

Implementation of Reconstruction Programs: A Year after Typhoon Morakot

August 17, 2010

I. Organization and Planning for Morakot

Post-Disaster Reconstruction Council

A. Forming the Morakot Post-Disaster Reconstruction Council

1. To effectively carry out the reconstruction after Typhoon Morakot, the Morakot Post-Disaster Reconstruction Council (hereinafter referred to as the Reconstruction Council) was formed on August 15, 2009 pursuant to Item 1 of Article 37 of the Disaster Prevention and Protection Act, and on September 15, 2009 the Organic Regulations for the Interim Executive Yuan's Typhoon Morakot Post-Disaster Reconstruction Council, along with its Operational Rules and Organizational Framework, were promulgated.
2. The Morakot Post-Disaster Reconstruction Special Act was enacted on August 28, 2009 based on Decree Huangzongyi Yizi No. 09800222031 by the President, taking effect for the duration of three years.
3. Under the Reconstruction Council, there are Planning Department, Infrastructure Construction Department, Community Reconstruction Department, Industry Reconstruction Department, and Administration Management Department to work together on the post-disaster reconstruction.

B. Sources of Reconstruction Funds

1. Funds from the Government: NT\$151,857,000,000, of which NT\$116,508,000,000 comes from special budget, and the other NT\$35,457,000,000 comes from reallocated budgets that are not urgently needed, in 2009.
2. Funds from Civilian Donations: A total of NT\$23,370,000,000 was collected from Tzu Chi Foundation (NT\$4,636,000,000), Red Cross Society of the Republic of China(NT\$4,173,000,000), World Vision (NT\$1,324,000,000), and Ministry of Interior Relief Fund (NT\$6,996,000,000).

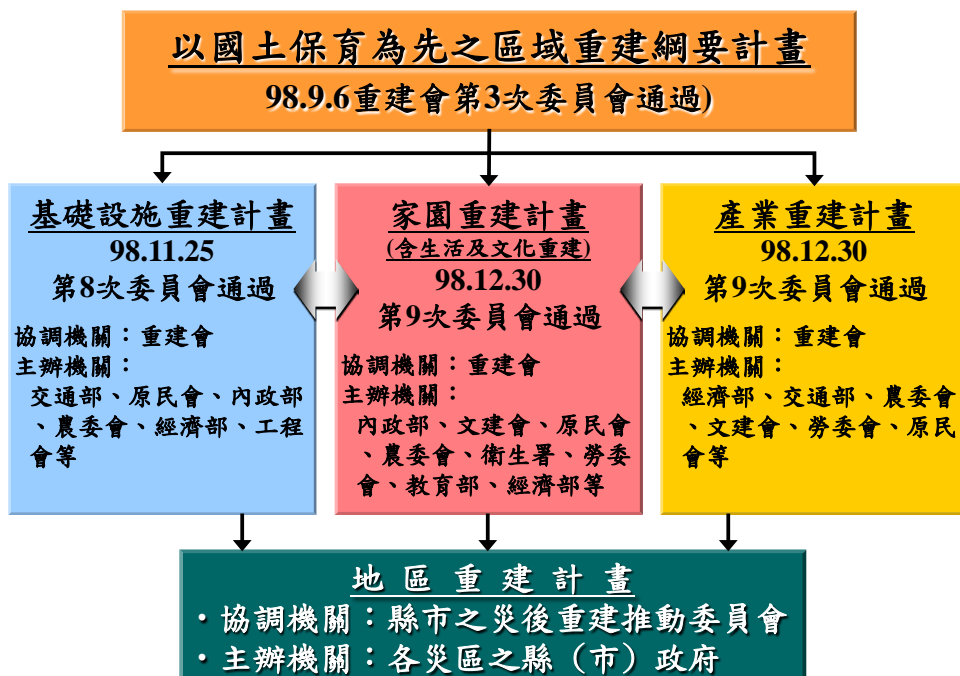
C. Reconstruction Plan Framework

The reconstruction plan is to be implemented in three levels: (1) the Regional Reconstruction Master Plan, (2) Departmental Reconstruction Plan, and (3) Local Reconstruction Plan. With the Regional Reconstruction Master Plan being the policy guideline under the premise of conserving national land, related central government agencies should follow it to propose approaches and plans to implement the reconstruction in the three phases of “Infrastructure Reconstruction,” “Community Reconstruction,” and “Industry Reconstruction.” Local governments, on the other hand, may divide disaster areas into several reconstruction separate sections and propose and implement individual reconstruction plans for those sections.

1. Regional Reconstruction Master Plan: The Plan, which was approved by the Executive Yuan on October 9, 2009, outlines the principles for strategic reconstruction area dividing and the implementation of reconstruction based on the ideal of protecting and restoring the national land being the guideline for reconstruction as well as land-use suitability analysis for evaluating environmental sensitive areas.
2. Infrastructure Reconstruction Plan: To expedite the restoration of the function of infrastructure construction and to avoid jeopardizing the safety of the tribes and communities in the disaster areas, the reconstruction of transportation facilities, infrastructure of farming, forestry, and fishery, soil and water conservation, and irrigation and flood control shall be guided by the Regional Reconstruction Master Plan with the design of disaster prevention measures to avoid further serious damages. The agencies to implement the plan include the Ministry of Transportation and Communications, Council of Indigenous Peoples, Ministry of the Interior, Council of Agriculture, Ministry of Economic Affairs, and Public Construction Commission. This plan was approved on November 25, 2009 by the Eighth Reconstruction Council Meeting.
3. Community Reconstruction Plan: The plan, co-proposed by the Ministry of the Interior, the Ministry of Education, the Ministry of Economic Affairs, Council of Agriculture, Council of Indigenous Peoples, Council for Cultural Affairs, Council of Labor Affairs, and the Department of Health, was approved on December 30, 2009 by the Ninth Reconstruction Council Meeting.

4. Industry Reconstruction Plan: Approved on December 30, 2009 by the Ninth Reconstruction Council Meeting, this plan aims to push for promising industries in the disaster area aligned with the key emerging industries such as tourism, small scale farming, cultural creativity, and etc. Council for Economic Planning and Development, Ministry of Economic Affairs, Council of Agriculture, Ministry of Transportation and Communications, Council for Cultural Affairs, and Council of Indigenous Peoples will be in charge of the plan.

