

## **Introduction**

1. This report has been produced following an assessment mission in the Democratic People's Republic of Korea which lasted from 29 August to 9 September 1995. The following United Nations entities participated with representatives in the assessment and have provided input for this report, which has been prepared under the auspices of the United Nations Resident Coordinator in Pyongyang, DPR Korea: The United Nations Department of Humanitarian Affairs (UN/DHA), the United Nations Development Programme (UNDP), the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the World Food Programme (WFP) and the Food and Agriculture Organization (FAO).

## **General Situation**

2. The population of the DPR Korea is 21.2 million people. They live in 9 provinces and 3 metropolitan areas. These twelve major administrative divisions are divided into 200 counties and 4,000 Ri's, the smallest administrative unit consisting of 450 - 500 families in rural areas.

3. Following three episodes of exceptionally heavy rainfall during the periods of 7 to 15 July, 26 July to 12 August, and 17 to 20 August 1995, the Government of DPR Korea reported that 145 counties and cities in eight provinces, or 75% of the country, had been affected by floods. The Government estimated that 5.2 million people had been affected out of whom approximately 500,000, or 100,000 families, had lost their homes and been displaced. The floods had also caused severe damage to agricultural land and production, critical facilities such as hospitals and health centres, water supply and other infrastructure such as roads, bridges, and irrigation system as well as to industrial facilities. Although it was initially believed that no lives had been lost, later the Government reported 60 to 70 casualties with more people missing and feared drowned. The Government estimates the total cost of the damage caused by the floods to exceed 15 billion US dollars.

4. A breakdown of population and homeless people in the affected provinces is shown in annex 1 to this report. The Government has produced a detailed list of damage in all affected provinces. This list is available with DHA.

## **United Nations Assessment**

5. In response to a request from the Government of DPR Korea, on 29 August 1995, a four-person United Nations Disaster Assessment and Coordination (UNDAC) Team was dispatched by the United Nations Department of Humanitarian Affairs, to assist in the assessment of the situation and to reinforce the Office of the United Nations Resident Coordinator/UNDP Resident Representative in Pyongyang, DPR Korea. The UN Team was joined by representatives of WHO, UNICEF, WFP and

FAO. With the participation of these agencies, a United Nations Disaster Management Team (UNDMT) was established in the Office of the Resident Coordinator/UNDP Resident Representative.

6. Between 1 and 6 September, the UN Team, accompanied by Government relief officials, visited affected areas in North Hwanghae, North Pyongan and Chagang provinces. The visited areas include the Amnok river basin along the Chinese border around the city of Sinuiju, the Chongchon river around the cities of Pakchon and Anju, the area South of Pyongyang around the cities of Pongsan, Rinsan and Chonggye-ri.

7. In these areas, severe damage to agriculture, property and infrastructure had occurred. All of this has been in riverine valleys and on flood plains, the predominant geographic features of the affected areas. Up to 6 September, no damage to areas outside of this kind of topography (metropolitan areas) had been seen. In the riverine areas, damage was typical of flash flooding, in which structures were severely damaged, and crops and livestock swept away. In some places, agricultural fields had been covered with several layers of sand and gravel. Small and medium scale irrigation and water storage systems had frequently been completely destroyed. In the floodplain areas, water had covered crops for long periods so that maize and other crops had been submerged, and rice grain had rotted. Structures in these areas had been less damaged and few animals had been lost.

8. The government appears to have responded quickly to the emergency. The armed forces had been mobilized to rescue people and transport them to safe areas. Temporary accommodation had been arranged and attention is being paid to providing food, clothing and safe water. Very few animals could be seen, but all villages were planting new vegetable gardens, and people were working either on reconstruction projects to restore priority communication links such as bridges, or on cleaning and repairing damaged houses and public buildings.

9. The damage recorded by the UN Team can be described in the following three categories:

- a. immediate effects on the population who has lost its homes and been displaced by the floods, encompassing 100,000 households;
- b. damage to agricultural production estimated by the Government at 1.9 million tons lost;
- c. long-term effects on the economy of the country through the destruction of production facilities and infrastructure.

10. Of these categories, the mission focused its attention on the first two, with highest priority given to the relief requirements of the first category, the 100,000

families or approximately 500,000 people who are considered critically affected by the floods.

