

SOCIAL AND INSTITUTIONAL IMPACT OF THE 1980 EARTHQUAKE IN SOUTHERN ITALY:

PROBLEMS AND PROSPECTS OF CIVIL PROTECTION

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The earthquake's characteristics

The earthquake of the 23rd of November 1980 (magnitude 6.7 Richter, duration 90") devastated a highly populated area of 28,000 square kilometers, affecting 679 communities in two southern regions of Italy, Campania and Basilicata (Figure 1). The epicenter area includes 36 communities of the internal provinces of Avellino, known as Irpinia, a traditional seismic zone, Salerno and Potenza. The same area was devastated by a similar earthquake in 1694 when the same villages were destroyed.

The 1980 earthquake resulted in 3,500 deaths (official record), 10,000 wounded and 350,000 homeless. According to official estimates 20,000 dwellings were destroyed, 50,000 seriously damaged, and 30,000 lightly damaged. The estimated damage amounts to 20 billion dollars, that corresponds to 40% of the total expenditure of the special agency for the South, the "Cassa per il Mezzogiorno", over the last 30 years.

This earthquake has been recognized as the greatest national disaster in Italy since World War II, and the social disruption it has caused is much greater than it appears from the general estimates of the damage.

This paper will focus mainly on the social and institutional implications both at the local and national level.

Structural features of the area

As several studies have already confirmed, the damage from an earthquake depends more on the social organization of the area affected than on the natural characteristics of the disaster. Many of those effects that can appear in the emergency phase as direct consequences of the earthquake or of the lack of organization are on the contrary the result of the structural features of the society.

