

## Peru Earthquake, August 15 2007



## CHASE Evaluation Visit 5-14 July

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*Cover photographs courtesy of Care Peru and Gustavo Riofrio*

## Background

On Wednesday 15 August 2007 an earthquake measuring 7.9 on the Richter scale occurred off the Peruvian coast, with several aftershocks the following day. The earthquake caused severe damage to the department of Ica, particularly to the cities of Pisco, Chincha and Ica. The earthquake also affected the city of Cañete in the department of Lima and areas of Huancavelica department. Almost 600 people were killed, over 1,000 injured and more than 75,000 families affected. There was extensive damage to government buildings, homes, schools, churches, roads and bridges.

The Peruvian government declared a state of emergency and requested international assistance on August 17<sup>th</sup>. The national response was led through the national civil defence system (SINADECI) which has as its main coordinating body the Instituto Nacional de Defensa Civil (INDECI). SINADECI relies on regional and local level committees led by the Mayors of Provinces and Districts who respond in times of crisis. When local capacities are overwhelmed, INDECI becomes involved and a national state of emergency is declared. In the case of the August 2007 Earthquake local and regional capacities were quickly exhausted due to a previous lack of investment, limited capacity and the sheer scale of the disaster. In addition many of the Mayors had only taken office in early 2007. Instead of relying on the established SINADECI the President of Peru created and led a parallel response structure with a base in Pisco. This confused and duplicated response led to an initial lack of clarity over leadership and responsibilities. No clear needs assessments were available in the first few weeks of the disaster and the Government's immediate response was uncoordinated<sup>1</sup>.

The United Nations (UN) and Non-Governmental Organisations (NGOs) mobilised very quickly after the earthquake. OCHA deployed a senior operations officer who arrived the day after the earthquake; the UNDAC system was mobilised and the team of 12 began to arrive within 72 hours; UNDP activated the UN Disaster Management Team, supported by a UN Emergency Technical Team, and a coordination centre was quickly established in Pisco. NGOs, civil society and local businesses immediately began delivering assistance to affected people. CARE Peru and other NGOs began needs assessments in affected areas the day after the earthquake and the Catholic Church responded through CARITAS.

Traffic on the Pan-American Highway was interrupted at numerous points but most repairs were made within a few weeks. It was still possible to transport relief items from Lima to Canete and Chincha. The one exception was the Huamani Bridge, near to Pisco, which was still closed for repair six weeks after the earthquake<sup>2</sup>. The airport in Pisco was unaffected so an airbridge was quickly established between Lima and Pisco to transport relief items. These combined factors meant it was not logistically difficult to access the main affected areas.

The United Nations, Government of Peru and INGOs put together a coordinated Flash Appeal which was issued formally on 28th August. The appeal eventually raised \$37 million of which \$9.5 million came from the Central Emergency Response Fund (CERF). The Resident Coordinator did not set up a Cluster system instead relying on established government sectors with lead agencies in support<sup>3</sup>.

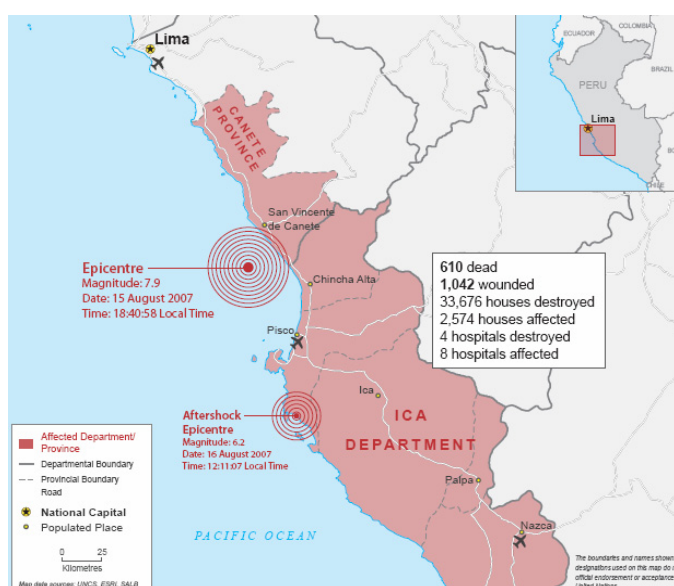
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<sup>1</sup> For further information on the national system of response, how it should have worked and what happened following the Peru Earthquake see "The Role of the Affected State: A Case Study on the Peruvian Earthquake Response" ODI Humanitarian Policy Group Working Paper, funded by CHASE – referred to as the ODI study in this report.

