

## The Mercy Corps Cash for Work Program in Post-Tsunami Aceh\*

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*Photo by Cate Gillon, Mercy Corps*

By Shannon Doocy<sup>1</sup>, Michael Gabriel<sup>2</sup>, Sean Collins<sup>2</sup>, Courtland Robinson<sup>1</sup>,  
and Peter Stevenson<sup>2</sup>

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<sup>1</sup> Johns Hopkins Bloomberg School of Public Health

<sup>2</sup> Mercy Corps

## EXECUTIVE SUMMARY

Cash for work (CFW)<sup>3</sup> programs have been used in a variety of disaster and emergency contexts. CFW was a prominent component of the immediate response to the tsunami in Aceh. This document describes the Mercy Corps CFW program, discusses experiences in implementing CFW programs, and provides key recommendations for the implementation of similar programs in future emergencies<sup>4</sup>. At its peak the Mercy Corps CFW program employed nearly 18,000 participants and disbursed over USD 4.5 million in direct payments during the seven-month program lifespan. The program was evaluated using monitoring data and an exit survey of 1,428 randomly selected participants.

The CFW program contributed to community recovery by supporting clean-up and reconstruction projects. Among other outputs, the CFW program was responsible for the clearing of 136km<sup>2</sup> of land area, 262km of roads, and 2,006 buildings; a total of 306 permanent and 577 temporary structures were constructed by the program. In addition to facilitating recovery, CFW provided a substantial infusion of cash which helped to restart the local economy and provide support to economic markets.

CFW provided an essential source of income, and for the majority of program participants and their households, CFW was the only source of income in months following the tsunami. On average, 93% of monthly household incomes were attributable to CFW. This suggests that as CFW programs in Aceh phase out, the transition for households will be difficult, even if follow-on livelihoods programs are widely implemented. A total of 34% of participants reported saving CFW earnings while 35% used them to purchase assets. Expenditure patterns were similar between male and female participants suggesting that women had adequate control over cash and that spending trends were similar between the sexes.

CFW provided a critical source of cash for tsunami victims and helped empower displaced populations to return to their pre-tsunami residences: 91% of exit survey participants indicated that CFW helped to facilitate return to their communities. Other reported psychosocial benefits of CFW included providing productive activities for tsunami survivors and giving communities an opportunity to work together. Mercy Corps' experience in Aceh demonstrates that relief efforts that provide cash disbursements to local populations can be safely delivered on a widespread basis in emergencies, and that, when implemented on a short-term basis, can have positive impacts at the individual as well as the community level.

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<sup>3</sup> Mercy Corps defines cash for work as the provision of cash, paid in the local currency, in exchange for work completed on public works projects. Mercy Corps introduces cash for work projects on a short-term basis in environments where it is necessary to rapidly inject cash into communities in order stimulate the local economy and provide temporary employment to community members, such as after a natural disaster. Cash for work is never intended as a long-term strategy and should not create disincentives to local business revitalization.

<sup>4</sup> See page 18 for the key recommendations section

## INTRODUCTION

Job creation programs, such as the Civilian Conservation Corps in the United States, have been historically used to provide aid to less well off citizens, and can be considered as antecedents to cash for work (CFW) programs that are an increasingly common element of humanitarian assistance in food-insecure settings, disaster-affected areas, and post-conflict environments. CFW was originally developed in famine and food-insecure regions and was used as an alternative to food for work (FFW) programs; use of CFW was later expanded to post-disaster and conflict settings. CFW programs have been implemented after floods in Bangladesh, in conflict-affected regions such as the Democratic Republic of the Congo and Afghanistan and, most recently, in tsunami-affected areas of Sri Lanka and Indonesia.

CFW programs are considered to be easier to administer than FFW programs and can be less disruptive to local markets; they infuse cash into economies depleted of cash resources, and in some cases can stimulate local economies (Cuny, 1999). The benefits of harnessing idle labor in the immediate period after a disaster are of critical importance. The tsunami resulted in massive devastation and hundreds of thousands of people were no longer able to participate in their routine employment activities. Cash for work was a logical response that provided a structured mechanism to engage people in low-skilled constructive activities while infusing cash into the economy and promoting decision making at the community and individual levels.

Cash for work programs have historically been implemented on a small scale and there is a need for additional research into their effectiveness, particularly as the size of cash interventions increases (ODI, 2005). Many organizations employed cash interventions after the Asian tsunami and large scale CFW programs were widespread in both Sri Lanka and Aceh, Indonesia with tens of thousands of beneficiaries participating in CFW programs operated by multiple (I)NGOs and UNDP, sometimes in partnership with local NGOs. In the post-tsunami context, where livelihoods were destroyed and assets were lost, CFW provided income, contributed to community rehabilitation, helped to meet financial needs, and had positive social effects in tsunami-affected communities. While CFW programs have been used previously in a variety of contexts, they have never been implemented before on the scale that was observed following the Asian tsunami.

Historically, CFW programs have been implemented as a means of stimulating economies by infusing resources into cash-depleted communities. However, when implemented incorrectly, CFW programs can disrupt local economies, artificially inflate wages, and result in unsustainable shifts in the labor force (Cuny, 2005). The cost of implementing CFW is lower than food for work programs because the transaction costs associated with food delivery are avoided; in addition, cash provides versatility and empowers people to make choices and act on their own decisions. Previous studies have shown that communities tend to prefer cash to food relief, making CFW an attractive option for relief providers and target beneficiaries alike (Lothike, 2005; Galuma, 2004; ODI, 2005, Harvey, 2005). The success of CFW programs largely depends on the objectives and management capability of the program administrators as well as the environment in which it is implemented.

Many relief agencies are gaining experience in the implementation of CFW programs, but there is a need for both additional research, and the sharing of experiences if these programs are to evolve in ways that maximize benefits to participants and local economies. Complicating the challenge of implementing CFW programs as a component of disaster response is the high degree of management capability needed for effective oversight. In Aceh, post-tsunami CFW programs were carried out in the face of severe infrastructure devastation and resource loss. In addition, most NGOs had no prior experience working in the region because of on-going conflict and associated restrictions on the presence of foreign organizations.

