

SUMMARY OF MAIN FINDINGS AND KEY LESSONS

This report focuses largely on the period from July 1995 up to the evaluation team's visit to Montserrat in November 1998; later key developments are also noted.

MAIN FINDINGS (cross-references are to paragraphs of Main Report only)

An achievement for Montserrations and a qualified success for HMG

1. The volcanic eruption, which began on 18 July 1995, has devastated Montserrat. By 26 December 1997 when the most extreme explosive event took place 29 months later, approximately 90% of the resident population of over 10,000 had had to relocate at least once and over two-thirds had left the island. Virtually all the important infrastructure of the island was destroyed or put out of use for the short to medium term. The private sector collapsed and the economy became largely dependent on British aid.
2. The considerable achievement of the people of Montserrat is to have coped with the continuing volcanic menace that was wholly outside their experience, and then adapt to the loss of homes and livelihoods and the disruption to their community. Since volcanic activity reduced, from March 1998, people have begun to return, aided since May 1999 by the UK's assisted return passage scheme. Reconstruction is focused on the previously undeveloped northern third of the island. Rehabilitation of the least affected central areas is under consideration.
3. The disaster response by HMG since July 1995 in supporting the Government of Montserrat (GoM) and assisting the island's people has been a success in comparison with many other recent natural disasters elsewhere in the developing world.
 - There were only 19 confirmed fatalities directly attributable to the eruption and hardly any measurable increase in communicable disease and physical ill health.
 - Throughout the emergency, involving four major evacuations at little notice, everyone has had a roof over their head, no one has gone hungry and there have been no reported cases of child malnutrition, and social order has been maintained.
 - Scientific monitoring was rapidly enhanced and sustained throughout the crisis.
 - As volcanic activity diminished in 1998, planning for recovery and reconstruction has gone forward. A Sustainable Development Plan (SDP) and Country Policy Plan (CPP) for 1998-2001 were agreed in November 1998 and January 1999 respectively, combined with a commitment in July 1998 of £75m. over 3 years to 2001 and a subsequent indicative £25m. for 2001-2002. (4.5-15, 4.25, 5.13, 7.2)

4. That success has to be qualified by less satisfactory aspects of the response and its consequences.
 - Relocation forced most people to accept difficult crowded living conditions: up to 1,600 in August 1997, living in temporary public shelters with very basic facilities and little privacy. Even in late 1998 around 400 people or 10% of residents were still living in these shelters, and a year later 322 people were still in shelters. (5.4-5.7)
 - Several of the urgent actions agreed between June and September 1997: the 'Immediate Housing Project' of 255 directly built houses; the temporary Government Headquarters; the upgrading of the hospital; and the Soft Mortgage Scheme to support private housing, were all substantially behind schedule 14 months later, at the time of the evaluation. The housing programme and Soft Mortgage Scheme remained so in September 1999. (5.8-12, 6.4-7, 7.14)
 - The majority of the on-island population is at least partially dependent on social assistance, which is not targeted on the basis of need. (5.13&14)
 - The economy is virtually non-existent, apart from the public sector and linked public construction, retailing and transport, which are all dependent directly or indirectly on British aid. (2.12)

5. The Montserrat emergency has had some distinctive aspects – important in any assessment of HMG's response.
 - Standards (e.g. of living, health care and education) are not those typical of a developing country, as the publicly aired differences between HMG and the elected Government of Montserrat showed. (4.22&23, 5.2, 9.5-12)
 - There has been exceptional uncertainty throughout about the progress of the eruption. (2.10, 3.11, 4.5-12)
 - The island's volcanic terrain and geography severely constrains on-island solutions to volcanic hazards, most infrastructure being in highly vulnerable locations and the island's small size precluding duplication of facilities. (2.8-10, 4.22, 4.27)
 - HMG has become progressively more directly involved in managing the emergency. Since the return to budgetary aid in 1996, GoM finances have also come under the supervision of the Secretary of State for International Development. (3.7-3.18, 7.9, 8.2-8)
 - Montserrat has been self-governing since 1961. Ministers and the Legislative Council (LegCo) have understandably sought to find on-island solutions to the effects of the eruption and preferred to avoid steps that would jeopardise a rapid return to pre-eruption normal life, so long as that was even a remote possibility. (3.11, 4.17, 5.9)
 - As an Overseas Territory virtually all emergency funding was provided by HMG. (3.23, *Annex 9, section 9.3*)