<sup>2</sup> "Damage to the Highway System from the Peru Earthquake" Jerome S Connor et al

<sup>3</sup> This is detailed in the ODI study and the Peru CERF evaluation report

Map from ReliefWeb (Situation as at 18 August 2007)



Since the Earthquake last year, OCHA has increased its regional disaster response and preparedness capacity in South America. In March a National Disaster Response Adviser (NDRA) to the Resident Coordinator took up post in Peru. 3 more are planned for Bolivia, Jamaica and Dominican Republic adding to the 3 NDRAs already in place in Guatemala, Nicaragua and Ecuador. There is currently one Regional Disaster Response Adviser, based in the OCHA Regional Office in Panama and another support position is being created. Information management and administrative assistance within OCHA is also being augmented.

The new NDRA in Peru will lead a small team to develop a coordinated disaster response plan working with the UN, the Government of Peru and INDECI. The plan will be available in draft by August and will be followed up with an implementation timetable and a simulation exercise with the Government. In the longer-term the plan will develop into a more comprehensive disaster management plan, replacing the existing, but outdated, plan. INDECI are currently reviewing their internal structures and are aware of the need to develop a focussed well prepared technical team to support SINADECI in the event of a national state of emergency.

### DFID response strategy

Although submitted by the 21<sup>st</sup> August, the Flash Appeal was not officially issued until August 28<sup>th</sup>, thirteen days post earthquake. During this time CHASE was monitoring the situation via internet sites, updates from humanitarian stakeholders in country and reviewing the various information products being issued. As has been documented in other reports (notably the CHASE-funded ODI study – annex 5), initial coordination and assessment was disorganised. Within CHASE the team started to put together a picture of the response, assessing the assistance being offered and arriving in country (including the CERF allocations on August 22<sup>nd</sup>). This information ultimately assisted in making a quick funding decision once the Flash Appeal was issued.

The Flash Appeal was the first point at which a consolidated assessment of needs had been presented to the donor community. CHASE initially focussed funding on the apparent gaps in the immediate response and it was felt critical to concentrate on the rural areas as assistance was seen to be largely targeted at Pisco town and immediate surrounding areas.

CHASE also recognised the need for seismically appropriate shelter reconstruction, and to support partners to encourage policy adaptation as a matter of urgency given the huge number of the population affected, a large proportion of whom were rural or peri-urban poor. Whilst not a usual funding route for CHASE in emergencies, shelter reconstruction was felt to meet a critical need for a largely poor population and was in line with DFID's commitment to Disaster Risk Reduction.

A funding recommendation of £125,000 each to UNDP and UN-HABITAT against a joint project within the Flash Appeal was made.

### Evaluation Objectives

In the response strategy a monitoring visit was recommended at approximately three months. It was subsequently decided instead to have regular contact via telephone and e-mail with project partners to monitor progress, and to carry out an ex-post evaluation mission in April 2008. The evaluation was delayed due to the Burma Cyclone response and eventually took place from July 5<sup>th</sup> to July 14<sup>th</sup> 2008. Visits had however been made to the projects whilst in progress by the UK Ambassador to Peru, including a visit to attend the launch of the UNDP/UN Habitat project guidance material on anti-seismic building techniques, risk mapping, land-use planning and land tenure rights in June 2008.

The evaluation objectives were:

- to evaluate project progress against identified project objectives with respect to completion of objectives, meeting project purpose and any impact identified;
- to review whether or not support has been well targeted by implementing organisation, sectorally, geographically and in terms of beneficiary selection;
- to review the strategy that defined funding recommendations and to record lessons and make recommendations for potential application in other crises;
- to comment on the general appropriateness and relevance of the strategy (focusing mainly on sectoral choices, programming approaches, timeliness of response and the interface between difference elements of the response);
- to comment on the decision making process that led to funding decisions;
- to complete Project Completion Reports for the two projects funded as monitoring best practice.

### Evaluation methodology

As this evaluation constituted the first of its kind for a CHASE humanitarian response the team decided, after consultation with DFID's Evaluation Department, to use the OECD-DAC Criteria for the Evaluation of Humanitarian Assistance, and to include in the evaluation report an assessment of the utility of this criteria and recommendations for its future application in CHASE evaluations (see evaluation criteria document –annex 3).

The OECD DAC uses seven criteria- relevance/ appropriateness, connectedness, coherence, coverage, efficiency, effectiveness, and impact. The relevant weighting of each criterion is recommended to be assessed during the evaluation. The CHASE projects are assessed against each of these criteria below.

Broad evaluation methodology employed included familiarisation with relevant background documentation, extensive interviews with the project teams and other stakeholders at local, provincial and national level, site visits, and assessment of further documentation produced in country. An itinerary with people met is attached at annex 2.

An independent interpreter was retained for the majority of the interviews and for all the site visits to avoid any bias in interpretation.

The project site visits were determined in advance with the project focal points as representative of their activities. The affected area of Pisco was not visited due to time constraints but the team believe there to be no issues or peculiarities to the response in Pisco different from those encountered in the sites that were visited.