Among the largest CFW programs in Aceh immediately following the tsunami was that of Mercy Corps, which operated in the districts of Banda Aceh, Aceh Besar, Aceh Barat, and Nagan Raya (figure 1). Mercy Corps was the first organization to initiate CFW in Aceh—less than two weeks after

the tsunami struck.. The CFW program was implemented in 60 villages and at its peak, had nearly 18,000 participants and was disbursing over USD 1 million/month. Over USD 4.5 million was disbursed in direct payments to CFW workers during the 7 months of the program. The Mercy Corps CFW program began on January 7, 2005, and was gradually phased out, ending on July 31, 2005, in favor of output-based labor contracts and other programs that aimed at building livelihoods and more sustainable sources of income (see table 1 for program objectives).



Table 1: Cash for Work Objectives

- Mobilize idle labor
- Infuse cash into the local economy
- Empower individuals and households to act on their own decisions by providing them with cash to meet their needs
- Provide people with productive and compensated work opportunities thus facilitating the return to normalcy

The large-scale implementation of CFW programs post-tsunami provided a unique opportunity to assess the impact of CFW programs on beneficiaries and their communities. The present study aims to 1) document the Mercy Corps experience of implementing CFW in Aceh Province, post-tsunami; 2) assess the outcomes of the Mercy Corps CFW program at the individual and household levels; 3) examine the role of CFW income within the household economy<sup>5</sup>; and 4) provide lessons learned that can serve as guidelines for implementation of CFW in future disasters.

<sup>5</sup> “Household economy” describes the collective economic activities of households, which includes production of commodities (such as goods or labor); these are used to satisfy needs and wants (consumption of goods and services).



*Photo by Cate Gillon, Mercy Corps*

## **STUDY METHODOLOGY**

The Mercy Corps CFW program was assessed using routinely-collected, output-level monitoring data augmented with information gained in exit interviews of CFW participants. A monthly monitoring system was developed for the CFW program that collected basic quantitative and qualitative information in each of two project regions: Banda Aceh and Meulaboh. Quantitative information gathered included the number, type, and sex of participants, number of days worked, and payments disbursed. Qualitative information gathered included the nature of obstacles and problems encountered in program implementation. Monitoring information was gathered and reported by area supervisors (national staff directly responsible for oversight of CFW projects) who were assisted by participants acting as supervisors of smaller groups of their peers. Data was then compiled on a monthly basis in branch offices in Banda Aceh and Meulaboh by the CFW Coordinator and program manager.

The exit survey employed a stratified design in order to compare CFW programs operating out of the two branch offices. A sample was randomly drawn from CFW participant lists which were made daily and varied based upon which individuals came to work. Bi-weekly pay sheets from each CFW project were used to develop lists of participants; these lists included all individuals that were ever paid for participation as workers in CFW projects, regardless of the duration of participation. Survey respondents were randomly selected (i.e. every  $n^{\text{th}}$  individual) for participation and then located in project areas. If the identified participant was not located on the second visit to the community, the name immediately below on the list was selected and that individual was substituted as a survey participant. A total of 1,460 interviews were completed and 1,428 were used in the final analysis (Meulaboh was over-sampled and 32 interviews were randomly dropped to equalize sample sizes ( $n=714$ ) from each site).

The survey instrument was developed in English and later translated into Bahasa Indonesia. The questionnaire focused on participation in the CFW program, household income, and household expenditures. The survey was conducted in June and July, 2005 by national staff in the Mercy Corps monitoring and evaluation unit. Interviewers had previous survey experience and received additional

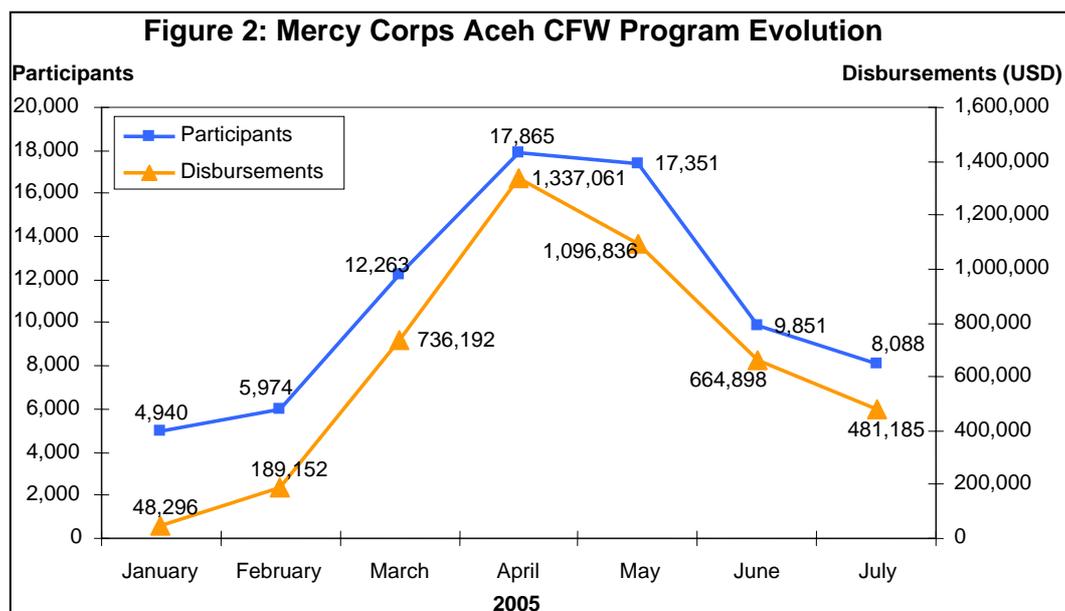
training before data collection was initiated. Interviewers with no previous contact with CFW participants were selected to minimize biased responses.

Data analysis was performed using STATA Version 8 (Stata Corp, College Station, TX) and SPSS Version 12.0 (SPSS Inc., Chicago, IL). All monetary data was collected in Indonesia Rupiah, and converted to US dollars at a rate of Rp. 9,800 per dollar. This study was certified as exempt from human subjects review by the Committee on Human Research at Johns Hopkins Bloomberg School of Public Health because it was an evaluation of a service program.

## RESULTS

The Mercy Corps CFW program was implemented in 60 tsunami-affected communities in four districts between January and July, 2005. The program had an average of 10,905 participants a month and a mean monthly disbursement of USD 650,517. The program was relatively small at its inception, though it grew rapidly, expanding to include 17,865 beneficiaries in April, 2005 (figure 2 on the following page). Mercy Corps' criteria for selecting CFW projects included: 1) villages in which a sizeable portion of the population planned to return, 2) villages consisting of a substantial and willing population able to work on community-identified civic works projects, 3) a distance from Mercy Corps' two areas of operation (Banda Aceh and Meulaboh) that could be sufficiently overseen and that enabled the, delivery of materials and supplies, and 4) coordination with other agencies implementing CFW projects. Once identified, the length of a project was influenced by need, tasks identified by the village, and how the village adapted to the program. The CFW program expanded at a greater than anticipated rate because of high demand for paid labor opportunities. In May, phase-out began, and the program was terminated at the end of July, 2005.

