Livelihood and job creation have long been critical challenges to disaster recovery. Following the Great East Japan Earthquake (GEJE), the Japanese government launched an innovative cash-for-work (CFW) project, hiring more than 31,700 jobless people to work not only on reconstruction, but also on clerical and support work for affected people. This allowed it to reach out to women and the elderly, vulnerable groups that were traditionally excluded from schemes focusing primarily on manual work.

**FINDINGS**

The GEJE caused some 140,000–160,000 people to lose their livelihoods and jobs. By February 2012, in part as a consequence of an innovative emergency job-creation project initiated by the government, 143,820 people had found employment in the three most affected prefectures. Of these, 22 percent (31,700) were jobs directly created by the emergency job-creation project. Despite gaps between sectors, regions, and types of employment available, the government-initiated job-creation policy has generally been effective in sustaining employment in disaster-affected areas.

**RECORD OF LIVELIHOOD AND JOB CREATION IN JAPAN FOLLOWING CATASTROPHIC DISASTERS**

Livelihood and job creation has long been a critical issue in disaster response and recovery, both in Japan as well as worldwide. Fundamentally, it plays three critical roles:

- **Economic.** It serves as a key—and in some cases only—source of income for the population affected by disaster.

- **Social.** It encourages affected people to participate in the recovery process, thus strengthening their social ties.

- **Psychological.** It helps those who lose their jobs regain their self-esteem and look forward to a future.
Historically, job-creation policies benefiting those affected by disasters have not been particularly successful in Japan, despite their recognized importance and long record—even dating back to the 1854 Ansei Nankai earthquake disaster. After the 1923 Kanto earthquake, the Ministry of the Interior encouraged local governments and private firms to hire affected people for disaster response and recovery work; however, this attempt was unsuccessful, as the work provided was mainly manual while affected people aspired to nonmanual, “white collar” labor. The national government instead encouraged jobless people to move to suburban areas of the cities from which they originated.

Livelihood- and job-creation attempts were also unsuccessful following the Great Hanshin-Awaji (Kobe) Earthquake of 1995. As a result of the disaster, some 40,000−100,000 people were left jobless. The national government issued a law in March 1995 forcing public projects in affected areas to reserve up to 40 percent of their workforce for affected people rendered jobless by the earthquake. A year later, however, only 30 people had been hired under the policy. Contractors continued to make employment decisions based on profitability and efficiency, and there were no penalties for noncompliance. As a result, employment for affected people was limited to simple and unskilled public work tasks. During the recovery process, 254 people died in transition shelters without the care of family members or neighbors. Some study reports point out that most of the people who died alone were jobless, suggesting that they were isolated from society and had no contact with others.

**DAMAGE CAUSED BY THE GEJE AND ITS IMPACT ON LIVELIHOODS AND JOBS**

The GEJE could be the most severe of recent disasters in Japan. The Japan Research Institute (JRI) estimates that 140,000–160,000 people lost their livelihoods and jobs in May 2011 due to earthquake and tsunami damage. Moreover, most of the tsunami-hit cities lost the bulk of their infrastructure.

Ishinomaki City, for instance, was one of the largest cities hit by the tsunami (population 160,000). The Ishinomaki fishery port is the third-largest in Japan in terms of total landings. Fishery and seafood processing were the main industries of the city, engaging hundreds of companies and employing several thousand people.

The tsunami washed out nearly the entire central business district of the city. Aside from damage to buildings and facilities, the earthquake lowered soil levels by approximately 1.4 meters, allowing seawater to penetrate the area at full tide. To restart the industry it will be necessary to first elevate the soil, something very few companies can afford to do given the burden of existing loans. Over a year has passed since the earthquake and tsunami, and the national government has included the elevation costs under its third supplementary budget (FY2011). But it will take several years to complete such a large reconstruction project and, therefore, job recovery in Ishinomaki City is expected to be slower than during the 1995 Kobe earthquake.

In Fukushima, the national government designated the area within a 20-kilometer (km) radius of the Fukushima Daiichi Nuclear Power Plant accident as a restricted area, affecting some 78,000 people. Areas with relatively high radiation levels, even outside the 20-km
radius, were designated as Deliberate Evacuation Areas, affecting an additional 10,000 people (most of whom lost their jobs).

