

Rapid Environmental Impact Assessment
Field Test Report: Indonesia
8 January - 1 February 2003
Prepared by:
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with contributions of Mario Pareja²

Summary

A field test of the Guidelines for Rapid Environmental Impact Assessment in Disaster was conducted in the Central Kalimantan, Indonesia, from 8 January to 1 February 2003 using CARE Indonesia as a test bed with funding from USAID/OFDA. The Indonesia test was the final of three tests of the Guidelines and focused on (1) verifying the usability of the Guidelines by NGO field staff with minimal environmental or disaster management experience, and (2) the use of the Guidelines at the community level. Two consultants managed the field test and provided limited training and support to the team of five CARE and three Yaysan Cakrawala Indonesia staff who conducted the actual assessment. The assessment was successful in identifying and grossly prioritizing environmental issues and provided input for the pre-implementation adjustment of two recently funded CARE post-disaster and disaster mitigation projects in Central Kalimantan. The ease with which the assessment was conducted was reduced by (1) insufficient planning and preparation and (2) the unavailability of documentation in Bahasa Indonesian (most of the assessment team were not fluent in English). The community assessment went easier than the group assessment, in part because planning and language issues were adequately addressed. (However, it was recognized that a stand-alone community REA assessment is not needed if another disaster impact assessment collects appropriate information.) The consolidation and analysis of issues raised in the group and community assessments encountered some difficulties, but ones which can be addressed by clarifying and expanding existing guidance. The general assessment process would be enhanced by providing specific guidance on meeting management and participatory rapid assessment skills and methods. The field test also indicated a need for a reformatting of the Guidelines to give appropriate attention to group and community assessments, issues consolidation and analysis and green procurement. The actual assessment required a total of 14 days of field work and cost approximately \$7,900 (excluding consultant salaries). The field test report also contains comments and suggestions on training and training material development (the next stage of the project) and improving the Guidelines document.

I. Introduction³

This report covers a field test of the newly developed Guidelines for Rapid Environmental Impact Assessment in Disaster in Central Kalimantan Indonesia using the CARE Indonesia program in Central Kalimantan as a test bed. This field test was financed by the Office of Foreign Disaster Assistance, US Agency for International Development through a grant to

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³ Certain sections of the Introduction repeat information provided in the same part of the Field Test Reports for Afghanistan and Ethiopia. Both reports can be found at www.bghrc.com/DMUsetup/Project/REA.htm.

CARE US and a sub-grant to the Benfield Greig Hazard Research Centre, University College London.

Identifying and addressing environmental issues is critical to an effective response to disasters or other rapidly evolving crises. Unfortunately, normal environmental impact assessment procedures cannot be used in disaster or crisis situations for conceptual and procedural reasons. Responding to this gap in environmental impact assessment tools, CARE and the Benfield Greig Hazard Research Centre have collaborated to develop a set of Guidelines for Rapid Environmental Impact Assessment in Disasters. The original Guidelines document was completed in early 2002 with funding from UNEP/OCHA.

The Guidelines were intended to quickly identify critical environmental issues during a disaster or crisis without the need for extensive data collection or detailed project documents or a specialized background in environmental sciences. The Guidelines contains four complementary tools:

1. A procedure to assess perceived critical environmental issues from the perspective of organizations providing relief.
2. A procedure to quickly collect and analyze data from communities on their perceptions of critical environmental issues.
3. A process for bring together the results of the organization and community assessments to develop a common list of critical issues and initial actions to address these issues.
4. A simple procedure to screen the procurement of relief supplies to minimize the more common negative environmental impacts which can arise from the provision of emergency assistance⁴.

The Guidelines and related documents can be found at www.bghrc.com/DMUsetup/Project/REA.htm.

The main sections of this report provide a summary of the **Test Environment**, the **Test Process** and the **Test Results**, followed by a number of **Lessons Learned**. The test results and lessons learned have been shared with an Advisory Board and used to revise the Guidelines and as input to a training module on the Guidelines.

The terms of reference for the test of the Guidelines in Indonesia are found in Annex A. To the extent possible the material contained in this Annex is not repeated in the main part of the report. A **Schedule of Activities** and **List of Persons Contacted** during the test are provided in Annex B.

Annex C, **Briefing and Training Notes**, contains the text of Power Point files used to provide entry and exit briefings for USADI/OFDA and NGOs in Jakarta and a set of notes prepared for REA training and assessment preparation sessions with CARE and counterpart staff in Central Kalimantan. Comments on the presentation and results of the staff briefing/training notes are incorporated into the materials provided in this annex.

⁴ The procurement screening process was not tested in Indonesia.

Annex D, **CARE Indonesia Central Kalimantan Assessment Reports and Supporting Documents**, contains copies of working notes and results prepared by the CARE and counterpart staff who actually conducted the assessment⁵. Included in this annex are materials used in a validation presentation for NGO and government organizations in Central Kalimantan. (Notes from the exit briefing for organizations in Jakarta are provided in Annex C.) Note that some materials in this Annex are drafts and will undergo revisions as part of CARE Indonesia=s integration of the assessment results into project planning and management. As in the other field tests, a formal assessment report was not produced, with the results of the assessment being incorporated directly into project planning.

Finally, Annex E contains the **Trip Report** prepared by Mario Pareja, the project environmental specialist who participated in the first half of the field test. Mr. Pareja=s comments and recommendations cover the field test, changes to the Guidelines and development of the project=s training materials. Observations, comments and recommendations from the Mr. Pareja=s trip report have been incorporated into this report as appropriate and the trip report should be considered an integral part of the field test report.

This report has been reviewed by CARE Indonesia. Comments and suggestions have been incorporated into the report when appropriate, although the final report is the product of the first names consultant alone.

II. Test Environment⁶

The test was conducted in Central Kalimantan, Indonesia. The test site was selected because of recurrent and severe problems, most recently in 2002, with wild fire and haze which have an acute impact of lives and livelihoods. A strong link exists between drought in Central Kalimantan (normally associated with El Nino conditions), and the development of large fires⁷, and between large fires and haze (persistent presence of high particulate matter originating from smoke associated with the fires - smog). Haze is seen as the cause of acute and chronic health problems, can disrupt transport and adversely affect plant development.

Interestingly, given the links with El Nino conditions, drought itself is not reported to be as significant a problem as fire and haze. Drought impacts vary across the province, with upland areas more affected by low river levels (rivers are a main means of transport), while low land peat areas are affected by low soil moisture, particularly in intentionally drained areas. Flooding is reported to be a problem in some river-adjacent villages, but not (at present) a significant (i.e., province-wide) hazard.

⁵ Much of the written materials prepared during the assessment were in Bahasa Indonesian, or a mixture of English and Bahasa Indonesian. Bahasa Indonesian texts have been translated into English for this Annex.

⁶ Background this section include: Forest and Land Fires in Indonesia: Forest Fires: Impact, Factors, and Evaluation of Efforts (Vol 1) and Plan of Action for Fire Disaster Management (Vol 2), State Ministry for Environment, Republic of Indonesia and UNDP Jakarta, 1998; Attachment A.1, USDA Monetization Proposal, CARE Indonesia, no date; Preparedness for Environmental Emergencies Activities in Tropical Peat-lands (project proposal), CARE Indonesia, no date; Fires in Indonesia: causes, costs and policy implications, Luca Tacconi, Center for International Forestry Research, no date; Decentralization and Forest Management in Kapuas District, Central Kalimantan, John F. McCarthy, Center for International Forestry Research, Australian Centre for International Agricultural Research and Department for International Development, 2001; and from field assessment work.

⁷ Peat land fires occur at and above ground level, or below ground when the peat is dry due insufficient rain or as a result of drainage. Fires in the upland areas are typically surface (forest, grassland) wild fire.

Fire is a common land management tool in Kalimantan. In the past, the lengthy rainy season, high humidity and tropical forest ecosystem in Central Kalimantan meant that fire did not spread far beyond the point of ignition except under exceptional conditions which may have occurred on a 50 to 100 year cycle.

Over the past twenty years, large scale logging and deforestation for agriculture and resettlement of the southern areas of Central Kalimantan (and other areas in the Indonesian portion of the island of Borneo) has created environmental conditions under which relatively short dry periods lead to vegetation moisture conditions conducive to rapid fire growth and a resulting production of dense persistent haze. For a variety of reasons, once fires begin to grow during drought conditions they are unlikely to be controlled by human effort, and are only extinguished with the advent of the rainy season⁸.

Commercial logging has changed the accessible areas of the province from large stand tropical forests to a mosaic of degraded scrub vegetation and grass lands of limited productive or commercial value. But the change in environmental conditions is most marked in the peat soils in the southern part of the province. In these peat lands, the combination of deforestation and drainage for agriculture has led to conditions where the peat soils can easily catch fire during dry weather. The result of drainage and fire is significant damage to soil structure and crop productivity. The smoke from the peat fires has been identified as the major source for haze.

The deforestation has altered the hydrological system in large parts of the province. The deforesting of up-land areas appears to have altered, at the least, water quality and minimal river flow levels (although possibly not maximum flows or flood recurrence⁹). But the draining of the peat lands, intended to permit rice production, has resulted in a serious degradation in water quality (e.g., increased levels of iron), which affects human health as well as aquatic life (e.g., reduced fish populations).

Both the logging and transformation of peat areas to agricultural lands were accomplished with a high degree of social engineering. Indigenous populations were alienated from traditional livelihood systems with little say in how this alienation occurred. Transmigrants were moved into virgin agricultural lands and provided an initial (and apparently significant) material and infrastructure support. The alienation and transmigration have resulted in social tensions, recently leading to open conflict and forced expulsion of some transmigrant groups.

Overall, Central Kalimantan's environment has been significantly changed by human action over the past several decades. One clear consequence has been an increase in extreme events such as wild fire and haze, which immediately threaten life and welfare. More chronic threats to lives and livelihoods, such as poor water quality and decreasing food productive capacity, are also significant and increase the basic vulnerability of populations to acute shocks.

The human response to environmental and livelihood system changes appears to be two fold. For

⁸ Some fires in the peat lands will continue through the rainy season since the fires burn at depth in drained peat land.

⁹ Based on reports from up-land river-side villages contacted during the assessment. At the same time, deforestation in other parts of the world is often associated with increase maximum flows and increased flooding and these conditions may develop over time in Central Kalimantan.

indigenous populations, the scale of natural resource extraction has increased, possibly to unsustainable levels for some items such as trees and rubber. For transmigrants, shifts have taken place in crops grown and food consumption patterns (e.g., more cassava and less rice due to lower rice harvests) and likely increased efforts to harvest local natural resources, such as fish, wood and fruit.

By no means have the natural resources in Central Kalimantan been totally depleted. But the level of natural resource extraction by indigenous and transmigrant populations, combined with continued commercial logging and settlement in the peat lands, appears to exceed sustainable levels. The resulting (or continuing) environmental changes will likely lead to more frequent and more severe disasters and long term degradation in lives and livelihoods.

The field test began as CARE was opening an office in Central Kalimantan to support two newly approved projects. One project will focus on agriculture, health and food aid in the peat areas (a USDA monetization funded project). The other project focused on improving disaster preparedness and management in roughly the same area (the European Union funded APEAT@ project). Although from different funding sources CARE sees the projects as complementary.

Neither project is an emergency relief operation. However, both projects are intended to address the consequences of recent disasters (fire and conflict) and significant hazards (particularly fire and haze) in Central Kalimantan. CARE Indonesia viewed the REA field test as a way to collect information on disaster and environmental conditions in the project target areas (south-eastern Central Kalimantan) as input into project implementation plans and options for future programs.

CARE staff working on the REA assessment were relatively new to Central Kalimantan, with most coming from CARE projects in East Kalimantan. As a result, all the CARE staff were basically unfamiliar with the test area. The assessment team also included three natives of Central Kalimantan who were members of Yaysan Cakrawala Indonesia, a local NGO. Of the eight persons on the assessment team, two were women, both Central Kalimantan natives.

None of assessment staff had extensive experience in emergency operations, although several were working on a disaster preparedness project dealing with fire in East Kalimantan. The team leader had an agricultural background, most recently working on a development project similar to the newly approved USDA project for Central Kalimantan. All CARE team members had other duties and several had to handle non-test related tasks concurrent with the participating in the test.

Most team members had some knowledge of English, although only the team leader had sufficient familiarity to work easily in the language. Based on discussions during the field test, it appears that staff of the level involved in the Indonesian field test work predominantly in Bahasa Indonesian. This is in contrast with Ethiopia (and a lesser degree Afghanistan) where many of the key test participants were used to working in English.

As noted, a disaster was not occurring in Central Kalimantan at the time of the test. CARE Jakarta-level operations were in a non-disaster mode and access to senior management and support services were not otherwise constrained.

However, during the field test it was determined that a disaster was taking place in West Timor, another CARE area of operation. As a result, the senior staff person directly responsible for the field test (who also carried emergency operations responsibility within CARE Indonesia) was not able to devote the planned amount of time to field activities. However, despite a concurrent need to develop emergency proposals, senior Jakarta-level staff did participate in the post-field test debriefing process and engaged in discussions about how the REA Guidelines performed and on how the results of the assessment would be used.

Finally, Indonesia is going through a dramatic decentralization. One result is that CARE advised that it would not be of great use to meet with government officials in Jakarta, since the burden of responsibility for addressing environmental and disaster problems has shifted to the provinces and lower-level jurisdictions. As a result, contacts were made with provincial officials rather than extensive (and time consuming) meetings in Jakarta.

Assessment Team Personnel

Name	Assessment Team Position/Organization
Ujang Suparman	REA assessment leader, Leader/facilitator, Team 2, CARE
Medi Yusva	Writer (of data collected)/co-facilitator, Team 2, CARE
Waliadi	PR/Documentation, Team 2, CARE
Lilik S.	Local cultural expert/logistics, Team 2, Yayasan Cakrawala Indonesia
Aspian Nur	Leader/facilitator, Team 1 CARE
Yokobeth S.	Local cultural expert/logistics, Team 1, Yayasan Cakrawala Indonesia
Muslim	Writer/co-facilitator, Team 1, CARE
Dedy S.	PR/Documentation, Team 1, Yayasan Cakrawala Indonesia

III. Test Process

The test process was designed to meet the five objectives for the field test (see below and Annex A). Specific emphasis was placed on verifying (1) whether staff without extensive training in the REA or background in environmental issues could conduct the REA, and (2) whether the REA process would work at the community level. Unlike previous tests, a second consultant (Pareja) with extensive background in environmental issues and development of the REA Guidelines participated in the first half of the test in addition the lead consultant (Kelly).

The actual field test process took place in eight stages. The first stage involved discussions in Jakarta and included a terms-of-reference review between the two consultants (Kelly and Pareja) and the CARE Indonesia senior staff (Johan Kieft) responsible for the projects in Central Kalimantan. These discussions were followed by a series of entry briefings with CARE staff, USAID/OFDA (which was funding the field test) and NGOs in Jakarta (see Annex C for a summary of these briefings.)

The second stage involved preparations in Palangkaraya, Central Kalimantan for the field test and included initial discussions with the assessment team leader (Ujang Suparman) about the REA Guidelines and the field test. This stage included a one day presentation to the assessment team covering the background to the REA and the group¹⁰ assessment process. The team leader was tasked with translation of all discussions and materials. The time needed for translation and digesting the new material in the Guidelines considerably slowed activities in this stage. (For additional information on this stage, see Annex C 5., **Training and Briefing Notes** and Annex E, **Pareja Trip Report**). This stage took place over little more than an evening and a day, although discussions on the implementation of the Guidelines continued between the lead consultant and team leader throughout the assessment.

