Mid-Term Review of the Emergency Agriculture Input Distribution Programme in Afghanistan

Final Report

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بخشش بخروار، حساب به مثقال

Give by tons, account by ounces
(Afghan proverb)

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Annexes:

Abbreviations

ACF	Action Contre la Faim
ACTED	Agence d'Aide à la Coopération Technique et au Développement
AFSP	Procurement Service of FAO
AFSU	Afghanistan Food Security Unit (now FAAHM)
AGPS	Seed and Plant Genetic Resources Service of FAO
AIA	Afghanistan Interim Authority
AISPO	Associazione Italiana per la Solidarietà tra i Popoli
AKDN-FOCUS	Agha Khan Foundation
AREA	Agency for Rehabilitation and Energy-Conservation in Afghanistan
AREU	Afghanistan Research and Evaluation Unit
ASC	Afghan Seed Company (now ISE)
AUD	Office of the Inspector-General
CCSSD	Coordinating Committee for Seed Sector Development
CFA	Children Fund Afghanistan
CGIAR	Consultative Group on International Agricultural Research
CHA	Coordination of Humanitarian Assistance
CIMMYT	International Maize and Wheat Improvement Center
CO	(FAO) Country Office
CoAR	Coordination of Afghan Relief
Concern	Concern Worldwide
DACAAR	Danish Committee for Aid to Afghan Refugees
DAP	Di-Ammonium Phosphate
DCA	Dutch Committee for Afghanistan
EC	European Community
ECHO	European Commission Humanitarian Office
ECU	Emergency Coordination Unit
FAAHM	Food and Agriculture, and Animal Husbandry Information Management and Policy Unit
FAO	Food and Agriculture Organization of the United Nations
FAOR	FAO Country Representative
GIEWS	Global Information and Early Warning System on Food and Agriculture
GOAL	Goal Ireland
GRCO	Ghor Rehabilitation and Construction Organization
HAND	Humanitarian Assistance Network and Development
HYV	High Yielding Variety
ICARDA	International Centre for Agricultural Research in the Dry Areas
ICRC	International Committee of the Red Cross
IDPs	Internally Displaced Persons
IMC	International Medical Corp
IOM	International Organization for Migration
IP	Implementing Partner
IRC	International Relief Committee
ISE	Improved Seed Enterprise
ISRA	Islamic Relief Agency

ITAP	Immediate and Transitional Assistance Programme for the Afghan People 2002
LoA	Letter of Agreement
MAAH	Ministry of Agriculture and Animal Husbandry
MADERA	Mission d'Aide aux Economies Rurales en Afghanistan
MCI	Mercy Corp International
M&E	Monitoring and Evaluation
MoU	Memorandum of Understanding
MRRD	Ministry of Rural Rehabilitation and Development
MT	Metric Tonne
NGOs	Non-Governmental Organization
NPPP	National Professional Project Personnel
NRM	Natural Resources Management
NSP	National Seed Policy
OI	Ockenden International
OSRO	Office for Special Relief Operations of FAO (now TCE)
OXFAM	Oxford Committee for Famine Relief
PBEE	Evaluation Service (FAO)
PEACE	Poverty Eradication and Community Empowerment
PINF	People In Need Foundation
PM	Programme Manager
PRB	Partners in Revitalization and Building
QDS	Quality Declared Seed
SCA	Swedish Committee for Afghanistan
SDC	Swiss Agency for Development and Cooperation
SFAO	Save the Forest Animals Organization
SPM	Seed and Planting Material
STA	Senior Technical Advisor
TAPA	Transitional Assistance Programme for Afghanistan
TCE	Emergency Operations and Rehabilitation Division of FAO
TCEO	Emergency Operations Service of FAO
TCI	Investment Centre Division of FAO
UN	United Nations
UNAMA	United Nations Assistance Mission in Afghanistan
UNDP	United Nations Development Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNODC	United Nations Office on Drugs and Crime
URD	Groupe Urgence Réhabilitation Développement
USAID	United States Agency for International Development
VAM	Vulnerability Analysis and Mapping Unit
VARA	Voluntary Association for Rehabilitation of Afghanistan
WB	World Bank
WFP	World Food Programme
WV	World Vision

Executive Summary

1 The Mid-Term Review (the Review) of the emergency agriculture input distribution programme in Afghanistan focused on the autumn 2002 wheat seed and fertilizer distributions and the vegetable seeds and tools distribution of early 2003. This report concludes two evaluation missions, which took place in February - March and July 2003, and integrates elements of a first report issued in March 2003.[1]

2 The emergency situation therefore started before the 11 September 2001. Many NGOs and UN organizations, including FAO, were already busy helping Afghan farmers face drought- and war-induced problems years before the US came to support the Northern Alliance in its fight against the Taliban. FAO in particular has continuously operated an ambitious emergency and rehabilitation in Afghanistan since the late 80's, including an elaborate seed multiplication and distribution programme. Over the course of its existence, this programme imported 2,300 varieties of wheat from research centers around the globe and tested them in country. It released 15 wheat varieties and multiplied them through a network of 4,900 Afghan contract growers, supervised by the Improved Seed Enterprise (ISE, a parastatal) and by NGOs such as MCI, ISRA or VARA. It supervised the production of some 50,000 MT of Quality Declared Seeds since its inception.

3 After a short period during which all international staff were operating from Pakistan, FAO re-established an office in Kabul in spring 2002. From there the Organization liaises with partner NGOS and suppliers of the Organization's programmes, coordinates other UN agencies and liaises with the Afghanistan Interim Authority (AIA), mainly through the Ministry of Agriculture and Animal Husbandry (MAAH), the Ministry of Rural Rehabilitation and Development (MRRD) and the Ministry of Finance. FAO also operates a network of five regional offices.

4 Because Afghanistan was largely off-limit to international staff at the end of 2001, the FAO emergency distribution in spring 2002 relied on seed procured in Pakistan. While part of the seed and fertilizer was delivered on time and planted successfully (1,500 MT), the majority was delivered late (2,300 MT). NGOs returned significant quantities of seed, some of which was subsequently re-treated, re-cleaned and re-distributed in autumn 2002 and spring 2003.

5 The Code of Conduct for the production, distribution and importation of seeds in Afghanistan, adopted during a workshop regrouping most stakeholders in May 2002, established the principles that would be applied during the autumn 2002 distribution campaign: give seed and fertilizer for a price or on credit, and distribute varieties tested and if possible produced in Afghanistan. As a result in autumn 2002, FAO and most other organizations engaged in "seed aid" in Afghanistan (e.g. ICARDA, Euronaid, UNHCR) procured wheat seed from the FAO network of contract growers.

6 The FAO emergency programme procured 3,773 MT of wheat seed, 2,873 MT of Urea and 3,318 MT of DAP, which it distributed to an estimated 67,375 households countrywide.

[1] Olivier Cossée and Pr. Abdul Q. Samin: Mid-Term Review of the Emergency Agriculture Input Distribution Programme in Afghanistan, First Mission Report, 31 March 2003.

From January to May 2003, the emergency programme also distributed some 83,000 kits of vegetable seed and tools to approximately the same number of returning refugees and IDPs. Beneficiaries were identified in close cooperation with UNHCR.

7 From its analysis of process issues (need assessment, coordination, procurement and logistics, partnerships, etc.) the Review team concludes that, considering the environment and the confusion created by the spring 2002 campaign, the autumn 2002 distribution was on the whole well planned and correctly implemented. A few weaknesses underlined in the report are worthy of further improvement, the main one being insufficient need assessment and beneficiary targeting procedures.

8 In terms of need for seed, the issue is clearly one of difficult access to seed by some farmers, rather than unavailability of seed in country. The magnitude of the problem has not been sufficiently studied. There is a dearth of information and research on how much the drought and conflict have affected traditional seed supply systems. Consequently, we cannot definitely answer the question of how much seed aid Afghan farmers need.

9 Beneficiaries were in most case identified by village councils based on criteria developed by FAO and NGOs. This system may not always succeed in targeting the most vulnerable. The Afghan society is as hierarchical as any other, and village councils usually give a premium to the largest landowners in terms of representation and influence. It appears that most of the programme goodies went to average or even to well-off farmers. The size of the distributed package (50 kg of seed, 50 kg of urea, 50 kg of DAP) may be a factor here. Sufficient to plant 0.4 ha, the package for irrigated conditions is worth some US$30 and may be viewed as a "bounty" even by well-of farmers. The programme has in 2003 developed a new, more participatory approach to beneficiary targeting.

10 Since most organizations distributing seeds last fall procured from the same FAO contract growers, demand for seed was high and supply limited. By and large the seed multiplication system in place delivered what was expected of it, at least quantitatively. Some concerns over the qualitative aspect have been highlighted. All the seed distributed was not of Quality Declared Seed (QDS) standard. Some of it (perhaps 20%) was purchased from farmers not under contract. The seed produced by ISRA and to a lesser extent VARA had too high a content in rye and wild oats seed. Rye and oat infestation of wheat fields is endemic to Afghanistan but repeated distribution and multiplication by ISRA and VARA of impure seed only ensure the propagation and aggravation of the problem. This is a key issue inasmuch as seed locally-produced by development partners and FAO *must* be superior to local seed. If it is not, then farmers may increasingly distrust "improved" seeds.

11 Similarly, the delivery system appears to work as far as quantities delivered are concerned, but there are concerns on quality. The sheer number of NGOs (29) distributing FAO-procured seed and fertilizer makes logistics, monitoring and coordination a real challenge. Some have strong capacities in the field and do monitor the work of *shuras* (village assemblies) and crop performance, while others do not. The reporting capacity seems to vary widely too. NGOs need continuous, intensive capacity building rather than the somewhat intermittent support currently extended to them.

12 In 2002 the emergency programme has tended to operate with minimal involvement from the Afghanistan Interim Authority. The basic governmental structure at the provincial (*walayat*) and district (*uluswali*) level is still in place and somewhat staffed, if under-

funded, and they are eager to participate in the FAO agricultural inputs distributions. They have been increasingly involved in the supervision and monitoring of input distributions.

13 The programme is segmented in numerous projects. The ECU manages them as a coherent programme, but the transaction cost in planning, writing programme documents, maintaining numerous project accounts and reporting against them is not negligible.

14 Timeliness of procurement was found an important issue. Procurement delays have led to a number of no-cost extensions and, in one case, reimbursement of unspent funds to the donor. Emergency operations are important clients for AFSP, and the service is keen on improving procurement timeliness. The service has emphasized the need for a realistic planning of procurement activities, which can easily take four months from the purchase request to delivery on site. TCEO on the other hand points out that emergency projects are usually approved close to the delivery period and that therefore procurement times need to be further reduced.

15 Current procurement procedures allow for either cost or time of delivery to be "prime factors" in the bid selection process. In practice, time is most often not chosen as prime factor because under current regulations that would bind the Organization to accept any bid, however costly, if it promises to deliver the good earlier than other bids.

16 Partner NGOs were appreciative of the logistics set in place. Warehouse logs indicate that most deliveries were made on time (October – November). Some shipments were received at the district level in December 2002.

17 TCE should be commended for having implemented three post-distribution surveys, an important source of impact data for this Review. The methodology could be improved and propositions are made to this effect. The questionnaires were for instance collected by the NGOs having distributed the seed, leading to a conflict of interest and probable bias.

18 The distributed varieties appear to perform suitably and have produced good to very good yields, estimated at 3 MT/ha on average for irrigated wheat and 1 MT/ha for rain-fed wheat, as compared to local varieties yielding on average of 2.5 MT in irrigated condition and 0.8 MT in rain-fed condition. Many of these varieties are winter-hardy and in high altitude have allowed for a change in farming systems from spring to winter wheat planting, resulting in very significant yield increases. There are however few improved varieties adapted to rain-fed cultivation. The few distributed rain-fed varieties performed well in the lower, flatter lands, but crop failures were reported and witnessed this year in more hilly terrain. The most adverse or heterogeneous rain-fed areas may still represent a challenge for variety improvement.

19 Part of the "bumper harvest" of 2003 can clearly be attributed to FAO. The development programme made a whole array of new, rust-resistant varieties available and widespread. The emergency programme – as well as other organizations procuring seed from FAO contract growers – spread those varieties further and may have allowed cultivation of more land than would have been the case without it. The distributed varieties are likely to be disseminated further is in subsequent years thanks to farmer-to-farmer exchange.

20 One can safely assume a strong impact on household food security, one of the main objectives of the intervention. The additional grain production induced by the programme

can be estimated at 200 to 500 kg per household, typically amounting to 10 to 30 percent of the total household wheat production. The overwhelming majority of farmers interviewed in the post-distribution surveys said they would use most of the harvest obtained from the FAO distributed seeds to cover their household grain food needs.

21 The vegetable kits allowed the cultivation of some 300 sq.m. each and induced a production estimated at 400 kg of vegetables per benefiting household, enough to generate a marketable surplus.

22 The impact of the programme on wheat production, the rise in wages and a low wheat price across the country also mean that net wheat buyers, be they small farming households or city dwellers, will find it easier to purchase the wheat they need to feed themselves.

23 Based on yield data from post-distribution household surveys and cost estimates for food aid import and distribution, we estimate that the FAO wheat and fertilizer distribution in autumn 2002 generated a surplus ranging from 20 to 30 thousands metric tons of wheat grain in spring and summer 2003. Importing the corresponding amount of food aid would have cost twice the US$5.5ml FAO donors paid for the whole wheat seed and fertilizer operation in autumn 2002.

24 The wheat seed and fertilizer were generally distributed on a loan basis. There is wide agreement that this recommended repayment scheme – whereby the *shuras* should recover four bags of grain for every distributed kit of three bags (seed, urea and DAP) and use this resource for community needs – is interesting but difficult to implement. As an alternative, some NGOs are moving towards selling the inputs at a subsidized price, while others have always done so.

25 It was too early at the time of the Review to tell how many of the loans would be recollected. Eighty-six percent of the beneficiaries interviewed in the post-distribution surveys have stated that they are willing to reimburse the loan. Many interviewed *shuras* said they would redistribute the collected wheat as seed to farmers who have not received seed in 2002 (secondary beneficiaries). Other said they would fund collective works with the wheat.

26 A void in the policy area has been recognized by all, and partners are looking at FAO to fill this gap. The current initiative to set up a National Seed Council clearly goes in the right direction and should be pursued. A new seed law is also much awaited. The current policy of the Afghan Government is to privatize seed production. In this respect, the FAO network of contract growers, adapted to war times, may prove an asset in times of peace as well.

27 State farms, including ISE's, are being seized by commanders and local populations, in particular in the north. In the view of the Review team, this constitutes an urgent policy matter for FAO and the Government, as a land grab by commanders could definitely cripple the seed producing agency.

RECOMMENDATIONS:

Phase down seed aid and diversify the FAO portfolio

28 Following the 2003 bumper harvest, to which the emergency programme contributed, the amount of seed distributed in 2003 and 2004 should normally decrease significantly, with due consideration to the volatility of the current political situation and the persistence of natural disasters such as drought or floods.

29 TCE should heed the call of the May 2003 Stakeholder Workshop on Effective and Sustainable Seed Relief Activities and of the Commission on Genetic Resources for Food and Agriculture by studying thoroughly the informal seed systems used by farmers, how they were affected by the drought and conflict, and what are the remaining areas or groups that are seed insecure.

30 While it progressively phases down its emergency seed aid operations, FAO/TCE should expand its present involvement in the policy area, the rehabilitation of irrigation systems and animal health services and the setting up of a viable agricultural vocational training system.

Target more precisely

31 Geographical targeting i.e. the quantities of inputs and varieties to be distributed per province and district, shall be finalized in June for the autumn campaign. The criteria used in the autumn 2003 distribution seem appropriate. At the district level, decentralized government authorities should be working with FAO regional representations and NGOs to design a distribution plan that would address the main needs at an aggregated village level.

32 The best approach to beneficiary selection may be to focus on 1) farming households having returned to their village in the past year, and 2) farmers having gone through natural disasters such as floods or continued drought. The criterion of access to land is of course to be maintained, but this does not necessarily means ownership. Farmers renting out land and possibly sharecroppers should qualify as well. With respect to the process for household selection at the village level, the new approach promoted by the programme deserves to be tried on a significant scale. If and where this is not feasible, the programme could ask *shuras* to draft beneficiary lists but there should be time allocated for a verification of *shuras*' lists by NGOs (at least one month).

33 For the 2003 autumn and 2004 spring campaigns, the ECU has strengthened the collaboration with MAAH for targeting beneficiaries and monitoring activities. The ECU will train MAAH staff at central and decentralized levels to increase the national capacity to respond to emergencies. Only those districts and people certified to be facing an emergency (flood, drought) should be entitled to receive free or subsidized agricultural inputs, for instance through a voucher scheme. As for returnees, they could be endowed with a basic tools and seed package as part of a UNHCR repatriation package, as was the case for vegetable seeds in 2003.