Triangulation of information was upheld and where conflict of information was found it was investigated.

Where beneficiaries of the projects were interviewed all conversations were spontaneous and not (to the evaluators knowledge) orchestrated in advance. Women, men, boys and girls were interviewed and included people living in their own communities, migrant workers from other areas (previously settled in the affected areas) and members of the Afro-Peruvian and Andean communities.

The ALNAP cross cutting themes and pointers for good practice have also been incorporated into the evaluation methodology where the team felt applicable (see annex 3).

#### Methodology Bias/ Constraints

The preparation time for this evaluation was short and led largely to the visit schedules being arranged for the team by the project partners however these were negotiated to the team's satisfaction and are not felt to have biased the evaluation.

An independent interpreter was employed for the visit as one of evaluation team did not speak Spanish, the other team member having a working knowledge. The possibility of incorrect interpretation and understanding of information exists, but is judged to be small.

#### Evaluation of projects funded

The objectives of the UNDP/UN-Habitat project were to provide technical assistance to the Peruvian authorities for policy development and recovery in the housing sector; to prepare assessments of damage and criteria for rehabilitation of settlements; to develop settlement plans; to develop guidance on tenure rights and to train masons in seismically safe techniques. Outputs of the project included the development of manuals on anti-seismic building techniques, land-use planning and land tenure rights and additional (updated) risk mapping of the affected areas. Although there was a delay of approximately 6 weeks in negotiating and signing an MOU with UN-Habitat due to their internal administrative processes which extended the project end date, this did not impact on project start. The project also requested a 2 week no-cost extension in order to complete the launch of the various guidelines and materials developed with the Government.

OECD-DAC criteria: *Relevance/appropriateness*.

The project was assessed as appropriate and highly relevant in this context.

The project fitted the remit of CHASE's humanitarian policy of saving lives, alleviating suffering and disaster risk reduction.

The UNDP/UN-Habitat guidelines produced on risk mapping, it's methodology and the development of the Sustainable Cities Programme have been adopted and promoted by the Ministry of Housing and Sanitation, and efforts continue to get district and province ownership of the products following their launch in June. Accountability has been fostered

but there remains a lack of capacity to implement the guidelines. The team were assured by the Vice Minister of Housing and Sanitation that gaining this capacity is a priority.

Approximately 7 out of 10 people affected did not have legal documentation for their properties which has hampered the uptake of the Government's attempts to compensate those who lost, or were left with damaged, property. The work on land tenure undertaken by UN-Habitat under this project has been vital in assisting both the government and affected communities to realise individual's rights to their land. Gender equality has also been addressed in this process as previously only a man could be named as the tenant or owner of a property. The UN's work has highlighted this discrepancy and is attempting to instigate the change into law.

UNDP estimate that " with the effective application of hazard maps in urban development planning and using earthquake-resistant techniques developed in Peru during the last 10 years for brick and concrete – block masonry housing and reinforced concrete buildings, damage may be reduced to less than 5% of the construction value and the residents protected". In some of the worst affected areas, damage had reached 75%.

The risk-mapping studies funded under this project (plus 7 in Pisco) benefited 26 cities and towns with a total population of 940,300 people.

OECD-DAC criteria: *Connectedness*

The project was evaluated as sustainable and connected, taking longer-term and interconnected problems into account.

The UNDP/UN-Habitat project was designed for longer-term sustainability. A key output was to improve the preparedness of authorities to build back in safer areas and in a technically sound manner. CHASE funded this project for its disaster risk reduction objectives with sustainability in mind. The aim of this project was to build knowledge and capacity within district and provincial authorities. UNDP/UN-Habitat are now pushing forward with ensuring that district and provincial authorities implement the training, technical assistance and guidance they have received. As political appointees, the Mayors are likely to change in future elections, but capacity has been built within the UN on housing and tenure issues to be able to better advocate with new political appointees in future. Without a standing civil service in Peru, UNDP/UN-Habitat are working within the confines of the political environment. On a local level the training of builders in seismically resistant techniques has longer-term sustainability and impact as they then go on to train new builders.

OECD-DAC criteria: *Coverage*

The project achieved 100% coverage of their targeted population, achieving its main outputs/objectives.

UNDP/UN Habitat potentially targeted the whole affected population with the development, training and dissemination of guidelines for all levels of Government on risk mapping, seismically resilient building and land tenure rights.

OECD-DAC criteria: *Efficiency*

The efficiency of the project was evaluated as good and it was also evaluated as cost effective for its impact.