The third stage involved actually conducting a group assessment with CARE, counterpart personnel, other local NGOs and government representatives. This stage took approximately 1 2 days (over 2 two day period) and was led by the assessment team leader (Suparman). Approximately 17 non-CARE or counterpart government and NGO representatives attended the meeting (See Annex D 1. for list of names and organizations.) The results of the group assessment are provided in Annex D, including details of rating work done by two working groups made up of group assessment participants (Annex D 3.), and a final synthesis of critical issues (Annex D 4.). (Also see Annex E, **Pareja Trip Report** on the group assessment process.)

The fourth stage involved preparations for the community assessment and partially overlapped with the activities in stage three. These preparations involved revisions to the (English) version of the Community Questionnaire used in Ethiopia, translation of the questions into Bahasa Indonesian (by the team leader), creation of two community assessment teams (see Assessment Team Personnel list above), review of the questions by assessment members, planning for the community visits (including community selection, logistics, and security) and a role play session and discussion of the community questionnaire process with team members lead by Pareja. See Annex D for a table on selection of communities where the assessment was to be conducted (Annex D 5.). The questionnaire used in the community survey is closely similar to the questionnaire used in Ethiopia and is not included in this report. This stage required approximately 1 2 days over a total of 2 days.

The fourth stage evolved into the fifth, with an initial test application of the community questionnaires¹¹ by the two assessment teams, followed by data collection in a further 10 communities. The questionnaire was administered to a total of 13 groups in 12 communities. (See Annex D 5. for a list of villages, and Annex B for **Schedule of Activities**.) The initial idea was to process questionnaire data each afternoon/evening although most of this work was actually done at the end of this stage. The community data collection process required a total of 7 days, including the initial use of the questionnaire and one travel day. The completed community survey forms are not included in this report but are available from the assessment team leader (email: ujangsuparman@yahoo.com).

¹⁰ The term group assessment refers to the assessment process described in Volume 1 of the Guidelines, primarily intended to be used by relief cadres from NGOs and government.

¹¹ One team covered on group and the other two groups in the first day=s use of the questionnaire.

A sixth stage focused on analysis of data. First, the community questionnaires were processed by each team into yes or no answers to questions on environment issues. These questions correspond closely to issues raised in the group assessment process (see Volumes 1 and 2 of the Guidelines). In addition, coping strategies and their possible positive or negative environmental impacts were identified from the information collected in the communities. The Yes/no tables and coping strategies are provided in Annex D 6., and a summary of critical issues in Annex D 7.

The results of the Yes/no table were then compared with the results of the group assessment and an effort was made to consolidate and prioritize issues through a series of assessment team meetings. The initial results of this analysis are provided in Annex D 8. The process required approximately 12 days, with an additional 2 day devoted to writing up the initial results of the analysis for presentation.

The assessment team leader devoted additional time to working on the wording and results of the initial analysis developed during the assessment team meetings. This work was directed to (1) focusing materials for presentation at meetings in Palangkaraya and Jakarta (see below), and (2) formatting the initial analytical results in a way that facilitated modifications to the USDA and PEAT projects and identification of potential new projects for CARE in Central Kalimantan. See Annex D 9. for an issues-activity matrix developed to aid this later task.

The seventh stage of the field test involved presentations and discussions of the field assessment results in Palangkaraya and Jakarta. The Palangkaraya meeting was targeted to participants in the original group assessment. Approximately 16 non-CARE or counterpart government and NGO representatives attended the 22 hour meeting and provided comments on the assessment results and suggestions for further consideration (including identification of a hazard which had not been noted as significant elsewhere during the assessment). A list of meeting participants is provided in Annex D. 2.

The Jakarta meeting was targeted at NGOs interested in disasters and the environment and USAID/OFDA. The meeting also served to brief senior CARE Indonesia staff. The meeting was presented in two parts, one covering the test process (presented by Kelly) and the other on the assessment results (presented by Suparman). Text versions of the Power Point presentation on the test results are provided in Annex C 6., and persons attending are listed in Annex C 5. Points raised in the discussions on the test and assessment have been included in the **Key Learned** section below.

The final stage of the field test involved the preparation and review of this field test report. This process has included a review of the **Pareja Trip Report** (Annex E) with CARE staff, discussions with the assessment team leader on opportunities and challenges posed by the use of the Guidelines, review and discussion with the assessment team leader and supervisor (Kieft) on evaluation of the Guidelines and test results, and a review of the draft test report by CARE Indonesia and Pareja.

The consultants managing the test attempted to minimize direct involvement in the use of the Guidelines. Most direct involvement of the consultants took place during the initial briefing of assessment team members on the REA and in preparations for the community assessment.

On several occasions the assessment team leader and the lead consultant discussed how to complete certain parts of the assessment (e.g., completion of the Yes/no table). These discussions followed the training outline in Annex C.

Direct involvement in the day-to-day work of the assessment was limited to answering direct questions about the Guidelines and process and, on one occasion, demonstrating a method during the analysis stage. In fact, almost all the assessment work was completed in Bahasa Indonesian, a language of which both consultants had very limited knowledge. As a result, much of the day-to-day assessment work (and almost all the community-level work) was completed without interaction with the consultants.

IV. Test Results

The Terms of Reference for the field test in Indonesia set out five major questions which were in turn linked to a number of subsidiary questions to assess the test results. The answers to the subsidiary questions are presented below.

The answers are based on a combination of feedback from assessment team members, discussions with the assessment leader (Ujang Suparman), input from assessment team members and CARE staff and observations of the use of the Guidelines. The initial draft answers were shared with CARE Indonesia and Mario Pareja, and the resulting feedback used to revise the answers provided.

Are the Guidelines for Rapid Environmental Impact Assessment in Disaster sufficiently detailed to accurately identify and prioritize critical environmental issues during a disaster operation?

Specifically:

Did the REA/ <u>Guidelines</u> miss any critical issues in the initial assessment which were identified in later revisions?	The initial <u>group</u> assessment did not identify as many or as complete a range of issues as were identified during the community assessment. Overall, the completed assessment appears to have identified most major environmental issues expected of the type of disaster and environment found in test area.
Did the REA/ <u>Guidelines</u> accurately reflect changes in environmental and relief operations conditions which were noted during the test period?	Conditions did not change significantly during the field test.
Were the descriptions of potential issues sufficiently detailed so as to clearly identify actual issues or were descriptions and results too ambiguous to be useful?	Lack of an appropriate language (Bahasa Indonesian) version of the <u>Guidelines</u> meant that almost all assessment team members and <u>group</u> assessment participants faced significant problems in understanding the <u>Guidelines</u> . As a result, it is unclear if descriptions are unclear in English or would be unclear in Bahasa Indonesian when translated.
Was the scope of the REA process limited by a lack of information, as a whole or for specific elements?	A lack of information appears to have hampered the initial <u>group</u> assessment, as the community

	assessment indicated additional issues not raised in the <u>Agrou@</u> assessment. However, the end results of the assessment did not appear to be significantly limited by a lack of information.
Were the nature of potential environmental issues clear to users from materials presented in the <u>Guidelines</u> , or was additional information and detail needed?	Environmental issues were not initially clear because of the lack of Bahasa Indonesian text and the difficulty of translating English to Bahasa Indonesian. The community questionnaire appears to have been better understood by the assessment team members. It is not clear if additional information and detail are needed for persons working with a <u>Guidelines</u> in a language they understand well.
Does the use of the <u>Guidelines</u> result in a prioritization of environmental issues?	To some extent, yes, although the process of prioritization can be influenced by preconceptions as to what should be a priority. Feedback and discussion indicated that (1) simple methods for prioritization should be included in the <u>Guidelines</u> , (2) rating scales designed for more discrimination between elements and location-specific conditions could be useful (e.g., a 1 to 5 (not a problem to significant problem) scale instead of 0/1 (yes/no) scale for rating issues identified during the community assessment) and (3) more clear explanation of the REA process (related to organization of the <u>Guidelines</u> document and language of use), would facilitate the prioritization process.

Is the Guidelines document an appropriate assessment tool for the time compressed, information limited, high workload demand environment found in disaster situations?

Specifically:

Was the three hour preparation time/three hour completion time target realistic?	<p>No. The actual <u>Agrou@</u> assessment took 1 2 days due to four factors: (1) inadequate preparation, (2) lack of appropriate language versions of the key documents, (3) diversity of group members and (4) the newness of the CARE program to Central Kalimantan. Under these conditions, a 1 2 to 2 day <u>Agrou@</u> assessment process may be appropriate.</p> <p>The community assessment process worked relatively better, likely due to (1) team experience, (2) better planning, (3) translated documents and (4) clearer objectives from the assessment team perspective. Analysis of the <u>Agrou@</u> and community assessment results required 1 2 days, but was made</p>
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	difficult by weak guidance on the analysis process.
Did completion of the <u>Guidelines</u> work well in a group process?	The process worked better with experience. Major problems noted were the lack of a common understanding of the REA process by the <u>group</u> assessment participants and unusual <u>group</u> management requirements (e.g., need to work directly from an English language document into Bahasa Indonesian). Assessment team group dynamics could have been improved to increase participation.
Were action items followed-up on and addressed as part of normal planning and operations?	Not to date, but changes in two funded but not yet started CARE projects are anticipated.
Was sufficient information available locally to complete the <u>Guidelines</u> ? Note where information is lacking.	Yes.
Was sufficient and timely support available when locally available resources are not adequate to define or identify ways to address critical environmental issues?	External support was not needed during the assessment.

Were the Guidelines outputs integrated into relief and recovery planning and operations and did they have any discernable or perceived positive impact on disaster assistance operations?

Specifically:

Were the REA results used and how were they used?	Results are planned to be used to adjust two recently funded projects to include issues identified in the assessment. In addition, results are expected to aid in framing Participatory Rapid Assessment and Participatory Learning Activities for both projects.
Were some (or all) of the results not used, and why?	Low priority issues will not be used for the two recently funded projects, but may be used to frame future development activities.
Could positive changes in project activities be linked, in fact or perception, to positive changes to relief operations?	No relief activities were underway. A positive link with the newly funded projects is anticipated.
Were REA results included in planning for rehabilitation and recovery programs?	Probably yes, as assessment results are planned to be used to adjust two projects which are just starting.
Were REA results used (or are likely	Not likely. No EIA is planned for either of the newly

to be used) in a formal Environmental Impact Assessment for program or donor-level assistance to Indonesia?	funded projects. CARE has not yet started to design other projects for Central Kalimantan for which an EIA may be required. (Note that CARE does not appear to have an organization-wide policy of doing EIAs for new projects and conducting an EIA depends on donor-specific requirements.)
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Could the Guidelines be used by local staff who do not have extensive environmental or disaster management backgrounds?

Specifically:

Are the instructions for the <u>Guidelines</u> clear, particularly to non-native speakers of English?	No. The English language <u>Guidelines</u> were largely not understandable to group assessment participants and team members.
Were the concepts on which the REA and <u>Guidelines</u> are based clear to the local staff users?	Yes, after translation and explanation in Bahasa Indonesian.
Was the organization and presentation of the <u>Guidelines</u> clear to the local staff who were using it?	No for the <u>group</u> assessment section for the reasons noted; more so for the community assessment, and less so for the analytical guidance, due to the lack of guidance in an appropriate language.
Was extensive or minimal support (e.g., training, advice) needed to enable local staff to use the <u>Guidelines</u> ?	Extensive, as the team leader had to translate and explain the whole assessment process to participants. However, the two day preparation for the community assessment was not unusual for a rapid assessment efforts.
Could staff who led the use of the <u>Guidelines</u> identify and understand the results of the assessment process and integrate these results into plans and operations?	Yes, although initial understanding was slowed by need to work in English with new terminology and a new process.
Were the rating scales and procedures set out in the current <u>Guidelines</u> understandable to users?	In general, yes, while the possibility of using different scales was also raised. The use of value terms (e.g., poor, fair, good, excellent) may help provide meaning to the rating process for those unfamiliar with the process and to aid in the differentiation (ranking) of issues.
Were users comfortable with the process and results of the use of the <u>Guidelines</u> ?	The comfort level was good for the community work but not with the <u>group</u> assessment, probably due to language problems, a lack of training and newness of the REA process.

Could the Guidelines be used at the community level?

Specifically:

<p>Did language pose a problem for the use of the <u>Guidelines</u>?</p>	<p>Yes, although the community questionnaire seemed to work well when translated and understood by assessment team members.</p>
<p>Were community participants able to understand the concepts and ideas on which the <u>Guidelines</u> are based?</p>	<p>Yes, because the questionnaire was understood by assessment team members and explained to the participants in the community sessions.</p>
<p>Did the form and format of the <u>Guidelines</u> pose problems for use with a community group?</p>	<p>Not really, although language was initially a problem. An issue arose with the fact that the community discussion process usually generated information at the beginning of a meeting which answered questions later in the questionnaire. Users were instructed to skip these questions when they had already been answered.</p> <p>A separate issue is whether information collection at the community level should be done according to a formal questionnaire (as done in this test) or a focused discussion outline. Test participants indicated a preference for a questionnaire when time is limited and a focused discussion approach when time is not limited. (From observation, the use of a questionnaire made recording responses and data easier.) Either approach is appropriate as long as the required data is collected.</p> <p>It is also important to note that USAID and CARE management indicated a strong inclination to not conduct community level REA assessments in the future, but to collect information for use in REA analysis through other disaster impact assessments tools. These other tools tend toward a questionnaire rather than focused discussion approaches to data collection¹².</p>
<p>Were the <u>Guidelines</u> able to capture gender and social differences in views about environmental impact and disaster response options?</p>	<p>To a certain degree, but not fully. Use of the questionnaire with gender or group specific focus groups will likely provide information on gender or group-specific differences.</p>

¹² Note that in Ethiopia the open ended nature of many of the questions in the questionnaire allowed for more information to be provided by a community than in some other assessment tools used in Ethiopia. In reality, the questionnaire used in Indonesia and Ethiopia may have served as an aide memoire for those conducting the assessment to ensure all necessary information is collected and as framework for focused discussions to the extent a community wants to discuss the issues raised.

<p>Were community/group views accurately represented in the results of the assessment?</p>	<p>Difficult to answer without other assessment results with which to compare these results. Assessment results will likely make CARE=s Central Kalimantan projects more responsive to the needs and perceptions expresses by the communities. At the same time, the assessment identified issues which can be viewed as important to outsiders (e.g., mercury in the water), but which may not be important at present to local populations. A regular re-validation of the assessment results would be useful to ensure that project and community views coincide as closely as possible.</p>
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Approximately 60 days after the field test, CARE Indonesia will be requested to provide further information on the results of the REA use by providing responses to the following questions:

1. Did the use of the Guidelines enhance understanding of environmental issues in the disaster context?
2. Did the use of the Guidelines lead to changes to on-going or planned activities/initiatives?

The answers to these questions and other post-assessment information and feed-back will be used to develop a short addendum to the field test report.

The total estimated costs of the assessment was US\$7,600, including salaries for CARE staff directly involved, per diem, travel, meeting fees and miscellaneous charges. This cost figure does not include the two REA consultants. The estimated assessment cost is similar to what the expected costs of a two week rapid rural assessment using two or more assessment teams.

