

**EVALUATION OF CONSTRUCTION OF TOILETS FOR RURAL FAMILIES AFFECTED BY FLOODING IN GUNAXI ZHUANGG AUTONOMOUS REGION AND HUNAN PROVINCE, PEOPLE'S REPUBLIC OF CHINA**

**ECHO FUNDED ACTION IN CHINA 1 NOVEMBER 2002 – 15 JANUARY 2004**



**Period of Evaluation: 15 – 25 December 2003**

**Consultants:**

**Thanh Le**

**Arie Schuurmans**

**Regional Water and Sanitation Delegate of IFRC East and South East Asia**

**Regional Program Manager Netherlands Red Cross East Asia**

**Disclaimer: This report has been produced on request of the International Federation of the Red Cross and Red Crescent Societies and has been financed by ECHO. The comments herein reflect the opinions of the consultants only.**

## 2. Table of Contents

2. Table of Contents	2
3. Executive summary	3
4. Background and context	4
4.1 Relevance	6
4.2 Effectiveness	7
4.3 Efficiency	10
4.4 Impact	11
4.5 Sustainability	11
4.6 Integration of crosscutting and overarching issues that are of particular concern for ECHO and IFRC	12
4.7 Conclusions	12
4.8 Lessons learned	13
4.9 Recommendations	13
5. Annexes	16
5.1 Terms of Reference	16
5.2 Contract between RCSC and IFRC on transfer of funds	19
5.3 List of persons/organizations consulted	22
5.4 List of literature and documents consulted	22
5.5 List of sites visited	23
5.6 Map of the area covered by the action	24
Map of Hunan	24
Map of Guangxi	25
5.7 List of abbreviations	26
5.8 Pictures of health messages and toilets	27
5.9 Separate annex	27

### 3. Executive summary

Hunan Province and Guangxi Zhuang Autonomous Region are located in the South-central and Southern part of China. The provinces are subject to regular serious flooding from rivers and land run off. In 2002 both provinces were affected by a series of flash floods and regular floods that caused landslides, destruction of crops, flooding of villages and damages to housing. One of "infrastructure" to be affected from the flooding is the family latrine, which is a traditional pit used also for rubbish and animal faeces disposal, this lead to ground and water source contamination during flooding time and is not considered the most hygienic for human use leading to serious threat to the health of the families.

The Red Cross Society of China (RCSC) in its activities to assist the vulnerable community approached ECHO to support the provision of environmentally friendly sanitation system to the community.

The ECHO supported project (ECHO/CHN/210/2001/02003) focused on a two fold intervention; construction of 13,500 Ecosan latrines in rural disadvantaged villages affected by the flooding and training health/hygiene educators to conduct health promotion and increases hygiene awareness of the communities. The evaluation team found that the project has a positive impact on the community and environment in that the project improved the environmental sanitary condition of the villagers and over time the participatory approach to health education will lead to positive behavior change in hygiene practices. The project is in conformity with the overall policy approach to sanitation in China, oriented toward the interaction with the ecosystem instead of overloading it. The project is effective in meeting the specific objective of building the toilets before then end of 2003; to this end the project constructed 13,677. The toilets were built within budget and savings were made on procurement to enable the additional 177 toilets to be built. The outbreak of SARS during the year and the delay in transfer of funds by RCSC to the provincial branches caused a three months delay and the need for extending the technical assistance for an additional 3 months. The toilets are well constructed and can be used for an extended period of time without maintenance, the involvement of the community in the construction and recruitment of volunteers at village level to carry out health/hygiene education has a long-term positive effect, the evaluation team found the community to be very committed to the project and general improvement to the village. The recruitment of volunteers and approach to implementation took into account the gender perspective, with the male/female balance of volunteers and the interviewed elderly and female members of families expressing security, comfort and ease of use of the toilet.

The construction of the toilet is not a relief operation but an integrated rehabilitation and disaster preparedness, development project. While the time frame of the operation is related to relief, the goal and objectives of the project are of a development nature, thus this type of project need a longer time frame to cater for aspects such as health/hygiene education and community participation for behavior change. The contribution to reduction water-borne diseases could not be reviewed as data are not available. Basic data survey has to be implemented (including data on water-borne diseases).

The project as described in the project documentation is successfully completed, with improvement in capacity to the Red Cross provincial branches to implement internationally funded project. However, there is still a need in training on finance, project cycle management and development of project proposals. The monitoring of the project needs improvement, staff of RCSC, IFRC in the field and at headquarters needs to visit the project regularly and follow-up on the construction and health education part of the project.

The translation of certain section of the ECHO documentations from English to Chinese was found to be very beneficial to the provincial branches, this need to be widened to given the branches and staff greater understanding of donors' requirements in the operation.

#### 4. Background and context

**Hunan province** is located in the South-central part of China and is neighboring the Guangxi Zhuang Autonomous Region, Guangdong, Jiangxi, Guizhou and Hubei.

It covers an area of 210,000 square kilometers with a total population of 66.3 million people. The province is divided into 13 prefecture and one city prefecture, and 122 counties. Eighty-two percent (82%) live in rural areas while only 18 percent live in cities and towns.

The main income is from agriculture, and from mining (coal). Hunan is one of the province receiving additional Government support as it is one of the poorest provinces, ranking 27<sup>th</sup> out of 33 provinces in GDP terms with the 6<sup>th</sup> largest population.

There are altogether 16 different ethnic minorities in the province making up about seven percent of its population. The main minority groups are Tuija, Miao and Yao who tend to inhabit the mountainous parts of the province where living conditions tend to be harder and the number of social services limited. 70% of the province is covered by mountains while the remaining 30% is made up of rather fertile agricultural land. In 2001 the average annual disposable personal income for the urban population in the province was RMB 5,600 (EUR 720) per adult, while the same figure for the rural population was 2,064 RMB (EUR 271). According to the local government, of the 12,695,400 families in rural areas only 17.1% have acceptable standards of sanitation (216,470 toilets). 82.9% does not have acceptable means of sanitation. In the province three different types of toilets are used, the ecosan model, traditional pit latrine and flush toilets.

Hunan province has experienced a number of natural disasters from June to August 2002. Flash floods, hail storms and hurricanes have affected the province. Worst was the flash floods in the beginning of June 2002 followed by regular floods in both July and August. The province is situated down stream of the Yangtze and three other rivers and the Dongting Lake in the south, which makes it more prone to floods than other parts of China.

According to the provincial authorities, in 2002 and 2003, natural disasters and in particular the floods and flash floods have left more than 1,000,000 people homeless and caused severe economic losses. Large areas of agricultural land were destroyed and the rice production in the province is expected to be significantly lower than usual.