Plan well and distribute sooner

34 Although funded by different donors, TCE has implemented the spring 2002, spring 2003 and autumn 2003 input distribution campaigns as single programmes, with (a) one single procurement process; (b) one global distribution plan; (c) one global plan for the Letters of Agreement (LoAs) with NGOs; and (d) one global monitoring and evaluation process. However, TCE reported individually to the various donors on programme achievements, and the maintenance of accounts has proven arduous. To lower transaction costs, a programme approach should be negotiated with donors based on the Transitional Assistance Programme for Afghanistan (TAPA), whereby a single input distribution programme per year or per campaign would be formulated based on the consolidated appeal and financed jointly by different donors. Those vying for visibility should be given whole geographic areas or particular types of goods. For such types of national emergency programmes, FAO should advocate relentlessly for the adoption of a single set of reporting procedures accepted by all donors.

35 The funding of such a programme – or of discrete projects if they are continued – should be closed no later than June. It is better to refuse or postpone funding than accept them and fail to deliver on them.

36 It is crucial for the quality of beneficiary targeting that Letters of Agreements with Implementing Partners are signed earlier than is currently the case. More generally, the calendar of emergency distributions should be brought earlier by at least one month: negotiate quantities and varieties with NGOs no later than June-July (as generally but not systematically done in 2002) so that they can organize the beneficiary selection and distribution properly in August-September; procure no later than August-September; dispatch in September-October. No dispatch should be done after the 15th of November, after which it is better to store remaining seed and fertilizer for the next campaign.

Improve administration and logistics

37 The Review was not intended to look at administrative issues in any significant depth. However, accounting problems and a short-term staff or consultants assignments have been recognized as long-standing weaknesses of the programme. Hiring staff on a longer-term basis can only improve morale and a sense of responsibility to the Organization and the country. If allowed to continue, difficulties to accounting for the programme could damage the financial reputation of the Organization.

38 The fit between FAO procurement procedures and emergency operations should be further studied. Based on the result of such analysis, the procedures could be reviewed with a view to set up a multi-criteria bid analysis process, whereby each factor such as timeliness, cost, fit to specifications, etc. would be given weights rather than be determining in and by itself. Another, complementary idea would be for TCE and AFSP to jointly craft, at the onset of massive emergency operations such as those in Afghanistan, an annual or biennial procurement strategy spelling out the likely sources and optimal periods for procurement of a variety of inputs. The strategy would be approved by the procurement committee and revised as appropriate. All procurements done in accordance with the strategy would not need lengthy waivers, even if they were at odd with some part of the normal procedure, since such departure from the normal rule would have been already approved in principle by the procurement committee.

39 Logistical problems should be ironed out. As much as possible, the programme should try and avoid moving seed from one region to another. ISE Mazar should provide for the North, ISE Herat for the West, etc. Technical staff from the emergency programme must attend, control and facilitate dispatches in Darulaman and other warehouses to make sure that no shipment leaves with improper waybill, variety, or delivery address. The same technical staff should be in daily contact with regional offices to make sure they contact NGOs and prepare reception of shipments.

40 FAO should continue to let NGOs approach from their own particular angle the issue of input payment at distribution time or on credit. NGOs who wish to sell the seed and fertilizer at a subsidized price should be allowed to do so. The objective must be to test and document various approaches so as to learn more about what works and what doesn't, not to enforce one single approach. If the recollection experience is successful, it could be advisable in the future to allocate specific funding to those IPs with suitable recollection activities.

Strengthen the relationship with, and capacity of, Implementing Partners

41 While keeping the Ministry-chaired agricultural coordination group, FAO should consider focusing it on policy issues, and resuming working group meetings with NGOs and lower-level ministry staff, so that implementation issues can be debated at length in a timely manner. Such working-level meetings should discuss at length, and get to an agreement on geographical targeting, the modalities for beneficiary selection, transport, distribution and reporting procedures and the methods for payment or recollection of loans for seed and fertilizer after harvest.

42 More frequent training and orientation of NGOs is required both on project implementation issues (e.g. beneficiary selection) and on broader technical issues (e.g. seed production, agronomical characteristics of different varieties and their adaptability to various agro-ecological zones, etc.). The distributions of vegetable seeds should systematically be accompanied by a small training of beneficiaries, to be provided by the distributing IP. Their capacity to provide training and extension services on the ground should be an important criterion in their selection, and should be supported by FAO. The Organization should also train the concerned Government staff in the MAAH and regional offices, involving area managers in the five FAO regional offices as appropriate. There may be a need to hire additional national staff or consultants to set up and operate a well-funded training programme for Government and NGO staff.

43 More generally, TCE should consider reforming its relationship with NGOs in emergency operations, now essentially envisaged on a contractual plane, to make it more of a true partnership amongst equals. FAO can provide technical expertise, good quality inputs, funds, and coordination and logistical capacity, while good NGOs provide a strong grass-root network and staff on the ground, and can operate under more difficult security situations than FAO.

Enforce stringent seed quality control mechanisms

44 Seed quality needs to be taken very seriously. FAO developed and promoted the QDS standard, and cannot compromise with it. If ISRA and VARA continue to have rye infestation problems, they should consider cleaning seed manually as done e.g. by ISE in

Pul-i-Khumri or by Euronaid. Manual cleaning is done by women, often widows – hence a gender benefit – and results in very clean seed under proper supervision. The seed development programme should also step up its quality control missions and visit contract growers' fields more often, focusing on the largest contract growers who provide most of the seed.

45 Ultimately however, the TCE emergency programme is responsible for the quality of the seed it procures from the development programme, and can afford to be exigent in view of the high price paid. Germination and purity tests should be continued, as in the past campaign, but they are too little too late. The emergency programme should set up a rapid quality control mechanism at each of the FAO warehouses, whereby competent and motivated staff visually inspect all incoming lots. Lots with more than 1% wild oats and rye seed should be discarded, not paid to the concerned IP, and removed from the FAO warehouse at the IP's own cost. If the demand of seed from different agencies continues to exceed the availability of QDS in the country, with ensuing tensions on price and quality, TCE must retain the possibility of procuring certified seed of tested varieties from seed companies located in neighboring countries.

46 As a minor point, the programme could distribute tools without their handle. This would decrease procurement and transport costs. Farmers will easily make or find good-quality handles by themselves. Stronger sickles should also be produced.

Improve monitoring systems

47 The post-distribution surveys conducted in Afghanistan are interesting tools and certainly have a role to play in M&E of emergency operations, but they do not constitute an M&E system in and by themselves. Other key elements of such a system should be: a) NGO implementation reports, and b) rapid, participatory outcome/impact assessment at the community level. A simple and light reporting template and schedule should be designed and agreed upon with NGOs. On this basis and through extensive field trips, the programme should continuously evaluate NGOs performance in targeting, distribution, monitoring and reporting.

48 The post-distribution survey methodology could be improved. The following points have been noted and some have been implemented in later installments of the survey through close cooperation with PBEE:

- The questionnaires should be designed one or two months prior to each survey and circulated for comments to concerned project and headquarters staff to make sure that they address as many relevant issues as feasible;
- The questionnaires should also include more questions on beneficiaries' satisfaction about a series of factors such as IP performance, distribution dates, logistics at distribution point, seed and fertilizer quality, varieties and adequacy vis-à-vis local agro-ecology, beneficiary selection and the likes;
- One thousand questionnaires are enough and will yield very good margins of errors; a larger sample is a waste of resources;
- NGOs having taken part in implementation should not conduct the surveys; and
- During analysis, a critical review of the data and possible biases is a prerequisite to make sure one does not jump to conclusions.

49 The possibility of introducing a control group in the sample, i.e. a group of farmers who have not benefited from the distributions, should also be explored.

Encourage transparent and relevant variety research

50 In the long term, a national capacity for variety testing needs to be set up. In the short term, FAO should insist that all actors testing varieties in Afghanistan should do so in a transparent way and disclose their statistical analysis. The most experienced NGOs should continue to participate in the trial schemes. All results should be submitted to the National Seed Council for review.

51 Significant yield gains were achieved though the improvement of irrigated wheat varieties, but the impact of the emergency and development programmes on rain-fed wheat is less impressive. Research should now place more emphasis on rain-fed than on irrigated wheat cultivation in particular in hilly, elevated rain-fed cultivation areas. This may require more staff than is at this time available to the development programme, but even more importantly, it will take a change in the research approach adopted by the development programme staff, a move towards more participatory and farmer-oriented research environments and methodologies such as well-documented farmer field trials.

52 In such a major agro-biodiversity center as Afghanistan, FAO should commission additional research on local varieties, notably but not only in wheat, as well as study the most prevalent farming systems and cropping calendars in the country. Such a small research project could produce a number of publications, including a short, synthetic guide to farming systems and variety improvement in Afghanistan, to be used in the training of Government and NGO staff.

Manage privatization

53 In the seed policy area, the current initiative to set up a National Seed Council should be pursued. An update of the seed law is also required to set the sector on firm footing, the law currently in force having been promulgated some 30 years ago. FAO should urgently address the issue of ISE farms being seized by commanders and communities. Some of this land may have been originally nationalized without proper indemnities, and ISE may not have the capacity to cultivate all of it so returning the land to their original owners may be of benefit to the nation, but one should think that it could be done through a legal process reviewing the claims local populations may have on the land.

54 The network of contract growers, adapted to war times, may prove an asset in times of peace as well. The privatization of the seed sector must not marginalize it. Associations and federations of contract growers should be pursued, so as to give them organization and lobbying capacity. A labeling scheme could be set up whereby the MAAH, helped by FAO, would verify production standards in farmers' fields. The first step in this direction would be to register all current contract growers.

55 Another step the seed development programme should consider is to start experimenting with seed fairs open to all seed producers and dealers (ISE, private seed dealers, contract growers, etc.). If such seed fairs could be set up under strong supervision from the development programme, the emergency programme could even use them to its advantage, distributing vouchers to its beneficiaries rather than the seed itself and thus cutting down its

logistical costs. The emergency beneficiaries would then be able to redeem their kits from the fair, with increased choice in suppliers, varieties, quality and price.

Part 1: Background Information

A. The Review

56 The Mid-Term Review (the Review), commissioned by the Evaluation Service of FAO (PBEE), was conducted by Mr. Olivier Cossée, Agronomist and Evaluation Officer, and Prof. Abdul Q. Samin, Professor at the Kabul Faculty of Agriculture and National Consultant. The Review focused on the emergency distributions of wheat seed, fertilizer, tools and vegetable seeds and seedlings in autumn 2002 and spring 2003. Horticultural inputs (vegetable seeds and seedlings) are less extensively covered than wheat seed and fertilizer, reflecting the importance in financial terms of wheat seed and fertilizer distributions as compared to the much smaller vegetable seed distributions.

57 The long-term FAO seed multiplication programme in Afghanistan (also called the "development" programme) was included in the Review because the emergency programme procured from the development programme all of the wheat seed it distributed in autumn 2002. It was thus necessary to review the system put in place by the development programme for the identification and release of promising varieties as well as for seed multiplication in order to assess the quality and adaptability of the seed distributed by the emergency programme. Another reason to review the development programme in this review of the emergency programme was the possibility to study "connectiveness" issues, i.e. the extent to which both programmes are mutually supportive.

58 The "yardstick" for assessing the value of the emergency distributions was the two programme goals: support to impoverished, seed-insecure farmers and returnees on the one hand, and variety introduction to achieve good yields on the other. These goals are not always compatible though, as acknowledged by many partners.

59 Terms of Reference for the Review are in Annex 1. It was intended to cover the following issues:

- Relevance of the agriculture seeds, tools and fertilizer distribution programme;
- Appropriateness of the program design;
- Efficiency of programme implementation;
- Results achieved against original workplans;
- Impact that the distribution program had on the agricultural production and on the livelihoods of the target households;
- Strengths and weaknesses of the program;
- Synergies between the various FAO seed programmes; and
- Information gaps for proper impact assessment.

60 The review was implemented in two stages. A first mission in February and March 2003 was mainly conducted in Kabul and focused on process issues such as programme design, need assessment, financing, coordination, procurement, logistics, and implementation through partner NGOs. It met with FAO staff at headquarters, in the emergency programme and in the development programme, implementing partners and donors for the autumn 2002

distributions, as well as with other organizations distributing seeds in Afghanistan. Two field visits were also organized in the Logar and Wardak provinces. The first mission report, issued on 31 March 2003, proposed recommendations pertaining mainly to implementation issues, with a view to improve the autumn 2003 distributions.

61 A second mission took place in July 2003 and focused on selection of beneficiaries, beneficiaries' satisfaction, variety adaptability, impact on yields and food security, and social and equity issues. It necessitated travels to various provinces: Kandahar, Herat, Mazar, Baghlan, Sari-Pul, Logar, Nangrahar and Kunar. Its findings and recommendations were documented in an aide mémoire issued while the mission was debriefing in Kabul (27 July 2003), in time for its recommendations to be taken on board during the autumn 2003 campaign. A total of 52 emergency beneficiaries and 15 contract growers were interviewed by the Review team. The Review also built upon the results of three household surveys of emergency input beneficiaries, each of which sampled over 2,000 beneficiaries.

62 The reason for this two-stage approach was that recommendations pertaining to programme implementation were to be issued as early as possible if they were to be implemented in the next autumn distribution (2003). Impact assessments typically lead to more long-term adjustments and lessons learned so it could be studied at a later stage.

63 The present report concludes the Mid-Term Review. It incorporates elements from the first mission report and from the second mission aide mémoire, plus some additional material on the impact of the emergency distributions and on the future of the FAO seed emergency and development programmes in Afghanistan.

B. The Country

1. An Overview of Afghan Agriculture[2]

64 Afghanistan is a landlocked, mountainous country bordering Iran, Turkmenistan, Uzbekistan, Tajikistan, China and Pakistan. Its people are an eclectic mix of races and religions whose adaptations to the harsh mountain environment have given the country robust agricultural systems and intricate methods of water management.

65 The Hindu Kush mountain range, the western extremity of the Himalaya, runs across the country from east to west, ending with the central mountains of Hazarajat. The highest peaks reach 7500m in the northeast. To the north of the Hindu Kush are the low-laying plains of the Afghan Turkistan, the food basket of the country. To the south of the Hazarajat mountains stretches the increasingly dry and dusty southern plain ending to the south in the Dasht-i-Margo, or Desert of Death.

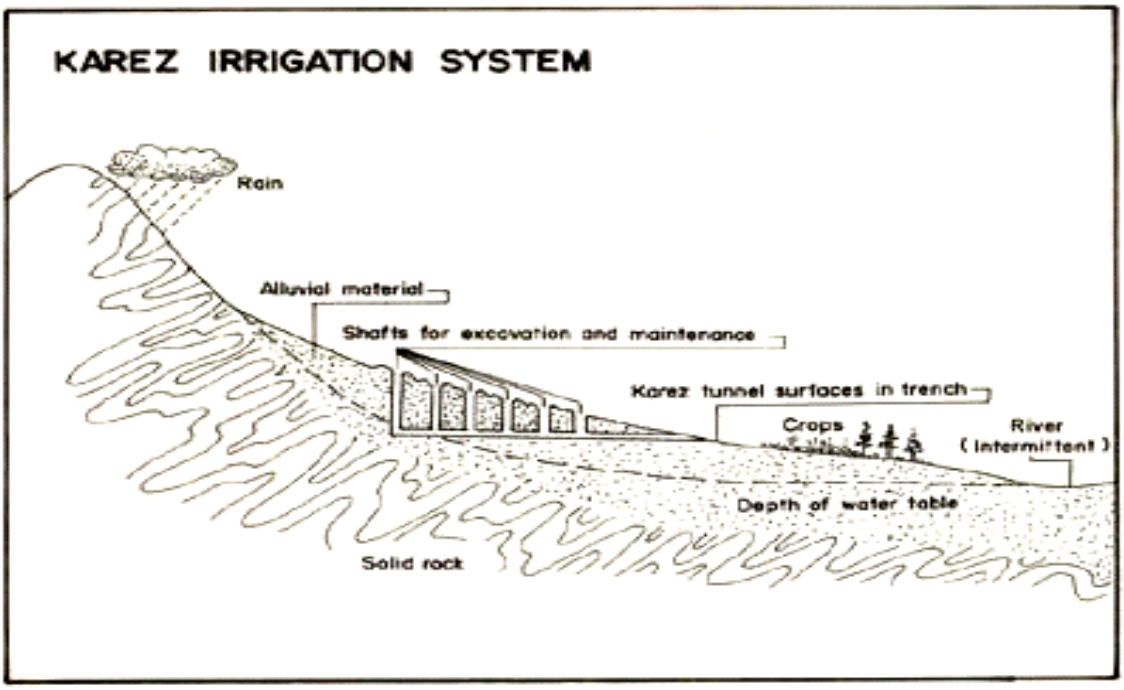
66 Agriculture has always been a mainstay of the Afghan economy, employing the vast majority of Afghans prior to the war (about 80 percent) and generating 80 percent of export earnings and more than 50 percent of the gross domestic product.

[2] Much of the information is this section is borrowed from the web page of the FAO Representation in Afghanistan (http://www.fao.org/world/afghanistan/).

67 About 12 percent of Afghanistan's total area is cultivable, mostly in valleys bottoms and in the northern plain, and half of this area is actually cultivated. Around two percent of total land cover is under forest, while rangelands cover 46 percent and the rest is mountainous or desert.