V. Key Lessons

The REA Guidelines can produce usable (and grossly prioritized) results without extensive training or support. The Central Kalimantan field test was led and conducted by persons with little environmental or disaster management experience who received minimal training and support. According to CARE Indonesia, the assessment provided useful input into on-going project planning and management. At the same time, the use of the Guidelines did encounter problems due to a lack of preparation, training, and documentation in an appropriate language. If these issues are addressed, it is likely that similar groups can accomplish a rapid environmental impact assessment in less time and with less difficulty.

The Guidelines document needs to be reformatted to place an equal emphasis on the four tools covered in the document (group and community assessments, consolidation and analysis and green emergency procurement) and improve ease-of-use. The Central Kalimantan test demonstrated that the group and community level assessments are important to an accurate overall identification of critical environmental issues and this needs to be made

clearer in the Guidelines document. An outline for changes to the Guidelines is under consideration. The reformatting will be take place after editorial changes to the current version of the Guidelines.

An independent (REA-based) collection of data at the community level is not necessary if other disaster impact assessments are conducted. USAID Indonesia and CARE Indonesia indicated it is unlikely they would require or conduct a stand-alone rapid environmental impact assessment covering communities and requiring any significant period of time in an emergency situation. A more workable and cost effective approach is to ensure data on environmental issues are collected in the course of other disaster assessments (e.g., water and sanitation, nutrition, food security) and this information extracted from assessment reports using methods set-out in the Guidelines. This approach will be recommended in the revised Guidelines, while general guidance on community-level assessments will also be included for use in cases where other assessments are not conducted or do not provided the needed information.

Guidance on how to interpret and prioritize issues identified in an assessment needs to be strengthened. In Central Kalimantan, as in the Ethiopia and Afghanistan tests, prioritizing and transforming issues into actions was not as easy as would be preferred. Part of this difficulty appears to lie in the complexity of some of the issues identified in the assessment. This is particularly the case for issues identified under the *Context and Identification of Disaster Related Factors With Immediate Impact on the Environment* elements, which are in most cases conceptual rather than concrete. In addition, assessment participants attempted to develop complete solutions for individual issues, rather than treating the assessment results as a first step in a comprehensive process of project design (or re-design in the case of Central Kalimantan). A new separate section on *Consolidation and Analysis* in the next revision of the Guidelines should at least partially address this difficulty.

The Guidelines need to provide a minimum of information, complemented by links to comprehensive sources, on how to conduct an assessment process a group and community settings. Skills which were identified as needed during the field test include managing groups, planning participatory rapid assessments, developing and testing questionnaires, planning data collection, and managing the analysis and results process. It is expected that information on these topics is already available from other sources and can be incorporated as summarized references into annexes to the Guidelines.

Further changes to the ranking and rating tables in the Guidelines will improve their ease of use. These changes mostly involve formatting, but also making the community assessment process more logical and transparent.

Further discussion of rating scales, including options for incorporating value ranges (e.g., generally satisfactory, satisfactory, generally unsatisfactory, totally unsatisfactory) into the rating process, is needed in the Guidelines. At the same time, users will need to be cautioned that making the rating scales and process more complex can increase the time needed to complete an assessment, and may produce erroneous results if assumptions about values (or weighing of answers) are incorrect.

A REA assessment can take a considerable amount of time for a tool intended to be used in an emergency. Clearly, and as demonstrated by the difficulties encountered in Central Kalimantan, a lack of preparation and planning can make the group (organization) level assessment a laborious and lengthy process. A 1 2 to 2 day organization level (Agroup@) assessment period is clearly unworkable for a rapid onset disaster, but may be acceptable for a slow onset disaster if the assessment outcome is clearly linked to management of the response (e.g., project design or operations planning). At the same time, the community level assessment did not take more time than would be expected for a community level PRA-based food security assessment.

The Guidelines should emphasize that the time needed for an REA assessment can be reduced if:

- (1) Preparation and planning are given sufficient attention (as noted above),
- (2) Information for the community assessment is collected through other assessments (as noted above) and,
- (3) Large and diverse groups in the organization level assessment (or community assessment for that matter) be avoided if possible. If such groups cannot be avoided due to the nature of the disaster(s) being assessed or programmatic reasons then specific planning and preparations are necessary to avoid the REA becoming a slow process. (This is not to argue against large and diverse groups, but to recognize the management and time requirements they demand if the assessment is to be rapid and productive.)

Validation of assessment results is important, and can provide additional insight into environmental and emergency conditions. In Central Kalimantan a second meeting with the group assessment participants was held to present the results of the community assessments and resulting consolidation of group and community identified issues. This meeting served to validate the results of the overall assessment and had two interesting outcomes:

- (1) Group assessment participants did not fully agree with all the views expressed by the communities and,
- (2) New insight was provided into environment/disaster issues not fully identified in earlier stages of the assessment.

Despite some disagreement on specific results, this second meeting was reported to increase the Abuy-in@ of group assessment participants into the REA process and overall results. A similar validation exercise should be done at the community level when possible.

The Guidelines should be read and understood before a rapid environmental impact assessment is attempted. Although this may seem to be obvious, a number of process issues which arose in the assessment are covered in the current Guidelines. It is likely that these issues would not have arisen if the Guidelines had been fully consulted¹³.

Further comments and recommendations with respect to the whole REA development, including training and changes to the Guidelines, can be found in Annex E.

¹³ As the REA is a team process, this implies that more than just the assessment leader need to have read and understood the Guidelines, something difficult in Central Kalimantan due to the lack of copies of the Guidelines in Bahasa Indonesian.

Annex A. Terms of Reference

REA Field Test Terms of Reference Indonesia - January 2003

Background

The Benfield Greig Hazard Research Centre and CARE are collaborating on a project to develop a Rapid Environmental Impact Assessment (REA) procedure for use in disaster situations. The Guidelines for Rapid Environmental Impact Assessment in Disaster, funded by the UNEP/OCHA Geneva, was completed in January 2002 and has been field tested in Afghanistan in early 2002 and Ethiopia in mid-2002 with funding from the Royal Norwegian Ministry of Foreign Affairs/CARE Norge. A final field tests now scheduled for Indonesia in January 2003. Following the field tests, the project will develop and test a REA training module for use by CARE and other organizations.

Funds have been provided by OFDA/USAID to CARE US to support the field testing of the REA in Indonesia in cooperation with CARE Indonesia. The field test is scheduled to take place over 60 working days from o/a 1 January 2003, with 30 working days of field work and approximately 15 working days for travel, report drafting, Guideline revision and consultations.

A field test report and revisions to the REA will be distributed to interested parties (including CARE Norge, CARE Indonesia and other members of CARE International) and posted to the REA project site at www.bghrc.com/DMUsetup/Project/REA.htm. This work is expected to be completed by o/a 20 February 2003, allowing time for circulation of reports and Guidelines revisions and input into the development of training materials (the next phase of the project).

Objectives

The field test will have five basic objectives:

1. To assess whether the Guidelines for Rapid Environmental Impact Assessment in Disaster is sufficiently detailed to accurately identify and prioritize critical environmental issues during a disaster operation;
2. To assess whether the process of using the REA, as outlined in the Guidelines, is appropriate for the time compressed, information limited, and high workload demand conditions found in disaster situations;
3. To identify how the outputs from the Guidelines and REA process can be integrated into relief and recovery planning and operations to improve the effectiveness of the disaster assistance, and
4. To assess the ease with which the Guidelines are used by NGO staff who do not have an extensive background in disasters, environmental issues or both.
5. To assess how well the Community REA Questionnaire works as a tool to collect group-specific perceptions, views and concerns about disaster-related environmental issues.

Approach

A hands-on approach will be used to test the Guidelines in Indonesia. The testing process will be led by an Emergency Environment Advisor (EEA - Charles Kelly) supported by an Environmental Specialist (ES - Mario Pareja) who will work with CARE Indonesia staff to identify and address critical environment issues through the use of the Guidelines. Addressing critical environmental issues includes (1) changes to on-going programs, (2) incorporating ways to address environmental issues in future programs, including field interventions, advocacy and other actions appropriate for the Indonesian context.

The EEA and ES will be responsible for (1) working with one or more CARE Indonesia staff to advise and assist them in the use of the Guidelines as an operational process to assess and identify environmental issues affecting current or anticipated emergency assistance operations, (2) providing advice and support to CARE Indonesia to identify ways to address issues identified, and (3) recording how the REA operates in terms of the four stated test objectives. An outline of the test tasks and schedule is provided below¹⁴.

¹⁴ An alternate approach, of using the REA/Guidelines as a guide for a consultant report on environmental

The EEA and ES will consult and collaborate (as appropriate and as requested) with other organizations providing emergency or environmental assistance to Indonesia. These consultations and collaborations are intended to: (1) increase local awareness of the Guidelines as a tool for use in emergency situations and (2) raise the profile of environmental issues in disaster operations in Indonesia. In addition, both the EEA and ES will be available to CARE Indonesia to provide advice and support in addressing environmental and disaster-related issues which may arise from the REA field test or other causes in Indonesia.

The test in Afghanistan focused on use of the Guidelines at the country program level. The test in Ethiopia focused on Country Office-Program-Community linkages and development of a community assessment questionnaire. The focus of the Indonesian test is to use the Guidelines at the program level and further work at the community level, including testing with different groups within communities. The test process may also include use of the Guidelines at the country program level if this use will support use at the program/regional level.

The test area for the Guidelines is expected to be Central Kalimantan, an area affected by fire, drought, conflict and environmental degradation as a consequence of poorly planned development efforts. A final selection of the test site/s will be made based a review of local conditions, CARE=s operational requirements and use of the Guideline results beyond a specific program or location.

Tasks and Schedule

The following draft task and schedule outline provides for the use of the Guidelines at a program/regional and community level in Indonesia. The schedule will be confirmed on arrival in Jakarta and adjusted to fit local conditions and requirements. Note that the schedule is for the whole field test and covers the time that Kelly (the EEA) is in country. The schedule for Pareja (the ES) will cover approximately 20 days withing this period, including travel.

Days from Start of Test	Task/Location
1 - 3	Travel to Jakarta
3 - 7	Planning with CARE Indonesia, presentation of <u>Guidelines</u> to CARE staff and counterparts, contacts with government and other NGOs with likely interest/involvement in the field test and <u>Guidelines</u> .
8 - 9	Travel to test site.
10 - 11	Briefing of local program staff and other interested parties. Visits to test area.
12 - 13	Use of <u>Guidelines</u> with local program staff. Discussions on use at community level. Selection of community test sites.
14 - 15	Preparation for community tests, including initial contacts with communities and staff preparation.
16 - 20	Community tests.
20 - 22	Review of program and community test results with program staff.

conditions in Indonesia, would only address the first objective of the test and not whether the Guidelines are an assessment tool usable by, and useful to, those directly involved in dealing with a disaster.

	Development of action plan to response to issues raised.
23	Review of progress-to-date with CARE Jakarta.
24 - 27	Review with program (field) staff on follow-up actions to initial assessment and development for post-test action plan. Revision of the initial program/regional and community level tests if appropriate
28 - 30	Debriefing with CARE Jakarta, including review of follow-up action plan and test results. Debriefing with other organizations in Jakarta as needed. Close-out of administrative issues.
31 - 33	Depart from Indonesia/Return travel.
33 - 40	Preparation of field test report.
40	Circulation of test report to CARE Indonesia for review.
41 - 45	Revision of <u>Guidelines</u> and field report; posting to Benfield Greig web site.
46	Test report revisions based on CARE Indonesia input and circulation to Advisory Board/CARE Norge/CARE USA for comments.
47- 51	Consultations with Interworks on training module.

Assessment Criteria

Attempting to statistically quantify the results of the REA/Guidelines test is not likely to be productive. The test environment suggests a qualitative approach to identifying what works and what doesn't in the REA process and the Guideline procedures is more likely to produce useful results. This qualitative approach can be constructed around a set of questions regarding each of the test objectives, as presented below:

1. Are the Guidelines for Rapid Environmental Impact Assessment in Disaster sufficiently detailed to accurately identify critical environmental issues during a disaster operation?

Specifically:

§Did the REA/Guidelines miss any critical issues in the initial assessment which were identified in later revisions?

§Did the REA/Guidelines accurately reflect changes in environmental and relief operations conditions which were noted during the test period?

§Were the descriptions of potential issues sufficiently detailed so as to clearly identify actual issues or were descriptions and results too ambiguous to be useful?

§Was the scope of the REA process limited by a lack of information, as a whole or for specific elements?

§Were the nature of potential environmental issues clear to users from materials presented in the Guidelines, or was additional information and detail needed?

§Does the use of the Guidelines result in a prioritization of environmental issues?

2. Is the Guidelines document an appropriate assessment tool for the time compressed, information limited, high workload demand environment found in disaster situations?

Specifically:

§Was the three hour preparation time/three hour completion time target realistic?

§Did completion of the Guidelines work well in a group process?

§Were action items followed-up on and addressed as part of normal planning and operations?

§Was sufficient information available locally to complete the Guidelines? Areas where information is lacking should be noted.

§Was sufficient and timely support available when locally available resources are not adequate to define or identify ways to address critical environmental issues?

3. Were the Guidelines outputs integrated into relief and recovery planning and operations and did they have any discernable or perceived positive impact on disaster assistance operations?

Specifically:

§Were the REA results used and how were they used?

§Were some (or all) of the results not used, and why?

§Could positive changes in program activities be linked, in fact or perception, to positive changes to relief operations?

§Were REA results included in planning for rehabilitation and recovery programs?

§Were REA results used (or are likely to be used) in a formal Environmental Impact Assessment for program or donor-level assistance to Indonesia?

4. Could the Guidelines be used by local staff who do not have extensive environmental or disaster management backgrounds? Specifically:

§Are the instructions for the Guidelines clear, particularly to non-native speakers of English?

§Were the concepts on which the REA and Guidelines were based clear to the local staff users?

§Was the organization and presentation of the Guidelines clear to the local staff who were using it?

§Was extensive or minimal support (e.g., training, advice) needed to enable local staff to use the Guidelines?

§Could staff who led the use of the Guidelines identify and understand the results of the assessment process and integrate these results into plans and operations?

§Were the rating scales and procedures set out in the current Guidelines understandable to users?

§Were users comfortable with the process and results of the use of the Guidelines?

5. Could the Guidelines be used at the community level? Specifically:

§Did language pose a problem for the use of the Guidelines?

§Were community participants able to understand the concepts and ideas on which the Guidelines are based?

§Did the form and format of the Guidelines pose problem for use with a community group?

§Were the Guidelines able to capture gender and social differences in views about environmental impact and disaster response options?

§Were community/group views accurately represented in the results of the assessment?

These questions will be answered using the information and experience collected during the use of the Guidelines and from end-of-test interviews with participants. These interviews will also solicit unstructured comments on the REA/Guidelines and suggestions for improving the REA process and Guideline procedures. The results of the interviews will form the basis for the post-test report and changes to the REA process and structure of the Guidelines.

In addition, approximately 60 days after the end of the field test and review of the initial field test report, CARE Indonesia will contact parties involved in the field use of the Guidelines with the following questions:

§Did the use of the Guidelines enhance understanding of environmental issues in the disaster context?

§Did the use of the Guidelines lead to changes to on-going or planned activities/initiatives? If yes, please provide details.

The answers for these questions will be collated by CARE Indonesia and will be included in the field test report as an addendum.

Outputs

Outputs from the test include:

1. A REA Field Test Report, including a narrative of the test process, a summary of the answers to the questions raised above, suggestions made for changes to the REA and Guidelines, schedule of activities and persons met.
2. A revised REA process and procedures set out in the Guidelines.