In July 2003 Hunan also experienced significant flooding and landslides. Government and Red Cross authorities report that the floods and landslides that affected the north west of the province were the worst on record. In one prefecture Zhang Jia Jie, 1.18 million people were affected, 136,200 being evacuated and with 26 people losing their lives, with a direct economic loss of 3.75 billion RM.

**Guangxi Zhuang Autonomous Region** is located in the Southern part of China and is neighboring Guangdong, Yunnan, Guizhou and Hunan Provinces, and borders with Vietnam. It has an area of 236,700 square kilometers with a total population of 47 million among whom 14 million live in cities/towns and the remaining 33 million in rural areas.

There are altogether 12 ethnic nationalities living in the region, with a total population of 18 million, making up 38.3% of the total population in the region. 80% of the region is covered by mountains/hills and only 10% is used for agriculture. In comparison with other provinces in the country, Guangxi is an economically poor province.

In 2000, the average yearly disposable personal income for urban people was RMB 6,666 (EUR758) and the average net income for rural population was RMB 1,944 (EUR220). Illiteracy rate is currently 3.79%. According to local government information, by the end of 2000 there were still 59% of rural families in the region who did not have their own toilets and only 37% are using a toilet which has certain hygienic standards. The

common toilet is the pit latrine or the fields. In both cases waste goes directly into the earth which could cause serious pollution of the surface and groundwater.

Guangxi experienced four lots of flooding from the beginning of June to the end of July 2002, with the most severe occurring between June 29th-July 4th. Many areas recorded over 400 mm of rainfall in a forty eight hour period. (42) People lost their lives and 21,312 persons required hospitalization or treatment for injuries or sickness as a result of the flooding.

Government and Red Cross figures state that 67,000 homes were completely destroyed and 340,000 people were left homeless. Economic loss to the region was estimated at 7.8 billion RMB, with 74 counties affected, 891 villages severely affected and 91,000 hectares of rice pads destroyed.

A baseline survey conducted shortly after the flooding as part of the first ECHO-funded sanitation project found that there had been a dramatic rise in the number of people suffering from diarrhea, colds, fever and flu, while almost 30% of the population suffered from skin rashes or infections. General living conditions for those affected severely by the flooding are still basic. The greatest impact has been on agricultural production with 67% of farmers surveyed in July 2002 indicating moderate to severe loss.

The focus of the ECHO-funded intervention was two fold:

**1) Sanitation:** construction of 13,500 Ecosan toilets (for 13,500 households) in rural disadvantaged communities affected by flooding.

**2) Health promotion:** training hygiene educators and through them increasing hygiene awareness of communities.

**The third component** consists of providing clean and safe water to beneficiaries. This is not a part of this ECHO-funded project. The Red Cross is currently trying to identify other donors to support water supply activities.

The project was a continuation of ECHO supported project (ECHO/ CHN/210/2001/02003) "Construction of Toilets for Rural families affected by flooding in Guangxi Zhuang National Autonomous Region, Peoples Republic of China" which was successfully completed in November 2002.

China has been facing problems of land sustainability and has a long history in managing a difficult environment by making an efficient use of all available resources. In this context, the use of human excreta as a fertilizer has a more than 2000 years long history in China. The urban sanitation system where by waste was collected and channeled to surrounding farms for crop fertilization, can be dated far back. Still today, over 90 percent of human excreta are used in agriculture in China.

The overall policy approach to sanitation in China is oriented towards the interaction with the ecosystem rather than overloading it. Therefore, China has already gained significant experience in implementing a large scale ecological sanitation programs.

The sanitation of human excreta is ranking high on the list for disease control and prevention. The standard of improved hygienic disposal of excreta has increased dramatically at the technical side. This has been achieved through different types of sanitary toilet facilities suited to the different environments. The most suitable model in China appears to be the urine- diverting Ecosan toilet. Standard of construction and maintenance has been high everywhere it has been installed.

Another important issue related to the ecological sanitation in China is the threat to health caused by the presence and the use of untreated faeces.

Under the previous ECHO supported project, the health component was carried out by the governmental Public Health Departments. The Public Health Department, Provincial level Ministry of Health, Primary Health

Care Committee, Patriotic Health Campaign Committee Office, and Centre for Disease Control that are divisions of this department and the major stakeholders in the provision of health services including health education programs. The Red Cross witnessed that the methodology used by the PHD in the first project was not based on the active participation of the targeted recipients and was limited to lectures, written materials, TV spots and video materials.

Active participation is a key for durable cognitive and behavioral changes, the Red Cross Health promotion activities under the current project focuses on developing appropriate models for “a two way communication” which allows community participation and decision making.

The Health Education is divided into two components, which is *knowledge input* and *behavior change*. The knowledge input will preferably be carried out by the local health authorities in collaboration with Red Cross staff-members and village volunteers. The behavior change part will be carried out through community participation and dialogue. Red Cross volunteers will be trained and guided to assist the process between the knowledge input and the behavior change.

The rural communities in both Guangxi and Hunan, selected to benefit from the sanitation component of the project, will be targeted by the Red Cross Health promotion activities as well. These activities will be facilitated by specially trained Red Cross staff-members and volunteers thus maximizing the impact of the sanitation component and contributing to the longer-term changes of behavior and practices which affect the health of individuals and the well being of the communities and will lead to an over all improvement in the environment. The targeted beneficiary population is for the most part living in remote areas. Ten prefectures have been selected in Guangxi and seven prefectures in Hunan, where the standard of living is lower than the average, and access to public service more restricted than in other parts of the Region/Province.

Besides the vulnerability criteria, the selection depends ultimately on the capacity of the local Red Cross branches, the resources and the readiness of the local authorities to contribute to the implementation of the project and the commitment of the local communities themselves.

#### **4.1 Relevance**

The Goal of the project was defined to reduce the level of sanitation related diseases for 56,000 men, women and children from minority ethnic populations living in Guangxi and Hunan<sup>1</sup>. The specific objective was to build 8,500 hygienic toilets in Guangxi Province and 5,000 hygienic toilets in Hunan Province and to promote changes in hygiene-related behavior. The project in Guangxi was implemented in 10 prefectures, covering 21 counties and 28 villages. In Hunan 7 prefectures were covered, including 13 counties and 23 villages. Savings on material expenses increased the total number of toilets in Guangxi to 8,654 and in Hunan to 5,023. The project achieved its objective and contributed to the improvement of sanitation, and hygiene practices of the target population and is contributing to the reduction of sanitation relate diseases.

The project was formulated after intensive needs assessment missions to both provinces were made by the IFRC delegates' in-country and representatives of the RCSC. In total over 15 assessment missions were organized. The project was a second phase of the toilet construction project ECHO/CHN/210/2001/02003. The project document was not well developed, the log frame is missing and the formulation of objectives, outputs and indicators is not correct, or they are stated but not followed.