68 Because of limited and unpredictable precipitations, most agriculture (85 percent of total output) is irrigated. From the Hindu Kush flaw all the rivers of Afghanistan, large and small. Thousands of valleys dissect the massif and shelter farming communities, who have built over centuries elaborate irrigation and drainage systems to support a rich array of crops and trees on valley-floors. These traditional systems range from a few hectares to thousands and have been developed over centuries. They are constructed, maintained and managed by communities themselves. Modern" irrigation systems, built in the 1970s, only represent some 15 percent of all irrigated land. In 1987 about 26,600 sq km of farmland were irrigated. Water is mostly drawn from springs and rivers (55 percent of total irrigated area) and is distributed through gravity by earth or dry stone ditches. Another system is the karez (also called qanat in some places), a sort of horizontal well excavated under some foothills and maintained by a series of vertical shafts (Figure 1). Karezes irrigate some 30 percent of all irrigated land.

Figure 1: Diagram of a Karez



Source: FAO Afghanistan irrigation team

69 A more recent trend has been the sinking of tube wells. The need to resettle returnees and to mitigate the impact of the drought has led to a proliferation of wells, and anecdotal evidence points to a sharp drop in the water tables.

70 Wheat is the most important crop, accounting for about 70 percent of total cereal consumption, followed by rice, maize and barley. Cotton is another important and widely cultivated crop. Fruit and nuts are among Afghanistan's most important exports. Afghanistan is renowned for its unusually sweet grapes and melons. Pulses – mung beans,

field peas, grass peas and chickpeas – are important staple foods in highland areas and supplementary foods in lowland areas.

71 Only about 30 percent of total wheat production is grown on rain-fed land, mainly in spring wheat and with local landraces, although this varies according to precipitations. The more it rains and snows in winter and spring, the more rain-fed land the farmers plant.

72 Maize and rice are grown as second season crops in ex-wheat fields where irrigation water is available. This capacity to double-crop on the warmest lands is a key factor to understand the cropping systems of the country. In particular it explains why earliness is a desirable variety characteristic for wheat, maize and rice. Late varieties will often not allow a double-cropping system.

73 The average farm size is between one and two hectares, but varies widely according to regions. Absentee landlords are common and various share-cropping systems are being used, and have been reported on the increase during the conflict due to massive emigration.

74 Most families grow vegetables for home consumption. At least six percent of the total irrigated area is planted with vegetables. Okra is the most common summer vegetables, with tomatoes and watermelons the commonest seasonal fruit. Potatoes and onions are widely grown cash crops, especially in central, eastern and north-eastern provinces.

75 Livestock is nearly as important as crops to Afghanistan's economy. Karakul sheep are raised in large numbers in the north for the production of astrakhan. Other breeds of sheep, such as the fat-tailed sheep, bovines, camels and goats are also raised. Donkeys are widely used as a mean of transport.

76 Afghanistan is a major supplier in the international drug trade, producing 70 percent of the world's heroin. Drought has had some impact on poppy production. Production estimates show a drop from roughly 3,300 metric tons of raw poppy in 1999 to only 185 metric tons in 2001. A resurgence of the poppy economy is underway, with farmgate income estimates of $750 million for 2002. In 2003, UNODC estimated that Afghan farmers produced 3,600 metric tons of opium. This level of production generates revenues to the tune of US$ 2.3 billion, equivalent to half the legitimate national domestic product. The farmgate income to opium farmers is estimated at US$ 1.02 billion.[3]

2. Afghanistan in Conflict

77 From the 18th century, when it gained independence from Persia, to modern times which we will briefly review here, never has Afghanistan been a stable country. Yet the past 23 years have been the most traumatic period in recent history, during which much of the infrastructure was destroyed, the government incapacitated and immense suffering caused to the population.

78 In 1978, the president Daud Khan was deposed by the Afghan Communist Party (PDPA). The fast-paced reforms imposed by the new regime quickly faced resistance from independent-minded tribes. The mujahideen movement was born. First dominated by

[3] Afghanistan Opium Survey 2003, UN Office for Drug Control and Crime Prevention, October 2003.

royalist and traditionalist parties, it would progressively evolve towards radical religious fundamentalism, during a war that lasted 23 years.

79 In December 1979, the Soviet Union invaded the country in a vain attempt to restore stability, only to withdraw in 1989 having lost tens of thousands of troops in protracted battles against mujahideen groups. The mujahideen continued to fight against the communist regime until April 1992, when the capital Kabul was seized by the troops of commander Ahmad Shah Masood. This, unfortunately, only signaled renewed fighting between mujahideen factions now competing for power. It is during this period that Kabul was most extensively destroyed.

80 The Soviet invasion of 1979 triggered a massive exile. By the end of the 1980s there were around three million Afghan refugees in Iran and about the same number in Pakistan. Following the Soviet withdrawal, a voluntary repatriation programme was launched in 1990, based upon the "encashment" of refugee ration books. By 1995 all food rations to refugee camps in Pakistan had been stopped and the Governments of Pakistan and Iran began to harden their attitudes to the continued presence of Afghans in their countries.

81 In 1994, the Taliban militia was founded around Kandahar and started to advance against other mujahideen groups, helped by the population's disgust for continuous conflict and unlawfulness. In 1996, the Taliban captured Kabul and imposed a harsh rule and massive human rights violations on the Afghan people and notably on women.

82 From 1996 to 2001, the Taliban regime, drawn from the Pashtun majority, controlled 80 to 90% of the country in the Center and South, and fought bitterly against the "Northern Alliance", an alliance of factions drawn mainly from Afghanistan's minority communities.

83 The Taliban encouraged groups of radical Arab nationals already present in the country to expand their activities, establish further training camps and participate in the "Jihad" against the Northern Alliance. In September 2001, the terrorist attacks on New York and Washington perpetrated by Al Qaeda led to a massive US bombing campaign of Taliban positions and rapid Northern Alliance advances on Kabul.

3. Current Situation

84 The fall of the Taliban ushered in the current regime, characterized by the uneasy combination of the Afghanistan Interim Authority (AIA) in Kabul on the one hand, and commanders or ex-warlords in the provinces retaining much real power and independence on the other hand. Infighting between local commanders over power and territory has become a recurring feature in the post-Taliban period. The Taliban threat remains high in the southern and eastern regions.

85 Under the Bonn Peace Accord agreement, the AIA is to govern until 2004, during which time it has the tasks of drafting a new constitution, overseeing the formation of a national army and of preparing for elections. The latter are planned for mid-2004.

86 During the donor conference in Tokyo (January 2002), the AIA identified agricultural and rural development, including food security, water management, and revitalizing irrigation, as one of six areas essential for reconstruction. The needs assessment prepared for the conference estimated that, in addition to humanitarian assistance such as food and shelter

assistance, between $11.4 and $18.1 billion over 10 years would be needed to reconstruct Afghanistan. Donors however pledged only $5.2 billion for 2002–2006. Since then, total assistance levels have consistently felt short of what Afghanistan needs to reconstruct its infrastructure and economy.[4]

87 FAO set up an office in Kabul in spring 2002, from where it liaise with partner NGOS and suppliers of the Organization's programmes, coordinates other UN agencies under the aegis of UNAMA, and liaises with the AIA. mainly through the Ministry of Agriculture and Animal Husbandry (MAAH) and the Ministry of Rural Rehabilitation and Development (MRRD). The Organization also coordinates with the Ministry of Finance, which is keen on keeping a record of the very many projects implemented by hundreds of NGOs, dozens of multi- and bi-laterals donors and banks, most UN specialized agencies and a few international research institutes active in the country.

88 At the decentralized level, the administration has continued to operate in many areas. The basic governmental structure at the provincial (*walayat*) and district (*uluswali*) level is still in place and staffed, if under-funded and rather dormant. A recent study of deconcentrated government offices by AREU and the World Bank[5] found significant regional variations, with governmental structures functioning reasonably well in some areas and atrophied in others.

89 A major issue is that *welayats* and *uluswalis* are reasonably well-staffed but almost totally lacking in non-staff budgets, without which they find themselves dependent on local commanders and/or on donors and NGOs to actually perform any function. The AREU survey observed that "*donors have launched large new national schemes that ignored the fact that provincial and district level government structures exist. In the process, the provincial role as service-provider has been eroded, and its potential role as regulator has been overlooked*".[6] The few district agricultural offices visited during the Review were indeed staffed but lacked non-staff resources. They were eager to participate in the FAO agricultural inputs distributions, which have mainly been implemented by NGOs so far, as explained in later sections. The once numerous agricultural training schools and universities are now deserted for lack of funding.

90 In December 2001, a return movement began amongst Afghans living in neighboring countries, reinforced by heavy pressure from the Iranian and Pakistani governments[7]. According to UNHCR data, 1.8 million refugees went back to Afghanistan in 2002 and about 390,000 have returned in 2003 (as of August). Many view the repatriation of Afghan refugees as an indicator of how well and fast the country is being reconstructed, and helping refugees and IDPs resettle on their land is an important objective for the FAO emergency assistance in the country.

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[4] United States General Accounting Office: Report to Congressional Requesters - Lack of Strategic Focus and Obstacles to Agricultural Recovery Threaten Afghanistan's Stability, June 2003.

[5] How Government Works in Afghanistan: A Study of Sub-National Administration – AREU, October 2003.

[6] Ibid.

[7] Taking Refugees for a Ride? The Politics of Refugee Return to Afghanistan, David Turton and Peter Marsden, Afghanistan Research and Evaluation Unit, 2003.

4. The Drought [8]

91 Afghanistan is an arid/semi-arid country whose agriculture production depends on the availability of water, either as direct rainfall or, predominantly, in the form of irrigation. But from 1999 to 2001, Afghanistan was stricken by a persistent drought. This drought affected neighboring countries in Central and Southwest Asia as well, and by some accounts represents the largest region of persistent precipitation deficits over the past four years worldwide.[9]

92 In Afghanistan, it was the worst drought since 1971. Roughly 12 million Afghans were affected by crop failure and widespread losses in livestock holdings. In particular, the northern provinces of Badakhshan, Baghlan, Kunduz, Takhar, Balkh, Jowzjan, Faryab, Samanghan, Sari Pul and Badghis faced extreme conditions, along with the central and western half of the country, including the provinces of Herat, Ghor, Oruzgan, Farah, Nimruz, Ghazni, Paktika, Zabol, and Quandahar. The highland area of Bamiyan and the districts of adjoining provinces such as Parwan, Ghazni, Wardak and Uruzghan (Hazarajat region) were also severely hit.

93 Due to the administrative disruption caused by war and change of government, rainfall data have been very difficult to access. The FAO-executed Afghanistan Food Security Unit (AFSU)[10] was able to collate the data displayed in Figure 1. The 55 mm of precipitations recorded in 2000 are particularly appalling. In 2002, following a late start in some areas, better rains than in 2001 were noted throughout most provinces. This improving trend continued in 2003, with timely well distributed precipitations over most of the country.

94 Wheat, the main staple, is grown each year under irrigated and rain-fed conditions, the contribution from the latter changing according to climatic conditions. In the best years the irrigated sector provides 60 percent of the supply, rising to 95 percent when the rains fail. During the 1999-2001 period, farmers depending mostly on rain-fed land suffered a near total collapse of their cereal production. Farmers having access to irrigation could reduce their losses somewhat but crop failures of about 60% were nevertheless reported in irrigated areas as well. This is because irrigation depends on annual snowfall (for canals with intakes in streams and rivers) and on the aquifers (for springs and karezes). Lower rainfalls are therefore bound to affect irrigated cropping systems sooner or later.

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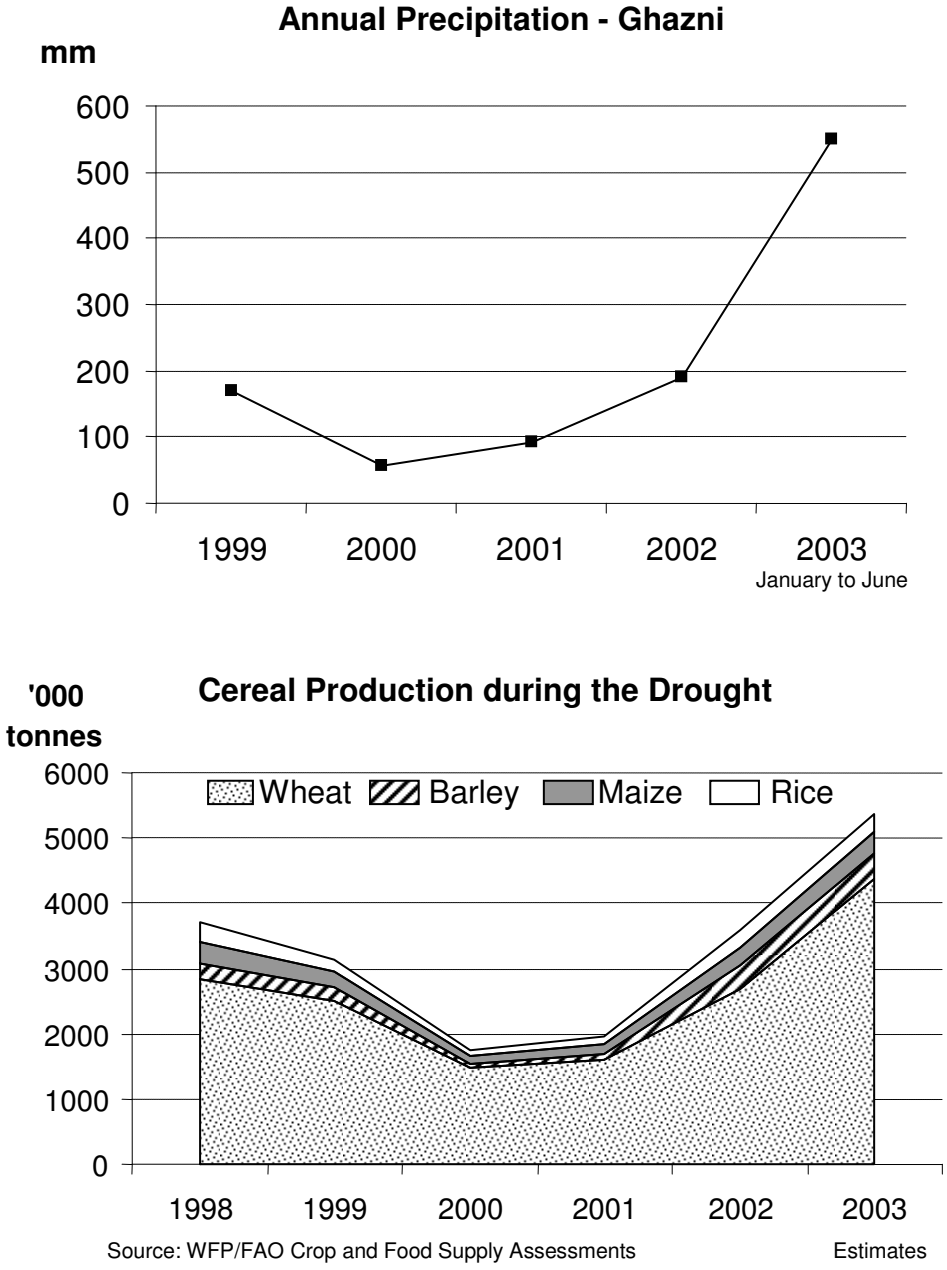
[8] This section is based in part on the 2002 GIEWS report: Crop and Food Supply Assessment Mission to Afghanistan, FAO/WFP, 16 August 2002.

[9] International Research Institute for Climate Prediction, Special Report No. 01-11 - The Drought and Humanitarian Crisis in Central and Southwest Asia: A Climate Perspective.

[10] Now Food, Agriculture and Animal Husbandry Information Management or FAAHM.

95 The effects on cereal production were estimated by the successive FAO/WFP Crop and Food Supply Assessment Missions as in Figure 2. In 2000 and 2001, the food deficit for Afghanistan was estimated at more than 2.5 million MT of wheat, against a national production of about 1.5 million tons. But the 2002-2003 season appeared to break the pattern: precipitations were timely, well distributed and above average or average depending on the regions. According to the latest crop & food supply assessment[11], the cereal production, at 5.37 million MT, was the highest on record and about 50 percent above last year's crop.

Figure 2: Effect of Drought on Cereal Production



[11] FAO / WFP, Crop & Food Supply Assessment - August 2003.

96 During the drought, many NGOs and better-off farmers have donated or invested in water pumps to extract the precious liquid from depleted rivers and deep wells. This strategy has reportedly weakened the food security of the poor and marginalized communities, accelerating the decline in the aquifers and causing the shallow wells on which many households rely for their potable water to fail.[12]

97 The severe and prolonged drought led to significant internal displacement. According to UNOCHA, the number of Internally Displaced People (IDPs) reached 900,000 in August 2001. Famine was only averted through massive food aid donations.

98 The emergency situation therefore started before 11 September 2001 and the ensuing demise of the Taliban. Many NGOs and UN organizations, including FAO, were already busy helping Afghan farmers face drought- and war-induced problems years before the US came to support the Northern Alliance in its fight against the Taliban. FAO in particular has continuously operated an ambitious emergency and rehabilitation in Afghanistan since the late 80's, including an elaborate seed multiplication and distribution programme.