Documents collected for and produced during the test will be provided to CARE Indonesia and appended to the Field Test Report as appropriate. In addition, memos and short technical notes will be provided to CARE Indonesia on critical issues identified during the REA process. Additional reports, documentation and drafts will be provided as requested by CARE Indonesia.

##

Annex B Schedule of Activities and Persons Contacted

Annex B 1. Schedule

Date	Activities
8 January	Kelly and Paraja depart for Indonesia from US and France, respectively).
9 January	Paraja arrives Jakarta, Kelly arrives Singapore (to collect visa).
10 January	Kelly Arrives Jakarta.
11 January	Review of field test ToR and schedule with CARE (Kieft).
12 January	Document review.
13 January	Briefing for USAID Indonesia, and interested NGOs. Perpetration for field work.
14 January	Perpetration for field work, briefing for senior CARE staff.
15 January	Travel to Palangkaraya, Central Kalimantan.
16 January	Briefing/training of CARE and counterpart staff on REA (focusing on REA background and Guidelines use in group setting).
17 January	CARE Central Kalimantan staff conduct REA assessment with group of local NGOs and government officials.
18 January	Morning: Briefing and planning for community assessment process and methods. Afternoon: Completion of group-level assessment by CARE staff.
19 January	Planning for community assessment, including questionnaire review and role play. Process led by CARE staff with support of Pareja and Kelly.
20 January	Community level assessments in P. Ketipung (Kelly) and Kalamangan (Pareja) (morning); discussions of results (afternoon).
21 January	Assessments in Gohong (Kelly) and Pilang. Overnight in Pulang Pisau. Pareja departs for Jakarta.
22 January	Assessments in Pahong III (Kelly) and Pahong VI (near Maluku). Overnight in Kuala Kapuas. Pareja departs Indonesia.
23 January	Assessments in Sungai Jaya (Kelly) and B0-. Overnight in Kaula Kapuas
24 January	Travel to Palangkaraya. Work on report. Discussion of results.
25 January	Assessment in Petuk Barunai (Kelly) and Petuk Bukit. Data entry in evening.
26 January	Assessment in Bamba and Bukit Gelaghan (Kelly). Data entry in evening.
27 January	Review of assessment results, development of community issues lists, comparison of group assessment and community issues lists. Identification of coping strategies.
28 January	Review of issues and identification of initial follow-up actions (morning). Preparation of report and briefing for Palangkaraya-based organizations (afternoon).
29 January	Debriefing for Palangkaraya counterpart organizations (Ujang) and travel to Jakarta.
30 January	Assessment review, report drafting, presentation to NGOs/USAID OFDA.
31 January	Assessment review and report drafting.
1 February	Kelly departs Jakarta.

Annex B 2. Persons Contacted

Fitsion Ardiansyh	WWF Indonesia
Sukma Cahyani	Mercy Corps Indonesia
Bud Crandall	Country Director, CARE Indonesia
Didik	CWS Indonesia
Danar D. Ganasubrata	Mercy Corps Indonesia
Steve Gilbert	Asst. Country Director, CARE Indonesia
Ronald Gunawan	World Vision Indonesia
Harlan Hale	OFDA Advisor, USAID Jakarta
Ross Jaax	ACDI/VOCA
David Kaimowitz	General Director, CIFOR Indonesia
Michael Koeniger	CWS Indonesia
Josephine Masciantonio	International. Medical Corps
Rafli Rusdi	Mercy Corps Indonesia
Herbie Smith	acting Mission Director, USAID Jakarta
Brigitta Soraya	World Vision Indonesia
Iwan Uduya	International Medical Corps
Wayne Ulrich	CRS Indonesia

Annex C Briefing and Training Notes

Annex C 1. Power Point Slides for Briefings for OFDA/USAID and NGOs in Jakarta.

Slide 1

**Rapid Environmental Impact Assessment In Disasters (REA)
Benfield Greig Hazard Research Centre
and
CARE International**

Funded by: OFDA/USAID, Royal Norwegian Ministry of Foreign Affairs, UNEP/OCHA

Slide 2

The Problem

Environmental conditions often contribute to disasters.
Disasters can result in negative environmental impacts.
Relief aid can have positive or negative environmental impacts.
Lack of a systematic way to incorporate environmental impact assessment into disaster management.

Slide 3

The Response

Develop a methodology for rapid identification of environmental issues during disaster assessment, planning and operations.
Develop an operational Guidelines for Rapid Environmental Impact Assessment for any type of disaster.
Position the Guidelines as a *best practice* in disaster/emergence management.

Slide 4

Assessment Process & Guidelines Format

Five Elements:

- Context Statement
- Identification of Disaster Impact on Environment
- Identification of Immediate Environmental Impacts of Hazards
- Identification of Unmet Basic Needs
- Identification of Potential Negative Consequences of Possible Relief Activities

Synthesis Action List

Slide 5

REA/Guidelines Uses

Assessment
 Design input
 Adjustments to activities and actions during on-going emergency operations
 Monitoring (operations and impacts)
 As basis for full EIA for recovery activities.
 Awareness raising.

Slide 6

Guidelines Users

Field Staff B including NGO, IO and government personnel involved in emergency assessment, design and operations.
 Communities B through the Community REA Questionnaire.
 HQ staff B NGO and donors, as a way to screen for environmental impacts and issues.

Slide 7

Progress To Date

The Guidelines document developed with input from an advisory group of disaster and environmental specialists. (Currently at version 3, vols. 1 & 2.)
 2 of 3 planned field tests completed.
 Development of a Community REA Questionnaire.
 General awareness of environment-disaster linkages increased.

Slide 8

Next Steps

3rd field test in Indonesia.
 Develop a REA training module (print and web-based media) by Interworks (early 03)
 Three validation training events (mid 03)
 Dissemination of REA and training modules through web site and other means (end 03).

Slide 9

Rapid Environmental Impact Assessment In Disasters (REA)

Project Web Site:

www.bghrc.com/DMUsetup/Project/REA.htm

Charles Kelly

72734.2412@Compuserve.com

##

Annex C 2. Persons Attending OFDA/USAID Briefing, 13 January 03:

Herbie Smith, acting Mission Director, USAID Indonesia
 Harlan Hale, OFDA Advisor, Food and Emergency Office, USAID Indonesia
 Wouter Sahanayan, Natural Resource Management Office, USAID Indonesia
 Trigeanny Linggoatmodjo, Natural Resource Management Office, USAID Indonesia
 Yusak Oppusunggu, Food and Emergency Office, USAID Indonesia.
 Charles Kelly, REA Consultant
 Johan Keift, CARE Indonesia

Annex C 3. Persons Attending NGO Briefing, 13 January 03:

Name	Institution	Contact
Mario Pareja	REA Consultant, Environment	pareja@hotmail.com
Fitsion Ardiansyh	WWF Indonesia	fardiansyoh@wwf.or.id

Didik	CWS Indonesia	didik@cwsindonesia.or.id
Wayne Ulrich	CRS Indonesia	wayne@crs.or.id
Sukma Cahyani	Mercy Corps Indonesia	scahyani@mercycorps.or.id
Danar D. Ganasubrata	Mercy Corps Indonesia	ddaya@mercycorps.or.id
Ronald Gunawan	World Vision Indonesia	ronald_gunarwan@wvi.org
Brigitta Soraya	World Vision Indonesia	brigitta_sumardiman@wvi.org
Rafli Rusdi	Mercy Corps Indonesia	rusdi@mercycorps.or.id
Iwan Uduya	International Medical Corps	ckimc@attglobal.net
Josephine Masciantonio	International. Medical Corps	jmasciantonio@imcworldwide.org
Ross Jaax	ACDI/VOCA	0811411114
Johan Kieft	CARE Indonesia	johanveby@samarinda.org
Charles Kelly	REA Consultant, Disaster Management	727324.2412@compuserve.com

Annex C 4. Training and Briefing Notes for CARE Central Kalimantan Staff and Counterparts (with implementation Notes)

Training Session Outline - Presenters Notes - REA Field Test - Central Kalimantan
January 16, 2003

Introduction - 30 min.

Purpose of the training

- Develop understanding and capacity to use Guidelines in group setting.
- Develop understanding of the Community REA Questionnaire.
- Re-formulate the Community Questionnaire to reflect conditions in Central Kalimantan.
- Consider methods to bring together and prioritize results of assessments at group and community levels.

[Handout of condensed outline]

Methods: Combination of lecture and exercises

Schedule: 2 hour sessions with short and long breaks. A maximum of 7 hours.

Overview of REA Project (Mario)

Linkage of the REA Project to CARE policies and programs. (Mario)

Questions

Overview of the Guidelines - 30 min.

Structure: Five Elements, Synthesis, and Community Questionnaire [Handout 1 - note names of each element represent purpose of element and outcomes for each are also indicated.]

Difference between REA and EIA [Handout 2] (Mario)

Purposes:

- A Group@ Guidelines: Identify and prioritize critical environmental issues based on subjective assessment.

Community Questionnaire: Collect information from communities on environmental and disaster issues which can be used to complete a Rapid Environmental Impact Assessment

Users: Relief Workers, Communities, Headquarters Staff.

Time Requirements: Four hours for group session, two to 8 hours preparation, four hours for community questionnaire if done in an open session. An initial assessment, based on a group session can be completed in less than a day. A consolidation of group and community-level results requires one to two days of work by three or more persons.

Actions on issues identified:

- Change activities or develop new interventions (provide example)
- Collect additional information for issues which are unclear or for which solutions are not evident. Sources can be found locally, from literature (note references in Vol. 2) or by bring in or contacting an external expert/consultant.
- Advocacy (provide example)

Uses:

- Assessment
- Planning
- Operations, including changes to operations
- Monitoring
- As lead in to a regular EIA.

Methods to Complete the Assessment:

- Individually
- As a group
- At the community level, including whole community or with groups within the community.

The Challenge of Prioritization and Synthesis: Short discussion on the need to focus on critical issues in doing the assessment. Note topic will be explored further later.

Group assessment management methods:

Briefly discuss options to break up an assessment group into two or more sub-groups to complete each element and option to have each group work through all the assessment and consolidate results at end or do so at the end of each element.

Briefly discuss whether ranking of importance of issues within each element should take place at the end of completing each element or at the end of the assessment session.

The Context Statement - 30 min.

Purpose

Expected outcome: Handout1

Process: Complete 6 questions. Indications of information needed for each question and importance of answers are provided for each question.

Note requirements for completing the Statement

Note need and importance of preparation.

Exercise: Discuss and complete one question.

Questions

Discuss methods to present the element in a group session. (Solicit input and list.)

Identification of Disaster Related Factors With Immediate Impact on the Environment - 45 min

Purpose

Expected Outcome: Handout 1

Process of completing form: Rating of items listed.

Discuss the rating/ranking measures used and how these can be changed.

Discuss and review language used to ensure common and correct understanding [Handout 3 - glossary]

Exercise: Complete four items selected at random on form, including one which is less tangible.

Questions

Discuss methods to present the element in a group session. (Solicit input and list.)

Ask for additions to the glossary and need for further clarifications of terminology.

Identification of Possible Immediate Environmental Impacts of Hazards - 30 min

Purpose

Expected Outcome: Handout 1

Process of completing the form: Rating of hazards related to the disaster.

Note importance of reducing the list of items to be considered to only the hazards which are related to the disaster being assessed before the assessment session.

Exercise: Complete for one hazard

Questions

Discuss methods to present the element in a group session. (Solicit input and list.)

Identification of Unmet Basic Needs Purpose - 45 min

Purpose

Note (1) linkage to Sphere, (2) importance of addressing unmet needs as way to limit demand on the environment, and (3) problem of needs not being well met before the disaster.

Expected outcomes: Handout 1

Process: Rating of items

Note use of two forms, and reasons why two forms were developed.

Exercise: Complete two sections of each format separately.

Questions

Discuss methods to present the element in a group session. (Solicit input and list.)

Identification of Potential Negative Consequences of Possible Relief Activities Purpose - 45 min.

Purpose

Discuss positive and negative impacts of relief. Ask for examples and discuss in local context.

Expected outcome: Handout 1

Process: Identify actual or possible interventions, answer questions.

Exercise: Have participants propose a list five relief interventions for a flood in Java. Review these interventions based on form.

Questions

Discuss methods to present the element in a group session. (Solicit input and list.)

Synthesis Action List - 45 min.

Purpose

Discuss need to identify critical environmental issues and prioritize them for action.

Discuss the need to bring together different issues from different forms to focus on most critical issues.

Ask group about how they see the results being used, including the need for a separate report or integration of results directly into project activities or project design.

Expected outcome

Process: review and rank issues identified in five previous elements.

Two options: Rank importance of each item while doing each element, or use one session at end of REA to develop prioritized list of issues based on the outcome of each form.

Note that the process of completing each form except the Context Statement can easily lead to ranking of issues because the rating in the forms focuses on defining relative importance. For the Context Statement it is necessary to identify issues based on a discussion of the answers (note use of group discussions and flip chart paper in this process).

Note the possibility of designating issues as requiring action, but not as part of the

emergency response.

Discuss what is meant by follow-up actions and refer to discussion at beginning of presentation on immediate actions, getting additional information or advocacy.

Exercise

Take forms 1-4 (not Concept Statement) and prioritize in group and identify follow-up actions.

Have group identify ways to encourage the prioritization process.

Questions and Discussion on Group Assessment Process.

Notes: Sections from *Introduction to Synthesis Action List* were presented to CARE Central Kalimantan staff and counterparts (see list below) on 16 January 2003. The presentation required approximately 8 hours, against a planned 5 hours. Major difficulties were noted with unfamiliarity of participants with the *Guidelines* document, advanced English and scope of materials covered versus participant background. The presentation was led by Kelly with support from Pareja. CARE and counterpart staff attending the session included: Ujang Suparman (Assessment Leader), Wahyudinata, Muslim Gunawan, Medi Yusva, Waliadi, Tofic R., Lilik Sugiarti (Yayasan Cakrawala Indonesia), Aspian Nur. Yokobeth S, of of Yayasan Cakrawala Indonesia later joined the sessions and assessment teams.

The Community REA Questionnaire - 30 min

Purpose: To collect information on community/sub-community perceptions on environmental issues which may be related to a disaster

Provides input into overall assessment process.

Reflects participatory approach to relief.

Discuss background and experience in Ethiopia.

Highlight that 64 questions are linked to items included in the elements of the group assessment.

Note that while the questionnaire is long it is likely that many of the questions in the latter part of the questionnaire will be answered during the first part of the questionnaire's use. But all the questions need to be covered to ensure that issues are not missed.

Discuss how the Questionnaire is a PRA tool and can be done at the community level or for specific groups within a community.

Note that normal PRA methods and procedures should be followed. Number and nature of communities and groups depends on situation.

Exercise:

- Review and revise the questionnaire to make it appropriate for Central Kalimantan (Take home assignment - to be reviewed on next afternoon)

- Open discussion on how to use the questionnaire: selection of target groups and approaches.

Notes: Section was presented as introduction to a 2 day session on planning and organizing the collection of data at the community level. After introduction of the questionnaire, discussions shifted to the why, what, who, where, when and how of conducting the community data collection. Management of the session was progressively shifted to CARE Central Kalimantan leadership.

Using the Questionnaire Results - 30 min

Purpose: To extract key information from community data for use in assessment process.

Discuss nature of the results, including volume of information available, and alternate and additional uses of the results.

Discuss need to define how the results will be used. For Ethiopia, results were used as input from community and as contrast to group-level assessments in development of emergency proposal.

