



CRISIS APPEAL EARTHQUAKE IN BAM, IRAN

13 January 2004

For every child
Health, Education, Equality, Protection
ADVANCE HUMANITY

unicef 

SITUATION

The earthquake that hit Bam (South-Eastern Iran) on the morning of December 26th left the city of Bam and its surrounding communities in complete devastation. Whether measured in terms of material damage, with over 85% of buildings collapsed, including houses, schools and health centres, or human suffering, with over 30,000 deaths, 30,000 wounded and some 75,000 made homeless, it will take years for the surviving population of Bam to rebuild and recover from this catastrophe.

The massive scale of death and destruction left Bam inhabitants in unfathomable confusion, grief, and helplessness. Some 30,000 people have left the area in search of shelter and help from their extended families, finding it too hard to cope in what remains of the city. The most vulnerable among the surviving population, without the means to relocate, continue to stay in the city and nearby villages virtually devoid of basic support systems, including basic social services.

The impact of the disaster on children is particularly overwhelming. With nearly half the population of Iran under the age of 18, it is reasonable to assume that half the number of dead and injured are children. Indeed, according to the most recent estimates, approximately 10,000 school children were killed. For the surviving children, the calamity brought on them overnight by this earthquake – loss of homes, schools, family and friends – is incomprehensible and the psychological impact can run deep. Furthermore, children who have lost parents are particularly vulnerable. According to the latest government estimates, 1,800 children have been orphaned and over 5,000 have lost at least one parent. For these children, the most fundamental coping mechanism provided by the primary caregivers is abruptly taken away, leaving them to face this hardship on their own.

ACTIONS TAKEN BY UNICEF

Within 48 hours after the disaster, UNICEF was able to deliver to the affected population two plane loads of essential supplies for the survival of children and women. These included health kits and obstetric kits to benefit up to 120,000 people, more than 14,000 blankets, water purification tablets, water tanks, generators and other shelter supplies - a total of 60 tons worth of relief supplies. In the following days, UNICEF further provided 416 school-in-a-box kits to benefit 33,280 pupils – each kit contains sufficient school materials for 80 students – as well as thousands of sets of winter clothing, including sweaters, boots and socks.

In the coming months, UNICEF priority areas will continue to be: the provision of **potable water** and **safe sanitation**, care for **unaccompanied and distressed children** and for children living in institutions, **child immunization**, meeting the immediate **nutritional needs** of vulnerable children and monitoring child malnutrition, as well as the mobilization and return of **primary-aged school children to school** as soon as possible.

EXPECTED IMPACT OF UNICEF SUPPORT

The planned UNICEF interventions will provide children and women with potable water, sanitation facilities and hygiene supplies helping to prevent the spread of infectious diseases; support the quick resumption of routine immunization; mitigate and address malnutrition; identify and address the psychosocial impact of the earthquake on children; and support the resumption of education.

TOTAL FUNDING REQUIREMENT

SECTORS	Total USD requirements
TOTAL HEALTH AND NUTRITION	2,000,000
TOTAL WATER AND SANITATION	5,760,000
TOTAL EDUCATION	3,400,000
TOTAL CHILD PROTECTION	3,180,000
GRAND TOTAL *	14,340,000

* Excluding UNICEF recovery cost. The actual recovery rate on individual contributions will be calculated in accordance with the Executive Board Decision 2003/9 of 5 June 2003.

WATER AND SANITATION

I. Issue

The water supply for the city of Bam relies on 11 drill wells, which feed water to four water tanks where chlorine is added before water is pumped into the distribution network. Before the earthquake, about 35,000 m³ per day was produced to adequately serve a population of 97,000. The earthquake damaged two of the 11 drill wells and one of the two main lines in the distribution network that carries water into the city. As a result, the network is currently dysfunctional in a number of districts of the city.

In surrounding villages, about 20% of the 100 drill wells and six pumps have been destroyed. Currently, 60 rural villages, already located in a more water-scarce area, are facing difficulties in accessing sufficient quantities of water and a significant number of them are still dependant on water tankers.