C. Related Initiatives

1. The Long-Term FAO Seed Development Programme

99 During the mid-80s, a few NGOs (Madera, Swedish Committee for Afghanistan) started experimenting with a new way to support Afghan farmers: through distributions of improved varieties either procured in Pakistan or multiplied in Afghanistan. In 1989, a number of UN organizations including FAO started to support such NGO seed distribution and multiplication programmes with funds and, in the case of FAO, certified seeds multiplied in Pakistan. It is during this period (1984-1994) that Pakistani varieties such as Pak 81 and Pir Sabagh 85 were largely disseminated throughout Afghanistan.

100 This may be regarded as the birth – or at least as a rebirth[13] – of "seed aid", an innovative approach at the time later replicated by FAO and other organizations in numerous other emergency operations, *inter alia* in Sudan, Rwanda, Burundi, Mozambique and Kosovo.

101 In 1995, the FAO project AFG/94/002 - Integrated Crop and Food Production in Afghanistan switched emphasis to multiplication inside Afghanistan. The programme, still implemented through NGOs, with the Swedish Committee for Afghanistan (SCA) as lead agency, imported progeny lines from research centers around the globe, tested them in-country, identified the most promising ones and multiplied the varieties that were later to be used in the emergency distributions of FAO and by all other donors or NGOs in Afghanistan.

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[12] Qaht-e-Pool, "A Cash Famine" – Food Security, Malnutrition and the Political Economy of Survival: a Report from Kabul, Herat and Qandahar, Afghanistan. S. Lautze, N. Nojumi and F. Natimi, February 2002.

[13] The modality was apparently first implemented in the Sahel in 1973, and later in Cambodia in 1980 by FAO and ICRC, but the authors could not verify that those operations were of significant size (see François Grünewald: Distribution of Seeds, Planting Material and Other Agricultural Inputs in the Context of Humanitarian Response to Crises and Post Crisis Situations, URD-FAO 2002).

102 In 1998, the programme was reorganized as one component of the UNDP-funded PEACE (Poverty Eradication and Community Empowerment) programme. The SCA left the programme at about the same time, but the programme continued its cooperation with other NGOs.

103 Since 1996, 2,333 progeny lines of wheat were procured from ICARDA, CYMMIT and nations with overlapping agro-ecologies (India, Pakistan, Iran, Syria and Turkey), and compared in various in-country trials with high-yielding varieties cultivated in Afghanistan. As a result of these trials, 15 new wheat varieties were released to farmers, 10 for irrigated areas and 5 for rain-fed areas.[14] Released varieties have been multiplied through three different channels:

1. The ISE, a parastatal company supported both materially and technically by FAO to produce foundation seed, and working with a network of individual farmers under contract in various locations (contract growers) to produce Quality Declared Seed (QDS);[15]
2. NGOs (DACAAR, IRC, ISRA, Madera, MCI, SCA, Solidarités, VARA) getting foundation seed from ISE and working with their own contract growers to produce QDS; and
3. Communities organized at the village level.

104 These organizations are currently working with some 4,900 contract growers to produce Quality Declared Seed (QDS), an intermediate standard between regular farmer-produced seed and certified seed. The QDS standard was developed by FAO for use in low-income developing countries and constitutes the best recourse in the absence of formal institutional certification in Afghanistan. The standard requires a number of good practices, including careful rouging (removing plants from other varieties or species before harvest).

105 Foundation seed was provided to contract growers at a price 10% higher than grain and fertilizer sold at a subsidized price (10% less than market prices, also the DAP provided by FAO is of better quality than what is available on the market).

106 The programme used to procure the multiplied seed from communities and contract growers later through an innovative scheme called "food-for-seed", whereby food (wheat) from WFP was exchanged against seed at a ration of 1.25 kg per kg. The seed collected by the programme was sold to other farmers in nearby communities or to other NGOs distributing seed. IPs set up bank accounts managed in consultation with the programme to manage the proceeds of their seed sales, a significant resource since the seed was procured free of charge for the NGOs thanks to payments in WFP-provided grain.

107 The approach was designed to function during difficult war times. The "food for seed" scheme insured farmers against sky-rocketing inflation, while the multiplication through

[14] Although the released varieties were given local names such as "Pamir" or "Herat", they all originate from abroad. No local variety was ever released by the programme, nor was the genetic characteristics of imported lines ever altered by selection or hybridization in Afghanistan.

[15] The Afghan Seed Company (ASC) was formed in 1976 to test, certify, produce and sell seed (mainly wheat). In 1985, its name was changed to the Improved Seed Enterprise (ISE) and 21 farms, with a total of 11,770 ha (5,500 ha area under cultivation), were transferred to the company for the production of seed of various crops.

contract growers scattered throughout the country helped overcome transportation problems to and from areas controlled by different commanders (warlords).

108 This setup is still functioning today, with some modifications. The seed-growing communities for instance soon became inactive during the Taliban regime because the latter insisted on the sale proceeds to be used for community-wide projects rather than to procure foundation seed and fertilizer. The "food for seed" scheme is now being abandoned thanks to improved macroeconomic stability after the introduction of the new Afghani.

109 Over the course of its existence, the seed production programme produced and distributed some 50,000 MT of QDS. The UNDP PEACE programme ended in December 2002, and is being followed by a $6ml EC project (GCP/AFG/018/EC) which envisages a gradual, cautious privatization of the seed production sector. The fate of the NGO-run activities is not yet clearly defined. The project document does not envisage the privatization of ISE, rather it will build the capacity of ISE to produce foundation seeds and to operate new laboratories for seed quality control.

2. Related Programmes by Other Organizations

110 Immediately after the defeat of the Taliban regime, massive resources were allocated by various donors to the reconstruction of Afghanistan (the EC and USAID being probably the major ones, but scores of bilateral donors are also active). Many new NGOs and international/multilateral organizations came to the country, and a significant number of them embarked on emergency seed distributions. Over 80% of Afghan households rely on agriculture as a primary source of livelihood. Their seed stocks were deemed depleted by three consecutive years of drought and extensive crop failure, in particular (but not only) in rain-fed cropping systems, so seed aid was a natural step. Besides, it seems likely that the extensive experience accumulated by FAO and NGOs in seed programme in Afghanistan influenced the newcomers' approaches and helped sway them towards seed distributions.

111 Unfortunately, most distributions in spring 2002, including FAO's (see below), came rather late in the planting season or even after the season (April - May) and therefore led to poor results. ICARDA for instance distributed 3,500 MT of wheat seed imported from Pakistan in Spring 2002. In autumn 2002, they procured 4,800 MT from FAO contract growers, other farmers and the market, for distribution in the east and north of the country. They worked in tandem with IFDC which provides fertilizer in matching quantities. Interestingly, a voucher scheme experimented with in spring 2002 led to poor results, the contracted shop-keepers selling significant quantities of fertilizer to other people than the identified voucher holders. This operation was funded by USAID.

112 ICARDA has tended to behave more as a competitor to FAO than as a partner. Their mandate as a research center would be better served if they did test and identify new varieties, in particular for rain-fed cultivation. In 2003, a Memorandum of Agreement was signed between the two organizations to promote a clear division of labor: FAO doing the multiplication and dissemination of released varieties and ICARDA focusing on research and testing. It would appear that while ICARDA headquarters are in favor of a strong cooperation with FAO, their field office is bent on a more competitive approach, giving raise to concerns that the MoA will not be fully implemented. After pledging to focus on variety trials in 2003, they finally decided not to test any varieties and focus instead on

competing with FAO on another front: the support to meteorology stations and seed testing centers around the country.

113 CYMMIT, another CGIAR research center, imported and distributed 300 MT of imported wheat seed (CYMMIT variety MH-97) in autumn 2002 in Baghlan, Kunduz, Kapisa and Parwan through the Agha Khan Foundation (AKDN-FOCUS) and the Afghan NGO CoAR. They are currently testing 1,400 progeny lines in the Darulaman research station, as well as cooperating with FAO to multiply and test the most promising of these lines. They also intend to start mother/baby trials for maize in 2003 (i.e. combining farmer field trials with trials in research stations).

114 The French Cooperation distributed two French varieties (2,000 MT) in spring 2002, in two lots: one half through the NGO ACTED in Mazar/Samangan (arrived too late and not distributed), and the other half theoretically through the Government but in practice through local commanders in Wardak/Maidan Shar. The latter lot did not germinate and was often plowed over by farmers. The French are now testing these varieties in cooperation with a number of NGOs, and have reportedly blocked the importation of another lot of 4,000 MT pending trials results.

115 Euronaid, a consortium of some 50 European NGOs active in the field of food aid and food security, facilitates large procurements of food and non-food items on behalf of EU-funded NGOs, especially during emergency operations. In Afghanistan they helped NGOs procure seed for their emergency distributions during the two distribution campaigns of 2002. Their focus is placed on the consistency and transparency of the procurement process rather than on technical backstopping. They do not interfere with each NGO's implementation policy. The quantity procured and distributed through this system in autumn 2002 was 5,500 MT of wheat seed and 8,000 MT of fertilizer (including some left over for spring 2003).

116 A number of NGOs, among which SCA and Afghanaid, have since 1995 pursued their own seed multiplication and distribution/sale activities, either in collaboration with FAO or in isolation. The SCA, one of the pioneer of seed aid in Afghanistan, continues to multiply wheat seed on their own rented farms in country (always of FAO-released varieties), and sell it together with fertilizer to progressive farmers in nine provinces.[16] They sold about 1,000 MT of wheat seed and 2,000 MT of fertilizer in autumn 2002. The price per package of 50 kg each of seed, urea and DAP varies according to regions: PakRs.1,000 in Kabul, Rs 1,600 in Ghazni, etc.

117 Afghanaid, a British NGO, started its agricultural activities in Ghor Province in 2000 with wheat field demonstrations and trials, contract seed growers, and seed distributions. It is now operating its seed programme in the provinces of Badakhshan, Ghor and Nuristan, and also conducts variety and fertility trials there. One of the most original features of their work is the introduction of village wheat banks: farmers are provided with improved wheat seed for planting on the understanding that after harvest they will repay the wheat plus 20%. This surplus is both a means of saving, and a source of seed to loan to other farmers.

118 ICRC (Red Cross) has a small programme targeted to 5 districts in Balkh, Samangan, Sari Pul and Ghor where they were active during Taliban times. They distributed 378 MT of wheat seed in spring 2002 and 1,200 MT in autumn. The variety is Zardana, an old cultivar

[16] Badakhshan, Takhar, Kunduz, Baghlan, Laghman, Kapissa, Ghazni, Logar and Wardack.

outside of FAO's list of recommended varieties (Annex 3) but still very much appreciated by farmers notably in the north. Their programme has reputedly one of the best logistics.

3. The FAO Spring 2002 Distribution

119 In late 2001, FAO appeared ideally placed to capitalize on its war-time seed multiplication programme and conduct good quality emergency seed distributions for the Spring 2002 campaign. This did not happen for a number of reasons:

- The emergency programme had to operate from Islamabad and its staff had little knowledge of the conditions inside Afghanistan, notably from a logistical view point;
- There was poor cooperation between the experienced "development" staff and the newly recruited emergency programme staff;
- Since the seed growers inside Afghanistan could not be canvassed, the programme resorted to Pakistani seed companies for the procurement of wheat seed (tested varieties Inqelab-91, MH-97 and Kauz). A large part of the procurements run into delays, the late delivery of some of it forcing several changes in the distribution plan and leading to a great deal of confusion at transport time;

120 All these factors led to poor results in spring 2002, comparable to other organizations' as explained above. A first consignment of 1,500 MT was procured in December, transported from Pakistan to Afghanistan in January and planted in good conditions in Badghis and Fariab. A second lot (2,300 MT) was procured in February-March and came into Afghanistan through much disorganized transport arrangements. TCE took the decision to proceed with a revision of the distribution plan and re-allocation of the seed from beneficiaries in low-lands to those in high-lands planted later in the season, in close consultation with the implementing NGOs. 1,800 MT were delivered to NGOs very late in the season (April) and most of it was not planted. OXFAM refused to take reception of the goods because the seed was wet and had germinated. Many IPs stored and/or returned significant quantities (1,400 MT), some of which were subsequently re-treated, re-cleaned to be distributed in autumn 2002 and spring 2003 (see section G.1. Wheat Seed Purity).

121 This sorry process eroded the capital of sympathy and credibility FAO had accumulated with donors and NGOs in the country.

4. The Code of Conduct for Seeds in Afghanistan

122 The Code of conduct for the production, distribution and importation of seeds in Afghanistan, adopted in May 2002 during a workshop convened by the Ministry of Agriculture and Livestock, ICARDA, FAO and USAID, and involving a broad spectrum of donors and NGOs, could be seen as a rebound for the Organization, or conversely as a skilful damage-control operation. In the conference, all players agreed to refrain from importing varieties not tested in Afghanistan. The resulting Code of Conduct encourages local procurement of quality declared seed (as there is no certified seed available). However, it does not prevent donors to procure seed outside the country, provided that the imported varieties have been tested in Afghanistan and found adapted to the local agro-environments where they are to be planted.

123 Another principle agreed upon at the conference and asserted in the Code of Conduct was to provide seed and fertilizers for a price, either on a cash basis or, in particular for vulnerable households, as a loan, against repayment at harvest time. Reaching such a consensus around ambitious best practices and during an emergency operation is no small achievement.

124 The autumn 2002 season was therefore set to raise the technical bar significantly as compared to the spring season. It started under better omen in FAO as well: the operation was handed over to a new, more experience Coordinator who quickly patched relationships with the development project and set off to implement an emergency programme based on local seed procurements and no free handouts.

125 In addition, serious attempts were made by other partners and agencies in autumn 2002 to implement the Code: the seed distributed by the emergency programmes of FAO, ICARDA, Euronaid and NGOs was procured locally from Afghan farmers, contract growers or not; and the seed was either sold at various subsidized process or lent on a credit basis, the only exceptions being CYMMIT and the French Cooperation (see section 2. Related Programmes by Other Organizations).

126 Although the Code of Conduct workshop was financed by USAID and lead by ICARDA, there was no doubt that it was FAO's voice that was seriously listened to.[17] It should be noted that the Code has not been signed by the Ministry of Agriculture to date. It may be that the Government wish to keep its options open and not constrain donors' contributions too much. Countries such as France and India have donated seed in kind.

Box 1: Quotes from the Code of Conduct

"To the extent possible, seed of locally adapted cultivars should be produced within Afghanistan. This ensures that varieties are adapted, demonstrates to local seed growers the procedures required, demonstrates to farmers the cropping value of the seed, helps develop local agro-industries, maximizes benefits to target areas, and contributes to the in situ maintenance of useful genetic resources for food and agriculture.

Agencies should not provide seed to farmers free of charge. Seed should be sold or exchanged at a price above the local grain price.

All crops and varieties made available to Afghan farmers must have performed well in tests for adaptation and performance in Afghanistan for two years. Only in emergency situations should crops and varieties known to perform well in similar agro-ecologies and deemed most likely to perform well within Afghanistan be introduced without prior testing, and only after approval of the Government."

[17] Anthony Fitzherbert, End Of Mission Report, FAO July 2002.

Part 2: Findings on the Autumn 2002 Inputs Distributions

D. Programme Overview

1. Wheat Seed and Fertilizer Distributions

127 In autumn 2002, the emergency programme distributed wheat seed (3,773 MT) and fertilizer (2,873 MT of Urea and 3,318 MT of DAP) to an estimated 67,400 households (51,500 got the package for irrigated land and 15,900 the package for rain-fed land).

128 The quantities of inputs distributed per household were as follows:

- Irrigated conditions: 50 kg of seeds, 50 kg of Urea and 50 kg of DAP per household;
- Rain-fed conditions: 50 kg of seed and 25 Kg of DAP per household.

129 Benefiting households had in theory to abide to a number of criteria:

- the recipients should have guaranteed access (either as a land owner or as a tenant farmer) to viable crop-land;
- the recipients should be either without good quality seed of adapted variety or be in a situation where access to good quality seed is very difficult;
- Priority will be given to smaller farmers with access to less than 2.5 jeribs (1/2 hectare) of irrigated land or less than ten jeribs (two hectares) of rain-fed land.

130 The areas for distribution – mainly the Central highlands, the West and the South – were selected based on the coverage of the Spring distribution, needs as assessed by the emergency programme based on the Vulnerability Assessment Mapping (VAM) of WFP, and the geographical focus of other programmes such as ICARDA's, implemented in the Eastern part of the country.

131 The seed was mainly procured from FAO contract growers. Some carry over from the Spring distribution were reprocessed and distributed in Autumn as well, and are to be planted in Spring 2003.

2. Vegetable Seed and Tools Distributions

132 From January to May 2003, the emergency programme distributed some 83,000 kits of vegetable seed and tools to approximately the same number of returning refugees and IDPs. Beneficiaries were identified in close cooperation with UNHCR, IOM and NGOs. The distribution was implemented in 22 of the 28 provinces in the country by a dozen NGOs and UNHCR. UNHCR delivered 30,000 kits, in some cases to returnees as they climbed onto the repatriation trucks to make sure that no kit would be sold locally.