6. There was apparently no contingency planning on how FCO and the then ODA would manage an emergency in an Overseas Territory (OT) in circumstances that raised difficult issues of governance and risk management as well as the detailed practicalities of emergency management. *Ad hoc* arrangements had to be put in place, and this was done reactively as the eruption progressed. The protracted eruption has involved four closely related stages in HMG's emergency response. (3.6, 4.3&4)

7. *Initial crisis: July - September 1995.* The eruption was not predicted. HMG's crisis response, as coordinated on-island by the Governor, contingency planning by Ministry of Defence (MoD) personnel, and assistance by ODA were prompt and appropriate to the highly uncertain situation. (3.7-10, 4.18)
8. *'Waiting on the volcano'.* HMG's (and GoM's) response, from September 1995 up to the fatal events of June 25 1997 and the destruction of Plymouth that happened shortly after, is the least impressive aspect of the emergency. Very basic health, shelter and social assistance were provided following evacuations of Plymouth and the south. HMG also began to fund, albeit slowly, infrastructure – jetty, roads, water, electricity - necessary to permit a substantial part of the population to live temporarily in the north. However, housing needs were not effectively addressed and no assistance was provided to those leaving the island. The strengthening of FCO and ODA emergency management capacity on-island also proceeded slowly. (3.11-13)
9. Careful examination of the risk management strategy followed by HMG and the GoM suggests that there was an element of 'good fortune'. The micro-zonation policy adopted in early-1996 and the continued use of facilities in Plymouth and the airport were necessary because the facilities for the safer strategy of restricting occupation and activity to the north were not in place. The GoM preferred 'wait and see' options that assumed less serious impacts, with HMG having, because of its ultimate responsibility for Montserrat, to prepare for the worst case. Many within HMG were equally prepared to accept a 'wait and see' approach which limited resource commitments, including staff for managing the emergency. (4.5-11, 4.19, 5.9, 6.5, 7.7)
10. *The volcanic crisis from July to September 1997.* During this period HMG adopted the lower risk strategy of supporting those wishing to remain on-island and assisting temporary settlement in the UK and within the Caribbean region. There was initial indecision and public disagreement between HMG and GoM, but nevertheless a crisis package was agreed of actions to support continued occupation in the north and also for subsequent reconstruction. This package of actions, with the contractual arrangements for its implementation, has formed the basis of much subsequent HMG assistance. There were also significant improvements in management and the use of scientific advice. (3.14-19, 4.10, 5.13)
11. *Moving from emergency to reconstruction.* The precise moment at which the balance of HMG's efforts shifted from crisis management to rehabilitation is difficult to pinpoint. The scientific assessment confirming that magmatic eruption had halted (July 1998) and DFID's commitment of £75m. funding, in June 1998, indicate that this threshold had already been crossed. DFID and then FCO established simpler direct administrative arrangements for Montserrat and the other OTs. However, DFID continued in a crisis management mode effectively for the whole of 1998 through the centralisation of funding decisions in London with ministerial approval of levels of spending that had previously been delegated to its Montserrat office. The start of reconstruction is too recent to be evaluated except as a process. (3.20-21, 5.20, 7.2-5)

Resources

12. Meeting the reasonable assistance needs of the OTs is a first call on DFID's development programme. However, from early-1996 onwards the absence of a clear budgetary ceiling or jointly accepted standards on what was appropriate resulted in negotiation and delay. There was a growing perception on the Montserratian side that DFID, in particular, was acting ungenerously, preferring cost-minimising solutions to immediate needs which jeopardised longer-term development. (4.23, 6.7, 7.7-10 7.1, 9.13-15)

13. Up to March 1998, DFID had spent £59m. in emergency-related aid, of which around £53m. was additional expenditure, allowing for previous aid projections. DFID has committed an additional £75m. up to 2001. Projected HMG expenditure will be at least £160m. over six years, taking into account additional expenditure in the UK on relocating Montserratians. The total capital loss, including real estate, is unofficially estimated as up to £1 billion, mostly only partially recoverable or uninsured. (2.12, 3.22-23)