Villages in the region hosting internally displaced families from Bam are also at risk of facing water shortages, considering the general scarcity of water in the region. This fact will have to be verified through a mapping of the population movement from Bam following the quake.

Access to sanitation is also a major challenge for most residents of Bam. Acute shortage of latrines and very limited solid waste and garbage collection facilities is a serious problem in all of the affected areas. Most Bam residents have not been able to wash since the day of the earthquake. With approximately 7-10 persons crammed into a tent without adequate access to latrines, toilet supply, shower and soap, the living conditions have been very hard, especially for female residents and infants.

The lack of proper sanitation, the rubble clearing activities that create constant clouds of dust, and the decomposition of countless bodies buried since the disaster can together pose a threat to the quality of water in Bam district, as well as increasing the potential for airborne diseases.

II. Action to Date

UNICEF has quickly mobilized its resources within two days of the earthquake to ensure that drinking water is made available to as many of the surviving population as possible, and carried out the following activities:

- Supplied 625,000 water purification tablets to ensure that water sources are treated for safe drinking.
- Procured 6,000 jerry cans for collection of water from water distribution points.
- Provided 16 community water tanks with a capacity of 5,000 litres each.
- Provided three portable generators to support water pumps and water systems.
- Provided technical assistance to local authorities, local and international NGOs in the assessment of the water supply situation.
- Procured water testing kits to enable sustained water quality monitoring.
- Provided support to government and NGO partners in assessing the extent of the damages and planning for the next steps in terms of immediate service provision as well as rehabilitation.

III. Future activities

As the UN lead agency for the water and sanitation sector, UNICEF will continue to work with the Environmental Section of the Ministry of Health, the Water Company of the Kerman Province and various key international and national NGOs with an aim to contribute to the reduction in water and sanitation related diseases by providing access to adequate quantities of safe water and proper sanitation facilities for the population affected by the disaster. UNICEF intervention will start by focusing on the procurement and delivery of needed sanitation facilities and disseminating messages focusing on hygiene issues. Subsequently, UNICEF will move to rehabilitation and repair of infrastructure provided that conditions are conducive and that there is a solid base of local partners to undertake the work on a desired scale. Currently, it is assumed that a considerable amount of time and work would be required to clear the rubble and remains. Interventions will now focus on:

- Rehabilitate wells, pumps and water storage facilities in the affected villages surrounding Bam.
- Construct sanitation facilities and provide sanitation supplies for up to 75,000 throughout the affected areas. This will include the construction of sanitation units that include latrines and bathing facilities.
- Provide water quality testing kits, along with chemicals, to ensure that water quality monitoring is continued without disruption, and supply water purification tablets.
- Provide water storage and collection vessels, and hygiene items for displaced populations and populations in other affected areas, in which water supply has been temporarily interrupted, reaching possibly up to 75,000 beneficiaries. These items include reservoir tanks and water bladders, as well as jerry cans.
- Disseminate messages focusing on hygiene issues during emergencies. This will be implemented using local media and teachers, and through the health centres and other distribution channels of relief items.
- Advocate for the need of women and girls to have access to separate latrines, sanitation and bathing facilities.

IV. Expected Impact

- The population of the affected area (200,000) has access to adequate sanitation facilities and the spread of infectious disease is prevented.
- The population in the surrounding villages of Bam has more reliable access to safe drinking water
- Acceptable quality of water from Bam's reservoirs is sustained.
- The incidence of water borne diseases, in particular diarrhoea or cholera among young children, is kept at the lowest possible level.
- Areas suffering most from the destruction and interruption to water supply systems have appropriate water storage capacity to keep and adequately store a minimum of 15 litres of potable water per day per person.
- In the tent camps, sufficient water and culturally appropriate sanitation facilities, as well as hygiene related materials, are available.
- Basic hygiene messages are provided to sensitize the population and avoid health hazards in the emergency situation.