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Reconstruction Plan Framework

以國土保育為先之區域重建綱要計畫

Regional Reconstruction Master Plan under the Premise of Conserving National Land
(Passed by the 3rd Reconstruction Council Meeting on September 6, 2009)

基礎設施重建計畫/ 98.11.25 Infrastructure Reconstruction Plan (Passed by the 8th Reconstruction Council Meeting on November 25, 2009)

協調機關：重建會

Coordinating Agency: Reconstruction Council

主辦機關：交通部、原民會、內政部、農委會、經濟部、工程會

Responsible Agencies: Ministry of Transportation and Communications, Council of Indigenous Peoples, Ministry of the Interior, Council of Agriculture, Ministry of Economic Affairs, and Public Construction Commission.

重建家園計畫(含生活及文化重建) 98.12.30

Community Reconstruction Plan (Including Reconstruction of Living and Culture)

(Passed by the 9th Reconstruction Council Meeting on December 30, 2009)

協調機關：重建會

Coordinating Agency: Reconstruction Council

主辦機關：內政部、文建會、原民會、農委會、衛生署、勞委會、教育部、經濟部

Responsible Agencies: Ministry of the Interior, Council for Cultural Affairs, Council of Indigenous Peoples, Council of Agriculture, Department of Health, Council of Labor Affairs, Ministry of Education, and Ministry of Economic Affairs

產業重建計畫 98.12.30

Industry Reconstruction Plan (Passed by the 9th Reconstruction Council Meeting on December 30, 2009)

協調機關：重建會

Coordinating Agency: Reconstruction Council

主辦機關：經建會、經濟部、農委會、交通部、文建會及原民會

Responsible Agencies: Council for Economic Planning and Development, Ministry of Economic Affairs, Council of Agriculture, Ministry of Transportation and Communications, Council for Cultural Affairs, and Council of Indigenous Peoples

地區重建計劃

Local Area Reconstruction Program

協調機關：縣市之災後重建推動委員會

Coordinating Agency: County (City) Morakot Post-Disaster Reconstruction Council after Typhoon Morakot

主辦機關：各災區之縣市政府

Responsible Agencies: County (City) Governments of the Disaster Area

II. Community Reconstruction

A. Relief for the victims

As of July 22, 2009, consolation money of NT\$641,000,000 has been given to 699 victims of Typhoon Morakot who were either dead or missing and NT\$1,000,000 to 4 seriously injured. An amount of NT\$99,560,000 relief funds for relocation have been distributed to 4,978 (100%) individuals from 1,767 households whose homes are inhabitable. Relief funds for flooding have been released to 140,424 households for a total of NT\$2,808,145,000. In addition, more relief money from the donations of the private sector has been distributed by the government to survivors for relocation, house renting, and flood losses.

B. School Reconstruction

The original number of schools that needed to be reconstructed, either on the original site or a different site, was 15, which were all pledged by private corporations or organizations. The pledge agreements were signed on September 21, 2009. However, Xinmei Elementary School in Alishan Township, Chiayi County only requires repairing the retaining wall without having to be rebuilt, and Dali Branch of Sandi Elementary School in Pintung County will be consolidated into the latter, and hence does not need to be rebuilt. In addition, Chang Yung-Fa Foundation has pledged three more schools that need to be reconstructed. Therefore, the total number of schools that need to be rebuilt is now 16 (See the following table for detail of school reconstruction progress).

Item	County (City)	Schools	Pledging Organizations	Reconstruction Progress	Reconstruction Starting Time	Projected Completion Time
1	Nantou County	Lunghua Elementary School	Dharma Drum Mountain, R O C Red Cross Society , CPC Corporation, Taiwan	Negotiating with community residents	Undecided	Undecided
2	Chiayi County	Laiji Elementary	Chang Yung-Fa	Looking for suitable	Undecided	Undecided

		School	Foundation	location		
3	Chiayi County	Shanmei Elementary School	Formosa Plastics Group	Land dividing and in the process of purchasing	Undecided	Undecided
4	Chiayi County	Taihe Elementary School	Formosa Plastics Group	Looking for suitable location	Undecided	Undecided
5	Chiayi County	Dabang Elementary School	TVBS Foundation	Land price negotiating	August 2010	2011
6	Kaohsiung County	Xiaolin Elementary School	TVBS Foundation	In the process of purchasing	September 2010	2011
7	Kaohsiung County	Sanmin Junior High School	Delta Electronics Foundation	In the process of land development	September 2010	2011
8	Kaohsiung County	Elementary School	Tzu Chi Foundation	In the process of planning and designing	December 2010	Undecided
9	Kaohsiung County	Minquan Elementary School	Delta Electronics Foundation	In the process of land development	September 2010	2011
10	Pingtung County	Taiwu Elementary School	BenQ Foundation	Construction site planning	December 2010	2011
11	Pingtung County	Dashe Branch of Sandi Elementary School	Chang Yung-Fa Foundation	Cleaning wastes at construction site	September 2010	2011
12	Pingtung County	Neishe Branch of	Chang Yung-Fa	Together with Laiyi Elementary School, the reconstruction will be carried out at the		

		Sandi Elementary School	Foundation	original site to repair its gate, walls, stage and track and field.		
13	Taitung County	JiaLan Elementary School	BenQ Foundation	Under construction, will be completed on September 5, 2010	February 2010	September 2011
14	Yunlin County	Zhanghu Elementary School	Chang Yung-Fa Foundation	Pledge agreement signed	Undecided	Undecided
15	Kaohsiung County	Liugui Senior High School	Chang Yung-Fa Foundation	Pledge agreement signed	Undecided	Undecided
16	Taitung County	Langdao Elementary School	Chang Yung-Fa Foundation	Pledge agreement signed	Undecided	Undecided

C. Disaster Survivors Employment Plan

1. August 8 Temporary Work Plan: The mission of the “August 8 Temporary Work Plan” was completed on September 16, 2009 as the government had approved temporary employment projects in 92 townships and villages, providing 13,940 employment opportunities. In all, there were 230,623 person-time temporary jobs offered under this program.
2. Post-disaster Temporary Work Plan: As of August 16, 2010, 222 government agencies and units, 11 local governments in the disaster areas, and 2 central government agencies have requested for needed manpower, and a total of 18,346 temporary work opportunities have been approved, allowing 16,933 disaster survivors to work temporarily for the government under this program.
3. Hiring incentives for post-disaster reconstruction work are provided for companies that have won various bids to carry out reconstruction in disaster areas. These companies are to provide job opportunities to unemployed persons

in disaster areas based on their actual needs. As of August 16, 2010, 215 people have been recommended and 112 of them have been hired by those companies.