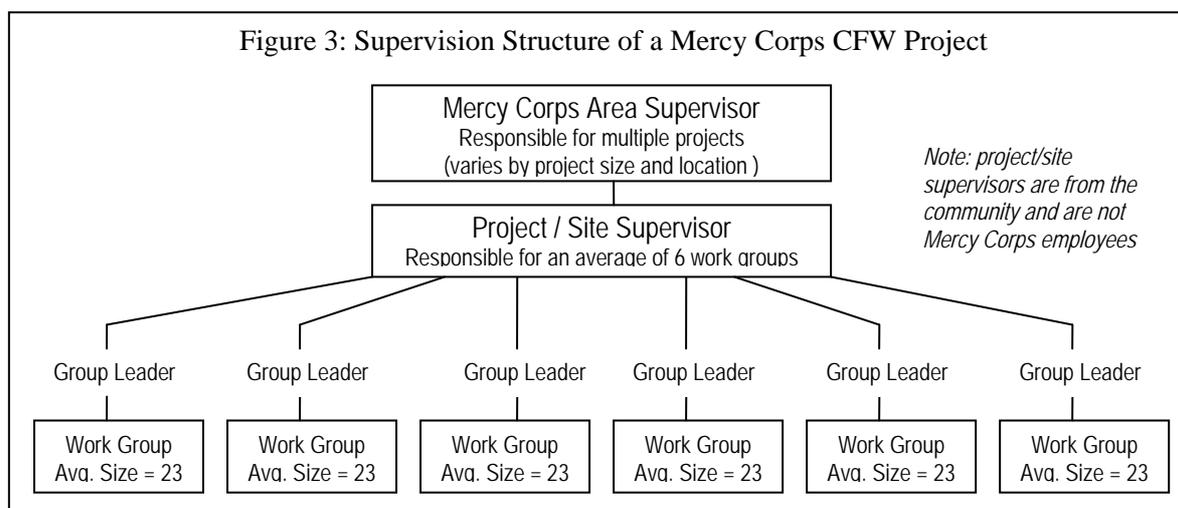
Of CFW participants, 29% reported residing in camps for the displaced, 13% were residing with host families, and 58% were returnees (at the time of the exit survey). Nearly all respondents (94%) participated in CFW programs that were implemented in their pre-tsunami community of residence. Respondent status within the household was as follows: 40% household heads, 22% spouses, 32% children, and 2% other<sup>6</sup>; 35% of respondents were female and the average age was 34 years.



<sup>6</sup> The "other" category refers to either an extended family member or an individual that is not biologically related but who is living in the household.

### Program Structure

The Mercy Corps CFW program in the field was overseen by Area Supervisors (Mercy Corps employees) who were responsible for CFW projects in several communities. Within the communities, projects were organized into work groups which were headed by group leaders; group leaders were responsible to project/site supervisors, and ultimately, project/site supervisors reported to Mercy Corps Area Supervisors (figure 3). Overall, there were an average of 157 participant-laborers per project each month and an average of 23 participant-laborers in each work group. Supervisors were responsible for an average of six groups (total participant to supervisor ratio 127 to 1). A male-to-female laborer ratio of 2.5 to 1 was determined from program monitoring data and 28.9% of participants (when data was reported on a monthly basis) were female. Of the randomly selected exit survey respondents, 35% were female. Average length of participation was 35 days (SD=17) and was similar for males and females ( $p=.995$ ).



### Payment

Mercy Corps' CFW payments ranged from USD 1.02 (Rp. 10,000) to USD 7.65 (Rp. 75,000) per day, depending on the type and skill level of work, length of work day, and time period of the project. In general, the daily rate for unskilled was set at USD 3.06 (Rp. 30,000) with an additional allowance of USD 0.51 (Rp. 5,000) for lunch; any wages higher than that were for special skills or added responsibility and were paid on an occasional basis. The average daily rate, when calculated by total persons days and disbursements from program monitoring data, was USD 2.99 (Rp. 29,300). The average daily rate as reported by exit survey respondents was USD 3.64 (SD=0.51; Rp. 35,700), which is similar to that from monitoring data when the lunch allowance is included. The reported Mercy Corps CFW daily rate of USD 3.50 compares to a pre-tsunami daily labor rate of USD 2.55 – 3.06 (Rp. 25,000 - Rp. 30,000)<sup>7</sup>. Efforts were made to coordinate by UNDP and NGOs to fix wages so that payment rates were similar among the different organizations implementing CFW.

### Cash for Work Program Outputs

The Mercy Corps CFW program had a major impact on community recovery. Among other outputs, the CFW program was responsible for the clearing of 136km<sup>2</sup> of land area, 262km of roads, and 2006 buildings; in addition, 306 permanent and 577 temporary structures including schools, mosques, and temporary homes were constructed. In the initial phase, CFW activities included clearing debris and

<sup>7</sup> There are differences in reported pre-tsunami day labor rates for Aceh Province. Some believe it was Rp. 25,000 and others believe it was Rp. 30,000 plus Rp. 5,000 for lunch. The daily labor rate paid by Mercy Corps reflects the upper end of pre-tsunami labor rates and was set at Rp. 30,000 plus Rp. 5,000 for lunch.

clean-up; an emphasis was placed on cleaning schools and other important public facilities in order to restore access to basic services to help communities re-establish a sense of normalcy as soon as possible. Starting in February and playing an increasing role over time, rehabilitation of public facilities and construction projects were initiated. In addition, a variety of other location-specific projects included demolition of buildings, construction of fish ponds, rice planting, boat repair and restoration, and the development of recreational areas. Key outputs of the CFW program are summarized in table 2. Community leaders and others reported that CFW was a good means of absorbing idle work capacity.

Table 2: Cash for Work Program Outputs

	Meulaboh	Banda Aceh	Total
Corpses removed	157	2,659	2,816
Boats moved to shoreline	126	1	127
Agricultural land cleaned (Ha)	818	722	1,540
Other land area cleaned (Ha)	10,534	1,417	11,951
Drainage ditches cleaned (m)	146,719	91,971	238,690
Drainage ditches rehabilitated (m)	109,153	6,201	115,354
Road cleaned (m)	105,750	156,736	262,486
Road rehabilitated/constructed (m)	---	351	351
Drinking water systems cleaned	222	261	483
Latrines cleaned, rehabilitated or built	44	115	159
Other public facilities* cleaned	79	53	132
Other public facilities rehabilitated	20	14	34
Houses cleaned	966	908	1,874
Houses rehabilitated/constructed	239	43	282
Temporary shelters constructed	502	75	577
Bridges constructed	21	3	24

\* Includes mosques, schools, health facilities, and other public facilities.

