“Disaster as a window of opportunity”? The role of planning and planners in the reconstruction of Kalamata city, Greece, after the 1986 earthquakes

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Disasters as “windows of opportunity” for risk reduction & sustainable development

- What is essential in order to take advantage of the so-called “window of opportunity” after a disaster?

- What role, if any, science and technical expertise play in this?
Kalamata EQ, Sept. 13, 1986, 20:24 (Ms=6,2)

20 killed, 330 injured. Out of 9.800 inspected buildings, 22% damaged beyond repair, 21% severely damaged, 26% with moderate damage.


Aerial photograph of the city in 1978
The situation before the disaster

- Population of the city about 40,000 people (1981 census)
- Local economy based mainly on agriculture and services
- A dynamic Municipality having built capacity and acquired adequate human and technical resources
- A vision for the city targeting social welfare and development, preservation of cultural identity and public participation
- The Regional Plan of Economic and Social Development 1983-1987 in place (including many projects for Kalamata)
- Long efforts led to a new Urban Plan for Kalamata
Socio-economic and political context

- A drive for change very strong in Greece
- Greece a member of the European Economic Community (EEC) [now EU]
- Earthquake protection a central national policy (after the 1981 Alkyonides EQ which affected Athens)
- In place, an EQ protection scheme for prevention, emergency management and recovery
- Earthquake Planning and Protection Organisation established in 1982 and eager to prove itself useful
- Wide-ranging urban planning efforts all over the country
April 10, 1986
The new urban plan of Kalamata was published in the Government Gazette

The group of planners in close cooperation with the Municipality throughout the long planning process.
The main shock ($M_s=6.2$) on September 13, 1986.
The main aftershock ($M_s=5.4$) on September 15, 1986.
All authorities in transitional shelter.

The Town Hall damaged

The Regional Headquarters damaged

From Day 1, the group of planners returned to Kalamata, took shelter in a tent next to the Municipality’s and voluntarily offered their support to the Mayor.
TIMELINE OF ACTIVITIES TOWARDS PLANNING RECONSTRUCTION

Sept.13 & 15, 1986: The main shock and the main aftershock

September 20, 1986: Map “Response to temporary and permanent needs (1)” (scale 1:5.000)

September 23, 1986: Proposals by the Municipality and the group of planners concerning urgent actions to be taken

September 24, 1986: Map “Emergency shelter location” (scale 1:5.000)

September 30, 1986: Joint memorandum to the Greek Commissioner in EEC, concerning temporary shelter and development

October 1, 1986: Memo by the urban planning group to the Minister of Public Works putting forward proposals and priorities towards reconstruction

October 5, 1986: Map “Response to urgent and temporary needs (2)” (scale 1:5.000) [temporary shelter]

October 20, 1986: Map “Response to urgent and temporary needs (3)” (scale 1:5.000) [housing]
ΥΠΟΜΝΗΜΑ
1 ΚΕΝΤΡΟ ΚΟΝΤΙΝΗ ΚΗΣ ΚΑΙ ΟΙΚΟΝΟΜΙΚΗ ΖΩΗ
2 ΣΤΕΓΑΣΤΙΚΗ ΜΟΝΑΔΑ ΔΗΜΟΥ 300 ΚΑΤΟΙΚΙΩΝ
3 ΟΙΚΙΣΤΙΚΗ ΜΟΝΑΔΑ ΟΔΗΓΕΙ 130 ΚΑΤΟΙΚΙΩΝ
4 ΒΙΟΤΕΧΝΙΚΟ ΠΑΡΟΧΟ
5 ΒΕΡΑ ΓΡΟΣ ΤΑ ΕΙΣΟΔΟ ΚΑΙ ΠΑΡΟΧΑ ΠΑΡΑΛΙΑΣ

Σ.3. 1 ΟΙΚΟΤΥΠΙΩΝ ΠΡΟΣΩΠΙΚΟΥ ΚΑΙ ΕΝΩΣΕΩΝ ΙΙΝΟΙΝΗΣ
Guiding principles for reconstruction

- The urban plan is the guide towards reconstruction.
- Reconstruction should focus on people and not on building stock and infrastructure.
- Reconstruction should target:
  - Disaster risk reduction
  - Social well-being and development
  - Culture and identity preservation
  - Economic development
Phase 1. Emergency shelter (tents, cruise ship, hotels)

Phase 2. Temporary settlements (22 settlements with about 3,000 containers and light prefabricated units, 4 commercial areas with 280 temporary shops, 10 schools with about 200 temporary classrooms)