V. Funding Requirements

UNICEF Activities Input	Requested Fund (USD)
Construction of sanitation facilities in Bam and surrounding villages	4,000,000
Support for rehabilitation of wells, pumps and storage facilities	1,200,000
Provision of water quality testing kits and chemicals	60,000
Provision of sanitation supplies including operation and maintenance	200,000
Hygiene promotion and information dissemination	100,000
Assessment, monitoring and reporting	100,000
Project support	100,000
Total	5,760,000

CHILD PROTECTION

I. Issue

The distress accompanying a massive earthquake and its destruction is particularly daunting for children. The shock is most devastating for children who lost one or both parents. However, virtually all children in Bam have lost sibling, relatives, or friends overnight. Their homes are reduced to rubble and dust; nights are spent in below-freezing cold in tents; and the sense of safety and normalcy has been brutally taken away along with their daily routines.

Significant levels of psychological distress are evident among the population of Bam, including children. Children have been found alone in the streets so shocked that they could not even give their names nor indicate whether their parents were alive. The children urgently need psychosocial support, including the provision of safe play areas and play materials, which can help them cope with the insurmountable stress they have been exposed to.

Given the massive scale of deaths that has affected virtually every single family in Bam and its surrounding villages, as many as 1,800¹ children are estimated to have lost both parents, with another 5,000 children believed to have lost either of the parents. Three homes for orphaned children in Bam were also destroyed, with only 27 out of 75 children surviving the disaster. The government has established a mobile childcare unit in Bam for the identification and interim care of the unaccompanied and orphaned children. At the same time, orphaned children have been transferred to Tehran, Kerman and Shiraz and elsewhere, requiring massive tracing and reunification programmes, including the provision of care and protection in a family environment.

Children are not alone in their plight following the quake. Many single parents are likely to experience added difficulty in raising and caring for their children. This will be particularly true for single mothers, less employable within the given society and less able to get their views and priorities to be listened to in a rural cultural environment where men are used to have pre-eminence and authority. The adolescents also face particular challenges as they would be expected to do more to support their families often at the expense of going to school and without the support system through which they can relieve their grief and distress. Finally, the orphaned or separated children, single mothers and youths are at greater risk of being subject to various forms of abuse, as is often seen in acute emergency situations.

¹ The estimated number of orphans still fluctuates. The number of orphaned children who have lost both parents has been quoted as high as 2,500 by some authorities on the ground.

II. Action to Date

Within days of the earthquake, UNICEF made available for the children of Bam the most essential supplies to safeguard their survival. UNICEF Iran's recent support in psychosocial training, prior to the disaster, has also proven invaluable in the current dedicated work of Iranian mental health workers and social workers who rushed to Bam.

- Provided 14,000 blankets, including 7,600 baby blankets, 1,800 pampers, 10,000 pieces of winter clothing of all sizes, thousands of pairs of boots, socks and gloves.
- Supplied winterized tents, tarpaulin, rope, and other shelter items.
- Provided support to establishing a tracing system for separated children by supplying essential equipment to start the tracing operation.
- A training of trainers' workshop on psychosocial support in emergencies was organized by UNICEF late November 2003 benefiting 30 mental health experts from various provinces of the country including Kerman. The Iranian mental health experts who conducted psychosocial training in Kerman immediately after the earthquake included the beneficiaries of this earlier UNICEF- supported training.
- Provided technical guidance to government and NGO partners to strengthen their on-going psychosocial interventions in Bam.