*An Example of a Mercy Corps Cash for Work Project*

In the village of Peunaga Cut Ujong in Meulaboh, the tsunami devastated rice production on several fronts. Fields were left littered with debris, irrigation ditches were filled with rubble or were destroyed by the force of the wave, and deposits of sand and silt were left in the fields when the waves receded. In addition, carefully husbanded rice seed stock was destroyed, as were the tractors and tools the farmers used for cultivation. Concerns about soil salinity and its effect on future rice production left many farmers fearing they would they would never be able farm their lands again. Mercy Corps took the lead from rice farming communities who expressed a wish to return to rice production and to attempt to cultivate their land in time for the next planting season (April-May). In early March, Mercy Corps began working in six villages with 350 rice-dependent households. Through CFW activities, farmers were paid to clear their fields and irrigation ditches of debris and ready their land for planting. Then, with a grant from Mercy Corps, special rice seed varieties were procured as well as tools, tractors, plows and other necessary resources. In late of August of 2005, the farmers of Meulaboh harvested their first post-tsunami rice fields.

*Household Income and Expenditures*

The average reported monthly household income was USD 297 (SD=206), of which 93% was attributed to CFW. Mean monthly CFW income was USD 276 (SD=276) and an average income of USD 21 (SD=60) was attributed to other income sources. Reported household incomes (total, CFW,

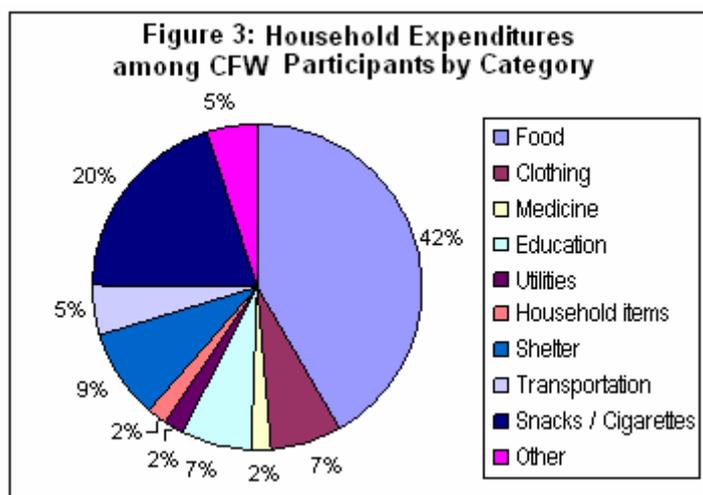
and non-CFW) were significantly greater in Meulaboh than in Banda Aceh (table 3). As described below, surveyed households in Meulaboh were more likely to have other employment, coupled with their cash for work earnings, as compared to households in Banda Aceh. Monthly expenditures were similar between the two sites ( $p=.419$ ) and averaged USD 191 ( $SD=72$ ).

	Overall	Meulaboh	Banda Aceh	p-value for comparison
<b>Household Income</b>				
CFW Income (SD)	276 (202)	294 (202)	258 (200)	.001
Non-CFW Income (SD)	21 (60)	27 (66)	15 (42)	<.001
Total Income (SD)	297 (207)	322 (209)	272 (201)	<.001
<b>Savings*</b>				
Pre-tsunami savings (SD)	385 (922)	354 (886)	402 (940)	.415
Post-tsunami savings (SD)	76 (183)	111 (202)	66 (176)	.001
Decrease in savings (SD)	307 (855)	189 (393)	336 (934)	.040
Percent Change in Savings	80	54	84	---

\*Excludes gold. Reporting on pre- and post-tsunami savings in Meulaboh was very low (pre=370 and post=215); change in savings was only calculated for 179 households in Meulaboh. Pre- and post-tsunami savings information for Meulaboh (and overall) should be interpreted with caution, as it does not represent the majority of CFW participants.

In 68% of households, multiple family members participated in CFW; on average, 2.3 ( $SD=1.3$ ) household members participated in the program and households averaged a total of 79 ( $SD=58$ ) working days. Overall, 24% of households reported having sources of income apart from CFW; non-CFW income was reported by 28% of households in Meulaboh and 19% of households in Banda Aceh ( $p=.002$ ). In addition, 65% of Meulaboh households indicated that non-CFW income was from permanent employment as compared to only 48% in Banda Aceh ( $p<.001$ ).

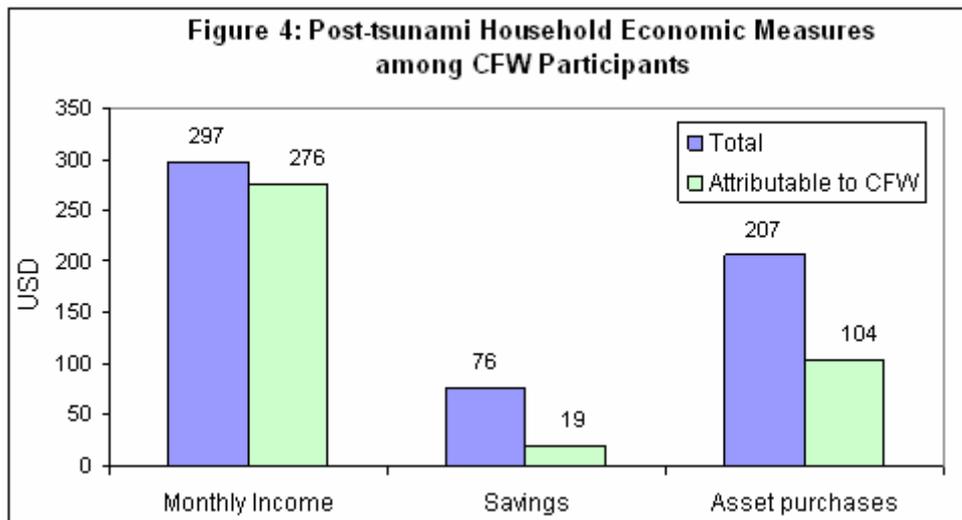
Monthly expenditures were similar between the two sites ( $p=.419$ ) and averaged USD 191 ( $SD=72$ ). The distribution of monthly expenditures by spending category is illustrated in figure 3 below. Expenditure rates by participant sex were similar for medicine ( $p=.541$ ) and education ( $p=.468$ ); male CFW participants reported higher relative expenditures on snacks/cigarettes ( $p=.002$ ) for their households than female participants. Total reported monthly expenditures were on average USD 5.3 (95 CI: 2.0-8.6) greater among female participants as compared to males. Food was the primary household expense (average monthly expenditure of USD 62 ( $SD=32$ )) which accounted for 42% of reported expenditures. In the analysis of the results of this study, it is notable that food security did not appear to be a major concern of most households: 91% of households reported receiving rations and 94% reported purchasing additional food to supplement rations. Households consumed an average of three meals per day with only 1.8% (95 CI: 1.1-2.6) of households reporting consuming fewer than three meals per day. Average monthly food expenditures were similar between male and female participants ( $p=.344$ ), and no significant differences in food security measures were observed by participant sex or by household ration receipt.