Use of scientific information

14. *Identification of issues.* The procedures in place in 1995 in FCO, the then ODA and their joint Dependent Territories Regional Secretariat (DTRS), or in the region dependent on the Seismic Research Unit (SRU) were not adequate to ensure that the increasing volcanic risk would be anticipated and then effectively monitored. (3.6, 4.3-4)

15. *Building science into policy.* Prior to the eruption the Head of SRU advised only GoM's Chief Minister, with HMG indirectly involved. This was inappropriate. Once the extreme risk was recognised, HMG progressively availed itself of the best scientific advice from within and outside government, and supported the development of the Montserrat Volcano Observatory (MVO) to provide adequate monitoring and as a centre for complementary research. However, arrangements were ad hoc and short-term until British Geological Survey (International) (BGS(I)) was given a 2-year contract in September 1997. HMG has also brought together a sufficiently wide range of expert advice - including its Chief Medical Officer (CMO) and Chief Scientific Adviser (CSA) - and has organised this through periodic formal elicitation meetings to provide a clearer and consistent basis for policy making. (3.12, 4.3-11, 4.14, 4.18, 9.17-21)

16. *Presenting policy.* Public information on the eruption and its implications was limited and unsatisfactory at the outset. This increased uncertainty and made it more difficult for people to plan. From October 1995 onwards, public information improved considerably, with direct involvement by scientists. Efforts were made to strengthen public information through the use of radio, meetings and, since August 1997, by appointing information officers and publishing monthly newsletters. DFID has not given special attention to public information, either on-island or to Montserratians who relocated elsewhere. (4.11, 4.13, 4.20, 5.18-19, 9.22-25)

17. The use of scientific advice has had to take into account the strong preference of many to remain on the island and the practicalities of making this possible. (3.11, 4.9-11)

Effectiveness and efficiency of emergency actions

18. *Appropriateness.* The emergency has obliged HMG together with GoM to intervene in almost every aspect of on-island socio-economic activity. In an emergency there are sharp trade-offs between urgency, specification and costs. The initial response between July and September 1995, involving rapid preparation of an evacuation plan and the first evacuation in conditions of extreme uncertainty about the scale and timing of a possibly catastrophic eruption, was largely effective, but with much messy detail. (4.18, 5.4, 9.22-25)

19. *Timeliness.* Emergency aid by DFID's Emergency Aid Department (EMAD), now the Conflict and Humanitarian Affairs Department, was put in place quickly. Earlier delegation of management and spending authority to project managers would have been preferable to micro-management on-island or in London. The processing of development aid projects, especially up to June 1997, was too slow. Budgetary aid was, on the whole, provided in a flexible way. (3.9, 4.7, 4.16, 4.18, 6.14, 7.9-12, 8.9)

20. *Social sectors.* These were and are a GoM responsibility. The measures taken were effective in minimising the threat to life and health. However, the severe social disruption and the economic effects were mitigated to only a limited extent, and the impacts of relocation and massive emigration have been large and traumatic. A high proportion of vulnerable groups, the elderly and those without family support, are in public accommodation. Social assistance has been transferred from direct relief to a more general food voucher and the cash benefit system, but there is no effective targeting. An earlier move to income-tested benefits as cash payments would have avoided fostering welfare dependency and been cost-effective. (4.22-27, 5.12-14)

21. *Economic impact.* Little was attempted to address the economic effects of the emergency prior to August 1997, except through budgetary support. The subsequent accelerated programme of infrastructure investment has had indirect benefits for the private sector. The very few actions specifically to sustain the economy have been very slow in delivery. (7.2-12)

22. The response on financial regulation, to address the effects of the loss of insurance cover, the knock-on insolvency of the Montserrat Building Society and the position of the Bank of Montserrat, has been characterised by extreme caution and procrastination because of contingent liability. Decisions have been made without regard to their aggregate economic consequences and, on balance, have had a detrimental impact on the island's short-to-medium-term economic prospects. (7.13-18, 9.9-10)