III. Future Activities

UNICEF, as the lead agency in child protection, will work closely with the Mental Health Division of the Ministry of Health, State Welfare Organization, and various key international and national NGOs. Tracing of children separated from their families will be undertaken in close cooperation with ICRC, IRCS and the State Welfare Organization. Therefore, UNICEF will focus on care and protection, and, when possible, support the reunification of children deprived of primary caregivers. At the same time, UNICEF will provide psychosocial support to the children affected by the earthquake. Intervention will first be structured around child-friendly spaces/tents where psychosocial activities including play and recreation can take place. There will be a strong focus on children who have lost one or both parents, then expand further to reach a much larger number of children in the area. It will also strive to involve the community as active partners— for instance adolescents may help in providing recreational activities for younger children – in order to give the population a sense of rebuilding their lives around positive action. UNICEF activities will include:

- Provide psychosocial support and early childhood care to over 1,000 pre-school aged children.
- Provide immediate psychosocial support and meet basic needs of up to 6,800 children who have lost both or either parents in the disaster. This intervention will include the provision of food and clothing, and support to their access to health services and schools.
- Expand psychosocial support programme to children and families most affected by the disaster, in coordination with other agencies active in this sector.
- Provide tracing, care and support services to separated children through a joint system of tracing established with the government and partner agencies, and through existing facilities previously supported by UNICEF.
- Support reunited families by providing food, clothing and shelter materials, as well as counseling support.
- Provide care and protection to children relocated to Kerman's institutional care centers, and provide support to ensure that these children are cared for, as much as possible, in a family environment.

IV. Expected Impact

- Children of Bam are provided with psychosocial support and helped in healing the distress and shock.
- In the initial stage of the emergency, all children deprived of one – or both – primary care givers are receiving services in terms of food, clothing and medicines, care and protection.
- Separated children receive care and protection and are reunited with their families as swiftly as possible, or provided an alternative family environment.

V. Funding Requirements

UNICEF Activities Input	Requested Fund (USD)
Establishment early childhood care and development services	600,000
Care and protection of children without primary caregivers	500,000
Psychosocial support for children and families	1,200,000
Basic needs of affected children	600,000
Tracing of separated children	60,000
Technical support	120,000
Project support	100,000
TOTAL	3,180,000

EDUCATION

I. Issue

According to the latest government estimate, an estimated 9,000 to 10,000 school-aged children have perished in the disaster, out of a pre-earthquake population of 32,443. Likewise, official figures provide that, out of 3,400 teachers in the Bam district, 1,000 were killed. A large majority of the approximately 20,000 surviving students have lost family members. Among them are orphans who will need special attention.

School needs to resume for all of the Bam's surviving children and their teachers as soon as possible. A rapid resumption of schooling would offer Bam's distressed children a sense of normalcy and structure in their disrupted lives. Bringing them together through school would also provide a positive impetus to the communities in rebuilding their lives. Further, mobilizing children in schools will help implement psychosocial support programmes in earnest. Finally, resumption of school will play an important role in preventing the migration out of the area, as well as in attracting back Bam's residents who left the area following the quake.

However, the resumption of education will be a major challenge in the coming months, as the school infrastructure of Bam has simply collapsed. Some 90% of the existing schools of all levels in Bam, or 131 schools, have been destroyed. The remaining schools have sustained damages that are likely to be beyond repair. The impact of the quake was such that school buildings located as far as 40 to 90 km away were damaged and rendered unfit for continued teaching activities. International aid agencies, including UNICEF, have provided tents in the early stage of the disaster that can be used as temporary classrooms or recreational activities. However, many challenges lie ahead in resuming education, such as identifying the locations for setting up temporary schools and ensuring that there are adequate water and sanitation facilities next to them. Further, complex planning has to be conducted taking into account movements of population and potential returnees. Once school tents are established, educational materials, school supplies and materials for psychosocial activities will be required.

Death and departure of many teachers pose another serious challenge. While to date about 125 primary school teachers and an estimated 180-200 lower secondary and secondary school teachers have returned to Bam committed to go back to teaching, they have urgent needs to pull their own families together and survive. They need to feel safe and settled for their own families in order to teach and care for their students. Likewise, teachers have also suffered serious shock and distress, and may need psychosocial support in order for them to help their students. Teachers will also need skills to help identify and provide psychosocial support or referral options to children who are clearly showing signs of distress. Finally, with the death and difficult situation of so many teachers, replacement educators need to be identified, be it volunteers from the local community or teachers brought from other parts of the country, in order to help cater for the urgent educational needs of the children of the area.