133 The kits were composed of the following items (first lot of 67,000 kits):

- 10 gr. of tomatoes seed, variety Rio Grande or Pearson[18]
- 10 gr. of carrots seed, variety Nantaise[19]
- 15 gr. of onion seed, variety Spanish yellow
- 10 gr. of capsicum seed, variety California wonder or Hungarian Wax
- 50 gr. of Okra seed, variety Clemson Spineless or Haryali[20]
- One sickle
- One watering can
- One spade or hoe (depending on the region)

134 All these varieties are widely adapted open pollinated varieties. The vegetable seed was procured from different suppliers outside the country as there is no local market for certified vegetable seed.

135 The project OSRO/AFG/212/ITA – Italian Voluntary Contribution to ITAP 2002/2003 in Afghanistan, includes to related activities: one is the Italian contribution to the classic seed and tools distribution described above, while the other is an ambitious project to support commercial horticulture through innovative production techniques.[21] It distributed agricultural tools and 750,000 vegetable *seedlings* (not seed) of tomatoes, capsicum, lettuce and endives (a new crop in Afghanistan) to approximately 20,000 families around Kabul, Herat, Khost, Jellalabad, Mazar and Kunduz. These are major cities that obviously constitute the main market for vegetable crops.

136 The component was one of the few FAO endeavors to train MAAH personnel as a matter of course. The Herat office even linked up with the regional agricultural university to deliver a series of lectures on horticulture.

E. Relevance to Needs and Adequacy of the Response

1. Need Assessment

137 The programme was based on scant need assessment practices, perhaps understandably so since the war and continuing security problems made it difficult to survey the situation in detail. The autumn 2002 campaign was prepared through a rough needs assessment process based on WFP's VAM, as verified and fine-tuned in the field by teams of FAO National Agricultural Technicians consulting with Government officials, NGOs and *shuras*.

138 It appears that this basis is insufficient, if only because seed needs may often be very different from food needs with which the VAM is chiefly concerned. In collaboration with

[18] Variety Roma in a second lot of 15,000 kits.

[19] Replaced by eggplant variety Long Purple in second lot.

[20] Absent in second lot.

[21] OSRO/AFG/212/ITA is a multi-faceted project. With a budget of US$4,6 ml, it supports – in addition to the two vegetable components – a livestock census, livestock vaccination campaigns, locust control, an assessment of the role of opium in farmers' livelihoods, the rehabilitation of irrigation infrastructures and country-wide needs assessment for irrigation system rehabilitation. The project includes two components on vegetable production.

WFP, FAO supported the Afghanistan Food Security Unit (AFSU, now FAAHM)[22] with a number of experts in agronomy, meteorology and economics, as a way to broaden the scope of the vulnerability assessments to include agro-economic issues. This work has started and has yet to result in a more precise assessment of seed needs in the country.

139 Generally speaking, there is a dearth of information and research on the *informal* seed economy as practiced by farming communities in the country. It is not yet clear how much the drought and conflict have affected the traditional and informal seed supply. In other words, we cannot definitely answer the question of how much seed aid Afghan farmers need.

140 The problem is obviously not in availability of seed, as demonstrated by significant national seed procurements, but a question of access capacity. Some farmers may have lost their own seed stock and have little purchasing power left after three years of drought, or face reinstallation expenses in excess of their capacities. As pointed out by one commentator to this report, some of the strategies adopted by farmers to access seed may also be detrimental to their livelihood, such as increasing their debt, selling their daughters for early marriage, leasing part of their land, and so forth. In the absence of such a livelihood analysis, we are unable to conclude on the extent of the need for seed aid.

141 The only reliable source the Review team is aware of is the winter agriculture survey carried out jointly by the MAAH/MRRD/FAO/WFP from December 2002 to January 2003 in 104 districts in 30 provinces of Afghanistan. The survey indicated that improved varieties and fertilizer are widely used already. Amongst the sampled households, about 54 percent of area planted in wheat in 2003 was sown with improved varieties released in the last 10 years (28 percent from FAO seeds programme and 26 percent from other sources). The rest (46 percent) was sown with local varieties or improved varieties introduced more than 10 years ago, such as the widely used "Zardana" in northern Afghanistan.

142 The Review team concurs with the FAO ECU in stating that the main need for seeds is to be found among refugees or IDPs returning to their land (although their land may have been cultivated by family members in their absence) and within the communities most hit by the drought. The latter are probably in areas of predominant rain-fed wheat cultivation having received little precipitation in 2002. This poses a problem since there are few improved varieties adapted to rain-fed cultivation, as explained above. However, needs may have existed in irrigated areas as well, since many rivers and stream had little water as late as end 2002 in the center and south.

2. Size of the Operation

143 The project documents of the emergency programme state "the total national requirement for quality seed is estimated to be about 60,000 MT." This figure is based on the hypothesis that about a quarter of the entire winter wheat acreage (estimated at 1.3 ml ha by FAO/WFP Crop & Food Supply Assessment, 2002) would need seed from the formal sector each and every year. The Strategy Action Plan, 2002 to 2006, is even more alarmist. It states that: "*under ideal conditions, up to 300,000 tonnes of quality seed would be required every year*

[22] The name of the unit was changed several times. It is now called the Food, Agriculture and Animal Husbandry Information Management or FAAHM which in Dari stands for "knowledge".

to cover the entire area of cereal crops, while currently barely 10,000 tonnes of QDS are available in-country".[23]

144 Unfortunately, no detailed assessment was conducted on how informal seed systems had resisted to drought, and thus we will never really know how rare a resource seed was in autumn 2002. Research in neighboring countries such as India have consistently shown a seed replacement rate of about 5% for wheat and other self-pollinating crops, a rate that would suggest that in "normal years" (i.e. without drought and war) Afghanistan would need about 11,000 MT of winter wheat seed. This is much less than what was distributed last autumn by all agencies and NGOs combined (over 23,000 MT[24]). Obviously 2002 was not a "normal year" but a drought year, so the quantities distributed may still have been justified.

3. Beneficiary Targeting

145 From a socio-economic point of view, the relevance of an emergency programme can be judged from its capacity to target the most vulnerable households. The identification of beneficiaries is in most cases done by the local *shuras* (village councils) based (or not) on criteria developed by FAO and NGOs. Often, the NGO distributing on behalf of FAO does not verify *shuras*' lists. In other cases, the lists are verified by NGO staff visiting proposed beneficiaries, either systematically or, more often, on a sample basis. The criteria for the autumn 2002 campaign were as follows:

<u>Irrigated land:</u>

- farmers with access to at least 0.5 ha of irrigated land and water for irrigation;
- farmers without seed or with difficulties accessing seed and other inputs;
- farmers stricken by drought and who have lost more than half of their production;
- marginal groups, including resettled IDPs with access to land, returning refugees, widows, elderly persons, orphans; and
- farmers who are willing to put their own labor and equipment as required into planting and growing the donated seed.

<u>Rain-fed land:</u>

- farmers with access to at least 1 ha of rain-fed land;
- farmers without seed or with difficulties accessing seed and other inputs;
- farmers stricken by drought and who have lost more than half of their production;
- marginal groups, including resettled IDPs with access to land, returning refugees, widows, elderly persons, orphans; and
- farmers who are willing to put their own labor and equipment as required into planting and growing the donated seed.

146 In the 2003 campaign, a *maximum* acreage was added to these criteria to try and avoid supporting large landowners.

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[23] Strategy Action Plan, 2002 to 2006, FAO - September 2002.

[24] Annual Report of the Seed Production Programme for 2002 – N. S. Tunwar, FAO, in print.

147 According to the post-distribution monitoring survey commissioned by FAO and implemented by implementing partners[25], the programme reached a majority of residents (63 percent of all beneficiaries), a significant number of returnees and ex-IDPs (23 percent), a few widows (3 percent), disabled (2 percent) and social cases (2 percent) and about 7 percent of better-off households.

148 Selecting beneficiaries through *shuras* may not always have succeeded in targeting the most vulnerable. The Afghan society is as hierarchical as any other, and *shuras* usually give a premium to the largest landowners in terms of representation and influence. Poor farmers usually depend on rich farmers for access to land (though sharecropping), credit or plowing. So it should not come as a surprise if in some cases, the input ended up in the hand of large landowners. This is particularly likely when the *shura* is a traditional one, not established or "facilitated" by a well-established NGO.

149 Beneficiary targeting is far from being an easy task anywhere, but even more so in the Afghan context. Some NGOs have reported that they elaborated the lists themselves through extensive participatory processes and sometimes against the will of dominant members of local *shuras*, only to find that the goods were later on redistributed by *shuras* to every household in the village (e.g. Afghanaid). Other NGOs, having gone through a very serious selection process, have reported that some of their most vulnerable recipients had not been able to access land to cultivate (e.g. ACF).

150 The problem is compounded by the coexistence of two very different approaches: the development approach which tends to favor multiplication of seed though better-off, more productive farmers (e.g. the FAO seed multiplication program) on the one hand; and the emergency approach favoring vulnerable groups on the other. Many of the agriculture extension staff employed by the NGOs are less familiar with the latter than with the former approach, and may tend to replicate it in the emergency operations they help implement.

4. Distributed Varieties

151 All the wheat seed and half the fertilizer distributed by FAO in October-November 2002 were procured locally, the seed from FAO and NGO contract growers. At this occasion, the evident potential synergy between the FAO seed multiplication programme and the emergency seed distributions, untapped by the spring campaign for reasons explained in section C.3. above, materialized for the first time. The multiplication programme had identified and multiplied throughout the country suitable varieties in significant quantities, and this reservoir could be tapped by the emergency programme to spread these varieties further. Not just FAO but *nearly all programmes distributing seed in autumn 2002* in Afghanistan procured their seed from the network of FAO contract growers.

152 It should be noted that the seed development programme is still continuing under EU funding, and that the process of variety identification and multiplication is therefore continuing: the development programme has recently released the new variety Sohl-02 to replace the aging Pamir-94. So the synergy between seed-related emergency and development activities is allowed to develop and last longer.

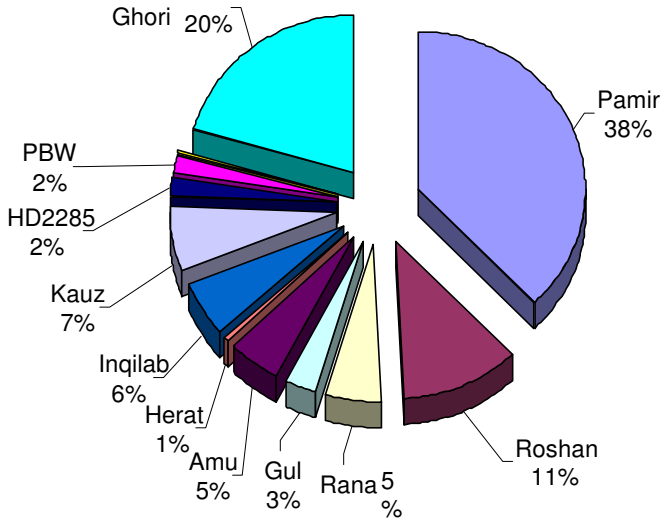
[25] Post-Distribution Evaluation of the Emergency Agricultural Inputs Programme, Autumn 2002 Season – Matthias Mollet, FAO 2003.

153 An important variety characteristic in the Afghan context is the vernalization requirements: winter wheat typically needs 6 weeks of cold weather to vernalize, i.e. to become ready to flower and produce grain later in the season.[26] Many of the varieties distributed are facultative, i.e. they produce more if vernalized but can still flower and produce a crop if not. This is of interest because small quantities of seed may have been distributed to late to be planted (or to grow) before the winter set in late 2002.

154 Other important agronomic characteristics are: 1) resistance to cryptogrammic diseases such as loose smut and rusts, which is FAO varieties' main strength; 2) maturity/earliness, a crucial factor in double-cropping areas; 3) grain shattering or the propensity of the grain to fall from the ear when ripe, detrimental in extensive rain-fed cultivation where harvest may come late; 4) grain size and germination vigor, important because of uneven land preparation in the local cropping systems; and 5) bread-making quality and grain color. Rain-fed FAO varieties tend to shatter quickly more than local varieties and that is a clear disadvantage. Some FAO varieties have a good color (white bread is usually more appreciated) and bread-making quality (e.g. Gul), others not (e.g. Pamir, which only drawback seems to be the reddish color of its grain).

155 The varieties distributed in autumn 2002 appear to perform suitably. NGOs and the few farmers visited reported good germination and little winter killing. Many of these varieties are winter hardy (most notably Pamir-94 but also Amu-99, Mazar-99, Heart-99) and more generally well adapted to the various agro-ecologic situations in the country.

Figure 3: Distributed Varieties - Autumn 2002



156 A caveat though: there are few improved varieties adapted to rain-fed cultivation. This is understandable, in the sense that the "green revolution" has tended to focus on the easiest, most controlled farming situations with a combination of positive factors: irrigation, fertilizer, etc. There are around the world very few improved varieties adapted to less favorable situations such as rain-fed agriculture in an arid country.

157 As a result, a programme distributing improved varieties to offset an emergency and notably a drought, is bound to face some degree of contradiction between what is offered (varieties making good use of irrigation and fertilizers) and what is supposedly needed

[26] A winter wheat normally planted in November, will establish a lawn of small plants before they become dormant as colder winter weather sets in. In this case there is plenty of time for vernalization to take place. However, if this same winter wheat was planted in March, there may be a high risk that the crop would begin to grow, but would never flower and produce a crop. Some NGOs have imported non-facultative winter wheat from Tajikistan and Kazakhstan in spring 2002, only to compensate the farmers after the wheat did not bear a harvest.

(hardy varieties, with resistance to drought). This situation is being redressed with the multiplication of varieties adapted to rain-fed conditions (lalmi 1, 2 and 3, Ghori 96) in irrigated fields so as to get a better production.

F. Efficiency in Implementation

1. Programme Administration

158 The main purpose of the Review was not to assess administrative arrangements, but it should be noted that the Afghanistan FAO office works under important administrative constraints, amply documented in many internal reports. In 2002 and 2003, FAO operated from no less than four premises: the old office in the UNDP compound hosting the FAO Representative and the emergency unit; the former guesthouse, with offices for the programme manager and M&E Officer; the Darulaman office, a large, vast and newly rehabilitated building hosting the FAAHM; and the MAAH office where the development programme used to operate. These premises were in various degrees of amenity and suitability. E-mail has been a long-standing problem outside of the UNDP compound but was being solved at the time of the Review. The MAAH building lacked proper sanitation. Transport back and forth from these premises took time and the whole arrangement was bound to affect team spirit and coordination. Various changes were planned in summer 2003 to remedy to the situation, notably the that all FAO staff should work from the Darulaman office. Visited regional offices were operating in adequate premises.

159 Staff management has been excessively based on short-term consultancies. Short-term contracts and frequent R&R have led to implementation delays, loss of institutional memory and a short-term sense of responsibilities.

160 Accounting is perhaps the weakest administrative area. The large size of the programme and its breaking-up in many small projects (see below section 2. Financing the Emergency Input Distributions) makes the task of accounting arduous. It should also be remembered that FAO Office was not budget-holder yet at the time of the Review[27], and that its level of authority for local procurements was as low as US$25,000, although the latter may be waived on short notice.

161 Another difficulty seems to lie in the preparation and approval of the Letter of Agreements (LoA) with Implementing Partners, which includes the terms of the contract and stipulates the FAO financial contribution. In many instances, NGOs had to start distributing the FAO inputs before they could sign their LoA with FAO.

162 Finally and though not of the direct resort of FAO, it is important to underline that procedures for security clearance are cumbersome and unwieldy. The concerned UNAMA unit requires a staggering three working days to approve a banal mission request. The Review team agrees that the political and military situation remains volatile and worthy of serious security checks, but asking three working days to give the security clearance to a

[27] Unlike for development projects where the budget holding responsibility is usually delegated to the concerned FAORs, TCE retains overall budget holder responsibility for all emergency projects in all countries.

mission is clearly neither necessary nor conducive to extensive monitoring missions and to a visible UN presence on the ground.

2. Financing the Emergency Input Distributions

163 The cost of the whole wheat seed and fertilizer operation in autumn 2002 was about US$ 5.5ml. Donors met by the mission generally had a good impression of FAO, and did not want to mingle too much in implementation issues, trusting FAO will get though in a reasonable manner.

164 The only notable exception is ECHO, which Kabul representative stated to the Review team that "FAO is not geared to do emergency operations, due to its bureaucratic procurement and hiring procedures". She was critical of past and current locust control campaigns and had an unsatisfactory experience with FAO during the spring 2002 distribution.

165 The main issue in the financing area is that the programme is segmented in numerous projects, each with its own geographic and substantive focus, budget and reporting requirements (see Table 1). This makes it difficult to manage the programme resources, offices, staff, equipment and inputs as a coherent whole. This state of affairs is not particular to FAO Afghanistan. In fact the same approach seems to be adopted everywhere FAO operates emergency programmes.