UNDP/UN-Habitat contracted highly specialised staff to work on their project. These consultants were highly respected both in their fields of expertise and within Peru and were able to exploit pre-existing relationships with authorities and line ministries. The evaluation team felt that CHASE funding had been used to develop links between existing UNDP and UN-Habitat projects. It seemed to the team that the UNDP/UN-Habitat project provided critical “additionality” on top of existing projects and resulted in some very important manuals plus updated risk maps of the affected areas and new risk maps in areas that had not been covered by the existing UNDP project. The team were repeatedly told of the importance of this additional funding in enabling the extension of an existing project to the earthquake affected areas.

#### OECD DAC criteria: *Effectiveness*

The project was rated as effective in achieving its project purpose.

The UN project met its objectives and a two week no-cost extension was granted to allow for organisation of the handover/dissemination ceremony. The risk mapping has been completed, training projects instituted (including the additional activity of a diploma project curriculum for the University of Ica) and human resource capacity has begun to be developed with regards to safe and seismically resilient re-building. Spontaneous rebuilding can't be prevented, but the UN are working to try to improve technical capacity to provide advice, enforce existing and improved guidelines and to ensure the population have knowledge of, and access to, their land tenure rights and thus compensation (however limited that compensation may be).

The emphasis that the project put on capacity building, whether of the affected communities or administrative and technical parts of government, cannot be underestimated. With Peru's growing economy human resource capacity is vital to allow the country to develop further, as well as protect itself from further disasters, to which it is unfortunately prone.

#### OECD DAC criteria: *Impact*

The evaluation team considered the impact of the project to be positive and highly valued.

The UN Resident Coordinator reported that “the DFID intervention punched above its weight”<sup>4</sup> as CHASE funding had allowed UNDP/UN-Habitat to link programmes which would not have occurred otherwise. The hazard mapping and future town planning, if carried out in accordance with the guidance from UNDP/UN-Habitat, will have huge impact on the safety of communities in risk prone areas. The evaluation team spoke to people within local authorities who had received technical support from UNDP/UN-Habitat and reported that the assistance and additional capacity had been a great help to them. The critical issue of maintaining the level of impact of this project will be in the implementation and further roll-out of the guidelines, something that UNDP/UN-Habitat are now taking forward with Government support.

### Conclusions

#### *Project*

This project has, by addressing relevant post earthquake needs, left sustainable outputs.

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<sup>4</sup> Meeting with Resident Coordinator, Friday 11 July, UNDP Headquarters.

The joint UNDP/UN Habitat project has achieved sustainable outcomes and impact, by addressing the need for seismically resistant re-building and associated land tenure problems. This work, once institutionalised at the local level (the main challenge now), will ensure people living in these risk prone areas will have the peace of mind of legal tenure and of living in communities able to withstand further earthquakes. If housing is re-built following the guidelines developed chances of surviving another earthquake will be greatly increased. The work of these two UN agencies has undoubtedly furthered and increased the Government of Peru's own ability to assist its population to be aware of, recover from, and be at reduced risk of, disaster. The associated work now being undertaken with UN OCHA, UNDP, INDECI and others in planning for the National Disaster Management Plan and the ongoing work on UNDP's Sustainable Cities Programme will undoubtedly increase Peru's resilience to further shocks.

### *Response strategy*

It was of some concern to the CHASE team initially monitoring the earthquake response that needs assessment information was not forthcoming in as timely a manner as might have been expected. The reasons for this are well documented elsewhere, but the delay in receiving a Flash Appeal, and thus the first consolidated picture of needs, had an impact on the funding choices then made.

As detailed above, the CHASE response strategy was felt by the evaluation team to have addressed two of the most pressing requirements of the beneficiary population, given that many of the more immediate 'humanitarian' needs had been met/pledged by the time of the Flash Appeal's launch.

The need for CHASE's other typical interventions in disasters such as goods in-kind and technical assistance was not expressly investigated during this evaluation, although at no time, nor in subsequent reports on the situation, have lack of these resources been highlighted as leading to additional suffering of the affected. This is likely due to the easy logistical access to the affected populations, government capacity and willingness to respond and technical capacity already in country.

The evaluation team were encouraged to observe the excellent working relationship between all the UN agencies, but particularly between the UNDP and UN Habitat on this project – joint UN agency working should be something DFID encourages in future disaster response. The decision to fund these two agencies (not typical funding partners in a CHASE response) has been evaluated as positive and productive.

### Recommendations for CHASE

- It has been very useful to keep in contact with project partners in a light-touch manner (regular phone calls and ad hoc emails) in lieu of our usual real time monitoring. This level of engagement should be maintained for projects funded by CHASE where there is no continued field presence and/or no real-time monitoring visit planned.
- The DRR team should be asked to facilitate INDECI's linkages with other similar organisations for further capacity building (this has been completed).
- CHASE should suggest the need to improve UN Habitat's administrative systems for emergencies if they wish to be able to receive and utilise short term funding.