23. The partial separation of emergency and economic and development responsibilities, at least up to late-1997, and the strenuous attempt by HMG departments to work within existing managerial arrangements impeded an effective response. (8.2-11)

24. *Connectedness*. Addressing urgent emergency requirements, through measures which had a joint objective of promoting development, proved a flawed concept. Too often it was not possible to reconcile timely response to immediate needs (HMG's priority) with durability and reusability (GoM's concern). In addition to short term actions and preparations to prevent loss of life, complementary measures were needed specifically directed to limiting damage to the private sector and assisting its recovery and for protecting financial institutions. (5.7, 7.7-8, 7.15, 9.47-51)

25. *Cost-effectiveness*. Cost minimisation was a major consideration and may in some instances have been over-done (as in the sourcing of tents in 1995). The provision of infrastructure through roads, storage and the emergency jetty appears to have been a necessary and cost-effective investment. The construction of a temporary Government Headquarters appears to have been poor value for money, taking into account the delays and cost overruns. Overall construction and adaptation using local materials, know-how and labour appear to have been more cost-effective than solutions based on the importation and assembly of prefabricated structures. Emergency logistics were handled reasonably: the use of military transport in August 1995 was justified; emergency sea and air links since June 1997 were cost-effective. (4.26-33, 5.4, 6.8-11)

26. *Coherence (co-ordination)*. Many of the delays, omissions and shortcomings in HMG's response are linked to the complexity of HMG management and the administrative system for Montserrat as a self-governing OT. Up to mid-1997 there was poor internal communication, separating information from points of decision, and a lack of clarity about the point of final responsibility for action. The changes made since September 1997 have considerably simplified management arrangements within FCO and DFID. But there is a triangular relationship in which the Governor/FCO and the GoM have different administrative responsibilities, whilst DFID provides finance and most technical advice. For a year from late-1997, DFID centralised authority in London with ministerial approval required for decisions previously made in Montserrat by the Aid Management Office (AMO) and before that by the DTRS. High turnover of DFID staff also contributed to poor management and supervision of investment implementation on-island was inadequate. Practically, there have been occasions on which no one had clear authority to force through actions to completion. The three-year funding commitment and CPP process provide the opportunity to achieve coherence. (6.14, 7.14, 8.2&3)

27. In the early stages of the emergency the overall co-ordination of HMG's response was weak. Only after the establishment of the inter-departmental Montserrat Action Group in August 1997, ultimately chaired at Ministerial level and with Cabinet Office monitoring, did a crisis programme rapidly take shape, with regular performance monitoring. This has reduced but not prevented substantial delays in implementation. (3.15-18, 5.11-13, 8.4, 9.55)

28. The reactions of other governments and regional organisations confirm the extent to which the emergency is viewed as a British colonial and financial responsibility. Positively, there have been consultation and co-operation with neighbouring Antigua and the French authorities in Guadeloupe over off-island evacuation planning. East Caribbean states have allowed temporary residence and employment of departing Montserratians. France and the Netherlands assisted with search and rescue and evacuation of the injured in June 1997. (9.56-58)

KEY LESSONS *(cross-references are to paragraph numbers in this Summary only)*

A proactive strategy for "capping" emergency problems

29. HMG departments attempted to manage the Montserrat emergency within normal institutional arrangements both in London and the Caribbean. This led to a reactive, catching-up strategy and ad hoc adjustments to management. The alternative is to attempt from the outset a more ambitious strategy of "capping" the problem. This is likely to require a task force approach which involves a temporary crisis management team, a senior task force leader with considerable delegation of authority who reports to the highest level, and an inter-departmental Emergency Room. (6, 8-10, 15, 23, 26-27)

30. Both FCO and DFID experienced difficulties in posting staff for urgent assignments in Montserrat through normal procedures. It may be appropriate to review procedures for more effective, timely internal placements of staff in an emergency. (8, 26)