### ***Shelter***

11. Official figures indicate that a total of 96,348 houses have been damaged.

12. Depending on the local severity and nature of the impact of the floods, housing has been damaged in a number of ways. In the worst circumstances where dams had burst or flash flooding had occurred, entire houses and their contents have been washed away. In some cases whole villages have been swept away. In other areas houses have been submerged and some contents salvaged. The majority of the damage would appear to be due to the inundation of houses causing water damage to structures and contents. Some of the more seriously affected areas were seen by the UN Team in Sinuiju and Uiju counties in N. Pyongan; in Rinsan, Unpa and Sinpyong counties in N. Hwanghae.

13. Affected populations are now sheltered in a number of ways. Some are reportedly billeted with relatives or other families; some are in public buildings such as schools. A number of homeless families are lodged in makeshift shelters made of plastic sheeting normally used for seed propagation.

14. The weather has remained warm since the period of the floods but is now beginning to cool into autumn. During the winter, from November through March, it will be extremely cold. Average temperatures during January, the coldest month, vary between minus 5° Celsius and minus 20° Celsius.

15. There is much local activity to reconstruct and rehabilitate dwelling houses although in some areas work was proceeding slowly. Unless some hardened or winterized shelter, warm clothing and blankets are provided immediately, some of the displaced population will suffer severely with the arrival of the cold season.

### ***Water and Sanitation***

16. The rural water supply is dependent on centralised pumping, purification and piped distribution systems that have been significantly disrupted. Government data includes mention of damage to 102 reservoirs and 2,804 pumping stations.

17. Although many households in the affected areas still had access to functioning hand pumps, the inundation of pit latrines, the establishment of temporary housing and the observed use of open water sources for washing and household drainage poses a threat to the cleanliness of the drinking water supply and there is a risk of diarrhoeal disease epidemics.

18. The government's current capacity to handle an epidemic of diarrhoeal disease is weak. The factory that produced oral rehydration solution was damaged and is currently idle. The Ministry of Public Health advised that there is no significant reserve stock of ORS.

### *Food*

19. According to Government statistics, the annual requirement for grains is stated to be 7,639,000 tons. Against this requirement there was a pre-flood estimate for 1995/96 crop year production of 5,665,000 tons, indicating an original (structural) deficit of some 1,974,000 tons (equal to approx. 25% of annual requirements - or some three months' supply for the country).

20. In the past, the structural deficit of some 1.97 million tons would have been partially covered by commercial food imports, including food (primarily wheat) obtained from the former-USSR through commodity barter arrangements.

21. The Government estimates losses due to the 1995 floods at 1,901,000 tons (1,083,000 tons of rice and 818,000 tons of maize). The overall food shortfall (structural and emergency) for the new 1995/96 crop year is thus estimated to be of the order of 3,875,000 tons - equal to half of annual grain requirements. The mission had no means to independently verify these national estimates.

22. The pre-flood estimate of grain output for the year (5,665,000 tons) appears to be in line with the trend of recent years and may possibly be slightly over trend (based on figures in the FAO "Food Outlook" for May/June 1995). A time series for grain production over the past five years (1990-94) has been requested, but not yet provided at the time of writing.

23. Of the total annual requirement of grain of 7,639,000 tons, 4,869,000 tons is for human consumption (64%), 1,200,000 tons is material for industry (16%) and 1,400,000 tons for animal feed (18%). The raw material for industry is primarily for production of special foods, including children's foods, maize oil and alcohol.

24. The DPR Korea Government's figure of 4,869,000 tons of grains for human consumption equates to 630 grammes per capita/day (basing on a population of some 21.2 million). This may be considered high by normal global standards, but may be partly explained by both the importance of grains in the overall diet and the higher energy needs of the population during the very cold winter.

25. The estimated overall food shortfall (structural and emergency) of some 3,875,000 tons will be partially covered by imports of 893,000 tons (including donations of rice from Japan and South Korea, as well as commercial imports from Thailand), leaving a net estimated grains shortfall for the 1995/96 crop year of some

three million tons, equal to approximately 40% of the annual requirement for grains.

26. During the mission's field visits small areas of sorghum and millet could be seen in certain areas. These minor cereal crops do not appear to have been taken into account in the overall estimates of cereal production. They could have localized importance as a staple, as could other crops, such as sweet potatoes.