### *Household Savings and Assets*

Savings rates declined as a result of the tsunami with 81% of households reporting savings pre-tsunami as compared to 43% post-tsunami ( $p < .001$ ). Average pre-tsunami savings in cash and bank accounts was USD 385 (SD=922) as compared to average post-tsunami savings of USD 76 (SD=183). Households reported an average savings decrease of USD 306 (SD=855) or 79% due to the tsunami. Pre-tsunami savings were similar in Banda Aceh and Meulaboh however, post-tsunami savings in Banda Aceh were significantly less than in Meulaboh (table 3 on the previous page). Gold was originally identified and analyzed as an asset however, during data analysis and report writing it became apparent that it is a common form of savings in Aceh because it can be easily liquidated and sold locally. When post-tsunami savings was expanded to include gold, 60% (95 CI: 58-63) of CFW participants reported some type of savings. Frequency and the amount of savings including gold was higher in Meulaboh as compared to Banda Aceh ( $p < .001$ ). Average savings in gold was USD 105 (SD=82), which was greater than savings in cash and bank accounts. Post-tsunami savings in cash was reported in 29% of households; 26% of households had purchased gold; and 3% of households had bank accounts. At the time of the survey, 31% of households reported spending post-tsunami savings; a greater proportion of households in Meulaboh (37%) reported spending savings than in Banda Aceh (27%) ( $p < .001$ ).

Overall, 34% of CFW participants reported saving earnings from CFW. Among saving households, the average CFW savings was USD 58 (SD=43); among all households (savers and non-savers) average savings was USD 19 (SD=43). The frequency and quantity of savings from CFW earnings was similar between Banda Aceh and Meulaboh, ( $p = .079$  and  $p = .537$ , respectively); there was no significant difference in frequency of saving CFW income by participant sex ( $p = .200$ ).



Of households surveyed, 35% reported purchasing assets since the tsunami; asset purchasing was significantly more frequent in Meulaboh (54%) as compared to Banda Aceh (15%) ( $p < .001$ ). The average expenditure on assets was USD 207 ( $SD=30$ ), and CFW income expenditure on assets was similar among households purchasing assets in Meulaboh and Banda Aceh ( $p=.654$ ). CFW income accounted for an average of 50% of funds (USD 104,  $SD=88$ ) that went towards the purchase of assets. The most frequently purchased asset was gold (84% of households); other assets included electronics and appliances (12%) and motorcycles.

Overall, 91% of participants indicated that CFW helped facilitate the return to their original communities of residence, and response frequencies were similar in Banda Aceh and Meulaboh ( $p=.341$ ).

## DISCUSSION

CFW was in strong demand from local communities who were eager to begin clean-up after the tsunami, and by individuals who were in need of income, since the majority of productive assets and livelihoods were lost. In the initial stages of CFW, the primary intention of the program was to mobilize idle labor in the midst of overwhelming need for simple labor activities, such as cleaning debris. Many communities already had taken initiative and began clean-up; introducing CFW enabled these activities to grow to scale. By mobilizing labor via CFW, decision-making power remained with individuals, and households were empowered to make their own choices and spend money accordingly. A secondary intention of the program was to disburse cash. By February, it became apparent that an evolution towards using CFW to facilitate reconstruction was required as the situation transitioned from an emergency response to recovery, which resulted in increased emphasis on physical outputs and deliverables. The CFW program was gradually scaled back beginning in May even though demand for the program remained strong and beneficiaries expressed dissatisfaction with its curtailment. In addition, government pressure to continue CFW activities at regular pace made it difficult to scale back activities. The program was phased out for the following reasons: 1) the CFW program was initially conceptualized as a short-term intervention that would provide temporary employment before other livelihoods and long-term employment opportunities were available; 2) other organizations planned to continue CFW programs after Mercy Corps, thus temporary employment through CFW remained possible for many participants; and 3) there was concern for negative impact on local economies because of a fear of wage inflation, as well as the potential for dependency on CFW as an income source.

### *Equipment and Labor*

Logistics and procurement challenges are key issues that can limit the expansion of both CFW and food for work programs. Lack of technical expertise, equipment, and untimely delivery of materials and tools were limiting factors in CFW. In some CFW sites, projects could not proceed because delivery of key tools (such as chainsaws) or building materials was delayed and, in the early phases of CFW especially, participants lacked boots and other appropriate clothing. While tools and heavy equipment were in place, the number of laborers in the program grew at a greater rate than tools could be procured, which hampered progress at some sites and was a major complaint of Area Supervisors. Procurement specialists were involved in the start-up phases of CFW and developed mechanisms to assess spending rates for program tools and equipment vis-à-vis anticipated program growth. However, procurement, warehousing, and the delivery of supplies and equipment remained a challenge. Similar issues have been reported in food for work and cash for work programs in other settings. The lack of sufficient or appropriate tools and building materials suggest that ‘non-wage’ costs and logistical issues are important considerations in the planning of future CFW projects (IFRC, 2003).

The availability of engineers and other skilled labor was also a limiting factor in some project sites. There was some overlap between CFW and reconstruction projects such as house and bridge building or drainage projects where engineering blueprints and skilled labor were required. In future CFW projects, it may be ideal to limit the need for technical expertise in the initial phases by focusing labor on projects that require minimal technical oversight. In the Mercy Corps CFW project, contracts with skilled workers helped to ensure adequate technical support, and a Mercy Corps engineering team was eventually developed as a result. In some areas, supervisors reported difficulty getting laborers to follow designs, which resulted in shortages of building materials; the training of workers and improved oversight by skilled foreman could potentially address these issues in future CFW projects.