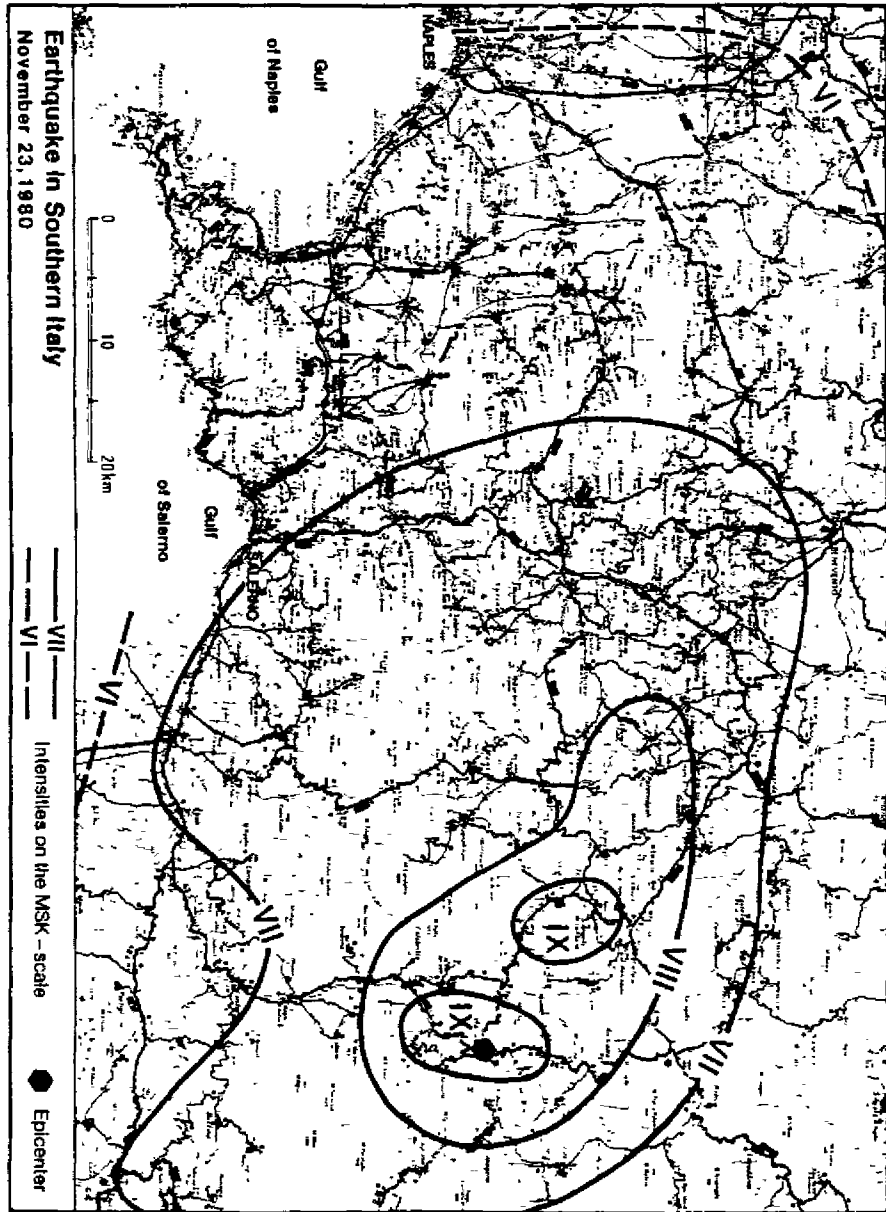


Figure 1

The Earthquake in Southern Italy
November 23, 1980

Southern Italy is usually considered as an underdeveloped region, but this image does not reflect reality. It is rather an aggregate of different "worlds", going from the extremely backward areas of the hilly and mountainous regions to the highly developed coastal zones and plains, with intermediate patterns of modernizing areas and growing urban centers.

Such an image does not result from the aggregate indicators of development usually referred to which constantly show a negative relation for the South compared with the North. The South, in fact, comprises about 40 percent of the territory of Italy and 35 percent of the total population. Yet, it accounts for only one-sixth of Italy's industrial output and has double the national rate of unemployment. The South accounts for 23.6 percent of the GNP, while the per capita GNP is one-third lower than the national average and almost half that of the northern regions (Table 1).

This is the result of a process of increasing differentiation within the South, that now has impressive islands of prosperity and growth connected with the modernization of agriculture in favorable areas and the diffusion of industry. Together with the huge industrial plants created by the special policy of the 1960's--the so-called "cathedrals in the desert"--a network of industrial development zones has grown around the urban centers as a result of the process of industrial decentralization of the 1970's. Finally, the South is characterized by the existence of a large tertiary sector that has been steadily growing as a "refuge" area, because of the lack of employment opportunities in the agricultural and industrial sectors. The tertiary activities are only marginally connected with a pattern of autonomous industrial development, but they rely mainly on the growth of public expenditures and the process of urbanization.

The role of public expenditures is crucial for explaining the particular features of the changes which occurred in the productive structure of the South, strictly controlled by a new type of ruling class, mainly bureaucratic and administrative. The huge development of the tertiary sector is practically evaluated as a social phenomenon, rather than economic. It is considered by economists as a burden sector, mainly inefficient and not apt to sustain sound development.

Some of the most striking changes that occurred in the South in the last 25 years have been the result of the massive out-migration of 5 million people, mainly young males, recruited by the industrial development in northern Italy and central Europe. This huge migration has left the South, mainly the internal zones, without young working forces: old people, women and children are the usual inhabitants of the southern villages. They have been able to survive by combining several sources such as the remittances from migrants, subsistence agriculture and social security. On the other side, migration has also produced return factors for the development of the South.