The interventions are part of the Government Policy to support development of the poorest provinces in China and provide adequate sanitation facilities to the rural population. Other organizations are involved in water and sanitation in China, amongst others there is UNICEF, EU Country Delegation, World Bank and ADB and bilateral/Government donors.

---

<sup>1</sup> Framework partnership agreement 2002 ECHO/CHN/210/2002/03001

The project was not a humanitarian emergency and therefore timeliness and flexibility are less relevant. However, due to delay in transfers of funds, from RCSC Headquarters to the Province, the project needed an extension of three months. The transfer was still delayed despite the contract between the IFRC and RCSC (see annex 5.2). The actual construction took place in the last four months of the project this made monitoring of the construction very difficult due to the size of the operational area and limited capacity of the local RC branches. The outbreak of Severe Acute Respiratory Syndrome (SARS) during the year, also limited the opportunity of the participatory approach with the communities in the health education.

I could not remember, no they were on time)

## 4.2 Effectiveness

The project constructed 13,677 toilets which is 177 more than indicated. The specific objective was to build the toilets and complete before the end of 2003, therefore effectiveness is obtained. There is a need to follow-up on the not-completed toilets or not used toilets.

Project Purpose Indicators were identified as follows:

- 90% of toilets meet Sphere standards after completion of construction.  
*90% of construction completed meet the SPHERE standards, in that they were constructed to be comfortable, hygienic and safe to use and allowed rapid, safe and acceptable access at all times of the day and night. Some of the toilets were located near animal pens and some disabled people did not have the toilet attached to their dwelling. Original design was only followed in a few cases, where people did not have sufficient cash to improve the toilet with a shower and larger washing area.*
- 90% of toilets surveyed during evaluation are in use by household.  
*Number of toilets used is less, as the people were waiting for the evaluation to be completed and to look for the best day to start using the toilets, most likely during Chinese New Year in January 2004. Others were waiting on family members to come back from jobs outside the province to complete the construction.*
- 80% of toilets constructed are in use two years after project completion.  
*The indicator needs to be confirmed two years after completion of the project in 2005.*
- 100% of household surveyed express improved living conditions.  
*Households interviewed expressed their satisfaction with the new toilet and more villagers became interested to construct the toilet as well.*
- Health staff from target areas report reduced case of sanitation related diseases.  
*This is not reported by the health staff as the baseline data are not available. People in the villages did not perceive diarrhea and other sanitation related diseases as a major health threat in the first place.*

The project results were defined as follows:

*Result 1: 13,500 hygienic toilets installed and operational by end of 2003.*

### *Indicators*

- 80% of installations meet the following criteria:

- Technically sound design and construction specifications, approved by intended users.  
*People can change the design, make the toilet bigger with their own means, all villagers receive the same standard list of materials.*
- Easy to keep clean enough to invite use and not to present health hazard.  
*Toilets visited were all kept clean and buckets provided for ashes, water and disposal of paper etc. were in the toilet.*
- Accessible and easy to use by all sections of the population including children, old people, pregnant women and physically and mentally disabled people.  
*The standard design does not foresee any handrails for the use of elderly people, children or disabled; this should be part of a standard design. In some cases the standard design for the steps were not followed, which makes it difficult for elderly people, disabled people and children to go up the steps (mainly the standard width was not followed). Even if the handrails is not supplied, this need to be shown and mentioned during the demonstration construction training to the villagers*

- Minimize fly and mosquito breeding.

*The toilets minimize the breeding of flies and mosquito, however when the toilet is next or in the pigsty no improvement can be made.*

- Allow for the disposal of women's sanitary protection.

*Bucket is provided for this purpose.*

- Provide a degree of privacy in line with the norms of the users.

*Toilets are private and per household, so a certain degree of privacy is guaranteed.*

- 100% of installations meet the following criteria:

- Latrines and soak ways are at least 30 meters from any groundwater source and the bottom of any latrine is at least 1.5 meters above the water table.

*The sites for the toilets are chosen by the villagers in co-ordination with the Red Cross, more attention needs to be paid to the selection of the site, as it is not always 30 meters from any groundwater source. The ecosan toilet is designed not to spill any waste into the ground, as the units are built above ground, this does not affect the water table and provided the unit is well sealed, and there should be no contamination of water sources.*

- Drainage or spillage from defecation systems does not run towards any surface water source or shallow groundwater source.

*There is no spillage from the toilets running into or towards surface water. Provided the unit is well sealed, there should be no contamination of water sources during flooding period. Care needs to be taken with the urine collection vessel that this is in a secure position and does not overflow.*

- Household provided with tools and materials for construction, maintaining and cleaning toilets.

*Materials and tools were provided. No material for maintaining the toilet was provided as this is not a requirement. Materials for cleaning are not provided, apart from bucket for cleaning water and urinal pour.*

*Result 2: Hygiene and sanitation promotion activities designed, implemented, monitored and evaluated based on the findings of the baselines survey already conducted.*

#### *Indicators*

- 85% coverage of target households by competent hygiene promoters.

*All villagers visited received health education on basic hygiene messages (washing hands and boiling water). Other issues could not be mentioned. The hygiene promoters (volunteers in the villages) visit families on average once every fortnight and provide further information through video messages, written messages and communal meetings. All households have received education. The materials designed for health education are not appropriate as the messages are not clear and instruction only in written language, no drawings or pictures were used.*

*The baseline survey did not include health data this should have been included, even if the information available is limited.*

*In Hunan Province, 120 trainers were trained by the Provincial Red Cross who trained 900 volunteers in 23 villages.*

*In Guangxi Province, 56 trainers were trained, two per village and per village between 15 and 30 volunteers. Total number of villages is 28.*

*Result 3: Effectiveness of implementation, monitoring and evaluation of program objectives, outputs, inputs and processes is maximized.*

#### *Indicators*

- Mission instructions for Federation water sanitation and health delegates are linked to expected outputs of the program.

*The instructions are linked to the project outputs which should be standard, however none of the delegates were provided with a mission instruction.*

- Log frame is used as monitoring and evaluation tool by Federation and RCSC.

*Not done as it is not made.*

- Log frame is elaborated by delegates and RCSC at commencement of project.

*Not done as there is no log frame to start with, description in project document.*

- Objectives, activities and verifiable indicators outlined in log frame used as a base for reporting and evaluation.

*Not done as there is no log frame to start with, description in project document.*

## Activities

- Baseline survey information analyzed and used for design of the health promotion component.