4. The “Immediate Work Plan” is applicable for any person from a disaster area with a disaster area ID who is unemployed. A total of 371 people have been provided jobs under this plan so far.

D. Medium and Long-term Resettlement

1. Progress of Multiple Medium and Long-term Resettlement

(1) Community Reconstruction: Progress of Medium-term Resettlement

After Typhoon Morakot, 8,189 survivors have been resettled to shelters in different places. Now most of them have either moved into permanent houses or moved back to their hometown or been in transitional programs such as nursing homes or rent subsidies offered by the government. As of August 4, 2010, 1,185 survivors of Typhoon Morakot are living in temporary housing in five different locations.

County	Location	No. of Households	No. of Residents	Transitional Resettlement	Projected End Time
Tainan	Taiwan Water Corporation Purification Plant Dormitory	24	105	Permanent houses completed, survivors moving in	September 21, 2011
Pingtung	Longquan 298th Brigade Base Camp	118	356	Waiting for the completion of permanent housing	October 31, 2011
	Pingtung Veterans Home	151	312		October 31, 2011
	Gaoshih Daycare Center	15	34		October 31, 2011
	Zhongcheng Military Base Camp (cubicals)	95	378		October 31, 2011

(2) Prefabricated houses have been built in 9 different locations in various counties to accommodate 312 households as shown in the following table:

Source	County (City)	Residents from Different Townships to be Resettled	Locations of Construction	Pledging Organizations	No. of Accommodation
Prefabricated Houses Donated by China	Kaohsiung County	Liugui Township, Taoyuan Township, Maolin Township	The construction site is located next to Xinweitianai Temple in Liugui Township. In the first stage, 100 prefabricated houses will be built, with a maximum expansion of 500 units. Actual number of houses to be built will be verified by the county government.	R O C Red Cross Society	60 households
		Jiaxian Township	The construction site is located at land #2018 of Yuemei section near Shanlin Junior High School (rented from Taiwan Sugar Corporation).	R O C Red Cross Society	74 households
	Pingtung County	Laiyi Township	Zhongcheng Military Base Camp in Chaozhou Township	R O C Red Cross Society	20 households
		Taiwu Township			
	Jiayi County	Alishan Township	Shizhuo Service Area	R O C Red Cross Society	42 households
			4th Neighborhood of Laiji Village		20 households
			Near Lijia Elementary School		10 households
Subtotal		6 Locations		226 households	
Prefabricated Houses Donated by Other Organizations or Corporations	Taitung County	Jinfeng Township	North side of Jieda Elementary School in Jinfeng Township (Land # 1-13, 14, 15, 16, 17 of Jieda Section)	World Vision Taiwan	50 households
		Dawu Township	Land #372, 374, 375 (used with permission by Taiwan Railways Administration)	World Vision Taiwan	14 households
	Nantou County	Shuili Township	Behind Taiwan Fresh Supermarket in Shuili Township	Zhongyue Construction Company, Zhucheng Construction Company	22 households
	Subtotal		3 Locations		86 households
Total		9 Locations		312 households	

As of August 17, 2010, a total of 238 households with 952 residents have moved in.

2. Community Reconstruction: Long-term Resettlement (as of August 17, 2010)

Types of Resettlement		No. of Completed Houses	No. of Households that have Moved in	No. of People Benefited
1. Permanent Houses	Yuemei Farm	756	704	
	Xinfeng Village of Gaoshu Township	8	6	
	Deqi Section of Taihe Village	33	29	
	Old Dawu Elementary School	31	31	
	Mango Vapor Heat Plant	26	26	
	Changzhi Station of Radio Taiwan International	164	152	
	Jugong Section site	18	--	
	Luzijiao 1st Site	90	--	
	Wulipu	50	--	
	Majia Farm	260	--	
	Zhongjianlu	21	--	
	Jifu Section of Jinlun Village	8	--	
Jialan 2nd Site	15	--		
	Subtotal	1480	948	3,452
2. Preferential Mortgage Loan (Self-purchased Home)		36	36	144
Total		1,516	984	3,596

2. Permanent House Resettlement

(1) Disaster victims whose original homeland being assessed unsafe will be assisted by the government in long-term resettlement to move into permanent houses constructed by non-government charity organizations and will be offered job opportunities by enthusiastic corporations and companies. Locations of permanent houses are provided by the government based on the principle that “the locations should be away from the disaster areas and be close to the original townships or villages whenever possible, and residents should be relocated as a group to a safe place.” The policy for permanent houses management and control is to accomplish the following:

a) Phase 1: Permanent houses whose construction sites have been decided and the applications have been filed before March 16, 2010 and approved before March 31, 2010 shall be completed by August 8, 2010, exactly a year after the disaster of Typhoon Morakot.

(b) Phase 2: Permanent houses that have been approved after March 31, 2010 and have completed eligibility reviewing before April 30, 2010 shall be moved in by January 31, 2011.

(c) Permanent houses that have been approved after April 30, 2010 or whose locations yet to be decided or the source of financial support is unknown shall be coordinated and verified by the local governments before they are completed and the residents move in within five months.

(2) Statistic of Eligibility for Permanent Houses in Various Counties:

(a) Number of Applications for Permanent Houses by March 31: Of the 3,807 applications, 2,020 households were eligible and 2,037 permanent houses have been assigned.

(b) By April 30, 2010, 3,803 households have applied for permanent houses, and 2,089 of them have been approved eligible and 2,114 permanent houses have been assigned.

(c) By August 13, 2010, 4,238 households have applied for permanent houses, and 2,618 of them have been approved eligible and 2,690 permanent houses have been assigned.

(3) The objective of permanent house plan is to build 2,587 permanent houses at 29 construction sites.