Fast-tracking emergency responses/investment

31. The evaluation identified a number of delays which reduced the impact and cost effectiveness of emergency measures/investments. It supports the near unanimous view of Montserratians and most of those involved from the UK that there is a need for fast-tracking emergency investments to meet short-term, i.e. up to 3 year, requirements, which should be considered separately from longer-term development needs and temporarily given priority. This would be facilitated by: placing a multi-disciplinary team in-country or in-region with sufficient delegated authority; establishing a sub-set of procedures for a limited range of exceptional circumstances within DFID development project guidelines; and building an institutional culture that supports rather than deters urgent more risky actions. (4, 8, 15, 19, 25-26)

32. Contracting an agency to supply a range of management, logistical, social, and institutional skills would have provided valuable services from the outset of the Montserrat emergency in contingency planning, procurement and co-ordination. (15, 19)

33. Disaster preparedness, including contingency plans that identify what may be required, will also facilitate fast-tracking in an emergency. This is a priority for the more disaster-prone OTs, including Montserrat. (5 bullet 3, 6, 14)

Promoting partnership in the Overseas Territories

34. There are no agreed standards for infrastructure, social assistance or social service provision, health and education in OTs. There is an urgent need to clarify appropriate standards to which the "reasonable claims" of the OTs on British aid are to relate, especially in an emergency. The smallness of Montserrat raises a special problem of diseconomies of scale. For example, what is the appropriate on-island or within-territory level of provision of health care or education? This is a potential problem for other OTs and should be explicitly addressed in considering disaster preparedness arrangements and in any future emergency. (5 bullet 1, 12, 20, 28)

35. Effectively self-governing at the start of the emergency, GoM has had to work very closely with HMG as the emergency progressed and has seen a shift of responsibility to HMG. The elected members of LegCo and senior GoM officials should have been given familiarisation in HMG practice and procedures. Had this happened some delays and misunderstandings might have been avoided and some important projects might have moved forward more quickly. (5 bullet 3, 8, 12)

Facilitating post-disaster reconstruction

36. One of the biggest challenges in the aftermath of a crisis on the scale of the volcanic emergency which has devastated the economy of Montserrat is how to get larger scale international – UK, Caribbean, European – private sector involvement in reconstruction and renewal. A coherent consultative framework for development is needed, which should include land development and private sector participation, as well as the elected government and – in the case of OTs - HMG as the primary funder. The New Town Development Corporation might provide a relevant model for the development of northern Montserrat. It would enable the GoM to concentrate on the normal responsibilities of government and DFID to withdraw to its usual aid management role. (4 bullet 4, 11, 21-22)

Volcano-seismic monitoring and scientific advice

37. In the best-case scenario in which no new magma is emplaced in or outside the volcano, it will need close monitoring for at least ten years, after which monitoring will need to be continued for the foreseeable future. The pattern of volcano-seismic crises in the past suggests elevated risks of another eruption on Montserrat around the year 2025. The volcano needs an Observatory with a wide range of functions – certainly scientific research and co-ordination of research, and monitoring duties alongside that research. The Montserrat Volcano Observatory is to be put on a statutory, permanent basis and will

need to take its place in the regional network of observatories. This will require the commitment of sufficient staffing and long-term UK financial support. (5 *bullet 2, 15*)

38. The lessons of Montserrat are profound for the rest of the Caribbean region, which needs to reinforce the SRU in Trinidad as a strong regional scientific seismicity and volcanic activity surveillance organisation. (7, 14)

39. In the case of Montserrat, tracking the progress of the volcano relies heavily on visual observation from helicopters. This is not always feasible and is relatively risky. High-resolution satellite imagery of an erupting volcano would usefully supplement direct monitoring on a daily basis. The practicality and cost of such additional monitoring need to be considered by volcanologists and remote-sensing specialists in consultation. All countries with interests in the region should be involved. (5 *bullet 2*)

Disaster preparedness in the Overseas Territories

40. All the volcanic islands in the Caribbean region and several OTs elsewhere require periodic up-to-date hazard assessment with associated scientific studies. The aftermath of the Montserrat crisis seems an ideal time to raise levels of awareness and preparedness. (6-7, 14)

41. The risk assessment for Montserrat prepared in 1987, which considered the possibility of an eruption, was overlooked. A mechanism - such as an advisory panel - is needed to ensure that concerned officials in the FCO and DFID are kept informed of scientific developments regarding natural hazards. (14)