*Not in place, communications with Public Health Bureau and other health sectors department needs to be improved especially in Guangxi; basic data are available from CDC and the Health Bureau.*

- Health educators trained

*In total 176 trainers attended the workshops and are training volunteers.*

- Red Cross volunteers involved in health promotion.

*The volunteers are active in health promotion, through family visits in the village. Although the first focus for this promotion is on the construction and use of the latrines.*

- Beneficiary list developed and independently verified by Regional Red Cross Branch.

*The provincial Red Cross is monitoring all the villages or delegates this to the County Red Cross. A list of villages is developed, but of a list of beneficiaries is not confirmed.*

- Recruitment of national staff within each of the two provinces to carry out the technical work required within the project.

*The following staff was recruited or provided through the Red Cross:*

- 3 program leaders (Vice President and/or Secretary General of Provincial Red Cross)
- 2 accounts managers of the Red Cross
- 3 administrators of the Red Cross
- 2 interpreters working with the IFRC Delegates
- 10 team leaders, five in each province

- Local tendering for materials needed for construction.

*Tendering has been done, following ECHO/IFRC procedures, and is standard for procurement by the Red Cross in the provinces for the project.*

- Communities mobilized to construct toilets.

*The communities visited all participated actively in the construction of the toilets and health education promotion activities. The training of skilled builders in the villages to construct the toilet while the villages contributed labor and materials ensured high quality finished latrines*

- Monitoring of construction by both RCSC HQ and Federation delegates.

*Monitoring is done, but not in all villages, RCSC HQ did not monitor the construction in Hunan. The IFRC delegates visited most of the villages two or three times, they should however have visited all the villages at least one time.*

- Develop and test training and education materials based on China/UN children foundation water and environmental sanitation program.

*Materials were developed, but more attention needs to be paid to the design and testing of the materials used. The PHAST manual is presently being translated and will be printed for the use of Red Cross health education programs.*

- At least 50 village health volunteers trained in hygiene promotion.

*Number of trained volunteers is higher, but they can only promote very basic hygiene messages.*

- Federation/RCSC weekly meetings. Monthly internal project reports.

*Meetings were organized and working relations between IFRC delegates and RCSC have been improved, there is a better understanding between the branches and the delegates on procedures to be followed, reporting requirement and on the selection of villages.*

- Federation Program Updates posted on the web.

*Program update on the WEB is continuously done by the IFRC Information delegate in Beijing.*

- Quarterly and final report for ECHO.

*Reports are submitted on time, final report due on 14 January 2004.*

- End of project evaluation.

*Project was evaluated in December 2003; time was too short to visit more villages in 10 days.*

Monitoring and Evaluation System as per project document.

1. The objectives, activities and verifiable indicators outlined will provide a base for monitoring, reporting and evaluating this operation. The Humanitarian Charter in Disaster response (SPHERE project) will also be used to develop key indicators for monitoring and evaluation.

*The project objectives, activities and indicators outlined are the bases for monitoring and reporting, they were not further elaborated, which should have been done to set-up and improved the M&E system.*

2. Monitoring activities will include: Representatives from the Provincial Red Cross sampling at least 10% of the selected beneficiaries at country level, representatives from the RCSC HQ and Federation regional office will randomly select at least ten sites in each of the three prefectures for monitoring of construction, either during or after the final work has been completed, and meetings/interviews with local Government representatives and Red Cross Staff.

*The Provincial Red Cross visited most of the sites. The Representatives of RCSC HQ and Federation Regional Office did not visit the sites as per the above.*

3. The Federation supports the RCSC in promoting community participation in planning, implementing and evaluation of operational activities. A post implementation evaluation will take place within three months of the end of the operation. It will be evaluated with reference to stated objectives and agree minimum standards to measure the overall effectiveness and impact on the affected population.

*The communities are more involved in planning and implementation of activities, by introducing participatory methods it is expected that in the future villagers will be more involved in any projects and be part of the design of projects.*

4. Following the completion of the program, a final ECHO report will be submitted outlining the achievements reached within the program.

*Report is due for January 2004.*

### **4.3 Efficiency**

The construction of 13,500 toilets was completed within the budget and savings were made on procurement, therefore an additional 177 could be built. The delay in transfer of funds by RCSC to the branches, and SARS delayed the project for three months. Technical assistance was extended for three months.

The Red Cross branches have sufficient staff and equipment to implement this project at all levels (Province, Prefecture, County and Village). The decision making process is top-down, from Province – Village, therefore the project is completed on-time, the involvement of the villagers in the decision making process is however limited. The local staff assigned to the project should be involved only in this project and no other tasks to be assigned as this makes it less efficient.

The accountants of the project can handle the funds; training on financial reporting fulfilling ECHO/IFRC requirements needs improvement and this need to be extended to all level of the operation. The branches are not able to pre-finance the operations, therefore timely transfers of funds is a prerequisite to this kind of projects.

The local staff received support from three delegates in the field, one in Hunan and two in Guangxi. The delegates were required to ensure proper construction and reporting on the project and to introduce health education as part of the sanitation project. Local expertise is limited in this respect, as the ecosan concept and participatory methods for education are relatively new in the Chinese context.

The funds for the health education components were minimal, only basic training was done and the material developed was not tested, was too formal (text only) and most messages did not always come through or were not clear enough for the villagers to understand. It is hoped that with the printing of the PHAST manual in Mandarin this component can be improved and through the development of posters and handouts villagers are able to understand more than only the basic hygiene messages.

The monitoring systems needs improvement, the Provincial Red Cross staff and IFRC delegates visited as much as possible the villages, but due to the vast area to cover, not all villages could be visited. The Red Cross in Guangxi developed a post-project questionnaire to evaluate the outcome of the project, construction of the toilet, shower, water supply and impact of the toilet on the environment. This questionnaire will be used as of January 2004 when field visits are made to villages.

#### **4.4 Impact**

The construction of toilets has had a positive impact on the environmental sanitation conditions of the villagers. The measurement as per WHO/UNICEF standards is that waterborne diseases will decrease from 40/100000 to 20/100000 when toilets are constructed and proper use of the toilets are carried out. The villagers who received assistance reported an improvement in their sanitation conditions and were happy to have an opportunity to improve their sanitation situation. Other villagers who were not included requested the Red Cross to be included in future sanitation projects.

For adequate behavior change in the villages toward better health and hygiene practices there need to be a stronger health education component, training of Red Cross local facilitators who will train villagers on hygiene and other water and sanitation related issues (boiling water, avoid polluting the environment) introduced in this project, needs more time and funds. The period was short to ensure that the introduction of new training techniques, like the participatory approach, was understood at all levels. The volunteers interviewed reported that they used the new techniques, but still used the common approaches as well, TV broadcasting and mass education.