The first, and most visible change has occurred in the housing pattern of the villages, as one of the principal aims of the migrants has always been to provide a decent house for their families. The new houses built with the remittances of the migrants have practically changed the landscape of the South. Each village has a "new area", often resulting from the sum of private family enterprises governed by the principle of

Table 1

Regional Comparisons

Region	Percentage of national GNP	Per head GNP ('000 lire)	Indices (Italy=100)	Resident population (1971 census)
Piedmont	10.3	5045	128.7	4454
Valle d'Aosta	0.3	6156	157.0	111
Lombardy	20.9	5222	133.2	8497
Trentino-Alto Adige	1.8	4709	120.1	847
Veneto	8.0	4096	104.5	4136
Friuli-Venezia Giulia	2.5	4530	115.5	1245
Liguria	4.3	5093	129.9	1868
Emilia-Romagna	8.8	4975	126.9	3853
Toscana	7.0	4309	109.9	3503
Umbria	1.3	3647	93.0	773
Marche	2.4	3820	97.4	1351
Lazio	8.8	3901	99.5	4764
Abruzzi	1.7	3042	77.6	1121
Molise	0.4	2644	67.4	300
Campania	6.2	2540	64.8	4985
Puglia	4.7	2680	68.3	3499
Basilicata	0.8	2766	70.5	560
Calabria	1.9	2082	53.1	1862
Sicily	5.7	2562	65.3	4575
Sardinia	2.2	3014	76.9	1441
Italy	100.0	3921	100.0	53745
North-Centre	76.4	4642	118.4	35402
South	23.6	2602	66.4	18343

Figures relate to GNP in 1978

Source: Financial Times Survey on Italian Regions, July 13, 1981.

the maximum economy. The other major investment from migration has been in the sector of small commercial businesses, again resulting from private family enterprises and contributing to the enormous growth of an inefficient tertiary sector. Altogether, these changes have been supported by a particular socio-economic unit, the household, that has maintained a crucial role in the South, tightening the traditional strong ties that already were at the basis of this society.

Another massive phenomenon of social change, partly similar to out-migration, has been the steady increase of urban population and the growth of the metropolitan areas. In the last 30 years the population of the urban centers in the South has practically doubled. While the same trend has occurred in the North, connected with the industrial growth, in the South this phenomenon has been fostered by the spread of the tertiary sector, mainly characterized by small inefficient commercial and professional businesses. The diffusion of public administration activities has largely contributed to the transfer of population into the large administrative centers, typical of the southern urban structure. Nevertheless, only a minor proportion of this population has found a stable occupation, and the rate of unemployment has remained double that in the North. This unemployment is particularly difficult to bear for young people, often with higher education levels, as the school, up to the university, has been the only alternative to unemployment. The massive growth of urban centers has further increased the problems of a social structure already disrupted by severe inequalities. The lack of sound economic activities and of prospects of employment, combined with a degenerated urban structure is at the origin of the endemic social problems of the southern cities, as the case of Naples clearly shows.

Deeply rooted in the economic and social structure mentioned above is a system of political power that accounts for maintaining the South substantially "altogether". A crucial role is played by the "new" ruling class that has replaced the old agrarian block, whose source of power was the rent from land property, that ensured social peace during Fascism, but also opposed economic and social development. The new ruling class is strictly connected with the new sources of economic power in the South, resulting from the State investments in the economy and from the welfare policies. These policies have required the organization of a large bureaucratic system for the administration of public expenditures and of social security that has produced a new "social and political block", as strong as the old agrarian block and as contrary to the development of the South. Another major source of power is located in the urban areas, in the multiple interests connected with the rent of urban land and with the growth of the tertiary sector.

Altogether, this new ruling class bases its power on sources either external to the South (State) or non-productive (urban rent and marginal tertiary sector). This trend is common to all political parties that tend to govern with no autonomous initiative, except for increasing their power. Clientelism has remained the major feature of political exchange, even if the objects of transaction have changed. The capacity of the ruling class to channel public expenditures according to the rules of clientelism is seen as one of the major obstacles to an efficient use of public resources. This also explains, on the other hand, the success of maintaining consensus in the South, as any prospect of improvement is chiefly dependent on the good "relations" with those who control the distribution of resources.

Consensus and distrust characterize the relation of the people with the ruling class, reproducing the old pattern of feudal relations. As there are no other alternatives, it appears more logical to adopt a behavior coherent with the rules of the system, rather than making an effort to change them.