(a) Phase 1: 1,649 permanent houses are to be constructed at 13 sites. So far, 1,480

such houses have completed at 13 sites. See the following table for details.

Pledging Organization	No. of Pledged Construction Sites	No. of Permanent Houses to be Built	No. of Permanent Houses Completed
Tzu Chi Foundation	4	954	954
Taiwan Red Cross Society	2	180	140
World Vision Taiwan	8	496	368
Chang Yung-Fa Foundation	1	18	18
Total	15	1648	1480

(b) Phase 2: 666 permanent houses at 8 construction sites shall be completed and the survivors of the disaster will move in by September 30, 2010.

Organizations	No. of Construction Sites	No. of Permanent Houses to be Build	No. of Permanent Houses Completed
Taiwan Red Cross Society	8	666	In Progress
Total	8	666	

(c) Others: T The government is planning to provide six more construction sites for building 273 permanent houses. Of those, one construction site has been decided after May 2010, three sites have not been decided, and two sites have been chosen but are waiting for private organizations to pledge to build such houses.

III. Infrastructure

A. Implementation of Total Budgets for Reconstruction

1. Implementation of Total Budgets for Reconstruction

Total budgets for construction, consisting of special budgets for post-disaster reconstruction and budgets shifted from those that are not urgently needed, have been made available the accumulated amount of NT\$61,588,000,000 by 2010 fiscal year, of which NT\$31,632,000,000 has been allocated and NT\$32,329,000,000 has been implemented by July 2010. The rate of budget implementation (amount of budget implemented divided by accumulated amount of allocation) is 102.20%, and completion rate (amount of budget implemented divided by available accumulated amount of budget by 2010 fiscal year) is 52.49%.

2. Implementation of Budgets allocated to local governments

The amount of available budgets for local governments is NT\$24,682,000,000 for fiscal year 2010. As of July 2010, the amount of accumulated allocated budgets to the local government was NT\$11,596,000,000, of which NT\$11,349,000,000 has been implemented. The rate of implementation (amount of budgets implemented divided by amount of accumulated allocated budgets) is 97.87%, while the implementation rate (amount of budgets implemented divided by amount of available budgets by fiscal year 2010) is 45.98%.

3. Progress of Contracted Construction

The projected total number of construction to be contracted out by the end of 2010 with the overall budgets is 5,849, of which 5,553 have been contracted out by August 10, 2010. The rate of contracted-out construction (the actual amount of construction contracted out divided by the projected amount of construction contracted out) is 94.94%.

B. Repairing and Restoring Access to Roads, Railways, and Bridges

- 1. Repairing and Restoring Road systems:** Roads in mountain areas in southern Taiwan were seriously damaged by Typhoon Morakot, especially the eight major isolated areas whose roads were not accessible at all. With great efforts from the Directorate General of Highways of the Ministry of Transportation and Communications, those roads have been repaired and restored by November 30, 2009. The Taiwan Provincial Highway No. 18 (Alishan Highway) has been accessible for tour buses by June 25, 2010, and the Jiji section of Taiwan Provincial Highway No. 16 resumed accessible

on July 10, 2010.

2. **Repairing and Restoring Railways:** The round-the-island railway suffered severe damages from Typhoon Morakot, which caused eight sections of the railway to be inaccessible. Seven of those have been fully repaired by Taiwan Railways Administration by August 25, 2009. Linbian Creek Railway Bridge was resumed later on December 30, 2009, one month earlier than the projected time, as it was more severely damaged.
3. **Repairing and Restoring Access to Bridges:** Shuanyuan temporary bridge on Taiwan Provincial Highway No. 17 has been open to the public on April 25, 2010, Jiaxian Bridge on Taiwan Provincial Highway No. 20 open to the public on June 26, 2010, and Dajin Bridge on Taiwan Provincial Highway No. 27 open to the public on June 15..
4. **Mud Clean-Up in Linbian and Jiadong**

It was estimated by Pingtung County Government that it would take four months to fully restore homeland in Linbian and Jiadong areas. However, the Reconstruction Council quickly formed the “Taskforce on Linbian and Jiadong Flooding” and the “Front Office at Linbian and Jiadong” that moved into the disaster areas. During the crucial time of rescue, the two units effectively consolidated resources and efforts across government agencies at different levels, including military soldiers, rescue teams of central government agencies, county governments, the two township offices and police units, with the military contributing 266,000 person-time manpower, nearly half of the total manpower put into the rescue. As a result, it took the team only fifty days to dredge the sediment of Linbian Creek to clear its riverbed for it to resume flowing, repair the levees, clean up the health-threatening mud that blocks houses and streets, check water pumping stations, clear up the main drain, side ditches and household pipelines, and repair and re-pave the roads. An Emergency Evacuation Plan in case of Torrential Rain and Flooding Caused by Typhoon was also drawn up, and drills for such evacuation were held to lower the risks of further damages and to restore the environment and the rhythm of daily lives for the residents under difficult conditions without forcing them to leave their homes.

C. Implementation of Milestone Cases

1. Sediment dredging of rivers, creeks, and dams

- (a) Being originally projected to dredge sediment of 65,000,000 cubic meters by the end of November 2010 (the average annual amount of dredging was

20,000,000 cubic meters in past years), the program was required to be finished by the end of June 2010, five months than the projected date. In the end, the goal was accomplished on May 19, 2010.

(b) Water Resources Agency of the Ministry of Economic Affairs is continuing the sediment dredging program to increase the capacity of crucial rivers to carry flood water. By August 8, 2010, the total amount of sediment being dredged was 88,727,000 cubic meters.

2. JiJi Section of Taiwan Provincial Highway No. 16

The Second Maintenance Office of Directorate General of Highways of the Ministry of Transportation and Communications carried out the program for repaving the road of Taiwan Provincial Highway No. 16 10K+430~740, and the road was made accessible on July 10, 2010.

3. Shuangyuan Bridge on Taiwan Provincial Highway No. 17

(1) The construction of Shuangyuan temporary bridge started on November 15, 2009 and has become accessible since April 25, 2010. However, the temporary bridge is only accessible by small vehicles less than two meters high and scooters. The Directorate General of Highways provides minibuses on both ends of the bridge to carry passengers across the bridge. For safety concern, when the water of the upper stream reaches the level limit for closing the bridge under heavy rain warning, authorities will immediately close the temporary bridge.