#### **4.5 Sustainability**

The construction of toilets, health education and the recruitment of volunteers at village level has a positive effect on the long-term. The toilets can be used for a long-period of time without major maintenance. Health education in a participatory manner ensures involvement of villagers, which makes it sustainable beyond the duration of the project.

The recruitment of volunteers and training of them goes beyond the timeframe of the project as well. The Red Cross can tap into these resources in times of disasters; a network of volunteers who are well-known in the villages makes it likely that during relief operations people are involved from the start.

The beneficiaries are very committed to the project, based on the extra's they put in the construction (improvements of toilets to full bath rooms, costing an averaged additional 300- 500 RMB). All parties, local Government, Red Cross, expressed their satisfaction with the construction of the toilets and health education. Both parts are being copied to other villages as well. The change in attitude fits well within the Chinese culture and health education is considered as very important, but the new participatory approach needs more time to be understood by the local staff and villagers.

The contribution from the local authority and villagers to additional improvement to the villages such as new roads and drainages (in Guangxi) in the village has certainly contributed to the improvement of the village, reduced hazards from muddy roads, stagnant water and better access for the communities.

The project contributed to a clean sanitation environment and this will be copied to other villages, avoiding future health hazards due to the flooding of the area.

#### **4.6 Integration of crosscutting and overreaching issues that are of particular concern for ECHO and IFRC**

Linking relief, rehabilitation and development, the construction of the toilets is not a relief operation, but a development project. The goal and objectives are of development nature and not relief. The timeframe of the operation is related to relief; development projects need a longer timeframe as other aspects are included, health education, changes in attitude and behavior.

The gender perspective has been taken into accounts and recruitment of staff and volunteers took the gender issue into consideration. The male/female balance of volunteers is not reflecting the Chinese situation as more female volunteers were recruited despite the great cultural and social difficulties women face in the society. The main beneficiaries of the toilets are women, to take the male perspective on hygiene and sanitation a urinal was added in the Guangxi project for male comfort.

The ECHO and IFRC/RCSC logo was put on all toilets and on all pamphlets, posters, jackets and caps purchased under the project. The visibility is in place and moreover staff of the Red Cross understands what ECHO is and what activities it can support.

#### **4.7 Conclusions**

The project as described in the ECHO project document is successfully completed. Follow-up needs to be made to those villages where the construction was not 100% completed and-or the villagers who are not using the toilets due to socio-cultural reasons (evaluation mission to visit first, auspicious day and complete construction of new house). The monitoring of the project needs improvement, staff of RCSC, IFRC in the field and at headquarters needs to visit the project regularly and follow-up on the construction and health education part of the project.

Communications between IFRC RD and field delegates needs improvement, job descriptions to be made prior arrival of any delegate. The contacts with the NS in Beijing are handled by regional delegation; it is in this kind of operations more appropriate to have a direct link between the project staff (coordinator) and RCSC Headquarters.

The contribution to reduction water-borne diseases could not be reviewed as data are not available. Basic data survey has to be implemented (including data on water-borne diseases).

The project is constructing toilets for vulnerable environments, not for the most vulnerable in the society. The main reason for this is that villagers have to contribute in cash and in kind for the construction of the toilets, and need funds to improve/enlarge the toilets from the start. In a few villages volunteers helped the most vulnerable (poor families, elderly people and disabled people) with the construction of the toilets and completed them for them, this was not in all villages. The role of the Red Cross to provide support to the most vulnerable needs therefore more attention. Obviously the recommendations made by an evaluation mission in 2002 were not followed and changes recommended were not made. If the recommendations would have been implemented the final result of the project would have been better, i.e. selection of villages, time-frame achievable when funds are received on-time, linkages to other community and Red Cross work, a more comprehensive health education package would have been established. There is still a great need to follow-up on completed toilets under ECHO-1 and 2.

The Red Cross provincial branches have improved their capacity to implement international funded projects and are capable to implement the project. However, there is still a need in training on finance, project cycle management and development of project proposals.

The translation of certain section of the ECHO documentations from English to Chinese was found to be very beneficial to the provincial branches, this need to be widened to given the branches and staff greater understanding of donors' requirements in the operation.

The visibility of the Red Cross has been tremendously increased, all villagers heard of the Red Cross as a relief organization helping the poor people. However, in certain areas the RC is still seen as a part of the PHB and more work is needed to help the community distinguish between the two organizations.

#### **4.8 Lessons learned**

The branch staff understands the role of ECHO and IFRC in this type of interventions, through daily contacts with IFRC delegates. Training was provided on accounting by the program co-ordinator, this needs improvement and more on-the-job training to be implemented by the finance delegate of IFRC.

The project documents need to be translated in Mandarin as well as other important project related documents, including reports from delegates. This will enable Red Cross staff to familiarize themselves with the language used in project documents and reports. The Red Cross staff needs training in proposal and report writing for external donors.

The criteria of the selection of villages need to be elaborated and documented, not only flood affected in 2001, people active and capable to contribute, but economic (average household income, migrant labor population) and health data.

The Red Cross branches clearly stated that the area of coverage is far too large; in any future project a maximum of three prefectures, three counties and villages should be covered. The toilet coverage in one village should be 100%, and not to part or sub-villages, this makes monitoring and construction more effective and cheaper.

To change the habits of people, more time and funds should be used for health education and training of volunteers and follow-up at village level.

The lack of proper project documents makes it more difficult to review/evaluate the project. Project documents to be elaborated in the first month of the project and adjustments need to be proposed and agreed upon with all partners involved.

NS at Headquarter and Provinces should be involved in developing the profile needed from the IFRC delegates. IFRC Delegates should receive mission instructions, job descriptions prior arrival at the project. Curriculum Vitae of proposed Delegates should be shared with the NS at Headquarters and Province.

To adequately monitor the project sites and visit them all, travel budget should have been increased.

The villages receiving active Government support (funds for roads, drainage systems and community buildings) report a better environment and increase in economic activities. The Red Cross should ensure Government support to the selected villages as per agreements made between local Government and Red Cross.

#### **4.9 Recommendations**

The recommendations are grouped per stakeholder and are related to:

- Program management and design
- Technical issues, toilets
- Red Cross issues
- Health education
- Future involvements

#### Recommendations for the Red Cross Society of China National Society **Headquarters**

- a. Recommendations of the evaluation missions of November 2002 and December 2003 to be reviewed and discussed between the partners involved and an action plan to be established to implement the recommendations.
- b. Transfers of funds, delayed for four weeks, why is there no direct transfer to the Provincial RC by the IFRC? Direct transfer is recommended or the contract/agreement should have penalty clauses.
- c. Dissemination of RC to be improved.
- d. Actively monitor the implementation of the project, including visits to villages randomly selected together with IFRC RD staff.
- e. As RC we have to fulfill certain obligations, including support to the most vulnerable in the society, poor people not to be excluded from the project, but actively supported by volunteers and RC as seen in some villages.