II. Action to Date

UNICEF was the first UN agency on the ground bringing in education materials, and intends to continue to move fast. To date, UNICEF, together with its partners, has undertaken the following measures:

- 416 school-in-a-box kits arrived in Bam on December 30, 2003. Each kit contains school supplies and education materials for up to 80 students, plus supplies for the teachers. Using a locally developed teaching guide and curriculum, teachers can establish makeshift classes almost anywhere using the school-in-a-box kits, thus ensuring a child's right to education.
- Discussions are now held between Iranian authorities, UNICEF and other partners on various issues: timing for school reopening, location of schools, gender issues, availability of teachers, identification of community volunteers, psychosocial support, training of teachers, provision of supplies, and special attention to orphans and separated children.

III. Future Activities

Given the magnitude of the disaster, it is unlikely that the reconstruction and rehabilitation of the affected area can be completed in less than one and a half to two years. As a consequence, temporary schools have to be established before reconstruction of new schools can get underway. UNICEF intervention will first focus on facilitating the establishment of temporary schools so as to resume education as early as possible. Special attention will be given to the children who have lost parents so they are not left out when school resumes. Further, girls' access to education and their particular psychosocial needs will be closely monitored, especially in the context of a society segregated on the basis of gender. In this particularly chaotic environment, attention will be given to the potential need of keeping siblings together in order to prevent further distress. UNICEF will work closely with the Kerman Province Ministry of Education, the Literacy Movement Organization and the Office of Primary Education, both of which are affiliated with the Ministry of Education, and UNESCO focusing on the following immediate priority needs:

- Establishment of temporary schools fully equipped with multidisciplinary teams to provide education and support to the 2,000 to 3,000 most vulnerable young students who have lost their parents and families.
- Selection of appropriate child-friendly sites for establishment of temporary classes.
- Provision of school tents, educational materials, school supplies, psychosocial materials, including recreational kits, sports equipment, textbooks, and etc.
- Distribution of the 416 school-in-a-box kits, sufficient to offer basic school materials to all Bam's students.
- Support to Bam's surviving teachers to encourage them to return to Bam and to help stabilize their lives.
- Identification and training of volunteers from the community to work in schools.
- Develop a training component for teachers, paraprofessionals and/or community members, focusing on psychosocial support and child-centred approaches in teaching.

IV. Expected Impact

- Primary school aged children and teachers return to schools as soon as school sites are established.
- Basic education services are restored in collaboration with communities and local government authorities.
- Special attention and care are provided to most vulnerable children, i.e. children who lost parents and/or siblings.
- Parents are mobilized to encourage their children to resume attending classes.
- Schools are equipped with teaching materials and children receive school kits.
- School tents are provided to enable prompt resumption of school activities.
- Community members are identified to supplement the teaching force and receive incentives to carry out classes.
- Community volunteers and teachers receive training on psychosocial support for distressed children so that they are able to deal with children facing psychological distress.
- Recreational materials are made available for children to bring some normalcy back into in their lives.
- Children learn, play and recover from their traumatic experiences.

Funding Requirements

UNICEF Activities Input	Requested Fund (USD)
Establishment of and provision of equipment for schools.	1,800,000
Provision of necessary supplies for students and teachers	400,000
Support to Bam district teachers and recruitment of local specialists and personnel to supplement teaching staff	600,000
Training of teachers	200,000
Provision of new curriculum textbooks	300,000
Project support	100,000
Total	3,400,000

HEALTH AND NUTRITION

I. Issue

The impact of the earthquake on the health sector has been catastrophic. A total of 30,000 people are injured, while nearly 50 per cent of the local health staff is reported either dead or missing. Surviving health workers are struggling to cope with their own predicament. Almost all of the health facilities are destroyed: 95 community-level Health Houses, 24 rural and urban Health Centres and three hospitals of the district, with a total of 255 beds, are almost entirely shattered. The percentage of damage varies, but currently no health facility is reported to be functional, including the three hospitals. With the destruction and loss of the entire health infrastructure and health work force, treatment of the injured in the area became extremely challenging: 12,000 severely wounded patients had to be airlifted and taken to hospitals in other provinces. Field hospitals have been erected as a temporary measure to serve the remaining population. Similar temporary measures will continue to be one of the first necessities pending the repair or establishment of permanent facilities.