(2) The construction of the new Shuangyuan Bridge began on December 26, 2009 and has completed 28.41%, which is 13.21% ahead of schedule. It is projected to be finished by the end of 2011.

4. Jiaxian Bridge on Taiwan Provincial Highway No. 20

A scenic bridge with three spans, Jiaxian Bridge is 304 meters in length with the largest span of 152 meters. After an all out effort by the Directorate General of Highways, Jiaxian Bridge has been made accessible again on June 26, 108 days earlier than projected.

5. Xinfa Bridge on Taiwan Provincial Highway No. 27

(a) The funds of NT\$500,000,000 for the construction of Xinfa Bridge were donated by China Steel Corporation.

(b) The construction of Xinfa Bridge started on January 27, 2010 and has so far completed 42% as scheduled. It is projected to be completed at the end of June 2011.

6. Taiwan Provincial Highway No. 18 Alishan Highway

Directorate General of Highways has improved the dangerous section of Taiwan Provincial Highway No. 18 for tour buses to get to Alishan Forest Recreation Area. The opening ceremony of the restored highway was held on June 25, 2010.

7. Alishan Forest Railway Restoring Program

(a) The section between Zhushan and Shenmu inside the Forest Recreation Area in the low land part of Alishan Forest Railway has been reconstructed on March 24, 2010 and, after checking and test drive by authorities, has been accessible to the public on June 19, 2010 to go in line with the opening of Alishan Highway to tour buses.

(b) The complete line of Alishan Forest Railway is about 72 kilometers long, and the reconstruction work will be carried out in three stages. Due to the inaccessibility of the highway, all materials and supplies have to be transported by train. Therefore, it is not expected to be completed until the end of December 2011.

8. Liugui Section of Taiwan Provincial Highway No. 27A

(a) The road base of Liugui temporary road section between 6k and 8K of Taiwan Provincial Highway No. 27A, damaged during the torrential rain on May 23, 2010 and May 28, 2010 for about 100 meters, has been restored on June 8, 2010 for accessibility. When it closes in the event that the river water reaches the warning level, travelers can take a detour through the old Route 184 via Liugui Tunnel.

(b) The improvement program of Liugui section between 6k and 8K of Taiwan Provincial Highway No. 27A was delayed by two torrential rains in May and so will not be finished until the end of August 2010 as the Directorate General of Highways has been urged to put in more efforts.

(c) The construction of the deck of Liugui Bridge was affected by the two torrential rains in May and so will not be finished till the end of August 2010. Once completed, it may be used for emergency rescue.

IV. Industry Reconstruction

A. Restoring Grouper Farming: The government has been assisting fish farmers to fill sand and gravel back in the destroyed fish ponds, saving them NT\$740,000,000. So far, nearly 547 hectares (75%) of fish ponds in disaster areas have been restored. It is projected for grouper farming to be fully restored in 2011.

1. In Pingtung County, 725.3 hectares of grouper fish ponds were damaged by Typhoon Morakot, causing a loss of NT\$720,000,000.
2. Starting on August 12, 2009, Fisheries Agency of the Council of Agriculture and Pingtung County Government worked together to clean the dead fish and mud weighing 1,015.5 metric tons out of fish ponds severely damaged by Typhoon Morakot, and another 520 metric tons of dead fish were cleaned out of the fish ponds by a joint effort from Pingtung County Government and the military.
3. The Council of Agriculture has given subsidies of about NT\$128,000,000 to fish farmers for them to clean up mud out of fish ponds, to disinfect fish ponds, to improve pond water quality, and to buy fry.
4. In the Industry Reconstruction Meeting convened by the Reconstruction Council, Huang, Zaituan, Director of Pingtung County Aquaculture Development Association, expressed his opinion by saying “Typhoon Morakot has brought mud into fish ponds, making it impossible to farm grouper as the mud blocks fish gills. Past experience taught us that if we simply clean up the ponds by washing them with water, the mud will block the drains and pollute the rivers. A better solution to improve fish farming condition would be to cover the fish ponds with a layer of 30 cm clean sand.”
5. On September 25, 2009, in the “Meeting to Find Effective Solutions to Cleaning Mud out of the Farm Land and Fish Ponds Damaged by Typhoon Morakot” convened by the Reconstruction Council, Pingtung County Magistrate Cao made requests, upon which Reconstruction Council, with the support from the Ministry of Justice, gave instructions to civil servants to go ahead on their tasks disregard the worries of committing the crime of public servants desiring to make profit or violating the Sand and Gravel Excavation Act.
6. On October 19, 2009, the Reconstruction Council held a meeting that invited Ministry of Defense, Ministry of Economic Affairs, Council of Agriculture, Public Construction Commission, Environmental Protection Administration, Ministry of Justice, Pingtung District Prosecutors Office, and Pingtung County Government to discuss issues on damaged fish farming industry. Based on the resolution of the

meeting, the Reconstruction Council instructed that “the government should assist fish farmers who suffered greatly from Typhoon Morakot as quickly as possible from the perspective of disaster prevention and rescue to prevent them from further disasters and to restore the fish farming industry.”

B. Shanlin Yongling Organic Farm provides job opportunities for 500 households at Daai Village, offers a platform for marketing local agricultural products, and revitalize the economic development in the indigenous tribes and the base of permanent houses for survivors of Typhoon Morakot.

1. Located in Shanlin Village, Kaohisung County, Yongling Organic Farm was established on a 62-hectare piece of land at Yuemei Farm close to the base of Yuemei Permanent Houses offered by Taiwan Sugar Corporation under the planning by Yongling Foundation. The planning of the organic farm is in four phases: built, operate, profit, and transfer. Yongling Foundation is responsible for planning and construction, personnel training, producing and management, and product selling (guaranteed purchase of the product or to be sold by its affiliate companies) so as to provide job opportunities for the disaster survivors. When they have learned the methods and skills of running the farm with the marketing channel having been established, the program will be handed over to Kaohsiung County Government to continue offering necessary assistance to the survivors to solve employment problems.
2. Because the afore-mentioned 62-hectare land can only offer jobs for 300 households, Yongling Foundation will, when necessary, develop another 95 hectare of farm land in Shanlin to reach the goal of offering 500 jobs in total. The farm will be developed in line with the agricultural development to provide a platform for marketing local farm products to boost economic development of indigenous tribes and permanent housing sites.