#### Recommendations for the Red Cross Society of China **Provincial Branches**

- f. Recommendations to be reviewed and discussed between the partners involved and an action plan to be established to implement the recommendations.
- g. Follow-up visit to villages where toilets were constructed and continue to work in the villages to ensure changes in sanitation attitudes.
- h. Construction follow the models, especially the steps (width), perhaps make some handles for old people to make it easier to walk up/down. The handle for elderly should be discussed when showing the construction of the toilet or included in the model toilet.
- i. More attention needs to be paid to the placing of the ventilation pipe and its final position.
- j. The model toilet when shown to villagers should be explained what is the standard toilet and what are optional additions – like shower, so the vulnerable people do not feel the pressure to raise more funds to build an expanded toilet.
- k. Less counties and villages and site selection of the toilets needs improvement.
- l. Data collection on health issues, including training of volunteers to collect the data.
- m. Better communication and collaboration with PHB and other health related departments at all level
- n. Health education materials should be checked to ensure they are in-line with PHB messages and tested to ensure all level of the community can understand the materials for behavior change
- o. Complete one village with toilets coverage, do not divide in parts.
- p. Introduce a numbering system for the toilets to match this against the beneficiary list for better monitoring and evaluation
- q. More lead time to discuss and work with the community before construction commence
- r. Urinal optional, better look at the place where to put it.
- s. If water supply systems are installed make a complete project including connection to houses + introduce fee system per household (water meters).
- t. Involvement of local authorities, try to get guarantees for support.
- u. If possible include toilet construction for communal buildings, schools and meeting centers.
- v. As RC we have to fulfill certain obligations, including support to the most vulnerable in the society, poor people not to be excluded from the project, but actively supported by volunteers and RC as seen in some villages.
- w. Maintain the momentum with volunteers, increase number of other activities, first aid, disaster preparedness
- x. Dissemination of RC to be improved.
- y. Workshops to be organized with limited number of participants (max.20) for IFRC and RCSC.

## Recommendations for the **International Federation of Red Cross and Red Crescent Societies**

- z. Recommendations to be reviewed and discussed between the partners involved and an action plan to be established to implement the recommendations.
- aa. Transfers of funds, delayed for four weeks, why is there no direct transfer to the Provincial RC by the IFRC? Direct transfer is recommended.
- bb. Randomly select village(s) for head count of toilets.
- cc. Constructions follow the models, especially the steps (width); perhaps make some handrails for old people and children to make it easier to walk up/down.
- dd. Workshops to be organized with limited number of participants (max.20) for IFRC and RCSC.
- ee. Health education needs more time and funds, the health messages to be made more clear and understandable, more materials to be developed with less text and perhaps different local languages for the ethnic groups.
- ff. Active monitoring by field delegates as well as Regional Delegation of the project, including field visits to randomly elected sites and visit to all construction sites at least one time during the duration of the project.
- gg. Liaison and communication with other organization involved in the sector such as UNICEF, WHO.
- hh. Job profile and Mission instructions to be developed prior recruitment of personnel and based on the job profile recruitment should take place.

## Recommendations for **ECHO**

- ii. Translation and availability of ECHO documentation in Chinese for better documentation and understanding of ECHO requirement in implementing and managing the program.
- jj. External evaluation to take place upon completion of the next phase of ECHO support to the provinces (ECHO-3), include at least two specialists, one with public health background and one water and sanitation expert.

## 5. Annexes

### 5.1 Terms of Reference

#### **DRAFT Term of Reference (ToR)**

**For**

#### **Evaluation of the Red Cross's Latrines programme – Guangxi and Hunan Provinces, China ECHO December 2003**

##### **Introduction**

Title of Operation --Construction of 13,500 Ecosan Toilets for Rural Families Affected by Flooding in Guangxi Zhuang Nationality Autonomous Region and Hunan Province, Peoples Republic of China.

**This proposal is linked in part to the past ECHO 1 programme where 3,900 Ecosan Toilets were built in Guangxi Province.**

Background - It is recognized that to improve the general health of the rural population a “package” of water, sanitation, and health education and disaster preparedness programmes are required.

Both provinces are subject to regular serious flooding from the rivers and land run off. This causes landslides, destruction of crops, flooding of villages and toilets, which lead to the contamination of surface and ground water reserves.

In rural villages in both Guangxi and Hunan the typical toilet is a simple pit with two planks across a large hole either inside the animal enclosure or away from the house as public toilets at the street side. The pit is also used for disposal of rubbish and animal faeces. Animals such as pigs, buffalos and chickens share the same housing space as the people. The animals are either located below the floor space of the elevated house or under the same roof of the house often close to the kitchen area... As flooding occurs regularly this provides a ready source of ground/surface water contamination and as a consequence pose a serious threat to the health of the population. The installation of flood resistant toilets, the upgrading of drinking water infrastructure combined with a health education program and DP will improve the lives of thousands of beneficiaries as well as improve the capacity of the Local Red Cross at all levels.

**The Health Education component will be introduced through a participatory approach to health education. The advantage of this type of approach is it develops community spirit and co-operation and allows the community to identify what they perceive are areas of concern and find realistic solutions. International research has shown that people’s behavior depends on the degree of being active and voluntary participation in determining their own health practice.**

##### **Purpose of the evaluation**

- To assess the methodology, approach and implementation and suitability of the latrines program (to construct 8,500 toilets in Guangxi and 5,000 in Hunan Provinces)
- To study the impact of the sanitation program on the community.
- To assess the impact on villages and the volunteers through Health Education program and how this has followed through to community involvement, feeling of ownership and on hygiene behavior
- To identify possible areas and ways for improvement of the Federation support to the Red Cross Society of China (RCSC) - In the areas of Water, sanitation health education and Disaster Preparedness

**The evaluation will seek to answer the following questions:**

- How appropriate was the planned responses to the sanitation program. (Timeliness, coverage, local relevant)
- The suitability of toilet site, materials used and finished construction works.
- The suitability of the Ecosan toilets and health education programs, have they met the needs of the most vulnerable target group? (if not why)(Considering the current training of Red Cross and local government network).
- Is there any observable hygiene behavior change due to the sanitation/health education activities?
- Has the sanitation activities contributed to a reduction of hygiene related diseases in the community?
- Has the program had an impact on behavior change enabling the villagers to be more aware of the new understanding about transmission routes of communicable diseases?
- In the context of project sustainability, how have the village volunteers been able to make a difference?
- Has the program increased the capacity of the NS or Branch?
- Has the Hunan and Guangxi branch the capacity to develop future water sanitation Health Education and Disaster Preparedness programs?
- Has the Federation, ECHO procedures been followed – eg. Tendering for goods and accounting methods?