Impact of the earthquake in the emergency phase

In such a context, the immediate impact of the earthquake has dramatically brought to the surface the major problems of the "southern question", as well as the inefficiency of the national civil protection system. The area affected includes the largest metropolitan region in the South (Naples), other major urban centers (Salerno, Avellino, Potenza) and a vast internal area of medium-sized towns and small villages.

As in previous recent disasters the emergency phase was characterized by the tardy movement of public intervention, by the inadequate means and equipment for the rescue operations and by the absence of an effective coordination of the relief organization. It has been estimated that more than 1/3 of the victims died after several hours and days because of the lack of rescue operations.

The magnitude of the disaster was initially underestimated by the center and several days passed before the army was mobilized and transferred to the area. It was only after the visit of the President of the Republic, Pertini, to the disaster regions that the government reacted more rapidly. Pertini released a speech to the major television networks, expressing his indignation about what he had seen. As a consequence of this, the Minister of Internal Affairs, responsible for civil protection, resigned his position. His resignation was promptly rejected and only one local representative of the government, the Prefect of Avellino, was removed.

In contrast with the inefficiency of the State civil protection system, there was a massive intervention of voluntary groups, private associations, public organizations, institutional bodies, such as regions, provinces, communes, universities, trade unions. The promptness of this response often encountered various obstacles once in the damaged area; the delivery of first help supplies was delayed by the local authorities' inefficiency and by the lack of coordination. Long columns of trucks were stuck on the roads for days; others wandered around before finding someone willing to accept their help. The area was inundated with huge amounts of food commodities and clothes, piled up in stores or even abandoned along the roads.

As the local authorities were unable to cope with the extraordinary situation, a new power structure was set up by the center. A special Commissioner for the earthquake was sent by the government to Naples, the same person who had been in charge during the Friuli earthquake of 1976, Zamberletti. Generals of the army were appointed as vice-commissioners in the regions and provinces most heavily damaged with power to coordinate the operations not only of the army but also of civil intervention. This earthquake has offered an opportunity of observing the relative efficiency of the military structures, as compared with the central government. The militarization not only of the emergency phase--

as the army authorities have been appointed for six months--is the other face of the absence of an effective civil protection system in Italy.

A major role was played in the emergency phase by the mass media, which offered to all the country an immediate and realistic picture of the dramatic situation. Both the national radio and television networks and the reporters of the major newspapers made an extraordinary contribution to the diffusion of information as had never before been done in Italy. Obviously, the impact of mass media lasted only for the emergency phase and the major problems the earthquake had brought to the surface were soon neglected.

Effects at the local level and problems of reconstruction

The earthquake had various effects at the local level, related both to the magnitude of the disaster and to the characteristics of the area. On one side, the case of Naples represents an aggregate of extremely serious problems, as the earthquake has suddenly brought to the surface the endemic crisis of the city. The housing problem already critical before the earthquake, as Naples has had the highest in-migration rate in the South, cannot now be overcome by means of the old conventional policies. The large transfer of population from the old crumbling center into marginal camps on the outskirts of the city or to summer residences along the coast cannot become a permanent solution, as usually happened in previous disasters. The other major problem to solve is the increasing unemployment that after the earthquake has been strongly reconsidered as a crucial element of political action for opposition parties and new emerging groups. The situation has been recognized as extremely dangerous by the government that sent its special Commissioner Zamberletti, to Naples.

On the other hand, there are the problems of the internal areas, already impoverished by the huge migration and the lack of investments. These zones have suffered the highest human losses and entire villages have been wiped out. Hundreds of families were destroyed, mainly old people, women and children of migrants who were working abroad or in northern Italy. The reconstruction of these villages cannot simply be limited to the supply of new houses, but is firmly connected with the prospects of new employment opportunities.