27. Although a systematic emergency nutritional assessment was not possible on any scale, the UN Team was able to observe young children in a variety of circumstances. Nutritional status of preschool-age children already marginal, is aggravated by poor access to any foods other than maize in households or in nurseries and child-care centres that are normally responsible for feeding children. Health problems, especially respiratory illness, seemed also to be exacerbating nutritional status. The relatively few children in temporary housing observed by the UN Team were both wasted and stunted and thus at very high risk of more severe problems with the colder weather approaching, particularly should they be exposed to an infectious illness.

28. Children in the affected areas were eating a diluted porridge of whole-grain maize. Maize flour or ground maize would normally be used, but flood damage destroyed electric lines that would power the mills. There was evidence that the whole-grain maize was poorly digested by some children, further reducing available calories. There is a chronic problem of inappropriate weaning food practices in the country now exacerbated by the household food insecurity and reduced access to health services in the flood affected areas.

29. A further concern for older children is the loss of stores of food held in schools for school feeding. Although many schools in the affected areas opened for the new school year on September 1, some of these schools were unable to provide a mid-day meal to students as they normally would.

### ***Public Health***

30. The impact of floods on the health of people usually comes in three phases. The first phase is in the immediate post-disaster period, where the main problems are death and injury, although the levels of these are not usually very high. This period had well passed by the time the mission arrived. The second phase begins after three or five days and reaches a peak at about 10 days. It features diseases related to exposure (heat and cold), simple diarrhoea due to unsafe and inadequate water supplies, and ARI due to crowding in temporary or communal shelters. If water supplies have been polluted, serious water-and food-borne diseases such as dysentery, hepatitis, typhoid and cholera may also appear towards the end of this period in certain populations. Measles will also appear at this time if there is crowding, low immunity and significant levels of malnutrition. This phase was reaching its peak as the UN Team arrived, so cases of these diseases should have started to be reported during that

week if they were going to appear, but this has not been the case.

31. The third phase begins after about two weeks and is very varied in character and length, depending on the particular circumstances of the disaster, characteristics of the host population, the pre-disaster level of effective coverage of public health services, the prevailing climate and the environment. It features vector borne diseases, exotic diseases and new cases of malnutrition, as well continuing cases of diseases that appeared in phases one and two.

32. Given the complex situation existing in the country at the present time, it is impossible to predict with any degree of confidence the health problems that may arise in the coming months. In such cases the priority is to ensure that epidemiological surveillance systems have the capacity to detect outbreaks as soon as they occur, and that managers have skills and resources to respond quickly.

### *Agriculture*

33. According to the Government a total of 1.195 million hectares (ha) of arable land has been affected. Some of this land, due to a cover of sand and/or gravel or erosion of the top soil layer by water is irreversibly lost. This means that attempts will need to be done to increase the agricultural production on the remaining land in order to compensate for the loss in crop yields.

34. In terms of food the Government estimates a decrease in rice production of 1,083,000 tons, in maize production of 818,000 tons and a loss of grains in stock through the destruction of storage facilities of 626,200 tons.

35. While visiting directly flood affected areas, the UN Team has seen approximately 35 to 40% of the total agricultural area. The visited places in the North were the most extensively affected areas, while in the other regions the affected areas were more localized and smaller in size.

36. From the areas visited and seen, an attempt has been made to extrapolate the figures on losses to the total agricultural area in the country. The total losses are estimated to be between 1,075,000 and 1,450,000 tons grain. These figures are based on an estimated 15-20% total crop loss on the total agricultural land in the country. Thus the estimates are consistent with the information provided by the Government. The Government estimates losses of grain under storage at 626,200 tons.

37. The Government estimate of 1.2 million tons of rice loss in 1994 due to hail damage has undoubtedly a carry-over effect on the food availability of the "crop-year" 1994/1995.

38. Taking into consideration the recent grain imports of 850,000 tons, there will

be a considerable food shortage for the "crop-year" 1995/1996 since the carry-over deficit from last year amounts to 350.000 tons (Last year's loss of 1.2 million t less import of 850,000 t).

### ***Education***

39. The DPRK has universal compulsory 11-year education. The government estimates that of about 16,000 kindergartens, some 4120 were seriously damaged by the flood, as well as about 2290 of 4956 primary schools and 2290 of 4809 secondary schools. (In many counties the primary and secondary schools share the same building). This damage to buildings alone is valued by the government at about USD 104 million. In addition, the government estimates that about USD 7,2 million worth of school supplies and equipment was destroyed.

40. The new school year began on September 1, during the UN Team's visit. Many schools in affected areas reopened in spite of the losses suffered. The UN Team did not generally question local school officials on its visits.