Although the national government is planning to remove restrictions in areas with relatively low radiation levels, the recovery of livelihoods and jobs in these areas will be difficult to address. A recent questionnaire of evacuees from these areas conducted by Fukushima University indicates that only 4 percent intend to return to their homes immediately after the lifting of the restrictions. Of the respondents, 25 percent have already decided not to return at all, citing lack of jobs as one of the major reasons. Close to 46 percent of respondents under the age of 35 say they will not return. Since the power plant was the main source of economic activity in the area, there are now very few job opportunities left. Thus, livelihood and job creation will also be critical to recovery in these areas. The survey results further indicate that 16 percent of the respondents say that recovery of the infrastructure will be necessary, while 21 percent argue for a concrete plan for radium decontamination.

**LIVELIHOOD AND JOB CREATION UNDER THE GEJE**

**GOVERNMENT INITIATIVES**

Following the GEJE, the Japanese government’s response involved both cash transfers to the most vulnerable, as well as an emergency job-creation project.

To help secure livelihoods to the most vulnerable people (such as the elderly those handicapped who are not regarded as employable), the government provided cash transfers through the regular social security system based on the Public Assistance Act, amounting to around ¥50,000 to ¥250,000 per month. In addition, the Japanese disaster management system provided up to ¥3 million ($37,500) to households that lost their houses to assist them with reconstruction efforts. Cash was also individually distributed to the most vulnerable people in the form of donations received from all over Japan.

To promote job creation, the Ministry of Health, Labor and Welfare (MHLW) launched the “Japan as One” Work Project immediately after the earthquake. The project had three major policy objectives:

- Steadily create jobs through reconstruction projects.
- Develop a system to match disaster victims with jobs,
- Secure and maintain securing employment among disaster victims.

The first policy objective built upon an earlier emergency job-creation fund created in 2008 after the global financial crisis. Following the GEJE, the government spent ¥50 billion ($625 million) to enlarge the fund, expanding its eligibility to disaster-related job losses.

Examples of activities supported by the project included:

- Evacuation center management and administration, such as food distribution, cleaning, procurement, and the delivery of food and other materials.
• Safety management and life-support services such as patrolling, caring for the elder and disadvantaged, babysitting, supplementary lessons for students, and bus driving.

• Office-work support for local governments such as issuing resident cards, operating the call center, guiding visitors, distributing donations, and monitoring and performing needs assessments at evacuation centers.

• Reconstruction and recovery work such as debris removal, the cleanup of houses of the elderly, parks and public building maintenance, planting of flowers in parks, and public relations activities for sightseeing promotions.

The basic thrust of this policy was very similar to that of a CFW program (see box 1), but it differed substantially from typical CFW programs in developing countries. The range of work created by this project was so diverse that women and elderly could also work, whereas other CFW programs have tended to provide mostly manual labor (for example, infrastructure reconstruction).

One of the constraints faced by the job-creation project was that employers had to comply fully with domestic labor laws. For example, employers had to compel workers to take compensation, employment, and social insurance. Paperwork accompanying employment procedures proved a bottleneck during job creation. Although many of the government agencies, nongovernmental organizations (NGOs), and private contractors were major sources of job opportunities, they were reluctant to hire the jobless since they were otherwise occupied with the emergency response.

Public-private partnerships were an effective solution to this problem. The Fukushima Prefecture government, for example, requested private staffing agencies to hire affected people for the work of disaster-response organizations (including municipal governments). This scheme was very effective since the organizations involved did not have the burden of paperwork or personnel management.

Public-public partnerships were also used. The CFW activity in Ofunato City was partially undertaken by the Kitakami City government. Kitakami City received emergency job-creation funding from the Iwate Prefecture government, and entrusted a private staffing agency to hire affected people to care for affected peoples in transition shelters in Ofunato City.

For the second policy objective of the “Japan as One” project—matching disaster victims with jobs—the government intended to fully activate and empower public employment exchanges in the affected areas. This was effective to some degree but not enough to manage the significant burden of job matching. This was why (as mentioned above) private staffing agencies played a significant role in job creation.