166 Projects 210/NET and 212/ITA, representing respectively the Netherlands and Italian contributions to ITAP 2002/2003, depart somewhat from this pattern of scattered project approach in the sense that they cover various components as part of a programme (e.g. 210/NET: irrigation infrastructure rehabilitation, replacement of looted property for ISE, support to coordination and implementation, procurement and processing of QDS). However the components are fairly dissimilar from one another and each programme is funded by one donor only. Therefore these projects should be seen as convenient funding arrangements, and from that point of view there are useful but less so than an integrated, multi-donor programme tackling one specific task.

3. Procurement and Logistics

167 The wheat seed was purchased from ISE in Herat (850 MT), from VARA in Delaram (800 MT) and from ISRA in Kabul and Loghar (2092.5 MT). The seed from ISE arrived from the 15th of September to the 11th of October. VARA delivered from the 10th of September to the 3rd of October. The seed from ISRA started to arrive to FAO warehouse from the 4th of September to the 21st of October. For some destinations the Emergency Unit supplied seeds leftover from the spring seed distribution programme.

Table 1: Projects Supporting Agricultural Inputs Distributions in Autumn 02 and Spring 03

Project #	Donor	Budget (US$)	Description	Regional Focus	Season	Benefiting Households
OSRO/AFG/112/GER	Germany	500,000	Facilitating re-integration of refugees and IDP families through the provision of agricultural kits of vegetable seeds and hand tools	?	Autumn 2002	10,000 IDPs/ refugees
OSRO/AFG/113/IRE	Ireland	165,000	Facilitating re-integration of refugees and IDP families through the provision of agricultural kits of vegetable seeds and hand tools	?	Autumn 2002	3,000 IDPs/ refugees
OSRO/AFG/204/BEL	Belgium	500,000	Facilitate the re-integration of returning refugees by providing vegetable seeds and DAP	None?	Spring 2002-03	15,000 IDPs / refugees
OSRO/AFG/205/ITA	Italy	1,218,400	Procurement and processing of 1,050 MT of wheat QDS from contracted seed producers, and 945 MT of DAP for distribution to most needy farmers	Southeastern, Southwestern and Central Afghanistan	Autumn 2002 & Spring 2003	21,000 (16,800 irrigated; 4,200 rain-fed)
OSRO/AFG/206/GER	Germany	1,230,570	Procurement and processing of 1,200 MT of wheat QDS and 900 MT of DAP for distribution to poor farm families	Northern, North-western, North-eastern and Central	Autumn 2002 & Spring 2003	24,000 (½ irrigated, ½ rain-fed)
OSRO/AFG/207/KUW	Kuwait	200,000	Provision of agricultural kits including vegetable seeds and hand tools	Northern provinces	Mainly Spring 2003	12,000 IDPs / Refugees
OSRO/AFG/208/NOR	Norway	536,350	Procurement and processing of 572.5 MT of wheat QDS and 387 MT of DAP for distribution to most needy farmers	Northern and Central Afghanistan	Autumn 2002 & Spring 2003	10,300 (½ irrigated, ½ rain-fed)
OSRO/AFG/210/NET	Netherlands	4,717,000	Various: irrigation, looted property replacement, support to coordination and implementation and *procurement and processing of wheat QDS*	Northern, Western, South-Western, South-Eastern	Autumn 2002	Unclear for seed component.
OSRO/AFG/211/SWI	Switzerland	563,000	Procurement and processing of 800 Mt and 400 MT DAP for distribution to most needy farmers	Western and Northern rain-fed areas	Autumn 2002 & Spring 2003	16,000 (rain-fed)
OSRO/AFG/212/ITA	Italy	$4,627,260	Various: livestock census and vaccination, horticulture, locuts control, *vegetables seeds*, opium and livelihoods study, irrigation, coordination.	Various	Spring 2003	Unclear for seed component
AFG/02/005	UNDP/ NABDP	1,000,000	Procurement and distribution of 3,000 MT of Urea	National	Autumn 2002	44,850 families

Note: In addition to the above, the following projects had carry-over funds that were used for the procurement of DAP and urea for the autumn 2002 season: OSRO/AFG/102/EC: 385 MT DAP and 175 MT Urea; OSRO/AFG/103/USA: 126 MT DAP; OSRO/AFG/110/NOR: 230 MT DAP.

168 The 3,450 MT of Di-Ammonium Phosphate (DAP) were purchased on the international market and arrived in Kabul from the 10th of October to the 14th of November. The 3,500 MT of Urea were procured from a dealer in the Kabul bazaar in end-October to early November. Since the urea was procured rather late and by small lots coming in slowly at first, some seed dispatches were made without the corresponding quantity of urea.

169 Timeliness of procurement was found to be an important issue.[28] Late procurements strained staff nerves and relationships with partners in Kabul. Emergency operations are important clients for AFSP, and the service is keen on improving procurement timeliness. AFSP emphasized the need for a realistic planning of procurement activities, which can easily take four to five months from the purchase request to delivery on site, and underscored the fact that they are not the sole players in the procurement chain and that TCE officers on site are frequently untrained on procurement procedures. TCE on the other hand points out that emergency projects, covering one single season, are usually approved close to the input distribution time. For the 2002 spring campaign for instance, most of the project were approved in January 2002 when the optimal distribution period was February. Therefore a procurement process that takes four to five months is not appropriate for emergency operations.

170 The current FAO procurement procedures allow for either cost or time of delivery to be the "prime factor" in the bid selection process. This means that TCE officers, when requesting a particular procurement to AFSP, have the opportunity to request that either cost or speed of delivery be considered the key selection factor. In practice, time is most often not chosen as prime factor because under current regulations that would bind FAO to accept any bid, however costly, if it is the best against the time of delivery criteria. A multi-criteria analysis of bids, whereby each factor such as timeliness, cost, fit to specifications, etc. would be given weights rather than be determining in and by itself, would probably suit the needs of TCE better.

171 Procurement delays have led to a number of "savings" in approved budgets and/or no-cost extensions of project durations. In one case (OSRO/AFG/108/EC funded by ECHO in spring 2002) the savings have been refunded to the donor. This raises doubts amongst donors about the absorption capacity of FAO in emergencies: is the Organization geared up to such situations? Why is FAO asking for more funds if they cannot use what they already have?

172 Emergency operations in support of the agricultural sector are now a competitive domain, in which implementation speed is a key criterion to attract funding. FAO will probably need to review its procurement procedures if the Organization is to consolidate its hard-fought status as a major player in emergency and rehabilitation operations. Examples about how urea, vegetable seeds and seed cleaners were procured for Afghanistan in 2002 are provided in Box 2.

173 Further analysis of procurements and dispatches (Figure 4) indicates the following:

[28] The issue of the inadequacy of FAO procurement procedures in emergency programme has been identified and discussed in previous evaluation reports. See for instance: Thematic Evaluation of Strategy A.3: Preparedness for, and effective and sustainable response to, Food and Agricultural Emergencies – PBEE September 2002.

- The seed was distributed on time (September-October mainly). But the fertilizer dispatches delayed the operation by about a month, due to late procurement. One of these late dispatches reached Afghanaid in Nuristan (a high elevation, early-planting are) as late as December.
- Dispatches to NGOs are much more spread over time than procurements and transport contracts. Contracted trucks have often left the warehouse one or two weeks after the logistician signed the release order, indicating a weakness in the management (or capacities?) of transporters/truckers.

Box 2: Examples of Late Procurement

A field procurement mission was originally scheduled to deal with the procurement of **3,000 MT of urea**, an operation worth US$700,000, but it did not materialize. A local procurement from a public-owned enterprise (Afghan Fertilizer Company) was recommended. The Country Office advised in September that the AFC was not able to deliver the required tonnage. AFSP called for a local alternative a few days before the Procurement Committee was to meet. As the ECU was collecting information from local suppliers, the Procurement Committee stood by its original recommendation of the AFC. This recommendation was subsequently waived, and urea procured from a dealer in the Kabul bazaar from end-October to early November. Thanks to loans in kind from the development programme, some urea was dispatched before the procurement to the highest elevations (Bamyan, Ghor, Badakhshan) where planting time is the earliest. The rest was delivered to farmers in November 2002, too late in some cases to be applied in fall.

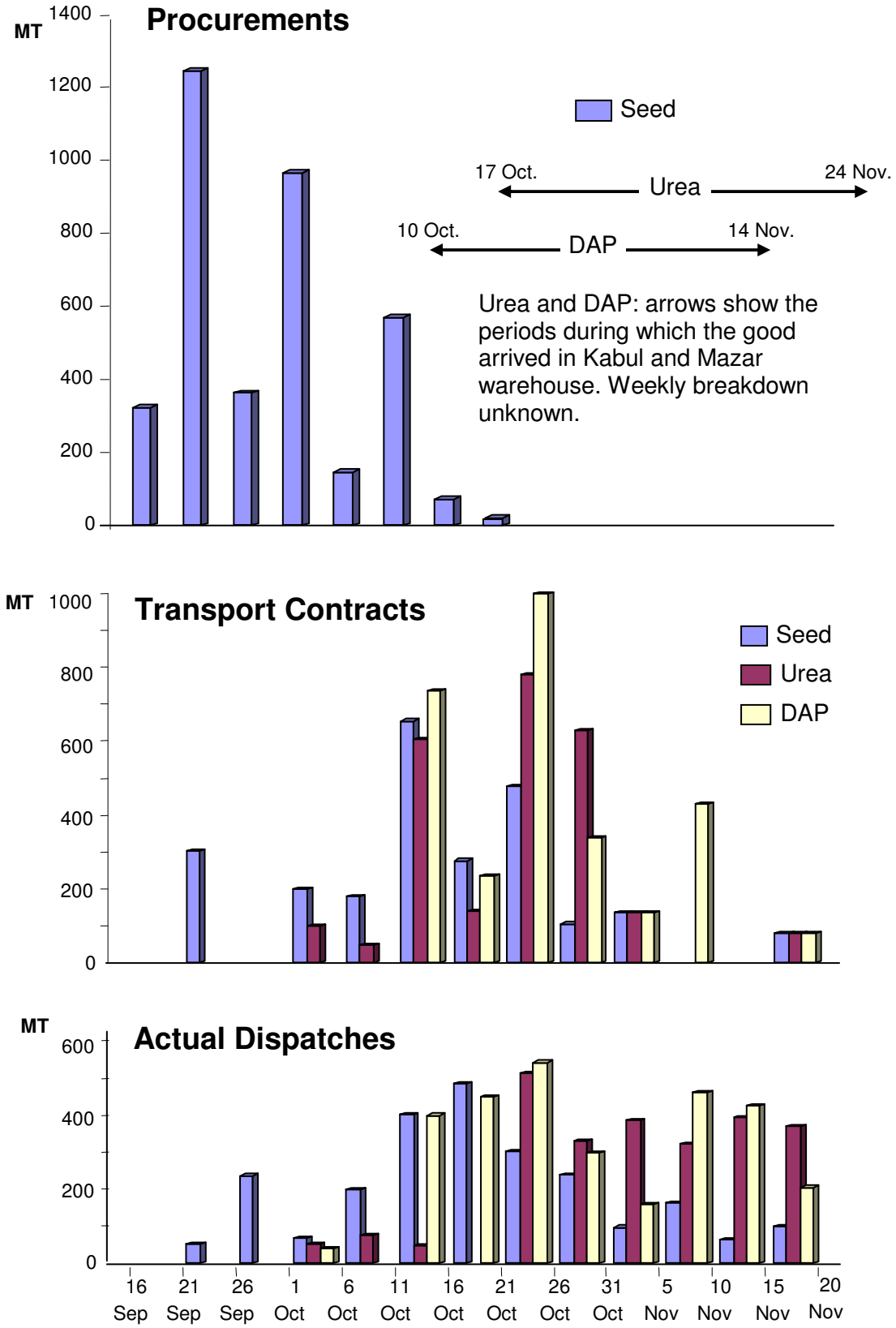
Twenty-four seed cleaners, procured internationally for the autumn campaign, were originally supposed to arrive in Kabul in May. The Purchase Orders were only placed at the end of June 2002 due to (a) initial disagreement between AFSP and the STA for plant and seed on the type of equipment to be procured; and (b) the provider originally identified (Sheha Ltd) could not guarantee the delivery date. The seed cleaners were finally procured from Crippen Int. and reached Afghanistan in August, in the midst of the seed procurement and processing period. They were dispatched to IPs of the multiplication programme only to find out that they had a series of problems making seed feeding, cleaning and collection operations very difficult if not impossible. These issues were solved on the spot thanks to the consultant's ingenuity and Afghan workmanship, but by then the cleaners had missed the fall season.

The procurement of **vegetable seeds** in Spring 2002 run into delays when the awarded Pakistani company (BIAS) defaulted in April, leading to a cancellation of the FAO campaign, loss of significant ECHO resources, and postponement of the use of other funds to 2003. The same BIAS company was awarded the contract again in 2003, with a delivery date set for 26 February. At the time of the Mission, BIAS invoked *force majeure* (windstorm) and informed they could not deliver the seeds before 10 March. Finally part of the seed arrived on 19 March. AFSP is seeking cancellation of the remaining quantities due to the serious advance in the season. Vegetable seed packs were intended for distribution in poppy growing areas, but in the lower elevations where most poppy is grown the planting season was already under way in March 2003. The "damage-control" option at the time of the Review was to re-orient the project (OSRO/AFG/212/ITA) towards vulnerable households in the highlands.

174 Generally speaking, the end of the campaign appears to be some 20-30 days late as compared to the planting season. The best planting period in most areas ranges from early October to early November, with higher elevations planting sooner and lower elevations later within that range. Only the most low-lying locations (e.g. Jellalabad or Kandahar) plant in December.

Figure 4:

Dates for Procurements and Dispatches of Wheat Seed and Fertilizer – Autumn 2002



<u>Conclusions:</u>

- **There is about one month delay between procurements and dispatches.**
- **Dispatches are much more spread over time than procurements and transport contracts.**
- **The seed was distributed on time (September-October mainly), but <u>fertilizer dispatches delayed the operation</u>.**

176 In most cases the dispatch was followed almost immediately (a few days) by arrival on destination and distribution. There may have been cases where transport took longer. Since a majority of NGOs has not submitted a distribution report at the time of the Review, distribution and dispatch times could not be compared.

177 Interviewed NGOs were generally appreciative of the logistics set in place last season, and in particular the delivery "to their doorsteps" in numerous locations throughout the country. Closer analysis shows that some problems occurred: waybills at odds with cargo (e.g. a mix of varieties in cargo but one variety in waybill); lack of awareness of the NGO and area offices of incoming trucks; incomplete kits (urea or DAP missing in some shipments); and late delivery to NGOs and/or to beneficiaries due in part to the above (distributions as late as 20 December). Late planting often lead to crop losses or lower production.

178 FAO area offices did not feel sufficiently informed of the distribution schedule, zones, NGOs and varieties at the time of the Review. The Mazar office staff pointed out that they could have averted a few transport delays if they had been kept informed of the shipments heading their way

179 Some IPs of the emergency programme distributed to groups of villages, often at the district level, while others distributed at the village level. The Review team is aware of two cases (MCI and Solidarité) where vouchers were distributed following beneficiaries selection, and redeemed against the packages at distribution time.

4. Working with Partners

180 It should be remembered that NGOs started this programme in the 80's and that, while their capacity is uneven, they remain vital partners for the smooth implementation of both the development and emergency activities. It is hard to see how FAO could have produced (or procured) and distributed thousands of tons of seed and fertilizer without the help of a network of NGOs with strong roots at the local level.

181 A distinction should be made between the IPs working with the development programme and chiefly concerned with seed multiplication or collection from contract growers (ISE, ISRA, VARA, MCI), and the IPs of the emergency programme that are distributing seed and fertilizer (29 NGOs), even if some IPs are doing both.

a. IPs of the Development Programme

182 ISE was much disorganized during the war, lost valuable staff and is now rather dispersed: the regional farms/centers such as Herat have not reported to the center for years. ISRA appears better organized and was able to procure about 3,175 MT in autumn 2002, both for the FAO emergency programme (over 2,000 MT) and for UNHCR, Afghanaid and SCA. VARA and MCI could not be visited.

183 The Code of Conduct gave these organizations much importance because it was largely understood as a ban on all seed imports, whether or not the varieties had been tested in country, and therefore most organizations distributing seeds in autumn 2002 procured from the FAO IPs.[29] Demand was high and supply limited. The price went up: IPs sold to FAO at

[29] A few NGOs such as SCA and AfghanAid have their own contract growers.

a price between $300 and $350 per MT (prices at farmers gate: about $150/MT) and some compromises had to be made on quality.

184 ISE managed to reach QDS standards. But ISRA and VARA acknowledged that they procured both from contract growers and from other farmers, accounting for about one third of all purchases according to ISRA and 20% according to VARA. They could therefore not verify rogueing in those farmers' fields since procurement happened after harvest. Beside, it must be mentioned that the QDS they procured from contract growers was 4th or 5th generation QDS (i.e. not directly produced from foundation seed).[30]

185 The programme should be commended for having tested in a Pakistani laboratory 32 samples taken from most lots. Result show good germination, but that there was a high concentration of impurities, both inert and other species seed in 19 samples. This is consistent with the constraints described above and notably the absence of rogueing on some lots.