C. One Township One Industry Program

1. Taking into consideration of indigenous hometown industry reconstruction and the livelihood of the survivors, the Reconstruction Council pushes for the “One Township One Industry Program,” which focuses on the industry reconstruction in disaster areas following the guidelines of “Hometown Feature Industry Project” promoted by the Council of Indigenous Peoples. As for issues that require assistance from other central government agencies, the Reconstruction Council will coordinate

related agencies to participate in such work by providing their resources.

2. This program covers twenty townships in disaster areas in Nantou County, Chiayi County, Tainan County, Kaohsiung County, Pingtung County, and Taitung County, and the Reconstruction Council has officially notified related agencies to implement it. A meeting was held on July 21, 2010 that invited all involved agencies and county governments to review their proposed “One Township One Industry Programs,” which will be carried out with the “3-year Feature Industry Program” promoted by the Council of Indigenous Peoples.

D. The Twelve Industry Reconstruction Exemplary Sites Program

Taking a bottom-up approach to adopt suggestions from county governments in disaster areas, this program has made 12 exemplary sites of industry reconstruction hoping to consolidate resources from the government and the private sector to put into work to expedite the process of industry reconstruction and to achieve the overall goal. The 12 exemplary sites are now being monitored as special programs to implement and evaluated to ensure the resources from the central government agencies, local governments and the private sector are effectively infused and properly used.

Exemplary Programs for Industry Reconstruction

Item No.	Exemplary Sites	Programs	Responsible Agencies or Organizations
1	Jialan Village, Jinfeng Township, Taitung County	Providing 2,000 metric tons of driftwood without bidding value	Forestry Bureau, Council of Agriculture
		Driftwood workshop	Forestry Bureau, Council of Agriculture Taiwan Lovely Foundation
		Feature industry supporting program Jialan Village Women Workshop-Jialan Bayi Workshop	Ministry of Economic Affairs (Small and Medium Enterprise Administration)
		Indigenous Creative Culture Industry Development Program in Reconstruction Areas	Ministry of Economic Affairs (Small and Medium Enterprise Administration)
		Hometown Feature Industry Program	Ministry of Economic Affairs (Small and Medium Enterprise Administration)
		Jialan Tribe Square Program	Ministry of Economic Affairs (Small and Medium Enterprise Administration)
		Occupational Training Program	Council of Labor Affairs
		Paiwan Quality Shop Program	Taiwan Lovely Foundation

Item No.	Exemplary Sites	Programs	Responsible Agencies or Organizations
		August 8 Typhoon Memorial Park	Taiwan Lovely Foundation
2	Zhiben Commercial District in Taitung County	Relief funding for tourism business owners Reconstruction of tourism facilities Subsidies for activities to restore tourism market	Tourism Bureau, Ministry of Transportation and Communications
		Brand Commercial District Promoting Program for Taitung County to Boost its Tourism Subsidies for facilities of rebuilding the commercial district Commercial district supporting program	Ministry of Economic Affairs
3	Jinlun District of Taimali in Taitung County	Subsidies for building distributing facilities and freezing storage for export	Council of Agriculture
		Relief funding for tourism business owners Reconstruction of tourism facilities Subsidies for activities to restore tourism market	Tourism Bureau, Ministry of Transportation and Communications
		Feature industry supporting program	Ministry of Economic Affairs (Small and Medium Enterprise Administration)
		Indigenous Creative Culture Industry Development Program in Reconstruction Areas	Council for Cultural Affairs
		Hometown Feature Industry Program	Council of Indigenous Peoples
4	Linbian Township and Jiadong Township of Pingtung County	National Land Conservation Plan Post-Morakot Fish Farming Construction	Fisheries Agency, Council of Agriculture
		Subsidies for organic fertilizer to help farmers plant new fruit trees Subsidies for repairing damages caused by Typhoon Morakot of the fertilizer storage of Linbian Farmer Association	Ministry of Economic Affairs (Water Resources Agency and Small and Medium Enterprise Administration)

Item No.	Exemplary Sites	Programs	Responsible Agencies or Organizations
5	Majia Farm in Majia Township, Pingtung County	Reconstruction of tourism facilities Subsidies for activities to restore tourism market	Tourism Bureau, Ministry of Transportation and Communications
		Indigenous Creative Culture Industry Development Program in Reconstruction Areas	Council for Cultural Affairs
		Hometown Feature Industry Program Telecommunication facilities improvement and base station co-building program in Namaxia Township in Kaohsiung County	Council of Indigenous Peoples
		Rotary International Art Village Plan (Cultural Creativity Industry Plan)	
		Program Promoting Cultural Industry of Endemic Plant of <i>Chenopodium formosanum</i> Koidz	Council of Agriculture
		Occupational Training Program	Council of Labor Affairs
		Subsidies for training programs for indigenous people to learn organic farming for sustainable development Subsidies for farm management training programs for indigenous people and educational programs to promote leisure tourism agriculture Subsidies for tourism facilities and tourism season activities in indigenous townships Subsidies for farming supplies for forest conservation and agricultural development programs	Pingtung County Government
6	Yuemei and Wulipu in Kaohsiung County	Organic agriculture zone	Council of Agriculture
		Indigenous Creative Culture Industry Development Program in Reconstruction Areas	Council for Cultural Affairs
		Narrator training programs for guided tours in reconstruction areas	Tourism Bureau, Ministry of Transportation and Communications