## **Emergency Relief Requirements**

41. The most important areas for international attention are the immediate welfare of the critically affected population of 100,000 families including the food situation and the restoration of essential services, such as in the medical sector.

42. As a first response to this emergency, and until a more detailed assessment can be carried out in the various sectors that have been affected by the floods, the United Nations recommends the provision of immediate assistance in the following sectors, in line with the assessment results as described above:

### ***Shelter***

43. The Government has expressed a commitment to provide housing for all homeless before winter arrives. However, international assistance is required in providing winter clothing, warm blankets, quilts, and family kits. The Government has also requested fabric to produce the required clothing articles in DPRK. These articles are not available on the domestic market but articles appropriate to DPR Korea conditions can be procured in China.

### ***Water and Sanitation***

44. It is assumed that there has been some contamination of the piped water supply in both urban and rural settings in the affected areas. The government has requested chlorine for treatment of water destined for household use.

### ***Food***

45. Food is in short supply, as there was a deficit in the grain harvest in 1994 and rice is being imported from Japan, Republic of Korea, and Thailand at the present time. Of all requirements stemming from this emergency, the Government is giving highest priority to food (grain such as rice, etc).

46. In addition to staple foods for the entire population, young children are a vulnerable group with respect to food. Their need for higher-quality, micronutrient- and energy-dense foods is a high priority.

47. As already noted, the government reports that many schools lost their food stocks held for the beginning of the new school year. The estimated shortfall is about 26,000 tonnes of rice, based on a ration of 200 grammes per meal per child.



## *Public Health*

48. The capacity of the MoPH is severely stretched and they have inadequate experience of emergency management on such a scale. WHO must provide managerial and technical support as a matter of priority for at least one or two months. International relief may reach the country in large amounts and WHO support to the Resident Coordinator is vital.

49. Technical support is needed urgently in nutrition, sanitation, CDD, epidemiology and laboratory services. WHO /SEARO Regional Advisors should be made available to the MoPH as soon as possible.

50. Epidemiological surveillance is extremely important in any disaster situation, but especially where the expected morbidity is very difficult to predict. Specific data is needed from sentinel sites, and surveys in nutrition, eater quality, vectors and selected morbidity indicators. The MoPH will need assistance in setting up this system, but it seems that they have the manpower and structure to implement through the Country Hygiene Stations.

51. Parallel to this, reference laboratories need to be established at key points in the affected areas so that suspected cases of diseases significant to public health can be confirmed or excluded. The MoPH will need assistance in selecting, equipping and managing these laboratories, as well as in transporting specimens. Again, Country Hygiene Stations would be responsible for implementing this activity.

52. Measles is likely to be a problem despite the reported high coverage levels. For a target population of 500,000 homeless people, 100,000 doses for all affected under 5's would be needed. Consideration of vaccinating children in contiguous non-affected areas should also be given. The cold chain to and in the affected areas will also need an assessment.

53. Emergency water supply seems to be under control in the rural areas that were observed by the mission, although considerable reconstruction is needed to damaged systems. The government has estimated damage to water supply systems at USD 4.9 million, mostly to mains and distribution pipes. They have not requested any additional chlorine beyond that to be provided by WHO or pumps for tube wells at this stage. As time passes and if normal water supply systems are not resumed, there will be less capacity to maintain emergency supplies and water quality and quantity will deteriorate. Water borne diseases will become a problem. The need for ORS will be great. The Government has requested 3 million packets which will last a few weeks if there are significant numbers of episodes of diarrhoea per person per week.

54. Nutrition will be the major health problem over the coming months. It is essential that a reliable and effective monitoring system be set up and be supported in-

country by an international agency experienced in managing nutritional problems. Micronutrient deficiencies also need to be assessed and addressed as part of this programme. The Ministry of Foreign Affairs has requested 50,000 tonnes of powdered milk for distribution to affected families. The need for an impact for supplying powdered milk will need careful review as part of a comprehensive nutrition programme. Such a programme would also need to address the long-term issues of nutrition in the country, since under-nutrition is a basic problem in rural areas.

55. Medicines are undoubtedly needed on an urgent basis. Appropriate medicines can be supplied adequately in the form of New Emergency Health Kits at the present time. If 500,000 people are the target group for emergency assistance, 17 kits per month would be needed, probably for at least three months. A more detailed evaluation of needs can be made once the production capacity of damaged factories has been assessed.