### **Methodology, Chronology and Tasks**

Presentation of the ToR and evaluation schedule to the RCSC and Federation management.

Briefing by the Delegation in Beijing and study of all relevant documents and reports in relation to the program

The team will visit Hunan and Guangxi Province, holding discussion/interviews with key organization and persons;

RCSC personnel at national (HQ), provincial (Regional branch), and local level

The Federation Head of Regional Delegation, DP/DR Delegate, Programme Manager, Programme Water Sanitation and Programme Health Delegate Delegate  
 Hunan Health Bureau CDC  
 Center Disease Control Guangxi  
 Rural Health & Women & Child Health Care Division of Public Health Bureau (Health Education)  
 ECHO in-country representative (If available)  
 Beneficiaries

The evaluation report shall provide recommendations for further improvement to the program and the Federation support to RCSC's Water, Sanitation, Disaster Preparedness and Health Education activities.

The Team leader will reports to the Federation Head of Regional Delegation and RCSC and present the main findings and recommendation by 25 December 2003. The final evaluation report will be submitted by Friday 9 January 2004.

### **Evaluation Schedule (including planning, evaluation and report writing)**

Nov 2003

Draft of Term of Reference (ToR)

Completion of ToR – 30<sup>th</sup> November

Evaluation Dates

Dec 15 to 19 Hunan Province

Dec 19 to 23 Guangxi Province

December 23 to 25 Beijing  
Dec 2003 Compilation of necessary documentation

Evaluation process 14 days from Monday 15th December 2003

Draft report writing

Presentation of findings and recommendations January 2004

Submission of final evaluation report – Friday 9 January

### **Team composition**

Thanh Le – Regional WatSan Bangkok  
Mr. Arie Schuurmans - Netherlands Red Cross

### **Resource Persons:**

Federation: Mr. Alistair Henley – Head of Regional Delegation, Beijing  
Mr. Niels Juel – Regional Disaster Preparedness Delegate  
Mr. Marat Yunusouf – China Finance Delegate  
Mr. Warwick Inder - Programme Manager Guangxi  
Ms Vibeke Thamdrup - Health Delegate Guangxi  
Mr. Paul Drossou – Water and Sanitation Delegate Hunan

RCSC Guangxi Professor Fong Nanting – Vice President, Guangxi Red Cross Branch  
Ms. Tan Xue Qin – Project officer, Guangxi Red Cross Branch  
Mr. Yxusheng Yang – Director Relief Division RCSC HQ  
HQ and Provincial Branch staff

Others: Guangxi Province  
Mr. Zuo Jiatong – Deputy Director Disease Control Center  
Mrs. Chen Lili – Director of Rural Health & Women & Child Health Care

RCSC Hunan Province  
Mr. Hou - Standing Vice President Hunan Red Cross  
Mr. Huang - Secretary General Hunan Red Cross  
Miss Yang - Director Relief Department Hunan Red Cross  
Mr. Xiaosheng - Vice President Hunan Health Education Bureau

## 5.2 Contract between RCSC and IFRC on transfer of funds

THE EAST ASIA REGIONAL OFFICE IN BEIJING AND THE RED CROSS SOCIETY OF CHINA PROJECT AGREEMENT 联合会东亚地区办事处与中国红十字会的项目协议书		
Titles标题	Description叙述	Comments备注
Agreement No./Pledge No.: 协议编号:	PCN163	
Title of Project: 项目名称	China - Sanitation Guangxi and Hunan 中国广西, 湖南旱厕项目	ECHO/CHN/210/2002/03001
Country/Region of operation: 执行项目的国家/地区	People Republic of China: Guangxi and Hunan provinces 中国: 广西省和湖南省	
NS Project manager: 总会项目主管	Xusheng Yang - Head of Relief Division, RCRC 中国红会总会赈济处处长 杨绪生	
Federation Project manager: 联合会项目主管	Niels Juel - Regional DR-DP Delegate in Beijing 北京办事处地区救灾/备灾代表 尼尔斯	
Parent Donor: 捐助人	ECHO 欧盟人道主义办公室	Donor code DECN08 捐赠人代码: DECN08
Duration of Project: 项目期	1 Nov. 2002 - 31 Oct. 2003 2002年11月1-2003年10月31日	To be extended to 31 Jan. 2004 可以延期至2004年1月31日
Total Project Funding: 项目总经费	1,280,000 EUR (欧元)	
Budget Approved: For RCSC part of project 批准预算: 项目中中国红会的部分	Details budget attached and signed. 1,028,250 EUR 签过的具体预算见附件 1,028,250欧元	Annex B 附件B
System of Cash Advance: 先拨款的体系	Cash transfer to bank account of HQ Red Cross Society of China 将款项汇到中国红会总会的帐户	Transfers to Guanxi and Hunan must be done in local currency and immediately upon receipt the funds by HQ. 一旦中国红会总会收到款项, 请立即将款项以人民币形式汇到广西省和湖南省红会
Terms /Schedule of Payment: 付款的条款/计划	514,149 EUR - February 2003 -2003年2月	50 %

	514,101 EUR – on request	50%
Method of Payment: Bank Transfer 付款方式-银行汇款	China Citic Industrial Bank (中信实业银行) 7112111482600000126	Bank address: Wangfujing branch, 18 Linyu Hutong, Wangfujing st., Beijing 100006, China 银行地址: 中国北京金鱼胡同 18号, 中信实业银行王府井支 行。邮编: 100006
Maximum Outstanding Balance Limit: 余款最大限额	Under spent balance has to be returned to the Federation. 剩余款项必须返还给联合会	
Reporting: 报告 - Interim narrative report 中期叙述性报告 - Final financial report 终期财务报告	- June 2003 - 2003年6月 - Monthly financial report - 月财务报表 - Final Financial report before 30 October 2003 - 终期财务报表于2003年10 月30日前提交	Standard Federation Report formats as per Budget Description. 联合会标准报告形式如每一份 计划书中所描述。 31 January 2004, if extension 如果延期, 将是2004年1月31 日
Audit Conditions: 审计条款:	Financial, distribution and stock records are subject for external audit by Federation/ ECHO 财务, 分发和储备的情况/记 录要接受联合会/欧盟的外部 审计	<i>The Principles and Rules for Red Cross and Red Crescent Disaster Relief</i> article 24.1.3 见条款24.1.3 《红十字与红新 月灾害救助原则与条例》
Documentation: 单据	Originals have to stay with NS. Certified copies have to be submitted with reports. 中国红会保留原始单据, 有效 (加盖公章)的复印件随报告 一并提交。	
Amendments: 调整/更改	Any modification to this Agreement must be in writing and signed by both parties. 对此协议的任何调整和更改都 需付诸书面, 并经双方签字。	
Specific requirements: 具体要求:	All expenses must be dated within Project period. 所有的支出都需要发生在项目 期内。	

Drawn up in 2 Copies in English and 2 copies in Chinese and signed hereunder by the two parties.