Item No.	Exemplary Sites	Programs	Responsible Agencies or Organizations
		Facilities and equipment for organic agriculture producing and marketing Xiaolin Village temporary Memorial	Kaohsiung County Government
		Occupational training program	Council of Labor Affairs
7	Nanheng Commercial District in Kaohsiung County	Measures to suspend plum picking with bamboo poles Organizing events promoting plum hand-picking	Council of Agriculture
		Relief funding for tourism business owners	Tourism Bureau, Ministry of Transportation and Communications
		Feature industry supporting program Commercial district promoting program Subsidies for facilities of rebuilding the commercial district	Ministry of Economic Affairs (Small and Medium Enterprise Administration and Department of Commerce)
		Programs to promote plum farmers to produce and market plum products Shuttle bus service in the hot spring spots in Liugui and Baolai Hot spring marketing through media Marketing programs for post-typhoon hometown industry	Kaohsiung County Government
		Indigenous Creative Culture Industry Development Program in Reconstruction Areas	Council for Cultural Affairs
		Hometown Feature Industry Program	Council of Indigenous Peoples
8	Qishan Commercial District in Kaohsiung County	Subsidies for distributing facilities, freezing storage, and nurseries	Council of Agriculture
		Relief funding for tourism business owners Reconstruction of tourism facilities Subsidies for activities to restore tourism market	Tourism Bureau, Ministry of Transportation and Communications

Item No.	Exemplary Sites	Programs	Responsible Agencies or Organizations
		<p>Anthurium andraeanum post-Morakot reconstruction program in Kaohsiung County</p> <p>2010 Qishan Lunar New Year Festivities and Farm Products Promoting Events</p> <p>Program to restore and boost Qishan commercial district</p>	<p>Ministry of Economic Affairs (Department of Commerce)</p>
		<p>Indigenous Creative Culture Industry Development Program in Reconstruction Areas</p>	<p>Council for Cultural Affairs</p>
9	Cultural industry of Tsou tribe in Chiayi County	<p>Relief funding for tourism business owners</p> <p>Reconstruction of tourism facilities</p> <p>Subsidies for activities to restore tourism market</p>	<p>Tourism Bureau, Ministry of Transportation and Communications</p>
		<p>Indigenous Creative Culture Industry Development Program in Reconstruction Areas</p>	<p>Council for Cultural Affairs</p>
		<p>Hometown Feature Industry Program</p>	<p>Council of Indigenous Peoples</p>
10	Lijia Village, Alishan Township, Chiayi County	<p>Assisting farmers to grow Jelly fig and high-mountain tea.</p>	<p>Council of Agriculture</p>
		<p>Subsidies for activities to restore tourism market</p>	<p>Tourism Bureau, Ministry of Transportation and Communications</p>
		<ol style="list-style-type: none"> 1. Establishing eco-tourism: Lijia creek remediation, restoring the scenic view of blue tribe community, repairing hiking trails, improvement of interpretive panels, legalization of Bed & Breakfasts, and training programs for community narrators. 2. Programs to promote toxic-free mountain agriculture and value-added farm products: Bamboo shoot and jelly fig processing plant, tea-producing factory and marketing farm 	<p>Council of Indigenous Peoples</p> <p>Tourism Bureau, Ministry of Transportation and Communications</p> <p>Council of Agriculture</p>

Item No.	Exemplary Sites	Programs	Responsible Agencies or Organizations
		products 3. Building Lijia Tourist Center 4. Preserving and experiencing tribal traditional crafts and culture; forming tribal dancing and cultural performing groups 5. Enhancing the organization, human resources, and system of indigenous tribes; Establishing a unified window for tribal tour information, tribal community restaurants, and financial management centers	
		Hometown Feature Industry Program	Council of Indigenous Peoples
11	Shanmei Village, Alishan Township, Chiayi County	Subsidies for activities to restore tourism market	Tourism Bureau, Ministry of Transportation and Communications
		1. Beautification construction of communities in the disaster area 2. Restoring the scenic view and tourism resources of Danayiku Ecological Park 3. Programs to promote value-added local farm products 4. Preserving and experiencing traditional crafts and culture of Tsou Tribe	Council of Indigenous Peoples Tourism Bureau, Ministry of Transportation and Communications Council of Agriculture
		Hometown Feature Industry Program Program to Allocate Public Welfare Lottery Profit Return	Council of Indigenous Peoples
12	Dongpu Hot Spring in Xinyi Township, Nantou County	Subsidies for Xinyi Township Farmers Association Winery to enhance its winery facilities	Council of Agriculture
		funding for tourism business owners Subsidies for activities to restore tourism market	Tourism Bureau, Ministry of Transportation and Communications
		Subsidies from the local industry development fund	Ministry of Economic Affairs (Small and

Item No.	Exemplary Sites	Programs	Responsible Agencies or Organizations
			Medium Enterprise Administration)
		Nantou Hot Spring Season Event Plum Festival	Nantou County Government
		Hometown Feature Industry Program	Council of Indigenous Peoples

E. Programs for the Integration of Community Reconstruction Resources for Permanent Housing Sites and its Implementation

1. Programs summary

(1) More than seven thousand survivors of Typhoon Morakot were forced to leave their familiar homeland to move into permanent houses built with the joint-effort from the government and the private sector to start their new lives. This program includes eight permanent housing sites (accommodating 50 households or more), each of which is implemented by a Working group coordinated by the county government that aims to effectively infuse resources through three-dimensional discussions on related issues. The Reconstruction Council supervises the organization and operation of each Working group in an attempt to develop a new local image and vitality of the new households through residents' involvement and participation.

(2) As of now, under the Reconstruction Council's supervision are the following eight sites: Luzijiao in Chiayi County, Majia Farm, Baihe Tribe Park of Changzhi, Xinchu Farm, and Nanan Farm in Pingtung County, Yuemei Farm and Wulipu in Kaohsiung County, and Jialan Village of Jinfeng Township in Taitung County.

2. Progress of implementation

Each of the eight permanent housing sites has established a Working Cycle and started operating. Those in Luzijiao in Chiayi County, Yuemei in Kaohsiung County, and Majia Farm, Baihe Tribe Park, and Xinchu and Nanan sites in Pingtung County have held several meetings to discuss issues regarding future development and to reach consensus to push for the development of the new community.

F. Programs for the private sector to contribute

1. Programs summary

To proactively invite and coordinate the private sector to contribute their resources to reconstruction, the Reconstruction Council created a mechanism to encourage the private sector to participate based on their love, wisdom and creativity to meet the needs of industry reconstruction in the disaster areas through their pledges of funding to quickly restore local economy and vitality. To broaden the scope of involvement of the private sector, the Reconstruction

Council has recruited many foundations and charity organizations to participate in the reconstruction and has seen some early achievements.