### *Payment*

Oversight of the large CFW program was a challenge. Timely delivery of wages was particularly difficult, especially in the first months of the program when support mechanisms were still being put into place and CFW was rapidly expanding. Initially payment was on a daily basis as required by the laborers because there was limited access to cash. However, the program rapidly expanded and logistics became too complicated which resulted in a shift to weekly payments. Group leaders were paid directly and then were responsible for disbursement among members of their work group. In comparing the two project areas, supervisor-to-participant ratios were significantly higher in Meulaboh than in Banda Aceh, and this resulted in some problems in Meulaboh. In particular the reporting of “ghost workers,” or individuals that were reported as present on time sheets but were not actually working, was a problem that developed in March and continued through the end of the program. Assistant Area Supervisors and coordinators, who were from outside villages, and were less able to be influenced by laborer demands, were hired to improve oversight with respect to the reporting of ghost workers by group leaders. A system of compliance monitoring was developed in May where regular unannounced checks of work groups were conducted; if a discrepancy was found between the names reported on the time sheets and workers at the site it was documented in an incident report and addressed by program managers.

Another issue relating to program management was the basis of payment. Initially, CFW workers were paid for a fixed amount of laborer time, usually eight hours per day, and there was no flexibility in the compensation system, mostly due to lack of adequate personnel and the difficulties anticipated in managing work days of varying length. On unannounced visits to work sites, it was often observed that workers were starting late and departing early and not working a full eight hour day. In some CFW sites, progress was slower than expected, which called into question the hours being worked and productivity levels; in many cases, this was because villagers feared that once clean up was completed NGO support would end. Two solutions were implemented: 1) payment for partial days where participants received a rate for four hours of work each day; and 2) output based labor payments

(OBLPs) instead of hourly wages (for example, participants were paid 18 to 25 work days per house constructed regardless of the number of days it took to build the house) as a means of increasing accountability. The shift in program focus from the distribution of cash in the initial phase of the emergency to facilitation of reconstruction was important as a longer-term strategy. The new system that based payment on the accomplishment of specific tasks improved relations between supervisors and workers and made program oversight an easier task. Reduction of CFW contracts based on daily rates in favor of contracts based on fixed outputs was also a strategy recommended by UNDP Meulaboh in August (UNDP, 2005).



*Photo by Cate Gillon, Mercy Corps*

### *Use and Expenditure of Cash for Work Income*

The lack of control over how money is spent is a common concern of CFW programs, even though available evidence from monitoring reports and evaluations of cash programs has consistently indicated that people do not use the money to purchase non-essential goods, and that it is spent on basic items that are needed to survive and protect livelihoods (Harvey, 2005). Findings from Aceh are aligned with previous experiences: household expenditures were largely attributable to meeting basic needs, and 57% (CI: 55-60) of participating households chose to save CFW earnings and/or use them to purchase assets. This indicates that CFW earnings were instrumental in meeting daily needs, but were also invested in the long-term well-being of households. While an inability to control the use of CFW funds is a concern, the potential benefits of empowering beneficiaries in decision making outweighed the risks of misappropriation of funds in the Mercy Corps experience in Aceh. Other frequent assertions relating to cash programs are that women may be disadvantaged because of a lack of ability to control cash (as compared to food) within the household (Harvey, 2005), and that men may be less likely to spend income on household needs than females (Blumberg, 1995). **In the Mercy Corps Aceh CFW program, the reported expenditure patterns in terms of percentages were similar among males and females, and female respondents reported significantly higher monthly household expenditures than male respondents. These findings suggest that men and women spent relatively equally on family sustenance and that women had adequate control over cash.** However, it is likely that gender issues in CFW will vary greatly by culture and project setting.

In 68% of households, multiple members participated in CFW which contributed to the relatively high household incomes that were reported. Where CFW funds are limited and implementing organizations have difficulties meeting demand for CFW, targeting (focusing on groups of individuals that meet more rigorous criteria) may be an ideal strategy to improve equity. Limiting participation to one household member per family would be an ideal strategy to ensure equity in receipt of CFW funds however, in practice, this would be exceptionally hard to implement and most likely lead to fraud or the necessity for a significantly more complicated monitoring system.

Distribution of cash improved households' ability to cope with the tsunami because households could decide how to spend and invest their money. In the immediate context, the flexibility accorded by cash allowed households to replace lost items and meet varied needs that are difficult to address through mass distribution of food or non-food items. Communities have consistently reported preferring cash to food assistance in other settings and this was true of Mercy Corps CFW participants in Aceh as well (Lothike, 2005; Galuma, 2004). **In post-tsunami Aceh, CFW participants used cash to meet immediate basic needs however, significant rates of savings indicated that CFW played an important role in revitalization of household economies and longer term economic recovery.**

#### *Cash for Work and Food Security*

Food security did not appear to be a major problem among CFW participants or in post-tsunami Aceh. The vast majority of households reported receiving food aid, and 98% of households participating in Mercy Corps CFW reported consuming three meals per day. However, the survey only assessed the availability of commodities rather than examine dietary variety or micronutrients and caloric intake. Malnutrition is a problem in post-tsunami Aceh however, pre-tsunami malnutrition rates are not available and post-tsunami surveys suggest that malnutrition is unlikely to be tsunami-related. Prevalence of global acute malnutrition and severe acute malnutrition among children in displaced camps were 12.7% and 1.5%, respectively; prevalence of wasting was similar in tsunami-displaced populations as compared to those that were not affected by the tsunami (WHO, 2005).

The primary expenditure of households was on food to supplement rations. Over 90% of households in the CFW program were receiving food aid however food was the most significant household expense, accounting for an average of 42% of total monthly expenditures. Food items purchased by respondents most frequently included: fruits, vegetables, and protein sources such as fish, suggesting that CFW facilitated dietary diversity and food security. The Mercy Corps CFW experience in Aceh suggests that cash and food relief may be complimentary, and is aligned with the broader statement by Harvey (2005) describing the role of CFW in the emergency context:

*A strong body of evidence is beginning to emerge to the effect that providing people with cash or vouchers in a wide range of emergency situations is an effective form of assistance. It is possible to target and distribute cash safely, people overwhelmingly spend money on basic essentials, and cash provides a stimulus to local economies and is often more cost-effective than commodity based alternatives. The evidence also suggests that, in some situations, cash may complement commodities. Cash should not necessarily therefore be seen as a replacement for other forms of aid, but as an additional instrument.*

In Kenya, CFW was implemented in conjunction with food distribution, and 81% of cash distributed was reinvested in livelihood recovery and 68% of funds spent on household purchases went towards food security; other benefits reported were skills transfer, community empowerment, and community preference for CFW over food relief (Lothike, 2005). Additional reported benefits of cash projects include household asset creation, increased purchasing power, the ability to repay debt and meet essential needs such as food, health, and water (ODI, 2005).