英文和中文各一式两份，经双方签字。

**For the Red Cross Society of China:**

中国红十字会代表

Place:地点 \_\_\_\_\_

Date:日期 \_\_\_\_\_

Name:签字人 \_\_\_\_\_

Position:职位 \_\_\_\_\_

**For the Federation:**

联合会代表

Beijing, People's Republic of China

\_\_\_\_\_

Alistair Henley

Head of East Asia Regional Office

### **5.3 List of persons/organizations consulted**

#### **Hunan Province**

Mr. Hou Bingweng, Vice President Hunan RC  
Mr. Huang Kewei, Secretary General Hunan RC  
Ms. Yang, Director Relief Department, Program Coordinator Hunan RC  
Mr. Xiu Xiao Sheng, Director Health Education Bureau Hunan Province  
Ms. Liu Huuxi, Officer-in-charge of the Hunan Sanitation Project at **RCSC HQ**  
Ms. Jun – Translator RCSC Hunan

Secretary General of all Prefectures and counties visited

Representatives of CDC and Public Health Bureau of the prefectures and counties

Villagers and volunteers

#### **Guangxi Province**

Professor Fang Nanting – Vice President, Guangxi Red Cross Branch  
Dr. Long – Secretary General, Guangxi Red Cross  
Ms. Tan Xue Qin – Project officer, Guangxi Red Cross Branch  
Mr. Xu Sheng Yang – Head Relief Division **RCSC HQ**, Beijing  
Ms. Sui – Accountant Guangxi Red Cross  
Ms. Wang Jing IFRC Program Assistant and involved in Health Education  
Prof Mr. Zuo Jiatong – Deputy Director Disease Control Center  
Ms. Chen Lili – Director of Rural Health & Women & Child Health Care, Public Health Bureau

Secretary General of all Prefectures and counties visited

Representatives of CDC and Public Health Bureau of the province, prefectures and counties

Villagers and volunteers

#### **IFRC**

Mr. Niels Juel – Regional Disaster Preparedness Delegate  
Mr. Marat Yunusou – China Finance Delegate  
Mr. Warwick Inder - Program Manager Guangxi  
Ms. Vibeke Thamdrup - Health Delegate Guangxi

### **5.4 List of literature and documents consulted**

- ECHO agreement ECHO/CHN/210/2002/03001
- Budget
- Draft Terms of Reference
- Thanh Le and Gabriel Salas, Evaluation of the Red Cross Sanitary Latrines Project – Guangxi Province, November 2002
- Narrative quarterly reports
- IFRC Financial report December 2003
- Health Education Program in Guangxi. IFRC Guangxi, May 2003
- Graham Bets-Symonds, Collaborative Log of field visit to China, IFRC Geneva, August 2003

## 5.5 List of sites visited

### Hunan

Prefecture/ County	Township/ City	Village/ sub village	People	Households	Toilets constructed as of 1/12/2003	Volunteers	f/m	Average income per person <sup>2</sup>
Lou Di/ Lou Xing	Cha Yuan	Shitang	1,024	386	300	18	6/12	
Lou Di/ Lou Xing	Wan Bao Town	Wan Ba	728	234	200	15	10/5	
Heng Yang/ Heng Sang	He Jia	Xiang Shui	1,378	375	350	28	2/26	1.000
Heng Yang/ Heng Dong	Shu Mu	Sheng Li	1,400	348	200	30	12/ 18	
Yongzhou/ Zhi Shan	Shu Kou Shan	Zhao Jia	1,152	300	277	15	8/7	
Yongzhou/ Zhi Shan	Shu Kou Shan	He Jia	673	131	123	15	7/8	

### Guangxi

County	Township/ City	Village/ sub village	People	Households	Toilets constructed as of 1/12/2003	Volunteers	f/m	Average income per person
Quangzhou	Huang Shahe	Huang Gang	396	194	100	6		
Quangzhou	Shao Shui	Xia Lui	1,005	278	194	15	6/9	
Yangsuo	Xingping	Yucun	516	134	80	15		
Long An	Yong Wan	Ai hua	3,500	758	658	35	5/30	900
Bin Yang	Gan Tang	Na Ning Jiao Nadang	721 1285	158 320	150 320	15 15	2/13	900
Shangsi	Jiao An	Nadang	3130	710	320	15	7/8	860

<sup>2</sup> Per person including children, average household is four people, income below 650 per person is considered by the Government as people living below the poverty line. The indicator has been added during the mission.

## 5.6 Map of the area covered by the action

### Map of Hunan



Map of Guangxi



## 5.7 List of abbreviations

CBFA	Community Based First Aid
CBDP	Community Based Disaster Preparedness
CDC	Center for Disease Control
ECHO	European Community Humanitarian Office
IFRC	International Federation of Red Cross and Red Crescent Societies
NS	National Society
PHAST	Participatory Hygiene and Sanitation Transformation
PHB	Public Health Bureau
RC	Red Cross
RCSC	Red Cross Society of China
WatSan	Water and Sanitation

## 5.8 Pictures of health messages and toilets



## 5.9 Separate annex

### Information for the IFRC/RCSC

The selection of beneficiaries needs more attention, include in a village all households, households who are too poor to contribute should not be excluded as is the case in some villages, but should be actively supported by the Red Cross and its volunteers.

The new phase ECHO-3 there is a need for an engineer to design the water systems (three) could be on a consultancy basis, but without a properly designed system it is not recommended to start the water part of the project.

Health education needs more funds than presently allocated, € 50,000 is not sufficient to educate people in the new villages and to continue in the previous villages. Most toilets are not used and therefore more training is required at village level.

If the project is recruiting two delegates, at least one should be full-time in Hunan, the needs there are bigger.

Delegates feel that they were “not a part of the delegation”; there were a 3 months “dead” period of no information, communication or decisions

More work is needed to assist RCSC to have the separation if not physically at least in operational principles from PHB

More diversification of funding required if the program is to continue or expand, this need to be more actively pursued at all levels – Federation/RCSC HQ/Provincial RC

If this is “an ideal” program and approach, RCSC need to adopt this as a standardized approach and ensure all future projects related to wat-san uses the same technology.