The third objective—to secure and maintain employment among disaster victims—was supported by two activities. Some ¥727 billion ($9 billion) was distributed as an employment adjustment subsidy to affected industries, as an incentive for them to secure employment. In addition, the government provided ¥294 billion ($3.7 billion) to extend benefit terms of unemployment insurance. This helped protect workers in the formal sectors. Without this assistance, the burden of the job-creation project would have been much higher.
NGOS AND THE PRIVATE SECTOR

Nongovernmental organizations (NGOs) and the private sector also played important roles in the aftermath of the GEJE. The International Volunteer Center Yamagata, for example, launched a CFW project where jobless affected people were hired for debris removal and cleaning activities. Their salaries were financed by donations from all over Japan as well as overseas. The work was eventually expanded to community-support activities. The project ended on March 31, 2012, having hired 112 jobless people. Although it was a typical CFW scheme, it was not as large as programs seen in developing countries.

Another example was the Sanriku-ni Shigoto-wo Project in the Sanriku area, driven by a nonprofit alliance of Iwate Hakuhodo Co. Ltd., Iwate Menkoi TV, and Sendai Television Inc. This project provided livelihoods to fishermen’s wives previously engaged in seafood processing. While affected fishermen had benefited from an emergency job-creation project promoted by the Fishery Agency for debris removal and fishing port clean-up efforts, their wives had been left jobless.

Thirty new shops were opened in the Minamisanriku shopping village, inaugurated on February 25, 2011, for temporary job creation following the disaster (figure 1). The Ministry of Economy, Trade, and Industry through its “Small Medium Enterprise Support, JAPAN Program” facilitated the establishment of this temporary shopping village. Souvenir items produced by local residents, particularly women, were sold in some shops to support livelihoods.

FIGURE 1: Minami-Sanriku shopping village
The project generated a new handicraft made by women: a friendship bracelet called tamaki ("ring") made of fishing-net materials (figure 2). Approximately 50 percent of the sales went to the women producers. This project was covered extensively by television and the social media, and for several months production could not keep abreast of sales. As of February 29, 2012, 298 producers had received as much as ¥83 million ($1 million), according to the project Web site. The success of this project triggered many other kinds of handicraft production.

The Security Support Fund, operated by Music Securities Inc., was an e-commerce citizen aid initiative that matched prospective investors with small businesses affected by the GEJE to help restart them. Those who needed financial support submitted proposals via the fund’s Web site. In turn, prospective donors could visit the Web site and find projects for their potential investment. Thus, it worked as a microfinance project where prospective donors were matched directly to the recipients.
Livelihood and Job Creation

This fund has two important features: (i) one unit of investment can be as small as ¥10,500 ($131) and (ii) investors do not expect an economic return from their investment. About half (¥5,000) of the single unit of investment is considered a donation. Most of the investors enjoy communicating through the Web site with the businesses they are supporting. The fund has now grown to ¥700 million ($8.8 million), attracting more than 20,000 investors.

Policy results and outstanding challenges

Partially as a result of the government policy, the labor market has recovered rapidly in the affected areas. The number of beneficiaries of employment insurance leapt to 81,179 in June 2011 from 29,931 the previous March. Since June 2011, moreover, job offers have exceeded the number of new applicants, and this gap has been growing (figure 3).

Although the job situation is surely improving in general terms, recovery is not yet complete, and there are gaps in four major areas: (i) differences between job offers and applicants (mentioned above), (ii) gaps among regions, (iii) gaps among sectors, and (iv) gaps in employment patterns.

BOX 1: Livelihood options in humanitarian assistance

International humanitarian assistance has typically used two instruments to promote livelihood recovery after disasters: cash transfer and public works programs (cash for works).

Cash transfers are typically used to provide short-term assistance to the most vulnerable affected people. To be effective, cash grant programs must be well targeted (for example, aimed at the elderly, widows, refugees), be transparent, have sound mechanisms for monitoring and evaluation, and have a clear exit strategy. Typical programs implemented during the 2005 Pakistan earthquake and 2004 Sri Lanka Tsunami involved a transfer of $50 per month per target household for a period of four to six months. Often, cash transfer programs coexist with, or graduate, to become CFW programs.

Cash-for-work (CFW) programs have been common tools for humanitarian assistance. These programs provide cash to affected people in return for their work on various recovery projects, such as debris removal and the repair or reconstruction of damaged infrastructure. They have been used in many disaster situations, including the 2004 Indian Ocean Tsunami, the 2008 Myanmar Cyclone, and the 2010 Haiti earthquake.