2. Progress of implementation

Location	Programs and Responsibilities	Resources from the Private Sector
Taitung County Jialan Village of Jinfeng Township (Exemplary site and permanent housing site)	Planning the rebuilding of the industries of carpentry workshops and fabric workshops	Taiwan Lovely Foundation
Pingtung County Majia Farm in Majia Township (Exemplary site and permanent housing site)	Rotary International Art Village and Cultural Creativity Industry	1. World Vision Taiwan 2. Rotary International District 3460 3. Uni-President Enterprises Corporation
Kaohsiung County Yuemie Farm (Exemplary site and permanent housing site)	Yongling Organic Agriculture Area and Local Job Opportunities	1. Foxconn Technology Group 2. Tzu Chi Foundation
Kaohsiung County Wulipu (Exemplary site and permanent housing site)	Promoting forest plantation program to offer job opportunities for people in disaster areas; pushing for Xiaolin Village Livelihood Program to help them create brands	R O C Red Cross Society
Kaohsiung County Qishan Commercial District (Exemplary site)	Co-organizing events and help promote farm products	WeShare Education & Charity Fund
Chiayi County Lijia Village of Alishan Township (Exemplary site)	Toxic-free mountain farming In-depth ecological tourism Cultural industries	Taiwan Semiconductor Manufacturing Company
Chiayi County Shanmei Village of Alishan Township (Exemplary site)	Toxic-free mountain farming In-depth ecological tourism Cultural industries	1. Taiwan Semiconductor Manufacturing Company 2. R O C Red Cross Society
Chiayi County Luzijiao of Fanlu Township (Permanent housing site)	Pushing for the livelihood program at permanent housing sites in Chiayi County	R O C Red Cross Society
Chiayi County Luman site of Zhuqi Township (Permanent housing site)	Pushing for the livelihood program at permanent housing sites	R O C Red Cross Society

Location	Programs and Responsibilities	Resources from the Private Sector
housing site)	in Chiayi County	
Taitung County Jialan Village of Jinfeng Township and Jinlun District of Taimali Township	Local feature industries and restoring tourism	China Development Industrial Bank Foundation
Pingtung County Linbian and Jiadong	National land conservation Post-Morakot Fish Farming Construction	1. Yu, Chi-Chung Cultural and Educational Foundation 2. Eden Social Welfare Foundation
Kaohsiung County Namaxia Township	Providing marketing channels for farm products	China Steel Corporation Group Education Foundation

Conclusion

Hitting Taiwan on August 8, 2009, Typhoon Morakot brought heavy rainfalls of more than two thousand millimeters to mountain areas in central and southern Taiwan. The accumulated rainfalls of 1,624 millimeters, 2,361 millimeters, and 2,854 millimeters in Alishan area in time spans of 24 hours, 48 hours, and 72 hours, respectively, posted record highs in Taiwan history, with the first two nearly reaching the world record rainfalls of 1,825 millimeters and 2,467 millimeters in time spans of 24 hours and 48 hours, respectively. Such heavy rainfalls in just 72 hours caused devastating disasters in central and southern Taiwan. In addition to rescue efforts from the government and the private sector of Taiwan, many countries expressed their concerns and offered rescue and relief assistance. A total of 85 countries expressed their condolence and concerns, while 48 countries donated money of more than NT\$480,000,000 to Taiwan. Thirteen countries donated relief materials, and the United States, the European Union, Japan, Korea, and the United Nations Office for the Coordination of Humanitarian Affairs sent specialists to assist in rescue efforts and disaster investigation. Taiwan government expresses her most sincere gratitude to these countries for their true friendship and timely assistance in such a difficult time.

To effectively carry out the reconstruction, the Morakot Post-Disaster Reconstruction Council was formed on August 15, 2009 (7 days after Typhoon Morakot Disaster) pursuant to Item 1 of Article 37 of the Disaster Prevention and Protection Act. On August 28, 2009, just 20 days after the disaster, the Morakot Post-Disaster Reconstruction Special Act was enacted, and 94 days after the disaster, on November 10, 2009, a special budget for the reconstruction was approved. With joint efforts from the central and local governments and the private sector, 611 permanent houses were quickly built in Daai Park in Shanlin Township and Taihe Village in Taitung County only six months after the disaster, indicating unprecedented effectiveness of the reconstruction implementation.

Post-disaster reconstruction has been implemented proactively in the past year. In community reconstruction, 1,480 permanent houses have been completed, benefiting nearly 6,000 survivors of the disaster. In infrastructure reconstruction, 138 sections with a total length of 653 kilometers in the six major highway systems and eight sections of round-the-island railway that were damaged by Typhoon Morakot have been repaired and made accessible by the end of December 2009. Indicator reconstructions such as Jiaxian Bridge and Alishan Highway have been made accessible earlier than originally projected. The amount of sediment dredging of rivers and creeks totaled more than 9,200 cubic

meters, way over the average annual 2,000 cubic meters in past years. In industry reconstruction, grouper farming has been restored over 80 percent with government's assistance, while orchid growing has been fully restored as its export value between January and May in 2010 were up 36% compared to the same period of last year. In addition, the government has been pushing for the One Township One Industry Program and the Twelve Industry Reconstruction Exemplary Sites Program, along with the planning of matching industries and package tours of the permanent housing communities, aiming to revitalize local economy in disaster areas.

A year after the disaster brought by Typhoon Morakot is not deemed the end of a period but rather a time to evaluate what has been done and what still needs to be done in the reconstruction so that with joint efforts from the government and the private sector, most disaster survivors may rebuild their communities and restore their peaceful and happy lives. Faced with abnormal climate change under global warming and increasing threats of future typhoons, Taiwan government has made necessary revisions to the Disaster Prevention and Protection Act to enhance the nation's overall capabilities in disaster prevention and rescue. With regard to the environment of the disaster areas and public facilities, the government will strengthen the mechanism of warning, evacuation, and rescue under the disaster prevention and rescue policy of "Forecasting all scenarios and preparing for the worst" to evacuate residents in possible disaster areas temporarily to avoid losses of lives and property. The government firmly believes that it will do an even better job in the future in disaster prevention and rescue and post-disaster reconstruction in the events of natural disasters.