56. The requirements for medical needs to be carefully assessed, since the list provided by the MoPH does not cover any items that could reasonably be provided under an emergency assistance programme. Detailed specifications have not been provided and will need to be collected if a major donor intends to provide them as part of development assistance. If equipment is to be provided at this stage, it should be according to the standard equipment list of Ri clinics and Ri hospitals only.

57. The Governments of China and India could be approached to assist in providing emergency supplies of traditional medicines, once information has been provided to us on needs.

### ***Relief Distribution***

58. The Government has reported a serious shortage of fuel which, if not alleviated, will hamper distribution of relief from both port of entry as well as from food surplus to deficit areas. It will also slow down the restoration of critical facilities and infrastructure. This report has been substantiated by the limited presence of trucks and heavy machinery in the areas visited by the UN Team. Therefore, provision of fuel may become a critical component for the emergency response to reach those in most need.

### ***Agriculture***

59. Immediate steps need to be taken to overcome immediate and long term food shortages. They will include supplies of fuel for the transportation and distribution of food as well as agricultural inputs for crops grown immediately after the flood damage and for the next growing season.

## ***Education***

60. The government has made an urgent request for paper for the reprinting of lost school text books, reference materials and notebooks by government printing facilities, which are not damaged. It has mobilised domestic resources for this task but estimates a shortfall of about 1000 tonnes of paper and 100 tonnes of manila paper to meet this need.

61. Of the above areas, the Government attaches highest urgency to food, shelter (clothing) and health (medicines).

UNITED NATIONS INITIAL APPEAL	
Responsible Agency	Total US\$
UNICEF	4,462,000
WHO	2,000,000
WFP	7,250,250
DHA/UNDP	2,000,000
<b>Grand Total</b>	<b>15,712,250</b>

62. As an initial response and until further details are available for intermediate to long-term relief programmes, United Nations agencies concerned will provide the following, subject to the availability of donor funding:

### **UNICEF**

#### ***Immediate (3-month) relief requirements:***

63. Supplementary feeding for young children in the most seriously-affected areas. It is estimated that about 100,000 families have been displaced or their homes destroyed. Approximately 11% or 55,000 of the population will be children aged less than five years. The proposed feeding supplement is corn-soya blend to be delivered through nurseries.

64. Measles immunization for under-fives. This should be implemented initially in the two worst-affected provinces, North Pyongan and North Hwanghae with total populations of 2.35 million and 2.4 million respectively with a total of approximately 650,000 under-fives. This immunization should be accompanied by vitamin A supplementation.

65. Ensuring that the Ministry of Public Health has the capacity and materials to respond to an outbreak of diarrhoeal diseases. This may include the provision of oral rehydration salts.

#### **Supplementary feeding**

Targeting under-5 children in displaced families in affected areas

150 grammes x 55,000 children	=	8.25 tons/day	
Initial supply for three months	=	745 tons x \$450/ton	335,250

### Measles immunization

Targeting all under-five children in N. Pyongan and N. Hwanghae

650,000 doses of vaccine @ \$1.50/10 doses	97,500
650,000 disposable syringes @ \$0.10 each	65,000
650,000 vitamin A capsules @ \$20/1000	1,300

### Oral Rehydration

To provide strategic reserve at province level

250,000 litres of ORS as strategic reserve @ \$80/1000	20,000
Sub total including freight and rounded	520,000

### *Longer-term requirements:*

### Supplementary feeding

Targeting half of under-five children in affected areas

150 grammes x 260,000 children = 39 tons/day

Supply for six months = 6 x 1200 tons x \$450/ton	3,240,000
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### Measles immunization

Targeting all under-five children with the exception of N. Pyongan and N. Hwanghae

2,600,000 doses of vaccine @ \$1.50/10 doses	390,000
2,600,000 disposable syringes @ \$0.10 each	260,000
2,600,000 vitamin A capsules @ \$20/1000	52,000

Sub total	3,942,000
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### Oral Rehydration

Required according to situation.