### *Cash for Work Exit Strategy*

The Mercy Corps exit strategy included 1) decreasing the number of work days in a week from five to four (beginning in June) and 2) restructuring labor payments based on fixed contracts (output based labor payments or OBLPs) with specific deliverables that had to be achieved in order to receive payment (beginning in July). Because of the realization that the demand for casual labor existed beyond the ‘artificial’ CFW end date of July 31 and the understanding that many people would become unemployed, a methodology change—from CFW to OBLPs—was required to address these issues. The main distinction between CFW and OBLPs is that OBLPs are paid as progress is achieved or completed and there is an agreed fixed budget for completion of the project which restricts the number of workers employed. In CFW, all individuals that wanted to work could be engaged in a CFW project and payments were made based on the number of hours worked. The extensive rehabilitation and reconstruction work post-tsunami has resulted in increased demand for casual labor as compared to pre-tsunami. Performance-based OBLPs accommodate demand driven casual labor requirements where CFW that pays a wage is a supply driven approach which has a greater risk of influencing day-labor rates if implemented in the long-term.

In addition to phase-out strategies within the CFW program, Mercy Corps’ livelihoods and cash grant programs were expanding in communities where CFW had been implemented and were seen as a means of facilitating sustainable economic recovery and thus promoting a return to pre-tsunami livelihoods. Some CFW participants transitioned into the livelihoods program, which was more stringent on how people became engaged in cash paying activities, because of assistance in replacing productive assets either via material assistance or cash grants. A major difficulty in phasing out CFW was that some participants said they would have no employment after the program ended; this created some tensions within communities as programs were scaled back and workers were forced to leave the program. In future CFW programs phase outs, where participants work fewer hours per week during the final weeks of a project, may help to ease this transition. Another issue reported was that because of widespread CFW initiatives, communities were less willing to contribute to rebuilding without compensation in later phases of reconstruction.

### *Geographic Differences in Recovery*

Cash for work was a logical response in post-tsunami Aceh because of the extreme devastation and economic impact where many productive assets and employment opportunities were lost. CFW was an ideal means of infusing cash into thousands of households and promoting the re-establishment of local markets by providing participants with cash that can be used to meet their needs and demands. CFW participants in Meulaboh had multiple economic advantages when compared to those in Banda Aceh. Households in Banda Aceh reported a post-tsunami decrease in savings that was USD 45.5 greater than in Meulaboh, suggesting that the tsunami may have had a greater impact on Banda Aceh households; mortality findings also suggest that the tsunami impact in Banda Aceh was more significant than in Meulaboh (Rofi, 2006 and Doocy, unpublished).

Households in Meulaboh reported earning more and spending less than those in Banda Aceh, indicating that families in the Meulaboh area may have more disposable income and a greater ability to invest in rebuilding than those in Banda Aceh. On average, monthly household income in Meulaboh was USD 50 greater than in Banda Aceh and mean monthly expenditures were USD 7 less in Meulaboh as compared to Banda Aceh. Significantly more households in Meulaboh had non-CFW income sources, and of households with non-CFW income, average non-CFW income was USD 13 greater in Meulaboh than in Banda Aceh. That a significantly greater proportion of households in Meulaboh reported non-CFW income sources and that more of those income sources were permanent suggests that 1) households in Banda Aceh may have been more dependent on CFW than those in Meulaboh, and 2) that economic recovery and livelihoods opportunities may be evolving at a faster rate in Meulaboh. It is unclear whether these findings hold true for the Banda Aceh and Meulaboh areas as a whole or if other criteria, such as selection factors or geographic location of CFW project sites, may have influenced these conclusions.

### *Cash for Work and the Local Economy*

The impact of CFW projects on the local economy is a concern and to date no thorough analysis of the combined impact of CFW programs on the local economy in post-tsunami Aceh has been conducted. There were anecdotal reports that the widespread implementation of CFW increased day labor rates in some areas. In August, UNDP recommended that day labor rates be reduced to pre-tsunami levels in order to establish a more sustainable day labor rate and to encourage households to return to long-term livelihoods options rather than to continue in CFW programs (UNDP, 2005). However, due to uncertainty as to what the pre-tsunami daily labor rates were, the strategy implemented was to standardize daily labor rates paid by organizations implementing CFW by type and level of services being provided.



*Photo by Cate Gillon, Mercy Corps*

Inflation of food prices as a result of large cash infusions into the economy was not reported, however, no formal monitoring of food prices was undertaken. Oxfam monitored market prices in Aceh Province and found that CFW did not impact market prices in the Meulaboh area; CFW programs in other settings have also reported that distributing cash did not lead to higher food prices (Adams, 2005; IFRC 2003). CFW appeared to have a positive impact on the local economy by providing much needed employment which in turn gave people the resources to act on their demands for goods and services which stimulated the re-establishment of markets and contributed to the beginnings of the economic recovery. However, dependency on CFW remains a major concern because it is intended to be a short-term intervention which must transition to more sustainable interventions.

### *Security*

Central concerns in adopting cash-based humanitarian responses to disasters are security and the fear of diversion. Security risks include dangers associated with transportation and distribution of cash for aid agency staff and for beneficiaries who could be targeted after receiving their pay. Concerns related to diversion are based on the fact that cash is more vulnerable than commodities for misuse

because of its portability and the ease with which it can be hidden however, food for work and food distribution programs also face considerable challenges in preventing diversion and misuse. Because cash is less visible it could be safer in some situations than large-scale commodity distributions (Harvey, 2005). In the Mercy Corps experience in Aceh, no security incidents were reported in the CFW program, however corruption was an issue: ‘ghost workers’ were reported, and in one instance, suspected militants insisted that they be placed on project payrolls and threatened to halt the project if the request was not granted. Mercy Corps conducted regular compliance monitoring to check the systems in place in order to minimize ghost workers. When problems were identified, communities were given warnings and notified that Mercy Corps would take corrective action if ghost workers continue to be found. In one case, Mercy Corps stopped working with a community when it found ghost workers on more than one occasion.