Phase 3. Permanent housing. A scheme for the repair or reconstruction of private buildings, construction of new public housing.
October 1986: Continuous communication with the EEC concerning possible funding

October 30, 1986: The reconstruction program of Kalamata City by the Municipality was sent to the Ministry of National Economy

November 29, 1986: Amendment of the urban plan of Kalamata (scale 1:5.000) Map “Emergency shelter sites and refugee spaces” (scale 1:10.000)

December 12, 1986: Following the proposal of the Municipality, EEC decision (E/86/2338) initiating a preparatory action for the implementation of Integrated Mediterranean Projects for the area of Kalamata, (“Line 550” program)

December 17, 1986: Municipal program to be funded by the Council of Europe Reconstruction Fund and the European Investment Bank

January 15, 1987: Earthquake damage map (scale 1:2.000)

February 23, 1987: Map “Lots for emergency requisition» (scale 1:10.000)
Preparatory action for the implementation of Integrated Mediterranean Projects in the area of Kalamata “Line 550”

**Infrastructure**
- Urgent demolitions and debris removal
- Temporary shelter (housing, commerce and schools)
- Emergency repairs (schools and other facilities)
- Establishment of two commercial centres and of temporary commercial facilities

**SMEs**
- Construction of the industrial park – Prefabricated workshops

**Agriculture**
- Repair of the Agricultural Centre

**Studies**
- Microzonation studies
- Amendment and implementation of the urban plan
- Seismological networks
- Studies to promote development
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Program financed by the European Investment Bank

**Housing - Other buildings**
- Emergency demolitions, temporary shelter, repair and reconstruction of building stock, construction of the East Town Centre, reconstruction of Eleoxori village

**Health and social welfare**
- New hospital, repair of the old hospital, clinics, kindergartens

**Education**
- Repair and reconstruction of schools, construction of Kalamata Polytechnic

**Historic buildings – Museums – Monuments**

**Agriculture - Industry**

**Tourism**
- New marina, tourist facilities

**Transport**
- New National road, new airport building, ring road, protection of the West coast

**Urban planning – Works within the Municipality - Studies**
- Implementation of the urban plan, clearing streets, works on the river etc.
Temporary settlements after the 1986 earthquake disaster
Preservation of historic buildings and areas
After reconstruction
Summarizing the positive outcomes

At national level

Introduction of a transitional shelter scheme (emergency shelter and temporary housing) that relieves time pressures and “rush to rebuild”

Improved seismic safety regulations and EQ protection policies and practices

Formation of a scientific and practice community that contributed also in the management of future disasters

Setting an example and reference point for response and reconstruction

At local level

Successful reconstruction which promoted disaster risk reduction and sustainable development

Preservation of the cultural and historical identity of the city

A successful passage from the disaster to implementing a vision the city
Contribution of external expertise and know-how

- Mapping and monitoring
- Backup studies for funding
- In situ problem solving
- Setting priorities and putting forward proposals based on a deep understanding of urban dynamics
- Prompt direct support to decision makers (which increased confidence and aptitude of decision makers)
- Advising on further seismic activity
- Suggesting changes in the seismic design code and building codes
- Scientific research – New knowledge - Lessons learnt
Enabling the “window of opportunity”

- Previous local dynamics strongly affect post-disaster trends
- Local leadership very significant
- Experts’ back up to policy makers vital but trust between experts and policy makers must have been already built
- Being there / closeness important
- Knowledge needed not only on scientific aspects but also as regards pragmatic choices and actual problems solving
- Pre-existing plans and studies important for gaining time in planning reconstruction
- Measures to release pressures and “rash to rebuild” of essence
Why the 1986 Kalamata EQ reconstruction is relevant today?

- State withdraw, new players on board. Yet, local leadership still of utmost importance.
- New technologies, advances in ICTs, satellite imaging - Social media. However, being there still important.
- Data and information everywhere. Are appropriate data and information promptly available where and to whom they are needed?
- EU civil protection mechanism and new funding means. Still, to benefit from these entails know-how.
- Expertise and know-how easy to be found by the decision makers. Yet, trust still difficult to build.
- Economic and social crisis - Socio-economic risks a priority. More than ever disaster reconstruction should be seen with a view to sustainable development.
Cheer up my dear!
I know we cannot afford our home any more,
but think how bad it would be if it was vulnerable to earthquakes?

Thank you!
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