



**PREPARING
THE INVESTIGATION:
THE GAME SETUP.**

INTRODUCTION

You have in your hands “Flut Island”, the board game from the European project LocAll4Flood. This project addresses the urgent need to improve resilience and preparedness for flash floods, one of the most devastating and increasingly frequent natural hazards in the Mediterranean. The objective is to translate complex scientific data into a meaningful learning experience through play.

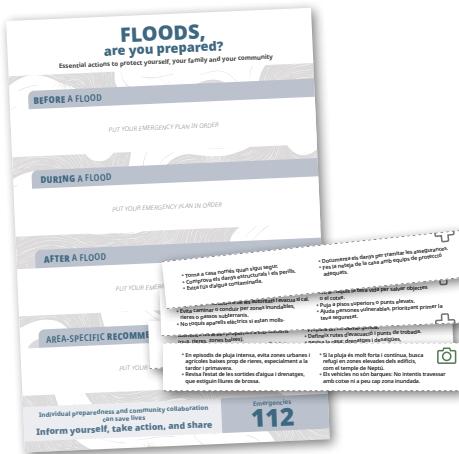
With Flut Island, you will become a team of environmental investigators who, after a catastrophic storm in various zones on the fictional Flut Island, has the mission to analyse what went wrong (post-disaster analysis) and what worked.

By solving puzzles, you will work hands-on with:

- The interpretation of flood zone maps.
- The analysis of the cause-effect relationship between urban planning, geography, nature, land use, and the catastrophic consequences associated with flash floods.
- Critical thinking and team-based decision-making.
- Climate awareness (SDGs 11 and 13) and Nature-Based Solutions (NBS) such as a well-designed park, the restoration of terraces and agricultural areas, or structures to capture rainwater.

The main goal is not for you to memorise technical data, but to develop a “critical eye”. The aim is that, once you finish playing, you will look at your own town or city in a different way.

This is a “Print & Play” game, designed so you can easily print all the material and play.



Game Pack 1



Game Pack 2



Game Pack 3

NECESSARY MATERIALS

The materials needed to carry out the activity are described below. All of them are designed to be printed on A4 sheets and cut out.

There are two exceptions. Firstly, this guide, which does not need to be printed and can be consulted digitally; and secondly, the general map of the island, which can be printed on A3 or two A4 sheets.

✓ **Game guide:** You have it in your hands. You can print it or consult it digitally. It includes the game solutions.

✓ **Map of Flut Island:** 1 single copy. A3 format or 2 A4s to assemble.

✓ **Flut Island tourist brochure:** 1 A4 copy per team.

✓ **The solution sheets:** this is the template where you can note the information gathered, register progress, write partial codes, or formulate hypotheses. All six A4 sheets must be printed.

✓ **Game Pack 1 – Get Organised:**

- “Are you prepared?” sheet, in A4 format
- Set of global and zone-specific action cards, 9 cut-out fragments from one A4.

✓ **Game Pack 2 – Valid Claim?:**

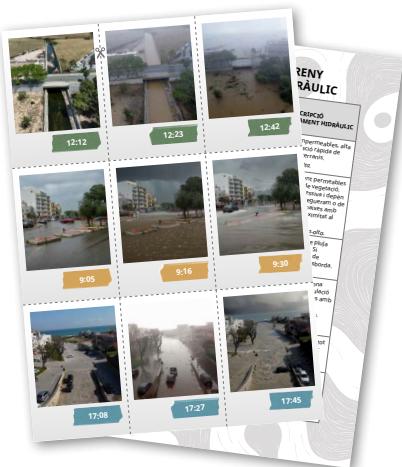
- Set of 18 claims, 3 per zone. Cut-out A5 claims from 9 A4 sheets.

✓ **Game Pack 3 – Risk in Coordinates:**

- Flood zone map, 1 per zone. 6 cut-out fragments from one A4.
- Coordinates sheet, 1 per zone. 6 cut-out fragments from one A4.