Outcome: Consolidated summary of issues raised across communities and community groups.

Process: Simple rating table to identify issues/items which were most frequently identified by

communities and groups within communities.
Review Ethiopia table. [Handout 4]

Notes: *Handout 4 was discussed one-to-one with Ujang Suparman, CARE Central Kalimantan leader of the assessment. Ujang later shared the Handout 4 with the two field teams and asked that they complete the questions for each villages while reviewing data collection results at the end of each day.*

More on Consolidating Issues - 30 min

Purpose: To bring together results from different sources to identify critical issues requiring action. Discuss how actions are organization dependent and not specifically covered in the REA. Discuss difference between issues which have **TANGIBLE AND INTANGIBLE** solutions, for instance resilience and water pollution. Note how tangible issues become the objects of direct interventions and intangible issues are incorporated into the concepts and approach to how these direct interventions will take place. Review use of a series of issues-and-action tables used in Ethiopia as a way to focus discussions on consolidating and ranking issues. Ask for questions and comments. [Handout 5] Review to of the forms used in Ethiopia and ask for questions. Note that forms are not only approach to consolidation, and that process can be done by an individual as well as a group. Note that once the group assessment is completed and community assessments are underway a decision is needed on how to extract and consolidate issues.

Review and Close-out - 30 min

Summarize presentation.
Note importance of (1) group and community assessments, (2) that the assessment needs to be rapid, (3) that there is a need to continually focus on issues which are critical (although longer term issues should be noted), (4) that different approaches can lead to similar outcomes, (5) that the REA is not a static tool and the assessment should be periodically updated to reflect changes in the disaster situation.

Notes: *Topics discussed with Ujang in preparation for review of issues raised from community assessments, the development of a single list of issues from the group and community assessment-based lists and in preparation for development of a final issues and actions list based on the assessment. The final stages of the interaction and discussions one-on-one with Ujang focused more on managing and organizing the Central Kalimantan results than discussion of the Ethiopia results and process. However, forms from Ethiopia were used by Ujang to guide his work with the assessment team..*

Handout 1

SUMMARY OF THE GUIDELINES FOR RAPID ENVIRONMENTAL IMPACT ASSESSMENT

Element	Process	Outcomes
Context Statement	Answer six questions.	Disaster summarized. Perceived environmental issues, information sources, need for further assessment/information and environmentally unique disaster-related assistance requirements identified.
Identification of Disaster Related Factors With Immediate Impact on the	Complete Form No.1.	Factors requiring attention to mitigate or avoid negative environmental impacts

Environment		identified (and prioritized).
Identification of Possible Immediate Environmental Impacts of Hazards	Complete Form No. 2.	Significant immediate threats to lives and well being identified (and prioritized).
Identification of Unmet Basic Needs	Complete Form No. 3	Unmet needs with likely environmental impact identified (and prioritized).
Identification of Potential Negative Consequences of Possible Relief Activities	Complete Form No. 4.	Negative impacts of, and possible changes to, ongoing or planned activities identified (and prioritized).
Synthesis Action List	Complete Synthesis Form.	Prioritized list of critical issues and actions to address these issues. Issues which may require action after the relief phase are also identified.

Handout 2

**Contextual Differences:
Normal & Disaster Environmental Assessments**

Normal Conditions	Disasters
<ul style="list-style-type: none"> \$ Considerable Lead Time \$ Legal requirement often exists (country &/or donor) \$ Deliberate & pro-active \$ Will take time, be thorough & extensive: comprehensive data collection \$ A No project@ option is a possible outcome \$ Location chosen \$ Duration planned \$ Beneficiary population identifiable & static \$ Environmental goals may be made compatible with socio-economic ones 	<ul style="list-style-type: none"> \$ Sudden onset \$ Rarely a legal requirement but some donor may ask for it \$ Reactive \$ May need to be partial in coverage \$ A No project@ outcome is not an option \$ Unpredictable location \$ Uncertain duration \$ Beneficiary population heterogeneous & dynamic \$ Priority given to A life saving@ activities sometime difficult to reconcile with environmental goals

Source: UNHCR and CARE International

Handout 3

Key Terms Used in the Guidelines
<p>Disaster: An event beyond the immediate means of the affected populations to cope and which threatens lives or immediate well being. Disasters are caused by the interaction of people and a hazard. In the REA , A emergency@ has the same basic meaning as A disaster@.</p> <p>Hazard: An event or condition which could result in a disaster, as in the hazard of flooding.</p> <p>Mitigation: Steps taken before a disaster to reduce the impact of the disaster or steps taken during a slow onset disaster to mitigate negative impacts and reduce the need for relief assistance.</p> <p>Prevention: Actions taken before a disaster to ensure a hazard has no impact.</p> <p>Recovery: Process of supporting emergency-affected communities in reconstruction of the physical infrastructure and restoration of emotional, social, economic and physical well being.</p> <p>Rehabilitation: Short term recovery of basic services and initiation of repair of physical, social, and economic damages.</p> <p>Relief: Immediate assistance to save lives and meet basic needs of disaster affected populations.</p> <p>Remediation: Action to rectify a deficiency to an adequate standard of safety. Most often used with respect to technological disasters.</p> <p>Response: Actions in the face of an adverse event aimed at saving lives, alleviating suffering, and reducing economic losses.</p> <p>Sustainable: The use of a resource at a rate which is equal to or less than the rate of replacement.</p> <p>Based on: Field Operations Guide (USAID) and Australian Emergency Management Glossary (www.ema.gov.au).</p>

Handout 4

Ethiopia Field Test: Community REA Data Summary Form

(See Ethiopia Field Test Report for original. Report can be found at www.bghrc.com/DMUsetup/Project/REA.htm.)

**Rapid Environmental Impact Assessment In Ethiopia
Summary**

**Awash Project Area - Initial Issues and Action List
September 4, 2002**

REA - Awash Project Area - Consolidated Issues and Next Steps.
September 4, 2002

(See Ethiopia Field Test Report for original. Report can be found at
www.bghrc.com/DMUsetup/Project/REA.htm.)

Annex C 5. Persons Attending NGO/USAID Debriefing, 30 Jan 03:

Name	Institution	Contact
Bud Crandall	Director, CARE Indonesia	budc@cbn.net.id
Johan Kieft	CARE Indonesia	johanveby@samarinda.org
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Harlan Hale	OFDA, USAID Indonesia	hhale@usaid.gov
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Rafli Rusdi	Mercy Corps	rrushi@mercy corps.or.id
Ujang Sparman	CARE	ujangsparman@yahoo.com

Annex C 6. Power Point Slides for Exit Briefing for OFDA/USAID and NGOs in Jakarta.

Slide 1

-- Indonesia Field Test --
Rapid Environmental Impact Assessment In Disasters (REA)
Benfield Greig Hazard Research Centre
and
CARE International

Funded by: OFDA/USAID, Royal Norwegian Ministry of Foreign Affairs, UNEP/OCHA

Slide 2

REA Objective, Users and Tools

- Objective: Rapidly identify critical environmental issues for action (e.g., fix/design, information, advocacy).
- Users: Field personnel and HQ staff.
- Tools Tested:
- “Group” (Response Organization Level) Assessment
- Community Assessment
- Analysis Guidance

Slide 3

Process Overview

- Brief training for Assessment Team (CARE and counterpart staff – 8 people in two teams)
- 1½ day group assessment with Palangkaraya-based organizations (Environmental NGOs, local government)

Slide 4

Process Overview

- 2 day preparation for community-level data collection.
- Collection of data from 13 villages in peri-urban (2), peat land (8) and upland (3) locations. One

community survey per day per team.

- Community questions required 2-4 hours plus travel time.
- Write-up results and transfer to “yes/no” form.
- 2 days for review and analysis of data leading to list of critical issues and initial actions.

Slide 5

Process Overview – Cont.

- ½ day debriefing provided to counterparts in Palangkaraya.
- Process was managed by Assessment Team with minimal input from consultant.
- Output mostly as forms and lists for easy review and use.
- Total time required: 2 weeks (introduction to Palangkaraya issues review)
- Cost: \$7,900

Slide 6

Lessons Learned

- Preparation is important! We should have taken more time to prepare for the group assessment.
- Difficult to use Guidelines due to lack of sufficient training, different concepts, lack of Bahasa text and jargon.
- Methods to manage group assessment meetings are important.
- REA process appears to be understandable to users and communities.
- Could have increased number of villages by using two-person teams.
- Data analysis and consolidating results can be a challenge. (A Bahasa version REA would have helped, as well as more guidance on how to do the analysis.)

Slide 7

Lessons - Continued

- Issue/Action results still need further work before being incorporated into existing or new projects.
- REA can produce results quickly and incorporate community and non-community perceptions. (“Rapid” depends on where you are going).
- Likely more useful to CARE if REA questions were incorporated into other types of assessment (e.g., a livelihood assessment) and resulting data extracted for analysis using REA procedures.

Next

- Reformat the REA document to make it easier to use and focused on four “tools”:
(1) Group assessment, (2) Community assessment, (3) Analysis support and (4) Green Procurement.
- Develop training materials.
- Test training materials.
- Disseminate materials and documentation to potential users.

Annex D. CARE Indonesia Central Kalimantan Assessment Reports and Supporting Documents

Annex D 1. Persons Attending 17 January 2003 Group Assessment in Palangkaraya (based on signature sheets)

<u>Name</u>	<u>Organization</u>
Angela Brenton	CINTROP
Apekonity	CINTROP
Arie Pompas	Mapala Comodo
Sufian Madi	Mapala Comodo
Irmansgoh Sp.	BKSDA Koltrno
Abdul Muni	Palai MDA
Arwin Usup	CINTROP Unpar
Prinmdatiomo	Mira TNSKNT
Yuprin A. D.	CINTROP Upar
Adri Al.	WWF Indonesia
Drasospoltalo	WWF Indonesia
Tarra B.	BPFLHD
Medi Yusva	CARE West Kutai
Dedi S.	YCI
Wadiadi	CICK
Aspian Nur	DISPRE Project (CARE)
Mario Paraja	REA Consultant
W. Winata Hjalim	CUCK/AA
Muslim Gurawan	DISPRE Project (CARE)
Iwko Anegko	Pokksr SMK
Sunarte X.	WSB. SDA + LH Bappeda
Lilik	YCI
Sotriadi	YBB
C. Kelly	REA Consultant

Annex D 2. Persons Attending 29 January 2003 Assessment Review Meeting in Palangkaraya (based on signature sheets)

<u>Name</u>	<u>Organization</u>
Dedi S.	YCI
Yokobeth S.	YCI
Lilik S.	YCI
Metareaus	WWF Indonesia
Apekonity	CINTROP
C. Kelly	REA Consultant
Anggoro John	SHU
Mirhan	PJLI Kaltog
Chitra Agustina	YAE
Satriadi	YBB
Nordin	Wahli
Uban	Pskyat Tjeloto
Inton	Yayasan Rgro Etonoin
Pomny V-K, JT	Bappela Noltang
Perdingri PrarpsDikops	Pransium
Don Fredy	Dilint Plap.
Alue Dohong	Welauls Inleni
Tarra B.	BPPLHD
Dony Mertanto	Peninjali
Esau	BPPLHD

Annex D 3. Results of Group Assessment

Rating Form No. 1: Factors With Immediate Impact on the Environment
(Roman numerals indicate overall ranking of importance based on average value.)

Factor	Range	Rating (1 to 10)			Implication
		Group 1	Group 2	Average	
Number of persons affected (relative to total population in disaster area).	Few (1) to Many (10)	7,9	9,1	8	The greater number affected the greater potential impact on the environment.
Duration: Time since onset of disaster.	Short period (1) to Long period (10)	8,9	8,2	8,6 (II)	The longer the disaster the greater the potential impact on the environment.
Concentration of the affected population.	Low (1) to High (10)	3,5	8	8,5 (III)	The more concentrated (or dense) the living conditions of the victims, the greater potential impact.
Distance disaster victims have moved since the beginning of the disaster.	Short (1) to Far (10)	2,3	1,9	2,1	The further victims have to move, the greater the potential impact on the environment.
Self-Sufficiency: After the start of the disaster, the ability of victims to meet needs without recourse to additional direct extraction from the environment or external assistance.	High (1) to Low (10)	7	5,2	6,1	Low self-sufficiency after the disaster implies greater risk of damage to the environment.
Social solidarity: Solidarity between disaster victims and non-affected populations.	High (1) to Low (10)	5	3	4	Low solidarity may indicate the likelihood of conflict over resources and limits to the ability of victims to meet needs.
Cultural homogeneity: The level of cultural similarity among disaster victims hold similar cultural beliefs and with neighboring non-affected populations.	High (1) to Low (10)	4,5	2,4	3,5	A lack of common cultural structure may result in disagreement over resource use
Asset distribution: The distribution of economic and other assets within disaster affected population after the start of the disaster.	Generally Equitable (1) to Highly Concentrated (10)	4,6	4,6	4,6	Concentration of assets with one part of a population can lead to tensions with less-well endowed groups over use of environmental assets.
Livelihood options: The number of options that which disaster victims have to assure their livelihoods after the start of the disaster.	More (1) to Fewer (10)	7,2	8,3	7,8	The fewer the number of livelihood options indicates the disaster victims may use environmentally damaging actions to

					meet livelihood requirements.
Expectations: The level of assistance (local and external) which the disaster victims expect to need to survive.	Low (1) to High (10)	6,7	8,4	7,6	In the absence of adequate assistance, high expectations can lead to high demand on local resources.
Sustainable resource availability, or whether the environment can meet the needs of the disaster victims in a sustainable fashion. This rating is related to Element Four but is broader in context, including sustainable availability of resources from outside the disaster area.	High (1) to Low (10)	7,5	6,6	7	Low, or no, sustainability will lead to environmental damage and likely problems for relief operations.
Capacity to absorb waste: The environmental, social and physical structures available to handle waste produced by the victims	Great (1) to Small (10)	7,3	8,2	7,8	Low waste absorptive capacity will lead to environmental damage.
Environmental Resilience: Ability of eco-system to rebound from relief and recovery activities which cause environmental damage.	High (1) to Low (10)	9,2	9	9,1 (I)	Low resilience likely means high fragility and greater possibility of long term environmental damage.

Rating Form No. 2: Identification of Possible Immediate Environmental Impacts of Disaster Agents¹⁵
(Hazards not specific to Central Kalimantan have been removed.)