At present, a conflict between multiple interests is emerging at the local level. The population's principal aim is to have a new house and this explains the refusal of the local inhabitants to leave the villages during the winter. The special evacuation plan prepared by Zamberletti for these areas has completely failed, as it was designed on a pattern that was experienced in Friuli in 1976, a completely different region.

The major concern of public authorities is to restore rapidly orderly conditions of life. This need for order has inspired all the public interventions from the center, aiming at social control. All the various groups, organizations and decentralized institutions that were acting along different lines or trying to activate local initiative were considered dangerous, often contradicted or discouraged. Special agreements were made with large bodies, such as regional governments of the Center-North, for their inclusion in a general plan of intervention, controlled by the center.

Finally, a large set of economic interests have been attracted to the area of the disaster by the huge prospects of reconstruction. This is by no means simply a technical question, but has great economic and political implications. It has been estimated that the amount of investment for reconstruction will bring into these regions 2/3 of the total annual flow of investments in the South. The past experiences of the Friuli and Belice disasters have shown that the process of reconstruction tends to reinforce the previous productive structure, and only rarely succeeds in promoting new forms of local development.

The major interests that have been immediately active in offering their "help" are medium and large firms of the building sector, principally located in the northern and central regions. They are capable of supplying highly industrialized building technologies and prefabricated structures. A study conducted in 1978 shows that 70% of the firms producing prefabricated elements and/or systems are located in the North, 16% in the Center and only 13% in the South.

In contrast with this type of interest, there stands the extremely complex network of local firms that have flourished in the last 20 years in the South in the shadow of the local political power in connection with private building enterprise and with the policy of public works. The building sector has been one of the most important areas of employment in the South. While the national average of the population active in this sector is 25.7%, the southern regions are all well above this level with peaks such as 62.2% in Calabria and 50.2% in Basilicata. Furthermore, there are the small family-firms grown upon the remittances from migrants that in the last ten years have developed low-cost techniques for private buildings. The local interests can count on the support of the local political authorities, strictly bound with them, but they cannot compete with the much greater strength of the northern groups.

These groups have been emerging in the last ten years as a result of the process of restructuring the building sector. They rely upon an advanced technological level, on a sophisticated know-how, on the control of modern industrialized techniques. Their power has already been recognized in the Friuli reconstruction, where at the end of 1980 the regional government has decided to reorganize the contracts for reconstruction, as only 1,000 interventions out of 25,000 have been completed. This reorganization has combined into 18 large projects all the interventions and only one local firm has been able to get a contract. The costs of these contracts are 15/20% higher than the average in the northern and central areas.

The conflict between the local and external groups will mark the future of these regions, where little space is left to local initiative. There have been efforts to set up new associations and cooperatives of local workers for reconstruction, but they will get only marginal opportunities. The changes that this process of reconstruction will bring about are obviously proportionate to the dimensions of the intervention.

But there are few chances that a process of local development will take place in the sense of a deep transformation of the productive structure. The existing differences will be increased and the power structure will emerge at the end even stronger. The few contradictory

signs of reconstruction controlled by the local people with external support are at present only marginal exceptions.

The difficulties encountered by the large group of technical and professional experts, mainly from universities and research institutes, have greatly reduced the chances of an independent intervention. Those who have been able to remain after the emergency phase had to accept a formal submission to the organization of the special Commissioner. There has been therefore a large waste of resources, mainly engineers, architects, geologists, planners, available for a different process of reconstruction. The negative experiences of several teams that had engaged in an immediate support of local communities are frequently referred to in public conferences and debates.