✓ **Game Pack 4 – Tempus Fugit:**

- Set of 18 Polaroid-style photos, three per region. 18 cut-out fragments from 2 A4 sheets.
- Land typology sheet, in A4 format.



Game Pack 4



Game Pack 5

✓ Game Pack 5 – Secret NBS:

- Set with 10 notes on NBS. A5 notes, cut-out from two A4 sheets.
- 3 newspaper pages in A4 format.

All documents are to be printed in A4 format (the map is optionally A3, as mentioned) and will mostly need to be cut out. Colour printing is recommended for a better experience.

Recommended auxiliary materials:

- ✓ **Scissors and glue/adhesive tape:** To cut out and assemble some elements.
- ✓ **Pencils, pens, and blue markers:** For taking notes and marking maps.
- ✓ **Access to a clock or stopwatch (optional):** If you want to test your mental speed.

SESSION PREPARATION

Before you start:

- ✓ You must print all the materials.
- ✓ You must cut out the materials that indicate it.



- ✓ It is recommended to organise the materials for each region by game.
- ✓ If you are in a group, you can divide the work, assigning zones to teams, which will make the investigation more agile.

THE INVESTIGATION BEGINS: HOW TO PLAY

You are a team of experts (geologists, geographers, engineers, biologists) sent to Flut Island after a terrible flood. Your packet of documents has information on the six main regions of the island. You must find out why the disaster was so severe in this territory and what, if anything, worked.

A complete game can last between 60 and 100 minutes.

CHECKING SOLUTIONS

You have six sheets to note down the results of your investigation, one for each region. Each

game generates a code/symbol for each region. This way, at the end of the game, you will have 6 chains of 5 symbols, one per region.

The correct order of games to establish these chains is:

- ✓ Get Organised
- ✓ Valid Claim?
- ✓ Risk in Coordinates
- ✓ Tempus Fugit
- ✓ Secret NBS

In the Solutions section, you can verify how well you did and discover another secret...

WARNING!

Beyond this point, you will find the game solutions. Do not look at these pages until you have completed all six solution chains!

SOLUTIONS

Solution chain for each zone:

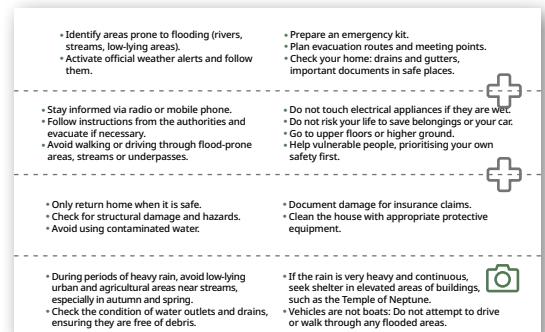
	Get Organised Game 1	Valid Claim? Game 2	Risk in Coordinates Game 3	Tempus Fugit Game 4	Secret NBS Game 5
The Marradars region					
Saint Joan de Kirkibara					
The Pulairab region					
The Poligolad region					
Bigurvy					
Mount Makchia					

HOW TO SOLVE THE GAME

GAME 1. Get Organised in the Emergency Plan:
in this challenge, you will have to decipher and organise the best way to act before, during, and after a flood, including specific recommendations for each zone. This is fundamental to understanding preparedness and response to these phenomena.

✓ **Solution:**

- **Card 1:** The one starting with “Identify areas prone to...”
- **Card 2:** The one starting with “Stay informed...”
- **Card 3:** The one starting with “Return home...”
- **Card 4:** The one corresponding to each specific zone. When placed correctly in each zone, it gives you the first symbol of each chain.



GAME 2. Valid Claim?: you will have analysed different post-flood situations to distinguish between real, unavoidable accidents and negligence that could have been avoided. Your ability to discern responsibility will have been key.