CFW programs were developed as an alternative to food-for-work (FFW) programs, in which affected peoples could receive food in return for their disaster-recovery and mitigation work (during droughts and famine). Cash has several advantages over food as a worker incentive: (i) related logistics are less complex and management costs are lower; (ii) workers can choose what they buy, thus empowering them; and (iii) cash has a large market impact when it is spent locally. At the same time, CFW programs must avoid crowding out the normal job market and, like cash transfers, require close monitoring.

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POLICY RESULTS AND OUTSTANDING CHALLENGES

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FIGURE 3: Recovery process of labor markets of the three major affected prefectures

Source: MHLW.

FIGURE 4: New-job-opening ratios of the affected prefectures

Source: MHLW.
In common with other disasters, job opportunities have disproportionately been concentrated in urban areas. Figure 4 illustrates trends in new-job-opening ratios by prefecture. Miyagi Prefecture—where Sendai City, the capital of the Tohoku region, is located—has been attracting more jobs than the other two prefectures. Even within the Miyagi Prefecture, job opportunities are concentrated in the Sendai metropolitan area (a new-job-opening ratio of 1.17 in February 2012), while Ishinomaki and Kesennuma, both of which are located on the coastal areas severely affected by the tsunami, offer relatively scarcer job opportunities (ratios of 0.77 and 0.55, respectively).

Additional gaps are seen among job sectors. With rising reconstruction demand, many new job offers come from construction and related industries, with relatively fewer offers in the manufacturing and distribution industries. Job applicants, on the other hand, appear to be seeking occupations more focused on food processing and clerical work.

A final gap is seen in employment patterns. In spite of an increase in job offers, most involve part-time or short-term employment. The job-opening ratio for full-time, regular workers in Miyagi Prefecture in February 2012 was only 0.49. The situation for those who are looking for regular, full-time work is therefore not as favorable as the general statistics suggest.

Part of the reason why a large proportion of job openings involve so much short-term employment relates to the government-supported emergency job-creation project. Between March 2011 and February 2012, 31,700 workers—or 22 percent of all job offers in the Iwate, Miyagi, and Fukushima prefectures—stemmed from the emergency job-creation project (figure 5).

**FIGURE 5: Ratio of employment sustained by government policy, March 2011–February 2012**

<table>
<thead>
<tr>
<th></th>
<th>Job created by emergency job creation project</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>0.20</td>
<td>0.80</td>
</tr>
<tr>
<td>N=143,820</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Fukushima</strong></td>
<td>0.27</td>
<td>0.73</td>
</tr>
<tr>
<td>N=47,338</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Miyagi</strong></td>
<td>0.19</td>
<td>0.81</td>
</tr>
<tr>
<td>N=52,014</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Iwate</strong></td>
<td>0.14</td>
<td>0.86</td>
</tr>
<tr>
<td>N=44,468</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: MHLW.*
This finding has key two implications. First, the government-initiated job-creation policy has been effective in sustaining the job market in disaster-affected areas. In its absence, unemployment issues would have been far more severe. At the same time, the transition from CFW jobs to regular jobs has been a difficult challenge for the economic recovery process.

CFW programs in developing countries typically assist in the process of economic recovery and even economic growth: this is plausible since disasters in developing countries tend to affect growth rates positively. As such, CFW programs fill an important employment gap immediately following a disaster, after which economic growth creates sufficient permanent jobs to take over.

But economic recovery in developed countries does not necessarily follow this trend: the populations of the three prefectures affected by the GEJE had been declining since before the earthquake. As an economy shrinks, it does not necessarily generate sufficient permanent jobs to take over the role of emergency job-creation programs. Japan could well be facing this problem.

**LESSONS**

- Dedicated emergency job-creation programs, complemented by cash transfers to the most vulnerable, can be effective ways to assist disaster-affected people during a recovery. At the same time, they need to be adjusted progressively to emerging job markets, and avoid cluttering them in the process. More prolonged assistance may be needed when local economies are contracting.

- The livelihood needs of disaster-affected people are diverse, and thus require diverse solutions. The most vulnerable may need cash transfers, whereas those already benefiting from pensions (for example, the elderly) may need primarily an occupation to make them feel needed. Others—such as widows with young children—require regular employment with insurance benefits.

- The experience of the GEJE shows how learning from past disasters has been used effectively to design the emergency job-creation project. Regulatory measures and market forces alone did not succeed in creating jobs following the Kobe disaster. The GEJE helped launch a more proactive government project, which promoted diverse employment and partnerships with NGOs and the private sector, while retaining the means to monitor its overall progress.