186 In short, all the seed distributed was not of QDS standard. There was excessive inert matter content and rye and wild oat seed infestations in some lots (see section G.1. Wheat Seed Purity). But by and large the system put in place by the development programme delivered what was expected of it, at least quantitatively.

b. IPs of the Emergency Wheat Seed Distributions

187 Here again, the system appears to work as far as quantities delivered are concerned. It is clear that FAO could not deliver by itself the amount of seed distributed in autumn 2002. But there are concerns on the qualitative side. The sheer number of IPs (29) makes contracting, logistics, monitoring and coordination a real challenge. Some have strong capacities in the field and can monitor *shuras*' beneficiary lists and crop performance (e.g. through extension workers) while others just distribute and go. The reporting capacity seems to vary widely too. As of March 2003, only 14 IPs had reported on their distribution, and 17 monitored the crop as per Matthias Mollet's questionnaires (see section H.1. Information Available and Gaps for Impact Assessment).

188 Some of the NGOs met by the mission perceived the programme as supply-driven rather than demand-oriented. An illustration of this may be that NGOs are not required to submit their own proposals, the contractual tool being a one-size-fits-all LoA. This being said, a number of NGOs approached FAO with their own seed distribution proposals, sometimes with very high seed requirements, so they perceived a need for seed aid.

189 The high turnover of NGO staff depletes institutional learning and capacities. IPs need continuous, intensive capacity building rather than the somewhat intermittent support currently given to them. The staff which coordinate with, and are trained by FAO are often posted in Kabul, and there is a depreciation in information when it reaches field staff.

190 MCI and IMC are the two largest IPs in terms of delivery. They account for 40% of the total delivered.

[30] They did not receive foundation seed in 2001.

Table 2: Wheat Seed and Fertilizer Distributed, per IP and Province

NGO	Provinces	Seed for Irrigated Areas (MT)	Seed for Rain-fed Areas (MT)	Urea (MT)	DAP (MT)
ACF	Sari Pul		230	0	115
ACTED	Badakhshan, Baghlan, Faryab, Kabul	95	105	95	147.5
ADHAA	Herat	15	25	15	27.5
Afghanaid	Ghor, Nuristan	30	45	30	52.5
AISPO	Baghlan	10			
ARAA	Farah, Ghor, Herat	175	55	175	202.5
AREA	Badghis, Herat, Kabul	71	55	71	98.5
CFA	Kunduz	30	7.5	30	33.75
CHA	Faryab	50		50	50
CoAR	Balkh	80	16	80	88
Community of Charchina / Khuni	Uruzgan	50		50	50
Concern	Badakhshan, Takhar	50		50	50
DACAAR	Badghis, Herat	50	40	50	70
DCA	Badghis	75	20	75	85
FOCUS	Badakhshan, Baghlan, Bamyan, Parwan, Takhar	92	56.3	92	120.15
GOAL	Jawzjan, Samangan	100.05	35	100.05	117.55
GRCO	Farah, Ghor	110	20	110	120
HAND	Kabul	30		30	30
IMC	Ghazni, Kapisa, Khost, Laghman, Paktika, Paktya, Parwan, Wardak	580	45	580	602.5
IRRA	Nimroz	80		80	80
MADERA	Ghor, Kunar, Laghman, Wardak	130	20	130	140
MCI	Helmand, Kandahar, Uruzgan	565	45	565	587.5
OIM	Herat	25	0	25	25
OXFAM	Zabul	55	20	55	65
PRB	Logar	135		135	135
QRCO	Herat	30	0	30	30
SFAO	Badghis, Farah, Herat	120	10	120	125
Solidarités	Bamyan	50	0	50	50
World Vision	Badghis	0	40	0	20
Grand Total		**2883.05**	**889.8**	**2873.05**	**3317.95**

191 There appears to be a wide variability in implementing arrangements / approaches, a situation similar to the one NGOs face when dealing with *shuras*. Some NGO leave the beneficiary selection and distribution of goods entirely to *shuras*, which may not be prudent. Others distribute themselves to individual farmers. The geographic coverage at the sub-district level was also reported uneven with remote areas often not covered, while there are a few cases of overlappings in accessible areas.

192 Some NGOs do free distribution (not by programme IPs it seems), others sell seed and fertilizer (SCA, Solidarité, AREA), or ask for repayment at harvest time (most programme IPs). This creates some conflicts during distributions. There is a wide agreement that the repayment scheme – whereby the shuras would recover 4 bags of grain (or perhaps seed) for every kit of 3 bags (seed, urea and DAP) and be helped by NGOs to use this resource for community needs – is interesting and should be tried, even though it may prove difficult to implement.

193 Many NGOs expressed a need for further guidance on this issue. Some uncertainties remain:

- Will all *shuras* enforce the scheme, given that NGOs have no desire to become debt collectors? The amount to be collected is staggering: about 16,000 MT from the FAO distribution alone.
- Will it be possible to collect seed for informal farmer-to-farmer exchanges (i.e. to be redistributed to other households not benefiting from the autumn 2002 campaign)? Or will farmers give back grain, e.g. WFP grain?

194 Will the quantities collected be sufficient, once monetized, to fund significant micro-projects at the village level? Will *shuras* be able to manage the monetized resource properly? In Afghan Aid experience, *shuras* collect both grain and seed; the grain is generally used to feed the poor during winter and the seed to plant in other farmers' fields. FAO has made it clear that this is an experiment and that NGOs are free to approach recollection from their own particular angle. This is appropriate, but does not preclude more guidance and exchange of ideas on the issue.

195 It appears that FAO did not allocate particular resources to this activity, and the NGOs therefore have to finance their facilitation of the process from other funding sources.

196 Coordinating 29 NGOs funded through scores of donors and project agreements is clearly a daunting task. The FAO emergency programme has set up two coordination fora:

- A working group composed of FAO and partner NGOs was set up in preparation of the autumn 2002 distribution. It started to meet fortnightly but was suspended after three meetings due to lack of time on behalf of NGOs during the distribution period;
- A broader coordination group, first chaired by the Emergency Coordinator and more recently by the Deputy Minister, MAAH. This group is quite large since it includes NGOs, donors, related programmes (CYMMIT, ICARDA, etc.) and the Ministry.

197 While the latter forum is appropriate for policy-level discussions, it is clearly too large for working-level discussions. NGOs also expressed concerns about the way the coordination group had functioned in recent meetings. It would appear that they feel unable to raise their

concerns in such a large group, and would welcome the resumption of the working group to sort out implementation issues as they arise.

198 In 2002 there was also a lack of clear procedures about how to involve district governmental officer in the distributions. Some NGOs such as MCI do work with the *oluswali* (district offices) to select villages and distribute the inputs, others not. It would appear though that the 2003 campaign has been implemented with greater involvement from government officers at the district level.

c. The Buzkashi for Seed: Overlaps and Competition among Agencies

199 Quite a degree of overlap between NGOs and agencies is observable. Inputs are sometimes distributed on the same areas from one year to the next. Some NGOs receive seed from several donors (e.g. AKDN) and it was not always easy for them to report to each of their donor on where their seed was distributed. Inputs were distributed by IPs of the emergency programme in areas where the development programme and Swedish Committee tried to sell their own seed and fertilizer. Emergency programme IPs are also often multiplying seed through their own contract growers, making the picture even more confusing. At the same time, some remote areas are not covered with improved varieties (e.g. Shibar pass located between Parwan and Bamyan, Hazra district in Logar).

200 Following the Code of Conduct, all programmes were buying from a limited number of Afghan contract growers and NGOs. It should therefore not come as a surprise that some degree of competition occurred between FAO and ICARDA (but not with Euronaid apparently) at procurement time. This competition for local seed resources led to localized wheat price increases in mid-2002 and to some compromise being made on seed quality. The whole situation was characterized by one FAO NPPP as a "buzkashi for seed in Afghanistan".[31]

201 This situation allowed contract growers and the IPs of the development programme to make profit, since they sell seed to NGOs and agencies at twice the price they sell to farmers. But it also is disrupting the development programme and other similar programmes (e.g. Swedish Committee) which found it difficult to sell seed while others were distributing them free or almost free. The FAO development programme was left with over 1,200 MT of seed they could not sell to farmers in 2002.

G. Programme Outputs as Delivered to Farmers

1. Wheat Seed Purity

202 The 3,773 MT of wheat seed distributed to an estimated 67,400 households (51,500 households for irrigated varieties and 15,900 for rain-fed) were in the majority of case of good quality, and probably meting QDS standards or just about.

203 As explained above however, laboratory purity tests requested by the ECU showed a high concentration of impurities, both inert and other species seed, in 19 samples out of 32.

[31] Buzkashi is brutal, messy yet spectacular Afghan game in which two teams of dozens of horse-mounted players battle for the control of a sheep carcass.

Based on over 50 interviews with beneficiaries, the Review team estimates that perhaps a third of all distributed seed included significant quantities of rye and oat seed. The mission witnessed wheat fields infested by rye and wild oat due at least in part to the seed distributed to FAO. Off-types are also present in the fields, but this is more of a minor problem. It comes as little comfort that other players have handed out seed of even lower quality.

204 The problem is due to a combination of factors:

- The in-field quality control procedures of the seed producing NGOs ISRA and VARA are apparently not as good as they should be. They say they inspect fields and refuse lots that had not been rogued, but the Review found that some of their staff are contract growers or share family ties with contract growers, and that must remove any incentive to enforce stringent quality control;
- In order to respond to the high demand for seed in summer 2002, ISRA and VARA procured some seed from farmers who were *not* contract growers, and whose fields had *not* been rogued at all; and
- The seed cleaners arrived too late and in any case they do not allow for the separation of wheat and rye seed (lack indented cylinders).

205 Rye and oat infestation of wheat fields is a problem endemic to Afghanistan, linked to wheat monoculture in some areas. But repeated distribution and multiplication by ISRA and VARA of impure seed ensure the propagation and aggravation of the problem.

206 Farmers having received such seed were quite vocal. This is a key issue inasmuch as seed locally-produced by development partners and FAO *must* be superior to local seed. If it is not, then farmers may increasingly distrust what they call "governmental seeds". One interviewed farmer said half-jokingly: "*your seed is produced locally by Afghan farmers, so it is local seed.*"

207 New seed cleaners are being procured, but it is not clear that they will arrive on time for the current seed procurement season.

208 ISE appears immune to this seed purity problem, in part because they inspect the fields of their contract growers more frequently (up to 5 times according to one interviewed contract grower in Herat) to ensure that rogueing is done properly, and because they have several large seed cleaners with the necessary cylinders to separate rye from wheat seeds.

209 It should be noted that as early as January 2001, the PEACE project annual report for 2000 included in its annexure 2 a short proposal for the procurement of emergency relief seed from the PEACE project contract growers. The annexure estimates the available quantity at about 5,000 MT, and caution that "precautions should be taken that stocks should not be infested by bunt and/or smut diseases and also do not have heavy mixture of other crop seeds such a barley and wild oat". This problem therefore could have been foreseen and taken care of, had the relationship between the development programme and the emergency programme started on a better footing.

210 Finally, some of the seed (a few hundred MT) procured in Pakistan early 2002, dispatched to IPs in March-April for the spring distribution and stored by IPs because it came too late

to them, was distributed in autumn 2002. This seed was rather old by then, having been harvested in Pakistan in spring 2001 at best (see section C.3. The FAO Spring 2002 Distribution). Some of it came from Baghlan, where AKDN had stored it after reception in April 2002. In mid-2002, the seed had become infested by insects. FAO fumigated it in Baghlan unsuccessfully, re-transported it to Kabul, treated it a second time, and sent it back to AKDN to be redistributed in the same area in autumn 2002. From our interviews in Baghlan, it appears that this seed did not germinate and should have been destroyed rather than redistributed.

2. Fertilizer

211 2,873 MT of Urea and 3,318 MT of DAP were distributed, 50 kg of each for irrigated wheat, and only 25 kg of DAP for rain-fed wheat. Distributed fertilizer was of high standard and much appreciated by farmers. Good-quality fertilizer is hard to come by on district-level markets. Much sub-standard fertilizer or downright fraudulent products get trade and sold. The interviewed contract growers of the development programme tended to view the provision of subsidized, high-quality fertilizer by the programme as one of the main advantage of their being contract growers, until the programme discontinued the sale of fertilizer in 2002.

3. Vegetable Seeds and Tools

212 About 83,000 kits of vegetable seed and tools were distributed to approximately the same number of returning refugees and IDPs. The tools were generally found of good value by interviewed farmers, to the exception of the sickle, of which the blade was too weak. Beneficiaries usually expressed their preference for the seeds provided by FAO as compared to local ones.[32]

H. Outcomes and Impacts

1. Information Available and Gaps for Impact Assessment

213 Apart from its own interviews and observations, the Review team used the following sources of secondary information to assess the impact of the programme are the following (references in Annex 3):

- WFP/FAO Crop and Food Supply Assessments for 2002 and 2003;
- Post-distribution surveys managed by Mr. Matthias Mollet;
- NGO implementation reports;
- Annual reports from the development programme; and
- Field mission reports by FAO emergency consultants and staff.

214 The crop and food supply assessments of 2002 and 2003 clearly and systematically depict the precipitation, production and commercialization situation on the national and regional levels. They were found very useful to validate or even orient our analysis.

[32] Christophe Charbon: Report on Mission to Northern Afghanistan, Monitoring of the Vegetable Kits Distributions, FAO July 2003.

Table 3: Number of Analyzed Data Sets for FAO Released Varieties and Others

FAO released varieties	number	% of total
Amu	81	2.5
Bakhtawar	124	3.8
Dyma rainfed	9	0.3
Ghori	398	12.3
Gul	128	4.0
HD	31	1.0
Herat	**x**	
Inquilab irrigated	142	4.4
Pamir	790	24.5
PBW	46	1.4
Rana	100	3.1
Roshan	254	7.9

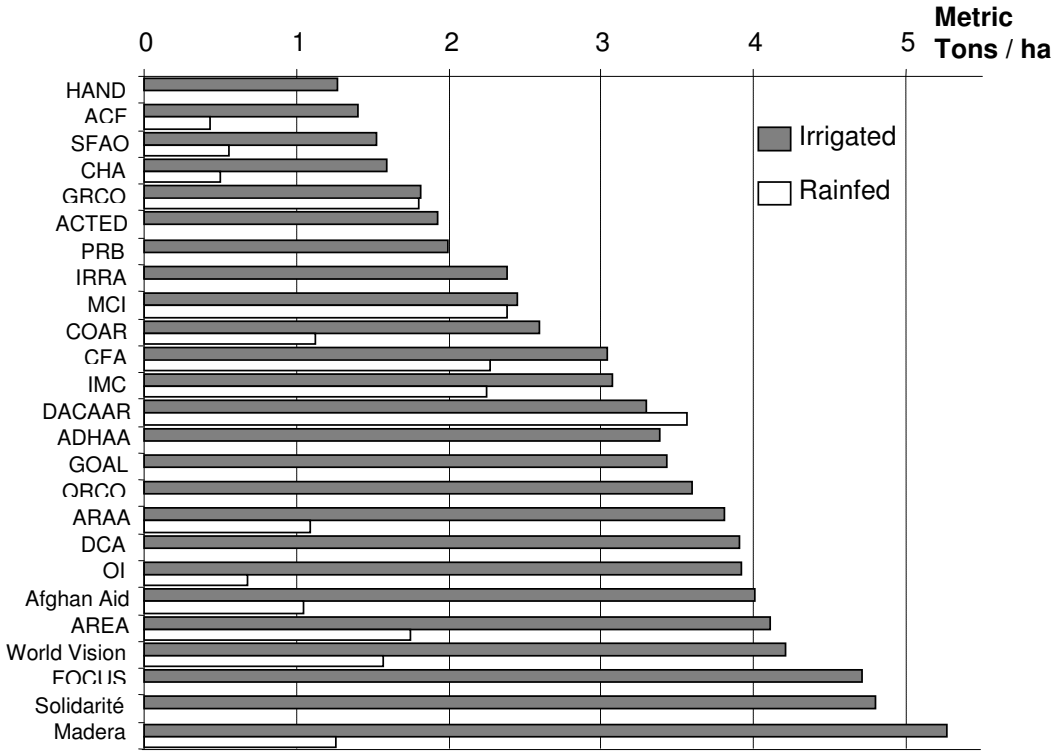
Type of seeds	number	% of total
other "improved" irrigated	264	8.2
other "improved" rainfed	35	1.1
local not improved irrigated	511	15.8
local not improved rainfed	316	9.8

x = no data sets were recorded for this variety

Figure 5:

Yields of FAO-distributed Irrigated Seed

as Measured by Implementing Partners



Data courtesy of Matthias Mollet

215 Post-distribution surveys were the main source of quantitative data for this Review, but one that could not be exploited to its potential because of doubts on the reliability of some of its data. Starting from September 2002, the ECU set up a series of three post-distribution surveys to monitor the result of the wheat and fertilizer distributions. The "crop performance evaluation" process was managed by a consultant who developed the

questionnaires, supervised data entry, and performed the analysis. The results are exposed in three reports.[33] The data was collected by Implementing Partners using the questionnaire. Some NGOs also estimated plant density and yields directly in the fields.