As an immediate consequence of the destruction and loss in the health infrastructure and human resources, essential primary health care services for children and women have all been disrupted, including child immunization, maternal and antenatal care, and management of tuberculosis and malaria. Another worrisome result is the interruption of the disease surveillance system due to the lack of laboratory support available.

As the situation in Bam moves away from the first acute phase of the emergency, high risk factors persist in terms of the increase in morbidity and mortality: Communicable and non-communicable diseases may increase due to the breakdown of the health system, interruption of preventive health services, depletion of health resources, and the inadequacy of shelter, and water and sanitation facilities. Failure to immediately address these needs and issues could have drastic consequences in the population's health. One example of the area that requires vigilance is the risk of cholera and/or typhoid epidemics. Both diseases were present in the region in the past and the risk can multiply due to the fragile conditions in sanitation and hygiene.

II. Action to Date

- UNICEF supported a massive measles campaign for children over five immediately before the earthquake that resulted in a 90 per cent coverage. This effort has helped prevent the potential outbreak of the measles in the aftermath of the earthquake.
- Immediately after the earthquake, UNICEF rushed some 60MT of emergency supplies to the affected population, including emergency health kits and essential drugs that can support up to 120,000 persons, as well as emergency obstetric kits to assist in up to 150 infants' births. UNICEF also provided 7,600 baby blankets.
- One day following the quake, UNICEF deployed a technical team to Bam, including a medical doctor, in order to support the assessment of the situation and ensure coordination with the government and NGO partners.

III. Future Activities

As the initial rescue and relief phase comes to an end, there is now a need to orient relief activities and plans towards a smooth transition to a medium and long-term relief, recovery and rehabilitation phase. UNICEF is engaged in discussions on various issues on long-term reconstruction of the health sector with the local, provincial and national levels of government, and other partners. UNICEF intervention in addressing child malnutrition will be undertaken with a medium and longer term perspective, involving the provision of necessary tools for growth monitoring and health workers' training. This will also entail awareness raising among health workers and the public on the selection and preparation of healthy food for children and vulnerable population, and advocacy for breastfeeding practices. In meeting the immediate nutritional needs of vulnerable children, UNICEF will focus first and foremost on the residential care centres where Bam's orphans are currently being taken care of. This will involve UNICEF's support in supplementary feeding through the provision of blended food and micronutrients for children. UNICEF will work closely and coordinate with WHO, the Ministry of Health, UNFPA and national and international NGOs, with keen attention to rebuilding the capacity of national structures and partners. The aim is to reach 18,000 children with a focus on child health and child nutrition, around activities including the following:

- Meet immediate child nutrition needs of the particularly vulnerable children.
- Support the monitoring of child malnutrition and growth.
- Support the resumption of routine child immunization, in particular, through the provision of cold chain equipment.

IV. Expected Impact

- Geographical coverage of routine immunization is sustained and the immunization is carried out in the tent camps, thereby avoiding the outbreak of vaccine-preventable diseases.
- Increase in child malnutrition is prevented.
- Caregivers are well-informed of ways to prevent child malnutrition, including healthy feeding practices and breastfeeding.
- Health workers sustain proper monitoring of the nutritional status and growth of children in Bam.

V. Funding Requirements

UNICEF Activities Input	Requested fund (USD)
Meet immediate child nutrition needs	1,000,000
Support monitoring of child malnutrition and growth	400,000
Support the resumption of routine child immunization, with provision of cold chain equipment	500,000
Project support	100,000
TOTAL	2,000,000