to carry out the planned p&p measures? Identification of possible needs				4	Inventories of equipment and new needs are in place by each of the different Government Departments
Q46: Are supply chain risks identified during the implementation of p&p measures and were measures taken to reduce supply risks?				4	Supply chain risks are identified and taken into consideration for the preparation of p&p measures
Q47: Do the experts tasked with the implementation of p&p measures have the necessary technical expertise to ensure their adequate implementation?				4	The experts tasked have the necessary technical expertise to ensure the adequate implementation of measures.
Q48: Do the experts tasked with the implementation of p&p measures have the knowledge to apply procurement and logistics procedures to carry out these tasks?				4	Experts are generally able to apply procurement and logistics procedures or have access to experts on such procedures

NOTE p&p: prevention and preparedness

Questions	Levels				Comments
Q49: Do the experts tasked with the implementation of p&p measures have the knowledge to do life cycle and surge capacity planning and are these methodologies applied to review the functioning of equipment and systems and to be able to increase capacity in the case of an emergency?				4	There are available experts, in different Government Departments who have the knowledge to do life cycle and surge capacity planning
Q50: When carrying out p&p measures needed to reduce, adapt to and mitigate the identified risks, are a budget, a legal base and procedures identified or established to plan ahead for flexible resource allocation?				4	When carrying out p&p measures needed to reduce, adapt to and mitigate the identified risks a budget, a legal base and procedures established to plan ahead for flexible resource allocation are available
Q51: Does the implementation of p&p measures include the preparation of agreements with stakeholders that regulate the sharing of costs?				4	The implementation of p&p measures includes the preparation of agreements with stakeholders that regulate the sharing of costs

NOTE p&p: prevention and preparedness