<b>Grand Total</b>	<b>USD 4,462,000</b>
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## WHO

66. WHO has already made USD 100,000 available for the immediate purchase of essential medicines and chlorine powder.

### Essential Medicines

50 health kits per month for 3 months at USD 10,000 per kit 1,500,000

### Basic Medical equipment for 300 damaged PHC clinics

USD 150 per clinic 45,000

### Laboratory Support

Reagents and equipment for 145 country labs at USD 500 per Lab  
WHO expert for 1 week 80,000

### Water and Sanitation

Chlorine powder and 2 WHO experts in CDD and water supply  
for 1 week each 150,000

### Surveillance systems and reporting (nutrition, water quality, vector control, morbidity)

Materials, training  
WHO staff member for 1 week 75,000

### Basic administrative and technical support to MoPH

Paper, pens, etc  
WHO staff member for 3 months 50,000

### Traditional medicines

Basic ingredients 70,000

Freight costs 30,000

<b>Grand Total</b>	<b>USD 2,000,000</b>
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## WFP

67. As an initial response, it is recommended that the 500,000 people be assisted during three months with a ration of 450 grammes of rice and 15 grammes of vegetable oil per capita/day. The list of these homeless/displaced people and their localities is reproduced in Annex 1.

68. It is understood that the Government of DPR Korea will cover all internal transport, storage and handling costs (ITSH) and will facilitate the unloading of vessels, with waiving of all taxes, import duties etc. The foodstuffs will be distributed to the targeted beneficiaries as listed in the Annex to this report.

69. WFP proposes to assign an international food monitor to DPR Korea for the duration of the operation (approximately three months) and the costs of the monitoring are estimated at some US\$75,000 - to include salary, DSA, international travel, internal travel, communications, office support, Headquarters support etc. This represents some 1% of the total cost of the operation (which will be some USD 7,250,250 including monitoring costs).

70. It is anticipated that the rice will be purchased in South-East Asia ("indica" variety, some 35% broken). The vegetable oil should preferably be fortified with Vitamin A, to enhance the population's resistance against disease during the harsh winter months.

Cost estimates are as follows:

### Rice

500,000 people x 450 gms/capita/day x 90 days = 20,250 tons

Cost of procurement (FOB) @ US\$275 per ton	5,568,750
Cost of sea shipment @ US\$45 per ton	911,250
Subtotal cost of rice and sea shipment	6,480,000

### Vegetable oil

500,000 people x 15 gms/capita/day x 90 days = 675 tons

Cost of procurement (FOB) @ US\$900 per ton	607,500
Cost of sea shipment @ US\$130 per ton	87,750
Sub total cost of vegetable oil and sea shipment	695,250

Cost of monitoring	75,000
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<b>Grand Total</b>	<b>USD 7,250,250</b>
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## ***DHA, and UNDP***

71. Provision of blankets and family kits to the critically affected population will be carried out as a joint project through UN Resident Coordinator, Pyongyang, DPRK. Procurement in China, transport and delivery of these items will be carried out in close cooperation between UNDP DPR Korea and UNDP China. In an immediate response, 20,000 families in the most affected areas would be targeted at a cost of approximately USD 100 per family, including transport and support of procurement and monitoring. Subject to the availability of funds, this target group will be expanded.

<b>Grand Total</b>	<b>USD 2,000,000</b>
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## ***FAO***

72. FAO participated in the DHA mission to prepare a preliminary assessment of the impact of the floods on the agricultural sector; considering the scope of the damages to the sector estimated by the Government to more than 5 billion dollars (e.g. 1 third of the total emergency requirements), FAO is fielding an Officer, from the Service for Special Relief Operations, to prepare a comprehensive assessment of emergency needs for submission to the International Donors' community.



# **BREAK-DOWN OF FIGURES INTO PROVINCES**

The provinces affected are South Pyongan, North Pyongan, Chagang, South Hwanghae, North Hwanghae, Kangwon, South Hamgyong, North Hamgyong, and Ryanggang. Each province is divided into a number of counties and ri's (a ri usually more than one).

<b>Province (affected counties, and ri's)</b>	<b>Inhabitants in <u>damaged</u> areas</b>	<b>Homeless people</b>
South Pyongan (20 counties, 226 ri's)	537,000	17,130
North Pyongan (24 counties, 394 ri's)	2,048,000	192,560
Chagang (18 counties, 208 ri's)	828,000	78,250
South Hwanghae (15 counties, 151 ri's)	482,000	4,635
North Hwanghae (14 counties, 143 ri's)	690,000	99,840
Kangwon (12 counties, 126 ri's)	155,000	46,155
South Hamgyong (2 counties, 24 ri's)	80,000	4,050
North Hamgyong (8 counties, 62 ri's)	229,000	840
Ryanggang (7 counties, 57 ri's)	157,000	38,280
<b>Total</b>	<b>5,206,000</b>	<b>481,740</b>