Solution:

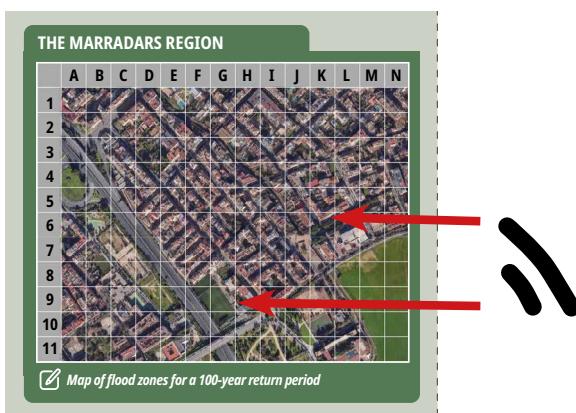
- Of the three claims for each region, there is one that is completely absurd as negligence has occurred on the part of the claimant. The symbol on that claim is the one you need to complete the second space in each chain.



GAME 3. Risk in Coordinates: You will have learned to interpret flood zone maps for different return periods, and their impact on urban and industrial areas. Through logic and observation, you will have identified which zones would be compromised.

Solution:

- The squares on the map that match the coordinates on the note must be coloured in. The resulting shape reveals the correct icon.



GAME 4. Tempus Fugit: Here you will have investigated the speed at which a flood occurs and how the water level rises, taking into account the territory's configuration. You will have analysed how the land type influences the hydraulic behaviour.

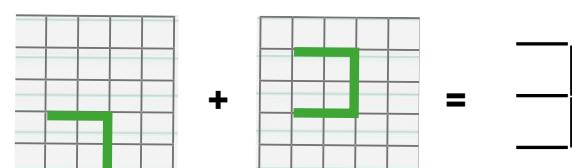
Solution: The times and the land typology must be compared with the chart to find the correct situation (and the correct code for each region).



GAME 5. The Secret NBS: Look for the news article from your region. You will have faced a scenario after a major flood where one part of the territory has resisted better than expected. Your task has been to investigate and discover which Nature-Based Solution (NBS) was implemented and managed to reduce the devastating impact.

Solution: By correctly analysing the news article, you must figure out how many and which NBS were used in each zone. Each NBS has an assigned symbol that can be combined with the others to eventually form a number. The number indicates the code for that region.

Example of Kirkibara's solution:



The secret revealed!

Below we reveal the connection between the fictional regions of Flut Island and reality. You might have already deduced some, either because you recognised an image or because the zone's name suggested it:

Team / Fictional Zone	Corresponding Real Zone	Real Risk Context
Zone 1: Marradars Region	Burmarrad (Malta) and the Torrent Gros & Torrent de Na Bàrbara area (Balearic Islands)	These areas have agricultural valleys (like the terraces in the brochure) that suffer very rapid flash floods when intense rains saturate the soils and small streams.
Zone 2: Sant Joan de Kirkibara (Capital)	Birkirkara (Malta)	It is one of the largest and most populated cities in Malta, located in a natural valley (impluvium) . High urbanisation has waterproofed the ground, and during heavy rains, the streets literally turn into rivers.
Zone 3: Pulairab Region	Bari (Italy)	Bari is a large coastal city. Its risk comes from the ""lame"", ancient dry riverbeds that cross the city. These beds, often built upon, flood violently and suddenly during intense storms.
Zone 4: Poligolad Region	Dalgopol (Bulgaria)	This area (as the brochure suggests) is marked by rivers and reservoirs (like the Tsonevo, near the Kamchia river). The risk here is fluvial: river overflow and dam management during extreme rainfall.
Zone 5: Town and environs of Bigurvy	Gurb and the Plana de Vic (Catalonia)	This area is a wide river plain (the Plana de Vic), crossed by the Gurri river. The risk is the river overflowing (fluvial flooding) which affects agricultural and industrial areas near the riverbed.
Zone 6: Mount Makchia	Anthemountas Basin (Greece) and Kamchia-Varna Area (Bulgaria)	This is a ""sea and mountain"" territory. It combines the risk of very fast-responding catchments (Anthemountas basin) with that of floodplains from a large coastal river (Kamchia estuary).

You can see all this in this video:



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