Hazard	Threat	Guidance as to Significant Threat Threshold	Threat? Yes (2) Unknown (1), No (0)		Area Affected Large (3) Medium (2) Small (1)		Impact Score (Threat rank x Area Affected)			Initial Response Options
			Group I	Group II	Group I	Group II	Group I	Group II	Average	
1. Flooding, including sea surge.										
A. Transport of contaminated sediment.	Sediment contains hazardous organic or inorganic chemicals (including high levels of salt).	Chemicals (including salt) present at levels exceeding acceptable standards.	2	2	3	2	6	4	5	1. Identify and assess level of chemicals present. 2. Limit use of water sources with contaminated sediment and plants and animals collected from these sites. 3. Specialized technical assistance likely needed for assessment and planning.
	Secondary risk from sediment when dried after a flood.	Chemicals present at levels exceeding acceptable standards.	2	2	2	4	6	5	1. Identify and assess level of chemicals present. 2. Limit or avoid use of sediment, and plants and animals collected from sediment sites. 3. Limit movement of dust from dried sediment. 4. Specialized technical assistance likely needed for assessment and planning.	
B. Polluted Water	Water contains hazardous pathogens, or	Pathogens or chemicals present at levels	2	2	1	3	2	6	4	1. Identify and assess level of pathogens or chemicals present. 2. Limit use of contaminated

¹⁵ Note that Hurricane/Cyclone/Typhoon should be treated under each impact agent: flooding, sea surge, and wind.

	chemicals.	which exceed acceptable standards.																water and plants and animals collected from contaminated water. 3. Consider water purification to meet immediate needs. 4. Specialized technical assistance likely needed for assessment and planning.
C. Transport of contaminated solids other than sediment.	Flood waters contain physical items which pose a threat, including but not limited to, animal carcasses and hazardous materials containers.	1. Presence of dead animals. 2. Presence of hazardous chemical containers. 3. Presence of significant level of floating debris in flood waters.	2	2	1	3	2	6	4									1. Quantify number and volume of solids by three threat types (animals, hazardous chemical containers, other debris). 2. Develop and publicize ways to deal with solids. Consider special collection and safety activities, and ensure safe disposal procedures and locations. 3. Specialized technical assistance likely needed for assessment and planning and in handling disposal.
D. Erosion (water)	Flood waters remove usable soil and cover usable land with sediment.	1. Loss of critical infrastructure, e.g., dikes, irrigation system. 2. Loss of immediately productive land, e.g., land for cultivation or harvesting natural resources.	2	2	1	3	2	6	4									1. Remove or protect infrastructure under threat. 2. Remove plants and other productive assets from flooded land before loss or coverage with sediment. 3. Remove sediment after flooding. 4. Specialized assistance likely needed.
E. Damage to	Flood waters	Damage which	2	2	1	3	2	6	4									1. Replace or remove

Infrastructure (from erosion or force of flood waters)	damage or destroy built environment, limiting operation of critical functions (e.g., safe water delivery), or increasing risk of pollution (e.g., damage to sewage treatment plant).	(1) seriously limits or stops use of critical infrastructure, including roads, water treatment, power, emergency services, or (2) creates potential sources of pollution, e.g., industrial or mining sites, oil and gas transmission systems, garbage dumps, and chemical waste sites.																infrastructure under threat. 2. Flood-proof and decommission sites at risk. 3. Identify nature of potential or actual pollution due to flooding/flood damage and develop response plans (see above). 4. Specialized assistance likely needed for any significant response.
2. Wind, including tornados.	Damage/loss of crops, land cover and infrastructure.	Reduced food supply, economic (exploitable) natural resources and infrastructure, specifically shelter and public and commercial facilities.	2	2	1	1	1	2	2	2	2	2	2	2	2	2	2	1. Short term food and economic assistance to assist victims until vegetation/crops recover or are replanted. 2. Assistance to replace/repair damaged infrastructure. 3. Dispose of debris in manner that does not increase air, land or water pollution.
3. Wild Fire																		
A. Damage to Infrastructure	Wild fire can damage or destroy	Damage which (1) significantly limits or stops	2	2	1	3	2	2	2	2	2	2	2	2	2	2	2	1. Remove or decommission infrastructure under threat. 2. Identify potential or actual

	negative impact on species using habitat before fire.	threat.										
4. Drought												
A. Wind	Unusually dry land more susceptible to aeolian (wind) erosion.	Significant dust clouds and evidence of wind movement of soils (e.g., soil forming dunes)	-	-	-	-	-	-	-	-	-	1. Wind erosion control measures. 2. Shift to drought-tolerant crops/ground cover.
	Chemical composition of dust.	Chemicals present at levels which exceed acceptable standards.	-	-	-	-	-	-	-	-	-	1. Identify and assess level of chemicals present. 2. Limit movement of dust and institute measures to limit dust inhalation (see above and under wildfire). 3. Specialized assistance likely needed for assessment.
	Drying effect of wind on vegetation (failure to mature, increased likelihood of fire).	Vegetation drying faster than normal.	-	-	-	-	-	-	-	-	-	1. Institute modified cultivation or harvesting procedures, e.g., early harvesting, irrigation. 2. Develop fire management plan, including fire breaks, training and bio-mass reduction.
B. Drying of Crops.	Lack of water (from rainfall or irrigations) for normal crop development.	Insufficient water for normal crop grown. Note that impact can due to a lack in total	2	2	3	3	6	6	6	6	6	1. As above. 2. Implement water conservation methods, e.g., mulching. 3. Consider temporary reallocation of available water

12. Armed Conflict, between and within countries.	Intentional damage to infrastructure, including power, water, sewage and industrial capacity.	significance. 1. Active military efforts to cause damage. 2. Releases of hazardous substances via air, water or land, due to military action. 3. Failure to deliver minimum supplies of water, food, sanitation services and basic care due to infrastructure damage.	2	2	2	3	3	6	6	1. Rapid response teams to limit releases of hazardous materials. 2. Development of protected systems for delivery of minimum supplies of critical items (water, food, sanitation services, health care). 3. Debris should be recycled or disposed in a way to minimize air, water and land pollution.
13. Technological										
A. Hazardous Material Release (fixed site and during transport, including road, water, rail or air accidents)	Release of chemicals or compounds that pose immediate threat to life and well being.	1. Level of release above established norm (local or international, as appropriate). 2. Rate of release (e.g., explosion) poses significant threat to life or well being.	2	2	2	1	1	2	2	1. Limit additional damage by removing populations from affected areas and providing response teams with protective clothing and support. 2. Treat exposure symptoms as per standard medical response, taking care not to pass on contamination during treatment. 3. Dispose of contaminated items in way to limit additional land, water or air pollution. 4. Likely specialized assistance will be needed for all phases of

B. Explosion, from fixed or mobil source (e.g., tank truck).	Destruction of lives, productive assets and infrastructure.	1. Humans at risk. 2. Potential or actual damage to productive assets (natural resources, commercial facilities or infrastructure).	2	2	1	1	2	2	2	the response. 1. Before disaster, develop risk zoning and change land use to reduce risk from explosion. 2. Design facilities/vehicles to reduce risk of explosion. 3. Establish warning and evacuation plans and shelters. 4. After explosion, consider items in previous section.
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Rating Form No. 3: Unmet Basic Needs

Basic Needs: * indicates Sphere Standard	Needs being met before the disaster 1 (not being met) to 10 (being met)			Needs being met at present: 1 (not being met) to 10 (being met)			Sustainable ? (Yes/No)	Indicators of Needs Being Met
	Group I	Group II	Average	Group I	Group II	Average		
Water*	9,5	9,1	9,3	5,1	7,3	6,4	Yes	1. 15 liters of water per person per day. 2. Flow at water collection point at least 0.125 liters per second. 3. 1 water point per 250 people. 4. Distance from shelter to water point no more than 500 meters. 5. Water is palatable and of sufficient quality to be used without significant risk to health due to water-borne diseases, or chemical or radiological contamination from short term use. (Note: includes human and industrial waste and pesticides.)
Shelter*	8	9,3	8,7	8	7,9	8	Yes	Average of 3.5-4.5 square meters of covered space per person providing protection from weather and sufficient warmth, fresh air, security and privacy.
Clothing*	8	9,2	8,6	8	8,9	8,5	Yes	Clothing is appropriate for climatic conditions, gender, age, safety, dignity, and well-being.
Food*	5,7	7,7	6,7	4,3	6	5,2 (II)	Yes	1. 2,100 kilo-calories per person per day. 2. 10-12% of total energy from protein. 3. 17% of total energy from fat. 4. Food distribution is equitable, fair and covers basic needs (together with other food items available). 4. Adequate micro-nutrient intake.
Fuel*	7,3	8,7	8	4,9	8,1	6,5	Yes	1. Fuel availability meets immediate needs. 2. Fuel-economic and low smoke wood stoves, gas or kerosene stoves and cooking pots with well-fitting lids are available.
Lighting	6,5	9	7,6	5,5	9,2	7,4	Yes	Sufficient to meet security requirements and for normal economic and social activities.
Household Resources*	6,8	8,9	7,9	6	7,6	6,8	Yes	Each household unit has access to adequate utensils, soap for personal hygiene and tools. (Specific minimum needs identified in Sphere Handbook Chapter 4, Section 4).
Transport	7,1	7,6	7,4	4,9	6	5,5	Yes	1. Adequate to deliver goods and services to displaced at reasonable cost and convenience.

										water and with a slope of no more than 7%.* 3. Smoke and fumes are below nuisance levels and pose no threat to human health. 4. Animal management minimizes opportunities for disease transmission, solid and liquid waste and environmental degradation. 5. Uncontrolled extraction of natural resources by disaster victims is not taking place. 6. 45 square meters space is available per person in camp, temporary shelter area or resettlement site, with provision made for living, social and commercial activities.* 7. Firebreaks are at least: 2 meters between dwellings, 6 meters between clusters of dwellings, and 15 meters between blocks of clusters.* 8. Graveyard (s) are appropriately located and sized.
Vector Control*	5,5	7,9	6,7	5	7,1	6	Yes		1. Disease vectors and nuisance pests are under control. 2. Disaster victims are located outside vector breeding or resting sites, or sites are modified or other interventions are used to keep presence of pests at acceptable level. 3. Pesticides use is according to local/national and international norms.	

Rating Form No. 4: Potential Negative Consequences of Possible Relief Activities
(activities not planned have been eliminated)

Intervention	Underway Or Planned?		Potential Negative Consequences	Already Addressed?		Selected Avoidance or Mitigation Options
	Grup	Grup		Grup	Grup	
Seeds, tools and fertilizer			1. Loss of agro-bio-diversity.	Y	Y	1. Use local seeds where possible, procured and distributed through existing channels. 2. Limit introduction of non-local seeds to varieties tested locally and known to local users. 3. Provide environmental education on use of tools and develop sustainable resource extraction plan where appropriate. 4. Provide education and extension advice on use of fertilizers. Limit quantities available to actual agricultural needs.
			2. Introduction of non-sustainable/invasive species and varieties.	Y	Y	
			3. Damage to traditional seed management systems.	Y	Y	
			4. Increased resource extraction due to availability of more effective means.	Y	Y	
			5. Damage to soil and water from overuse of fertilizers.	Y	Y	
Local Coping Strategies			To be added based on specific disaster conditions. Negative consequences often involve a loss of natural resources, bio-diversity or conflict over scarce resources.			Avoidance/mitigation options should be developed specifically for each possible negative consequence. This process should involve input from victims and can be facilitated with information collected through the Community REA Questionnaire.
Construction, including shelter, public buildings	Y	Y	1. Scarce natural resources are over exploited for construction activities.			
			2. Construction site in area of increased hazard compared to location or conditions before disaster.	Y	Y	

Intervention	Underway Or Planned?		Potential Negative Consequences	Already Addressed?		Selected Avoidance or Mitigation Options
	Grup	Grup		Grup	Grup	
and infrastructure.			3. Construction increases risk of flooding, erosion or other hazards.	Y	Y	
Health Care	Y	Y	1. Pollution from disposal of medical and other waste. 2. Increased demand for traditional medical herbs and plants.	Y	Y	1. Establish system for safe disposal of all wastes (solid and liquid). 2. Develop a resource management plan for harvesting of local medicinal herbs and plants.
Creation of Small or Medium Enterprises (SME)	Y	Y	1. Unsustainable resource extraction. 2. Waste produced which cannot be disposed of properly.	Y	Y	1. Environmental impact review performed for each enterprise supported. A simple checklist may be sufficient if a number of similar types of SME are to be supported. 2. Waste disposal plans meeting appropriate standards incorporated into enterprise business plan and monitored. 3. Hazards and risks of location of enterprises assessed and appropriate mitigation measures identified before support provided.
Relief Supplies	Y		1. Packaging creates solid waste disposal problem.	Y	N	1. Use biodegradable, multi-use or recyclable packaging where possible.

Intervention	Underway Or Planned?		Potential Negative Consequences	Already Addressed?		Selected Avoidance or Mitigation Options
	Grup	Grup		Grup	Grup	
		Y	3. Relief assistance inappropriate or not acceptable to victims and discarded.	Y	N	<ul style="list-style-type: none"> 2. Collect packaging as part of distribution program. 3. Develop program of education and facilities for safe disposal of personal hygiene materials. 4. Base assistance on needs assessment including victim input. 5. Don=t provide inappropriate materials. 6. Select assistance based on local social and economic conditions and sustainability of supply.
Training	Y	Y	New skills learned leading to greater extraction of resources or production of waste.	Y	N	Include environmental education and waste management options in training programs.

Annex D 4. Issues List – Group Assessment Results.

Element and Top Priority Issues
Context Statement
Kebijakan yang tidak memihak lingkungan
Miss management pengelolaan peat land
Tidak ada perubahan perilaku terhadap perubahan lingkungan
Factors with Immediate Impact on the Environment
Kemampuan alam untuk memperbaiki diri
Lamanya dampak
Konsentrasi penduduk yang terkena dampak
Possible Environmental Impacts of Hazards
Loss Habitat
HPT
Air Pollution
Unmet Basic Needs
Environmental conditions
Food
Health
Potential Negative Consequences of Assistance
Ketergantungan
Sampah
Training
Other Critical Issues
Armed conflict
Recovery Issues

Annex D 5. Selection Criteria for Community Assessment

The table was developed based on assessment team discussions on the selection of villages in which to conduct the community assessment.

Criteria Used to Select Communities for Community Level Assessment
Names and Selection Criteria – Community Assessment

No	Target Village	Criteria			
		Fire	Drought	Peat Project Area	AEZ (Location: lowland or up land)
1	P.Katimpun	Yes	No	No	Low
2	P.Katipmun	Yes	No	No	Low
3	Taruna	Yes	No	Yes	Low
4	Pilang	Yes	No	Yes	Low
5	Gohong	Yes	No	No	Low
6	Pangkoh VI	Yes	Yes	Yes	Low
7	Pangkoh III	Yes	Yes	Yes	Low
8	Sungai Jaya	Yes	No	Yes	Low
9	Lamunti	Yes	No	Yes	Low
10	Petuk Bukit	Yes	No	No	Up
11	Petuk Barunai	Yes	Yes	No	Up
12	Bukit Glagah	Yes	No	No	Up
13	Bukit Bamba	Yes	No	No	Up

Annex D 6. Community Assessment Yes/No and Coping Strategy Tables.

These tables present a simple tabulation of data collected during the community assessment. Assessment team members answered each question posed in the form with a yes or no and the results were totaled for all communities. The questions are reflect potential environmental issues identified in the Agroup@ assessment.

Also included in this table are coping strategies and their potential environmental impact based on the information provided during the community meetings. These coping strategies are the local counterparts of external relief assistance and thus need to be identified and evaluated for their potential environmental impact.

Results – Community Level Environmental Issues

#	Item/Question	Petuk Katimpun A	Petuk Katimpun B	Taruna Jaya	Pilang	Gohong	Pangkoh III	Pangkoh VI	Sungai Jaya	Lamunti Permai	Petuk Bukit	Petuk Berunai	Bukit Bamba	Bukit Glagah	Importance Ranking ¹⁷
Context Questions: Yes = 1 (Abad@) (Refers to Elements One and Two of REA. These items should be used to develop a narrative describing the environmental conditions in the area of concern [and completing Rating Form 1]. The narrative should identify the reasons for the high rankings using information provided by the communities.															
1	Reported Environmental Concerns?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	13
2	Reported Environmental Problems?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	13
3	Unique Areas?	N	N	Y	Y	N	N	N	Y	N	N	N	N	Y	4
4	Large number affected?	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	13
5	Disaster of long	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	13

¹⁷ The importance ranking is calculated by adding the number of similar answers based on one answer (e.g. yes) being 1 and the other 0.