Innovative ways to minimize the risks of insecurity and corruption have been tried<sup>8</sup> and evaluations of some CFW programs report little evidence of insecurity or corruption relating to cash-based approaches (Harvey, 2005). Mercy Corps found the key means of combating these constraints is transparency—allowing the free flow of information empowers people to monitor how fairly they were treated. Mercy Corps promoted transparency by making sure all laborers knew the amount they were supposed to be paid, the total amount of funds provided to the site supervisor, and timesheets for all laborers were available and visible on site. The Mercy Corps experience in post-tsunami Aceh supports evidence from previous projects that indicates that cash can be delivered and distributed safely in the emergency context, and even in conflict environments.

#### *Cash for Work in the Post-Disaster Context*

Reduction of displacement was an important reported outcome from the program; 91% of respondents indicated that the CFW program helped them return to their village because it provided a source of income while improving the village, either via clean-up or reconstruction. Outputs of the CFW program in terms of cleaning and reconstruction contributed to the recovery process.<sup>9</sup> Psychosocial benefits were also an important result of the CFW program where many respondents reported that CFW helped them to remain active while reducing feelings of trauma and stress and that CFW increased the time spent with community members which created a sense of unity that helped to facilitate rebuilding.

#### **RECOMMENDATIONS FOR FUTURE CASH FOR WORK PROGRAMS**

- Lack of technical expertise, equipment and untimely delivery of building materials and tools were limiting factors to the Mercy Corps CFW program in Aceh Province. **Adequate attention should be paid early on to procurement, warehousing and the delivery of supplies and equipment in order to expedite CFW activities.**
- Lack of engineering and other skilled labor slowed program progress at times in Mercy Corps’ CFW program. In future CFW programs, it is recommended that **CFW implementers either limit the need for technical expertise through providing simple project design or ensure the availability of skilled labor needed to complete the CFW activities.**
- Making CFW payments can be a time-consuming activity. Frequent payments (i.e. daily payments) can be too complicated and time-consuming during the onset of an

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<sup>8</sup> See Khogali & Takhar for a discussions and list of measures to reduced security risks associated with CFW programs in Uganda.

<sup>9</sup> Outputs from the cash for work program are summarized in a forthcoming article on the implementation and lessons learned of the Mercy Corps CFW program in Aceh.

emergency. **Weekly or less frequent payments may be more workable from a management perspective once the immediate crisis and daily need for cash is past.**

- Mercy Corps found a higher degree of work outputs or deliverables in areas in which there was a lower supervisor-to participant ratio. **Consider work groups with no more than 25 workers and a ratio of no more than four work groups to one supervisor (overall maximum ratio of 100 workers : 4 group leaders : 1 area supervisor) to ensure quality and efficient work.**
- **Monitoring through unannounced visits to work groups is an effective way of ensuring compliance and identifying problems.** If a discrepancy was found, an incident report was filed and the issue was addressed with the program managers. **In cases of repeat problems the only solution may be to stop CFW activities in order to maintain a strong reputation across the implementation area.**
- In order to be flexible and ensure that participants were being compensated for actual work completed, which helped increase efficiency of the program, future programs should consider **implementing a payment for partial days in which participants receive a rate for four hours of work each day.** Another option is to **institute output based labor payments (OBLPs) instead of hourly wages as a means of increasing accountability.** OPLPs defined specific project deliverables that had to be achieved in order to receive payment and are ideal in the recovery phase once the primary objectives of CFW shift from cash disbursement to facilitation of reconstruction.
- **Slowing CFW activities as the CFW program nears completion** rather than abruptly stopping them is an option to consider as CFW programs transition to more development activities.



*Photo by Shirine Bakhat, Mercy Corps*

## CONCLUSIONS

CFW was a complementary intervention to food relief and allowed participants to supplement rations while facilitating savings and asset purchase, and increasing purchasing power which enabled households to meet basic needs. CFW contributed significantly to household economic recovery and was essential in facilitating the return of displaced populations to their original communities of residence. Expenditure patterns were similar among males and females suggesting that men and women spent relatively equally on family sustenance, a common concern with CFW. In future CFW programs, attention to targeting of beneficiaries and equity concerns as well as graduated exit strategies that ease the transition away from CFW are important considerations. The Mercy Corps CFW program in Aceh demonstrates that CFW clearly has a positive impact on household economies and post-disaster economic recovery. The infusion of cash via CFW programs has important social benefits including facilitation of return to disaster-affected communities, psychosocial benefits, and empowerment via capital and the decision-making associated with use of cash for work earnings.

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JOHNS HOPKINS  
BLOOMBERG  
SCHOOL of PUBLIC HEALTH

<http://www.jhsph.edu>

Contact Person: Shannon Doocy, PhD  
Center for Refugee and Disaster Response  
Department of International Health  
Johns Hopkins Bloomberg School of Public Health  
615 N. Wolfe St., Suite E8132  
Baltimore, MD 21205 USA  
Tel. (410) 502-2628  
Fax (410) 614-1419



MercyCorps.

<http://www.mercycorps.org>

*In Indonesia:*

**Banda Aceh**

Contact Person: Karen Pesjak  
Mercy Corps  
Jl. Sultan Mansursyah No. 7  
Peuniti, Kampung Ateuk  
Tel. 62 (651) 741 0703  
Fax 62 (651) 21 757

**Meulaboh**

Contact Person: Erin Cornish  
Mercy Corps  
Jl. Iskandar Muda No. 37, Kel. Ujong Kalak  
Johan Pahlawan, Aceh Barat  
Tel. 62 (655) 700 6367  
Fax 62 (655) 700 6634

**Jakarta**

Contact Person: Lynn Renken  
Mercy Corps  
JI Kemang Selatan 1 No 3  
Bangka, Jakarta Selatan 12730  
Tel.62 (21) 719 4948  
Fax 62 (21) 7179 0907

*Outside of Indonesia:*

**United States**

Contact Person: Liz Larson  
Mercy Corps  
3015 SW First Avenue  
Portland, OR 97201  
Tel. (503) 796 6800  
Fax (503) 796 6844

Contact Person: Paul Majarowitz

Mercy Corps  
1730 Rhode Island Ave, NW Ste 707  
Washington, DC  
Tel. (202) 463 7383  
Fax (202) 463 7322

**Scotland**

Contact Person: Fernando Soares  
Mercy Corps  
17 Claremont Crescent  
Edinburgh EH7 4HX Scotland, U.K.  
Tel. 44 (131) 558 8244  
Fax 44 (131) 558 8288