Problems of the Civil Protection System

Since the earthquake the absence of a civil protection system in Italy has been officially recognized. It was suddenly discovered that the law of 1970, passed after the earthquake of 1968 in Belice, for the "Protezione Civile" was not effective because the Parliament had forgotten to approve the special regulations for its enforcement. At the same time the absolute lack of investments in scientific research applied to earthquake prevention became evident, as never before. In December 1980 one of the few groups that had been working in the last five years on this subject--the special Project "Geodinamica" of CNR--presented to the Parliament a "Relation on the Defense from Earthquakes". The dramatic state of the country was clearly illustrated in this document. Several proposals were advanced as to the up-dating of the obsolete seismic map, the regulations for new buildings and the retrofitting of existing buildings. A highly detailed program for seismic research was advanced, together with proposals for land-use planning and for the reorganization of the State services and research bodies. The Relation ended with a pessimistic note about the possibility that such measures would actually be taken by a government that traditionally represented a literary-humanistic rather than technical-scientific culture.

The lack of confidence in the scientific community is one of the most common features of the Italian political ruling class. An expert of the Special Commissioner Zamberletti recently stated during a meeting of Italian sociologists on disasters, "those who know act, those who do not know research". The implications of such a culture, at the most interested in a technical rather than scientific approach, are clearly visible in the new trend adopted by the government with reference to Civil Protection.

In February 1981 a decree of the President of the Republic established the lacking "regulations" for implementing the Law of 1970. These regulations provide instructions for the organization of a civil protection system within the Ministry of Internal Affairs, as well as special measures for intervention at the local level and rules for immediate rescue and relief operations.

The two major principles are the centralization of the system and the control of voluntary and private initiative. The paradox is that the more inefficient the State actually is, the more centralized the system becomes. An effective system of civil protection should be pivoted on

the local level and supported with adequate equipment. Moreover, it should take advantage of the valuable resources of voluntary and private intervention, providing adequate coordination.

In June 1981 a second step was taken in this direction with the creation of a new "Ministry for Civil Protection" that has been given to Zamberletti, the special Commissioner in 1976 and 1980. He has been appointed because of his action capacities, that are undoubtedly greater than average.

While at the Center these have been the major effects of the recent earthquake, in the periphery there are few chances that something new will happen. The prospect of a productive integration between research activities and policy measures remains an intellectual utopia. Policy makers will continue to be guided by their short time perspective, which cannot be shared by earthquake "professionals".

New prospects of reducing seismic risk

While this is the negative state of civil defence in Italy, some new perspectives have been opened within the scientific community. The direct intervention of several universities in the area hit by the earthquake has prompted the search for special funding of research and some teams have already begun to work.

Among these, the University of Calabria, after directly intervening in the earthquake area, has developed a new multi-disciplinary project within the Center for the Study and Research on Natural Disasters. This project is specially designed for Calabria, the most seismic region in Italy, and is presented as a pre-disaster study. It results from a combined intervention of specialists working in the University, such as geologists, engineers, planners, sociologists and economists.

The principal aim of the project is to provide reliable information to the community as to measures that can be taken to reduce future seismic risk. The study will be conducted in one of the three fault areas of the region. It will imply the extension of the seismic network of the University, the introduction of new instruments for monitoring the level of bodies of water, the investigation of the state of buildings with priority given to public structures, the evaluation of land-use patterns, the appraisal of the behavior of official agencies charged with control over building standards, the study of the social and economic conditions of the area.

The research team will be connected with two national research projects of CNR, the already mentioned "Geodinamica" and the "Conservazione del Suolo", as well as with the French "Arc Calabre".

Two major problems have emerged at this stage. The first concerns the need for the researchers to change their habit of a strictly disciplinary approach and to use the tools of their discipline taking into account the contribution of the others. The initial agreement on a "common problem" will have to be constantly verified as long as the research progresses. The other question regards the relation of the research team with local communities and policy makers. Most likely the area for the study will be chosen on the basis of an active involvement

of local communities. In Calabria natural disasters are quite familiar and some areas show particular elements of an "earthquake subculture".

One of the major difficulties is the lack of interest from public authorities that are as prompt in seeking the help of experts once the disaster has occurred as they are capable of forgetting it as soon as the emergency is over. Nevertheless, the need for medium and long-term studies is now clearly recognized by all those who are willing to reduce future disasters.

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