- The GEJE job-creation program has been innovative in facilitating public-private and public-public partnerships. In particular, hiring staffing agencies helped reduce the administrative burden, which would otherwise have prevented many employers from engaging the victims of the disaster.

- Matching jobs with the needs of the jobless is a very important but difficult task. Most of the affected areas have seen excess labor demand and labor supply simultaneously, but in different sectors, and urban areas have clearly benefited over rural areas. Interventions such as continuous monitoring of job supply and demand, job retraining, and further integration with municipal plans are necessary to effectively complete the recovery.
• Unemployment insurance can be effective in securing the incomes of those affected. But there are several limitations: (i) unemployment insurance does not cover self-employed workers and those who run private enterprises and (ii) the national government has twice had to extend the beneficiary period of insurance, allowing even those covered for the shortest period to benefit from the program until January 2012. Unemployment insurance therefore needs to be seen as part of a broader livelihood recovery program following a disaster.

RECOMMENDATIONS FOR DEVELOPING COUNTRIES

• To the extent feasible, CFW and employment programs following a disaster should expand the range of work opportunities, from simple manual labor for infrastructure reconstruction to nonmanual work. While in developing countries most of those affected are poor and unskilled, megadisasters such as the Haiti earthquake of 2010 also affected skilled workers. It is important that all be given opportunities to contribute meaningfully to the recovery and reconstruction of their neighborhoods, although priority for external assistance must naturally be given to the poorest and most vulnerable. In particular, the jobs created should be:

  – Appropriate to the workers’ skills and abilities.
  – Help boost the morale and self-esteem of those affected.
  – Build upon the workers’ skills, to help them secure their next occupation.

• The balance between quality and quantity needs to be planned carefully in developing countries, where the primarily goal is often to provide rapid cash relief to the poorest and most vulnerable of the disaster victims. As a rule, the proportion of labor to the total costs of the activity should therefore remain high (for example, 50-80 percent). CFW schemes need also to be designed with a view to providing a smooth transition to long-term jobs, and avoid attracting people back to vulnerable urban areas. As such, prevailing wages should be set just below the market rate for unskilled manual labor, thus ensuring that programs attract only those without other alternative means to earn income, and do not crowd out more permanent job creation.

• In the above context, CFW schemes in developing countries differ from those promoted under the GEJE. Under the GEJE, the beneficiaries of the job-creation project were paid market wages, as there was no possibility of circumventing minimum wage regulations. In addition, as they had the option of claiming unemployment insurance, it was important to set the wages at levels sufficiently attractive to motivate them to work. Statistics in the GEJE prefectures do not show that this approach—at least in Japan—caused wage inflation. Thus, it was not supposed to prevent a transition to normal employment.

• Similar to the experience of Japan, CFW programs in developing countries need to be part of a broader social protection program which can include cash transfers to the most vulnerable, such as was done in the aftermath of the Pakistan earthquake.
or Sri Lanka tsunami. If so, the eligibility, amount, and duration of payments, and cash-delivery mechanisms must follow transparent procedures.

- Periodic evaluations are essential to determine whether livelihood programs are reaching their goals, and allow for corrections among program partners. In the case of Haiti, for example, preliminary evaluations pointed to the need to better target the most vulnerable, while avoiding prolonged aid dependency. A particularly neglected aspect tends to be seasonal competition between CFW and agriculture or fishing occupations, as well as assistance to people who, while not direct victims of the disaster, may be under traditional obligations of sheltering family members, with consequent strains on food supplies.

- Job-creation programs in Japan tend to be smaller than those in developing countries—most hire fewer than 100 people each. Although this model is not necessarily an efficient way to maximizing employment, it helps integrate CFW programs with long-term job opportunities, as employers are directly responsible for supervising and caring for employees.

- The case of the Securite Supporting Fund in Japan proves the effectiveness of e-commerce in directly linking affected people with potential benefactors. This has also been observed in other recent megadisasters (for example, the Pakistan and Bangkok floods), where the social media increasingly played an important role in disaster recovery (see also KN 4-2).

- While CFW programs are effective schemes for the short term, the transition from CFW jobs to regular jobs is a difficult challenge. Job opportunities for construction works will complete within a few years. Government support for creating regular jobs is essential in devastated areas—such as arranging jobs, building factories, rehabilitating facilities of irrigation and fishery harbors, and resolving double debt (KN 6-4).

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