Potential Negative Impact in Community Assessment

#	Coping Action	+/-	Remark
1	Konsumsi singkong	-	Menguras unsur hara
2	Sekat bakar	-	Unsustainable, less biodiversity
3	Obat tradisional dari hutan	-	Penambahan bahan bangunan
4	Meninggikan rumah	-	Menguras air tanah
5	Sumur bor	+	Pengurangan kayu bakar
6	Penggunaan tawas	-? ask to PDAM
7	Penyesuaian waktu kerja	-	Pemeliharaan lahan berkurang
8	(berkurang)	-	Eksplorasi sumberdaya lain
9	Mengurangi makan nasi	-	Unsustainable (Menyadap)
10	(meningkatkan makanan yang lain)	+	Reboisasi
11	Menyadap karet	-	Extraction – Unsustainable
12	Panen rotan dini	-	Pencemaran air
13	Tambang emas	-	Extraction unsur hara
14	Loging	-	Extraction unsur hara
	Fishing	-	
	Hunting	-	

Annex D 7. Results of Community Assessment - Ranking of Importance

This table is based on the results of the preceding table. Issues which were reported as more common in communities are ranked higher than issues which were reported as less common.

COMMUNITY DATA SUMMARY

(Frequency of issue identified by communities.

"Ranking" refers number of communities in which the issue was mentioned.)

No	Elements	Ranking
4	Large number affected?	13
1	Reported Environmental Concerns?	13
2	Reported Environmental Problems?	13
5	Disaster of long duration?	13
8	Is level of Self-sufficiency low?	13
14	Are expectations high?	13
17	Does env. have limited resilience?	13
19	Wildfire?	13
18	Drought?	13
20	Haze?	13
24	Human Disease?	13
32	Is personal safety adequate?	13
35	Is the control of insects and breeding sites adequate?	13
36	Are pesticides used safely?	13
9	Is social solidarity low?	12
16	Is capacity to absorb waste limited?	10
34	Is waste management appropriate?	10
15	Is resource use unsustainable?	9
26	potable water available for humans?	7
23	Animal Disease?	6
31	Are household resources adequate?	5
33	Are human health adequate?	5
3	Unique Areas?	4
29	Is food adequate?	4
21	Flood?	4
13	Is livelihood not diversified?	2
22	Conflict?	2
11	Is cultural homogeneity low?	1
12	Are assets concentrated?	0
7	Have the victims moved a great distance?	0
6	Are the disaster victims concentrated?	0
27	potable water available for animals	0
28	Is shelter adequate for local expectations?	0
30	Is fuel adequate?	0

Annex D 8. Comparison of Issues Identified by During Group and Community Assessments

This table takes the more salient issues identified in the group and community assessments and presents them by category (e.g., Unmet Basic Needs). This table was the first step in compiling a consolidated list of issues reflecting both group and community perceptions.

SUMMARIZED ISSUES: Group and Community Assessments

Group Assessment	Community Assessment
Context & Factors	
Environmental degradation due to in appropriate policy	Environmental concern
Mismanagement of peat land	Environmental Problem
Attitude does not address Env. Change	Large number affected
Low resilience	Long duration
Long duration	Low sufficiency

Concentrated victims	High expectation
	Low resilience
	Low Social solidarity
	Unsustainable resources use
Possible Environmental Impacts of Hazards	
Loss habitat due to fire	Drought
Pest and disease cause by environmental change	Fire
Air pollution	Human diseases
	Haze
	Flood
Unmet Basic Needs	
Lack of foods (Rice)	Personal safety
Health	Low control breeding sites of insect
	Unsafe use of pesticides
	Low water availability
	Low rice availability
	Human health
Potential Negative impact of Assistance	
High expectation	Cassava consumption
Training (Resources Extraction)	Traditional medicine (herbal)
	Extractive rubber tapping
	Early harvest rattan
	Gold mining
	Logging
	Fishing
	Hunting
	Fire break

Annex D 9. Consolidated Issues and Actions (Group and Community Assessments)

#	Consolidated	Actions	Comments
I. Context & Factors			
1	Environmental degradation due to in appropriate policy	Advocacy.	Propose local regulation on peat land management
2	Less environmental concern	Increase awareness of society	Environmental education campaign
3	Environmental Problem	Reduce environmental problems	Rehabilitation projects should not raise new problems
4	Large number affected	Reduce Impact	Prevent wild fire, fire brigade at community level, Natural (crop) fire break, avoid slash and burn.
5	Long duration	Reduce duration of disaster	
6	Low self sufficiency	Enhance self sufficiency	Create sustainable livelihoods
7	High expectation	Reduce expectation.	Minimize relief assistance and promote technical assistance.
8	Low resilience	Rehabilitation and concept to increase environmental resilience.	Peat land rehabilitation based on typology. Increase society awareness
9	Low Social solidarity	Increase social solidarity.	Empowering community group.
10	Unsustainable resources use	Use resources sustainable way	Develop sustainable cultural practices, improve local coping to sustainable orientation
II. Hazards			
1	Drought	Need further study and information.	Information from geophisic meteorology agency, public work, and related agency
2	Fire	Fire brigade at community level.	
3	Human diseases	Need more information	Information health department
4	Haze	Reduce fire and Provide mask	
5	Flood	Participatory mapping at affected area.	For preparedness and mitigation
III. Unmet Basic Needs			
1	Personal safety	Increase Knowledge, improve Attitude, encourage Practices	Increase preparedness society in facing disaster
2	Low control breeding sites of insect		
3	Unsafe use of pesticides		
4	Human health	Need more information	Information health department
5	Low water available	Identify source, current status, appropriate techniques and participatory management	
6	Low rice availability	Proud rice, increase production and diversity food consumption.	
IV. Potential Negative Impact			
1	Relief supply	Minimize relief assistance, reduce un-recyclable packages.	
2	Training (Extraction of resources)	Avoid training that lead to resources extractive	

3	Local coping		
	Cassava consumption	Manage and use resources in sustainable ways (manner)	
	Traditional medicine (herbal)		
	Extractive rubber tapping		
	Early harvest rattan		
	Gold mining		
	Logging		
	Fishing		
	Hunting		
	Fire break		Reduce slash fire break, use crops as fire break.
	Wells	Communal well (groups)	

Annex E. Mario Pareja Trip Report

Trip Report
REA Field Test
Central Kalimantan, Indonesia
 January 9-22, 2003

By Mario Pareja
Consultant on Environment and Development

Benfield Grieg Hazard Research Centre (BGHRC), University College of London (UCL)

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	\$ More specific recommendations for the REA Guidelines YYYYYY.	
	\$ More specific recommendations for the REA Training YYYYYY.	
	\$ REA Guidelines Vol. 1 Commented (independent document B not attached)	
	\$ REA Guidelines Vol. 2 Commented (independent document B not attached)	

1. Objective of the Trip

The trip was planned and made to coincide with the initiation of the third field test of the **Guidelines for a Rapid Environmental Impact Assessment (REA)** in Disasters, being developed jointly by CARE International and the BGHRC/UCL, in Central Kalimantan, Indonesia. The objectives of the visit were to closely observe and critically review the planning and implementation process of the REA, during its initial stages, as led by Charles Kelly and done by the staff of CARE International in Indonesia (CI-I). The activities were to contribute to the main purpose of the field test, e.g. to determine (1) if the REA Guidelines help the CI-I=s staff to identify and prioritise the main environmental issues in a disaster; (2) if the REA could be used as a rapid environmental review tool in a disaster; and (3) if the REA Guidelines could be properly utilised by the staff of humanitarian NGOs without the support of environmental specialists.

2. Agenda and Activities

I arrived to Jakarta on 9th January and Kelly followed on the 10th. The first 4 days were spent in Jakarta (a) briefing CI-I=s staff; (b) agreeing to the TOR and developing the agenda for the REA with Kelly and CI-I=s Johan Kieft; (c) attending the briefing for local and other international NGOs, done by Kelly and Johan, in Jakarta; and (c) collecting and reading background information on Central Kalimantan. On the 13th of January I visited the Centre for International Forestry Research (CIFOR), in Bogor, collecting information on Kalimantan, and on other matters (CARE-WWF Partnership), while Kelly visited the USAID office. On the 15th, the three of us travelled to Palankaraya, Central Kalimantan, where I stayed until the 21st, (a) attending and supporting the training of CARE Indonesia staff on the REA; (b) observing the development of the full REA-Group test; and (c) helping to prepare and observing, the first day of the REA-Community test in two communities¹. Before leaving Indonesia, on the 22nd, I met and briefed CI-I=s Director, Bud Crandall, on the REA work so far done. The REA process was to continue for at least 10 more days with the field test in Kalimantan and to finalise with a final briefing to CARE, other NGOs and donors in Jakarta.

3. Findings, Conclusions and Recommendations

This report focus mainly on the REA process and Guidelines, leaving the discussion about the final results of the REA for Kelly to cover in his report, at the end of the assessment period. Through the analysis of key

¹ CARE International in Indonesia was interested in assessing the situation of a larger number of communities so the Community REA was to continue for another 4 days.

findings, I attempt to contribute with preliminary, and probably partial, answers to the three main purposes of the REA field test. Additionally, I provide specific recommendations for the improvement of the REA Guidelines, the REA process, and future training of REA cadres.

§ REA Process and Timing

A contentious issue during the development of the REA has been what the AR@ in it really means or, what is Arapid@. Initially the thought was that the REA (at the time consisting only of the REA-Group section) was not to take more than 2-4 hours to complete. This has been difficult to achieve in the two previous field test so far and it did not happen in the Indonesia field-test either. This is what really took to complete the Indonesia REA.

REA TIMING

REA SECTION	TIMING	ACCUMULATED SECTION TIME	ACCUMULATED TOTAL REA TIME
REA TRAINING²			
Training for REA-Group	8 hr 00 min	8 hr 00 min	8 hr 00 min
Training for Community-REA	3 hr 30 min	11 hr 30 min	11 hr 30 min
TOTAL REA TRAINING		11 hr 30 min	11 hr 30 min
REA ASSESSMENT			
REA-Group			
EA leaders preparation ³	4 hr 00 min	4 hr 00 min	15 hr 30 min
Introduction to REA ⁴	20 min	4 hr 20 min	15 hr 50 min
Context Statement (G 2)	1 hr 00 min	5 hr 20 min	16 hr 50 min
Form 1 (G 2)	1 hr 20 min	6 hr 40 min	18 hr 10 min
Form 2 (G 2)	1 hr 10 min	7 hr 50 min	19 hr 20 min
Form 3 (G 2)	0 hr 45 min	8 hr 35 min	20 hr 05 min
Form 4 (G 2)	1 hr 00 min	9 hr 35 min	21 hr 05 min
Consolidation of 2 sub-groups	2 hr 10 min	11 hr 45 min	23 hr 15 min
Synthesis	1 hr 35 min	13 hr 20 min	24 hr 50 min
Sub-total REA-Group	13 hr 20 min	13 hr 20 min	
REA-Community			
Preparation (real) ⁵	6 hr 30 min	19 hr 50 min	31 hr 20 min
Village work	1 hr 45 min	21 hr 35 min	33 hr 05 min
Sub-Total REA-Community	8 hr 15 min	21hr 35 min	
TOTAL REA ASSESSMENT		21 hr 35 min	

² Involves the training of the >REA leaders-to be=, CARE and partner NGO, conducted by Kelly. [I participated in some sections].

³ Includes time for reading the Guidelines and preparing blank forms for the REA-Group. It is not an exact figure; it is an estimation.

⁴ Real time taken to complete the REA process, by section, as per timing either of the large group or of Group 2.

⁵ Time taken for preparing the questionnaire in local language, discussing and correcting it with the group and organising the logistics. Again, it is an estimation.

TOTAL REA			33 hr 05 min
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To do the REA took almost 22 hours so, close to 3 full working days. Some of the issues that influenced the amount of time the REA took, and that need to be considered, are discussed below.

1. The theme, >environment=, is complex and highly inter-linked, and much so in an area that has suffered a significant, and recurrent, >environmental disaster=, such as Central Kalimantan, home of the >famous Indonesia fires.
2. The REA tools and guidelines may lead into lots of details and complex issues, if the participants are prepared to deal with them and so desire. It is a matter of deciding where to draw the line, when to stop.
3. The language posed a significant barrier forcing to translate some technical jargon (many environmental and disaster management terms) that posed not only linguistic but also conceptual challenges. So, something to keep in mind is that translation of >environmental terms= takes long because it involves not only words but also concepts.
4. Both groups of participants, the >REA leaders-to be= as well as the ones that composed the >REA Group=, were very large, highly diverse, quite informed, and highly participatory. People were anxious, and possibly had waited for an opportunity like this for quite some time, to get together to meet and discuss these issues.
5. The facilitators (the >REA leaders-to be=) had to go through a series of problems in order to get ready for the REA group event, including a very short preparation time to do the reading of the REA Guidelines, receive training and coaching, planning the whole REA process and to get ready to use participatory methodologies with quite a large group of colleagues.
6. The training and coaching run into various problems that definitely jeopardised their effectiveness to well prepare the REA leaders for guiding the exercise. Among these were the issue that reading materials did not get to Central Kalimantan but the day before the training, that the group to be trained as leaders was larger than optimal and that the process had to be conducted simultaneously in two languages.

After considering the above caveats, there are still some relevant context questions that need to be posed and answered before concluding anything about the >rapidity= of the REA. These are:

- Was this a >normal= situation that the REA would encounter in its application?
- Were the issues encountered during this REA those to be expected in standard-normal disaster situations?
- Were the REA leaders representative of the NGO staff in an >average= country office?
- Was the group, at Palankaraya, representative of the staff and partners of NGO and GO in an >average= disaster prone country?
- Were there any exceptional aggravating factors that made this REA process different?

If the answer to most of those questions is NO, then we would have to forget this test and look for some other ones where more >normal= situations would be encountered. And then, √ time the REA again. But if the answer is YES, that in Indonesia, the REA was tested in its >normally expected= situation: a standard NGO, with its normal staff in a developing country office facing a disaster, then the test is valid. My answer to the questions is YES!

The next step is to find out (a) if this is a real problem; and if so (b) is there any way to deal with the issue of timing? Well, the term >rapid= in the title raises expectations and the issue needs to be addressed.

- We definitely cannot do anything to simplify the theme of >the environment=. We have to accept that it will be a theme prone to lead into involved and long discussions.
- One way is to attempt to simplify / streamline the tools and guidelines, the REA process, so it

becomes more targeted. But it is not easy to speed up or simplify the process without losing quality of analysis. A good thing about the REA is that it forces people to look into several directions and so expand the horizon of the analysis of environmental issues. Maybe what could be done is to limit the scope of the analysis of some issues; e.g. draw the line. But this is easier said than done.

Recommendation No.1: *Be clearer, in the Guidelines, that the REA is supposed to raise the environmental issues, not necessarily solve them!*

- Another one is to deal with the issue of language. It really needs to be thought up front: translation of some of these terms to local languages, which rarely have linguistic similarities with English, poses a serious challenge and takes time!

Recommendation No.2: *It would help tremendously if the REA could be available up-front in the local languages, just like the Sphere Standards. If this is not possible there is a need to translate, at least, the key terms to the local language and make them available ex-ante, way before the conduction of the REA. [See Recommendation No.8].*

- A third possibility is to improve the planning, management and facilitation of the process. For this, there is a need to properly select, and/or ideally train and coach or at least provide some guidance to, the REA leaders on the techniques required for forward planning, group facilitation and PRA, and the REA itself.

Recommendation No.3: *The REA Guidelines, and the training programmes, should provide (a) better guidance about planning and managing the REA process, and (b) more precise guidelines about facilitation as well as links to literature and web sites on this theme.*

§ REA Guidelines

Presently, the REA Guidelines is not a user-friendly document: information is difficult to find, it is not easy to flip from one section to another, >modules=, >section=, or >units= are not clearly separated in the text, so as the user can actually move around it, and all these limit it as a >field guide=.

Recommendation No.4: *The REA Guidelines need to be edited by a communication specialist to make them an easier to use document under field conditions⁶.*

Additionally, the present terminology being used in the REA documentation (the way references are made to >the REA=, >the Guidelines=, etc.) is confusing because (a) it does not clearly differentiate between the >REA process= and >the Guidelines= provided to conduct the process; (b) it seems to include ONLY the >REA Group= exercise and excludes the >community assessment= from the REA process per se; and (c) it does not clearly differentiate between processes (data collection, processing, analysis and interpretation), and instruments and tools used in each phase of the process.

Recommendation No.5: *This may not need to be this way but the REA needs to be re-structured to account for the issues above. A possible structure is: Module I: Introduction: to the REA (why, what, how, and the whole process); Module II: Data collection: the AContext Statement@ (what); Module III: Data collection: the A REA Group@ Consultation (what, how, and the process); Module IV: Data collection: the A REA Community@ Consultation (what, how, and the process); Module V: Data analysis: Synthesis and Integration*

⁶ A nice editorial and publishing reference model for the Guidelines is >A Co-operating Sponsor=s Field Guide to USAID Environmental Compliance Procedures=, Second Edition, February 2000 by Gaye Burpee, Paige Harrigan and Tom Remington, CRS and FAM.

(what, how, and the process); Module VI: Conclusions: Summary Tables (what, how and the process).

A final issue, or possible problem, is related to the Module V above, and has a process as well as a >guideline= dimensions. Neither the REA process, as I lived partially through in Indonesia, nor the Guidelines have found a neat methodology to combine and integrate the various pieces of information coming from the different REA tools (element matrices and community questionnaire) when applied various times (various groups and various communities). It is not only an issue of data processing and cataloguing but also about how to resolve possible differences and potential contradictions between the results obtained with the various tools. A possible summary table?

	Context statement	Disasters factors	Impacts of hazards	Unmet basic needs	Relief activities	Synthesis
REA Group 1						
REA Group 2						
Groups average						
Community 1						
Community 2						
Community 3						
Communities Average						
Overall REA Average?						

Recommendation No.6: *The REA Guidelines need to provide better guidance on how to combine data processing, interpretation, and analysis from different sources.*

Finally, from my brief exposure to the REA field process I draw two more issues. The first is that, because of its holistic approach to environmental issues and its linkages to >needs=, the REA >naturally= leads the participants to the issues of >livelihoods= in the affected area. This is, indeed, very good but needs qualifying! Additionally, REA results may need to be integrated with other >assessments= conducted in emergency situations and how is this done?

Recommendation No.7: *The Guidelines may need to briefly mention the linkage between >environmental assessments= and livelihoods and, simultaneously, do a bit of a disclaimer: @the REA is not a livelihood assessment but it contributes@.*

The second is the linkage of REA with other environmental assessments, such as the Initial Environmental Examination (IEE) usually required in USAID-funded projects. The REA is an assessment of environmental impacts of the disaster, the disaster victims and of the potential relief activities. The IEE is an assessment of the potential environmental impact of possible >activities=. As such the REA may contribute to the IEE through the identification of the environmental impacts of interventions and their possible mitigation strategies; e.g. a REA may trigger and/pr contribute to an IEE.

§ REA Training

It takes a long time to translate, because it is not only the word, but the concept that is a bit different in English and Bahasa. We need to work together, with linguists and environmentalists, in order to find the right words. [Ujan, Project Manager, CI-I and REA Leader in Central Kalimantan.]

My impression after sitting during the REA training for local staff was that this was a major undertaking, mainly when there are language problems and needs for simultaneous translation. The REA, as many other things in this world, has been thought off and structured in English, by English speakers with mental structures associated to, and modelled by, this language. In English, it is rapid and the Guidelines are easy to use but we have to recognise that this may not necessarily be the case in other languages. There is a need to review the REA Guidelines and the structure of the REA in other languages. This is more so if we expect the tool to be used spontaneously by people in institutions in the developing world. It is difficult, however, to visualise developing country NGO and GO staff taking this by themselves without some type of training (at least the one day session offered in Indonesia). Additionally, and in order for the REA to be consistently used, the system (NGO structures, donor requirements or funding, etc.) has to provide some rewards for the staff that uses it. If the latter is not present, it will be difficult to streamline it.

Recommendation No.8: *Pay close attention to languages issues, such as translation of words and concepts, when preparing and implementing REA training programmes. Spend at least some time with bilingual local speakers to translate key terms and concepts ex-ante to the training.* [See Recommendation No. 2]. [This has implications for the REA training being now prepared for Latin America.]

Although the technical guidelines, in the REA document, do contribute to make the process easier, a lot of the issues in relation to timing and easiness of moving through the REA process are related to the ability of the REA Leader as a facilitator and his/her knowledge of participatory methodologies.

Recommendation No.9: *When training REA leaders, consider the importance of including issues related to participatory process and facilitation skills.*

Finally, a word about audiences. There may be more than one type of training in the REA process. On one hand, there may be an audience of programme officers, from donors, NGO, as well as from the UN system organisations that may want a general view of what the REA is all about, its process, and the results it may produce, emphasising the value added of its utilisation in disasters. [This may be closer to the audience expected in the REA training in Oslo]. On the other hand, there are the NGO and UN system staff that are normally called relief workers, or field staff that may actually themselves USE the REA. Those are the ones that will do the REA in a disaster situation and that we can call the REA leaders (they lead the REA process to completion). [This may be the audience expected in the Guatemala training]. The important point is that the training objectives, and obviously the agenda, will be totally different in both situations.

Recommendation No.10: *When implementing REA training programmes clearly define the target audience, training objectives and outcomes, and so the agenda according to the potentially different REA users.*

4. Answering the Field Test Questions

A. Were the REA Guidelines useful to identify the main environmental issues in a disaster?

Since I participated only during part of the assessment, the final answer to this question should be delayed until its end. However, I was positively impressed by both, the scope and depth of the analysis and conclusions reached by the REA-Group and by the ease and richness of the REA-Community exercise. My only concern is more focused on form rather than content and is related to the number of recommendations or the number of priority issues identified during the REA. I am aware that in an environmental analysis it is not always possible but, from a management viewpoint, it would help if the list of priority issues and recommendations is kept short.

B. Was the REA a rapid tool for environmental review in disasters?

Yes and no! Simplistically, it appears that the REA may face two different types of situations and two extreme approaches are possible (with a range of intermediate possibilities in between the two). The first one will be in a (=very=?) rapid onset disaster in which a REA has to be conducted fast (2-4 days maximum). In this situation a strong REA manager will be needed to lead the assessment and s/he has to have the following qualities: ability to manage a process in the context of a disaster, good command of the English and the local language, and certain level of understanding of the local conditions in which the disaster has happened. The second situation is that of a slow onset, or protracted, disaster in which a more participatory REA can be implemented during a longer period of time (5-10 days). The REA leader will ideally be a local mid-level staff (project manager, sector co-ordinator) with skills in PRA, or similar social techniques, and with certain minimum management skills for process and personnel. S/he will supervise a small (2-5) staff group in charge of the whole REA process probably in local language.

§ Could non-specialists from the staff of a humanitarian NGO use the REA Guidelines?

Technically the Indonesian group did not have any serious difficulty, neither needed lots of guidance on the conduction of the REA, proving that non-specialists can do the REA. [Granted, the audience included staff from environmental NGOs]. However, the REA posed a real challenge to the local group, not because of the technicalities of the environmental assessment but because of the complexities of planning and managing of the process (design, selecting target groups, villages sampling, questionnaire, logistics, etc.). These are issues not related to the complexity of the REA at all!

Although the by the end of the second day, the REA Group was not finished and the action list and priorities were left incomplete, the group opined that the REA: (a) highlighted the major environmental issues in the region; (b) helped to review present and develop better future operational plans; (c) is useful in disaster situations although in >normal= scenarios there are other preferred, more complete, tools; and (d) could be adapted to Indonesia conditions.

4. Concluding Remarks

The REA is proving itself to be a useful set of tools for environmental assessments in disasters. It contributes to highlight the main environmental issues in a disaster situation, it is >relatively rapid=, and it can be used by staff that are not environmental specialists. So far, the REA has been only tested within CARE; the organisation will have to streamline it within its emergency response structures and systems, including formal and informal training exercises. So far, the REA has not been taken outside CARE, except for partners that have participated in the REA-Group assessment. It is probably time that a strategy is developed to pro-actively take the REA to other organisations and systems, such as other humanitarian organisations, the UN system and donors, disseminating it through formal (BGHRC and CARE web sites, publications) and informal (presentations in non-technical and technical meetings) mechanisms. An issue still to be tackled is that of the integration of the REA results and recommendations with those of other assessments normally conducted in disaster situations. It would be useful to actually test the REA in a field-disaster situation as a component of the set of assessments being conducted.

5. Annexes

§ More Specific Recommendations for the REA Guidelines

- The Guidelines should be strengthened on how to organise the process for conducting a REA. From reading the Guidelines, selecting the team, area of focus, planning for the group and community consultations, etc. So, the management and process.
- The Guidelines should more clearly address the issue of donor requirements for environmental analysis in emergencies.
- The REA Guidelines should address the fact that, additionally to using the REA itself for monitoring, through repeated applications of the tools, the REA can point to specific environmental issues, and even suggest indicators, that need to be monitored as a part of the more general M&E system.
- Some terms, like advocacy, need to be defined in REA texts and, moreover, as it is presently used in the document it does not necessarily coincide with the use of the term by NGOs.
- The Guidelines may need to provide some guidance for sampling communities. At least bare minimum.

- _ To clarify in the REA Guidelines: What is the role of secondary information? Should the guidelines, first, emphasise it, and then provide specific instructions to REA leaders to do the literature search to complement subjective information? In Indonesia, the secondary information did not play a role at all, although there were quite a few very good documents about the environmental problems in the area.
- _ The Guidelines should include some instructions for REA leaders on themes such as:
 - _ Importance of managing basic concepts and ideas of PRA.
 - _ Importance of understanding group dynamics vis-à-vis group size and other issues.
 - _ If groups are to be divided standardise procedures (for example rating metrics) before doing so.
 - _ How to organise a REA Group session: introduction, set objectives/expected outcomes, timeline, etc.
 - _ How to proceed through the forms. For example, (a) establish the procedure to be followed: example form, voting, etc. (b) indicate the specific point to be analysed and discussed, ask if everyone understand the concept, clarify if not, proceed to rating.
 - _ When rating capture the range within the group and if there are out-liers try to explain them before moving forward.
 - _ When rating always begin with a different member to prevent one person from systematically influencing the rating of others.
- _ Guidelines should emphasise in Element 1, that the Context Statement is descriptive and NOT analytical. If not, the group may engage in an in depth and long discussion about cause-effects that, if at all, should come at the end of data collection.
- _ For all the REA Forms: the Guidelines should include an explanation of all column headings, in the first page of each form. So far there are none!
- _ In Form #1: rating for A# of person affected relative to total population in disaster area@. As stated the indicator is a >ratio= (affected/total population), and so a percentage, even if estimated. However, Kelly did not accept this in the training discussions. If the idea is not this then it has to be re-written.
- _ In form #1: >environmental resilience= is not an easy concept to understand. It may need more explanation and definitely an example (this helped in Indonesia).
- _ In form #2: the differences between >hazards= and >threats= caused confusion in the audience, which was fuelled by the Agrouping@ of hazards in the form. It may be necessary to clearly define the terms, and add the definitions to the glossary. The examples, with the drawings (volcano, etc.), that Kelly provided were very useful.
- _ Guidelines for Form 2: specifically recommend going through the whole list of hazards and selecting those applicable to the are under consideration w/o overlooking anyone!
- _ Terminology in Form 2: >armed conflict= was interpreted by Indonesians as involving >the army=. It needed explanation: use of arms.
- _ Suggestion for Form #3: The two versions provided are the same but differing in where they place the Sphere indicators. Just make one, rather than two, one for Sphere knowledgeable people and one for those not familiar with Sphere, with an additional row at the bottom of each >need= for summary and for those that prefer to give only one value. Also, add the column Abefore the disasters@ to this table, as it is being used in practice.
- _ Write up of summary of the process in the Guidelines. A possible structure is the table Kelly distributed in the notes.

Element	Purpose	Process	Outcomes
Context Statement			
Impact of hazards			
Unmet needs			
Modulating Factors			
Possible Responses			

- _ The Community Tool: should it be presented as a questionnaire or as a topical outline? Although

recognising that a questionnaire may help to speed up the process, I see advantages in a topical outline allowing local staff to articulate the questions as they see fit the local language and cultural conditions. This is supported by the fact that a lot of the REA data collection process is based on exploring environmental issues with the communities and if so, this is better done through the use of a topical outline. This was what actually happened in Indonesia.

- The Community Tool should include an advise to REA leaders to make sure information from each village is processed every evening while people still remember the village. Otherwise people forget and get confused.
- For easy of moving around the document, I would prefer to see the forms all printed at the end of the text rather than interspersed throughout the text.

\$ More Specific Recommendations for the REA Training

- Participants had trouble understanding the concept of a context statement. What is it and how to develop? Examples help, such as those from Ethiopia and Afghanistan.
- Participants had problem understanding the difference between >fixing= a problem and >designing= a solution for a problem.
- Advocacy: a term that has different connotation in Bahasa than in English: it is related to laws and lawyers. May be a similar situation in other languages.
- >Action on issues identified and Uses of REA results appear to be quite similar. What's the difference?
- A training message is that REA leaders are to use the Guidelines. Don't forget! Some did not use them and went only through the form w/o consulting the Guidelines.
- Some of the questions raised by various audiences in Indonesia are here summarised:
 - What is the limit of the REA in terms of its ecological applications? Ecosystem, landscape, watershed?
 - Give an example in which the use of the REA would have improved a disaster response?
 - Could the REA be used to compare the perception of the environmental issues by two different populations?
 - Could REA help identify community coping strategies vis-à-vis environmental problems? (See today questions 30, 31 and also 11 of the Community Questionnaire).
 - Is REA something really new? Was there anything for environmental analysis in disasters before it?
 - What is the relation of REA with the Sphere standards?
 - What is the relation of the REA with other assessment normally done in emergencies?
 - Can communities use the questionnaire by themselves? Do they need to be trained to do this?
 - After completing the REA two of the options are that the organisation leading it do advocacy or hire technical assistance or both? How to know this?
 - In form #2: when is the area affected large and when small? What are the criteria to be used?
 - In form #2: How to select the most important one if two hazards end up with the same score? What criteria to use?
 - What happened if we don't know (yet?) the area affected by the disaster?
 - What does it mean sustainable resource availability (from 2)? Could you provide examples?
 - What is environmental resilience? Could you provide examples?

Comments on REA Guidelines Vol. 1 and 2 were provided separately.