216 The questionnaires focus on socio-economic and impact issues useful to gauge the impact of the programme. The Review team obtained the last survey data and performed a few statistical tests. In this process the average yield was re-calculated taking into account the real share of each distributed variety, which is different from their share in the sample used as a basis for the previous computation. The resulting estimated average yield did not change for rainfed varieties but was found significantly lower than earlier reported for irrigated varieties (current estimate of 2,987 kg/ha = 3 MT/ha against an early reported value of 3.3 MT/ha).

217 A strong NGO bias cannot be ruled out (see for instance the yield data, Figure 5). This may be due to several factors, one being that regions and NGOs are strongly correlated and therefore any regional variation is bound to appear also as an "NGO variation". Another possible reason is that NGOs cannot be expected to perform an objective survey of their own work, and are likely to report that everything is fine as they have done in Afghanistan in a number of instances.[34] Another problem is the questionnaires for the three consecutive surveys were designed at the onset of the exercise and without much consultation, limiting the possibility to address emerging issues and questions of interest to, say, PBEE or AGPS.

218 Besides, the data set is very heterogeneous in side: some regions, NGOs or varieties are represented in the sample in very small numbers. This makes the interpretation difficult for those varieties with a small number of data sets (Table 3).

219 NGO reporting was found rather weak. There is no prescribed template and periodicity for NGO reporting, only a checklist of issues to be covered and mentioned in the LoA. It should be noted that some reviewed NGO reports were quite detailed and good. ACF for instance should be commended for its monitoring report that goes well beyond what was contractually requested of them. But generally speaking, we are not in a position to use systematic distribution data (number of beneficiaries, date of distribution, beneficiary selection) to pass a judgment on output utilization.

220 The annual reports and files of the development programme were found appropriate, technically sound and reasonably clear. However, the trial data as documented lack statistical analyses and written conclusions, which is a constraint in assessing the suitability and impact of the distributed varieties. Trials did not compare released varieties with local ones or with improved varieties previously released and cultivated in Afghanistan such as Zardana, and no farmer field trials were implemented. During all these years of admittedly hard and dangerous work, the programme operated with little or no formal analysis of farming systems, agronomic constraints and local varieties. This is regrettable in many ways: for the programme itself since it makes it more difficult to orient variety selection to answer local needs and constraints, but also for impact assessment since we lack a scientific

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[33] Matthias Mollet: During Harvest Crop Performance Evaluation of the Emergency Agricultural Inputs Programme, Autumn 2002 Season. The reports are dated January, June and November 2003.

[34] For example, reported seeding rates always equaled the recommended seeding rate of 25kg/jb, while it is well known that they are wide variations in seeding rates in Afghanistan (up to 42 kg/jb) depending on the quality of land preparation and other factors.

comparison between FAO varieties and other ones. Afghanistan is recognized as an important agro-biodiversity center and we cannot assume that the FAO varieties are inherently better than local or older ones.

221 Reports from emergency consultants were found useful to shed light on the details of implementation and logistics, but less useful for assessing impacts since they appropriately tend to focus on programme implementation.

2. Use of the Distributed Inputs

222 In general terms, all the beneficiaries received and applied the prescribed amount of seed and fertilizer. The data from post-distribution surveys indicate that only 1% of beneficiaries received less than the normal package, usually 25 kg each of irrigated wheat seed, urea and DAP, i.e. half a package. Over 8% declared they had received more than the package, usually 100 or 150 kg of irrigated wheat seed, i.e. 2 or 3 times the normal amount. According to the same surveys, the rate of input utilization was of 90 percent for seed, the rest (10 percent) being sold or stored.

223 The reported quantity of seed planted per jerib for FAO varieties is very close to the recommended rate (26 against 25 kg/jb on irrigated land; 14 against 15 on rain-fed land; one jb = 0.2 ha), but tends to be higher for local and other improved varieties, as shown in Table 4. Similarly and although there are variations in the amounts of fertilizer used, all interviewed beneficiary reported "good" application rates, i.e. close to the recommended rate.

224 Little fertilizer appears to be applied on rain-fed land, not too surprisingly. The FAO rain-fed packages included no urea, only 50 kg of seed and 25 kg of DAP. Seventeen percent of the recipient farmers reported they applied some urea on their rain-fed land nevertheless. Twenty percent declared not having used the distributed DAP on their rain-fed wheat fields. They might have used it on some other crop, stored it for the next season or sold it.

225 These figures vary slightly from one survey to the next so we should over-interpret them. Suffice to say that by and large, almost all of the input has been used for the intended purpose.

226 The vegetable seeds were also generally planted. However, some of the returnees targeted in the distributions of vegetable seeds were not familiar with pepper and okra. Many planted too early, with the result that frost killed off some fields.

227 In Bamyan, the distributed vegetable seeds were often planted on the edge of potatoes fields, as if they were considered of lower importance. The same tendency was reported in Ghor. Beneficiaries may have done so because they did not know whether the distributed varieties would perform well under local conditions.

228 The distribution of *seedlings* by the component on vegetable production of project OSRO/AFG/212/ITA, although a good idea at the village level because many farmers are not experienced or do not want to be bothered by seedling production, is according to the DACAAR office in Herat a difficult approach to implement at the district level since the seedlings are fragile and cannot travel very far. Village nurseries would make better sense than district nurseries, given the poor road network in the country.

Table 4: Seeds planted and fertilizers applied for different types of seeds (kg/jerib, 1 jb=0.2 ha) and percentage of respondent who applied fertilizers

Quantities (kg/Jerib)	FAO kit		Local		other improved	
Irrigated seeds planted	26.3	% of HH	27.7	% of HH	29.8	% of HH
DAP applied	25.0	98.1	20.4	76.5	23.6	81.1
Urea applied	25.0	97.7	20.4	58.1	22.1	80.3
Rainfed seeds planted	14.9	% of HH	17.1	% of HH	18.1	% of HH
DAP applied	13.5	80.5	14.4	21.2	24.0	11.4
Urea applied	9.4	17.5	11.3	10.8	21.3	14.3

Source: Matthias Mollet

229 Due to the risk of late frost, many seedling and vegetable producers have adopted plastic tunnels or are considering doing so. In this respect the 212/ITA component on vegetable production has developed an interesting package composed of plastic tunnels, plastic mulching and micro-irrigation. The system seems to be more efficient than local tunnels to protect seedlings from frost, and in 2003 many farmers around Kabul reportedly bought their seedling from the project because their own seedlings had frozen. The component also generated a significant vegetable production around Kabul, which was donated to an orphanage and a school for the blind.

3. Variety Performance

230 All the *irrigated* varieties distributed seem to be performing well and to be well suited to their regions of distribution. Only one inappropriate variety choice was reported to us for irrigated varieties (Dai Kundi – Orozgan province, which is too high for the distributed Rana).

231 Rain-fed varieties performed well in the lower, flatter lands. But extensive failures were reported and witnessed this year in Sar-i-Pul province (hilly rain-fed belt from Maimana to Samangan). They are probably due to late frost and less rain water being available in hilly terrain due to run-off. In short, the most adverse or heterogeneous *lalmis* are still a challenge for variety improvement.

232 Due to extensive seed production and distribution programmes operated by FAO and NGOs during the war, as well as thanks to pre-war extension services, land races or local cultivars have been largely replaced by improved varieties in rural Afghanistan. Some local cultivars are still planted though, particularly on unfertile land or by farmers who cannot afford to buy fertilizer. We are therefore often not in a position where FAO varieties would typically replace local ones. Rather, they often replace older improved varieties. But since most of the older varieties have become susceptible to diseases, there are reasons to believe that the varieties distributed last year will bring about a production surplus.

233 A winter agriculture survey carried out jointly by the MAAH/MRRD/FAO/WFP from December 2002 to January 2003 in 104 districts in 30 provinces of Afghanistan indicated that improved varieties and fertilizer are widely used. Fertilizer use was also found widespread. Amongst the sampled households, about 54 percent of the area planted in wheat in 2003 was sown with improved varieties released in the last 10 years (28 percent from FAO seeds programme and 26 percent from other sources). The rest (46 percent) was sown with local varieties or improved varieties introduced more than 10 years ago, such as the widely used Zardana in northern Afghanistan. However, the winter survey observed that the use of improved varieties is lower in the provinces of Faryab, Sari Pul and Ghor.[35] Faryab and Sari Pul present the particularity of having a lot of loamy, steep hills cultivated in rain-fed wheat, a difficult terrain for improved varieties as explained above. Ghor is a high altitude province.

Box 3: Thousands Grains and the Poverty Cleaner

Afghan farmers like improved varieties so much they give them nicknames Here are two examples from non-FAO varieties. FAO-released varieties bear local names of rivers (Amu), mountains (Pamir) or regions (Ghori) and are therefore rarely given nicknames.

Probably the first High Yielding Variety (HYV) disseminated in Afghanistan, *Mexipak* was a CYMMIT line adapted and released in Pakistan in 1965. Sold to Afghan farmers in the 1970's, it had such an impact on household food security that farmers called it "*Nestepak*" – literally the "*Poverty Cleaner*". It is to this date still cultivated by some Afghan farmers, although it has become very susceptible to rust.

Zardana, a variety tested in the ICARDA Baluchistan Agricultural Research Institute in Quetta and apparently propagated in Afghanistan by FAO in the 1990's, is now widely cultivated in the north. It has been distributed by the Red Cross in 2002, although it is also rust-sensitive and as such is not recommended by FAO. The denomination "*Azer Dânah*", which translates as "*Thousands Grains*" in Persian, is probably a local nickname.

Sources: O. Cossée – A. Fitzherbert, personal communications

234 Zardana (not approved and distributed by FAO) is still a good variety, much appreciated by farmers and well rated in the post-distribution surveys. The rust-resistance, which is the main advantage of FAO new varieties as compared with older improved varieties such as Zardana, is not always a critical factor in particular since rust was not a particular problem during the 2002-03 campaign. The fact that Zardana did not face much rust pressure in 2002-2003 may be attributable at least in part to the FAO seed programme. The variety is neither distributed nor recommended by FAO due to its sensitivity to rust. The fact that the country was covered with diverse FAO rust-resistant varieties may make it difficult for the fungus to spread. But the weather must have been another factor: after a cold and wet winter and early spring, most regions in the country switched to a warm and dry weather in April-May. These conditions are unfavorable to rust propagation.

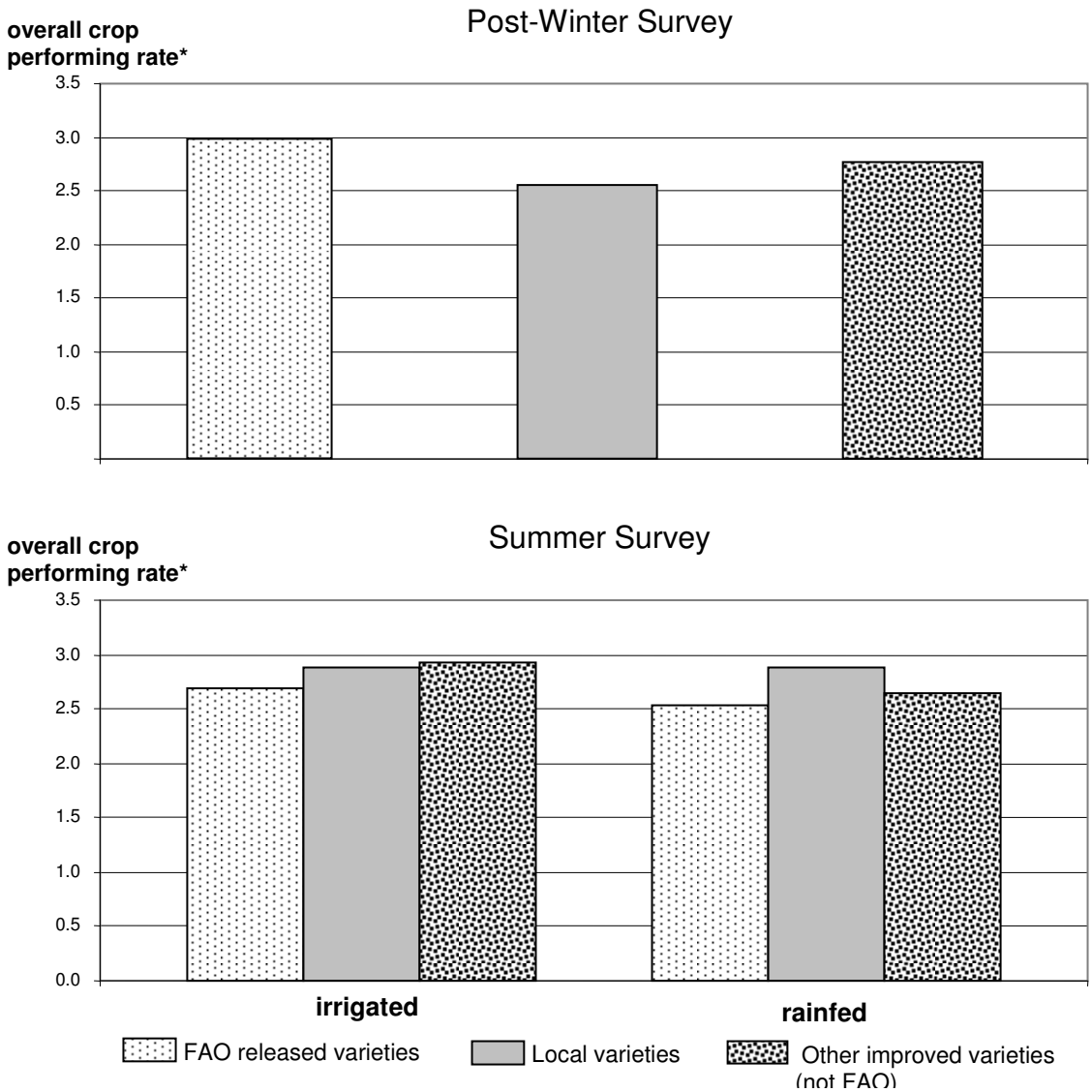
235 Pamir-94 represents a particular case. A high-potential, winter-hardy variety that is generally appreciated in elevated areas, Pamir had been said to allow winter cropping in Bamyan or Badakhshan where previous varieties, more susceptible to cold and lodging, could only be planted in spring. The Review team could verify this significant evolution of the farming system from spring to winter wheat cropping during the July mission in Bamyan, although the change appears to be also linked to a steep decline in animal

[35] WFP/FAO Crop and Food Supply Assessment, 2003.

husbandry consecutive to the drought. Cattle, sheep and goats were traditionally sent to graze on harvested fields in autumn. There is virtually no animal left and fields can be planted sooner, taking advantage of winter-hardy, rust-resistant and high yielding variety such as Pamir-94. This impact represents an important achievement because yields are significantly higher in winter cropping, as much as double that of wheat planted in spring due to the longer growing period entailed. As a further impact, the dissemination of Pamir-94 and its higher yields also reportedly allowed farmers to plant less wheat and more potatoes, an important cash crop in the central highlands that is now planted on 70% of the irrigated fields in the Bamyan valley.

Figure 6:

Overall Farmers' Rating of FAO Seed



* 1 = bad, 2 = fair, 3 = good, 4 = excellent

Source: Matthias Mollet

236 The post-distribution survey undertaken in early spring 2003 indicates that FAO released varieties are the preferred choice for benefiting farmers (Figure 6). This perception has

however changed in the last survey undertaken in summer at harvest time, where interviewed farmers rate the FAO distributed varieties lower than local or other improved varieties. The survey report does not explain this discrepancy, which comes as a surprise because the yields reported in the same summer survey appear better for FAO varieties.

237 This apparent contradiction may reflect the issue of seed impurity and rye infestation, which really becomes apparent at flowering and earing stages. Some interviewed farmers may have used this opportunity to register their dissatisfaction about the excessive concentration of rye in their fields planted with FAO seed. There was no query on seed purity in the questionnaire.

238 The performance ranking for individual varieties may be less trustworthy because of the small sample for some varieties. The analysis of the surveys shows that the following FAO released varieties are rated best: Ghori, Gul, HD, Inquilab irrigated, Pamir and Roshan. The only rainfed variety which found in this group was Ghori. Amu, Bakhtawar, PBW and Rana were rated fair. Inqilab as a rain-fed variety was rated poor, not surprisingly since it is basically an irrigated variety. Its performance on rain-fed land seems highly variable. Obviously there are regional variations. Bakhtawar for instance appears well appreciated by farmers interviewed by the Review team around Kandahar.

4. Impact on Wheat Yields

239 The main conclusion from the recent crop and food supply assessment[36] was that "increased use of fertilizer and improved varieties has resulted in a record cereal crop in both rain-fed and irrigated sectors. Exceptions were provinces in the south and south-west where drought conditions have persisted. Effective control and low occurrence of pests together with timely distribution of agricultural inputs in needy areas also had positive impact on crop yields."

240 Part of this national "bumper harvest" can clearly be attributed to FAO. The development programme made a whole array of new, rust-resistant varieties available and widespread and the emergency programme spread those varieties further and may have allowed cultivation of more land than would have been the case without it.

241 However, the late delivery of wheat seed has affected yields in some locations. The worst case we saw was Logar, where a combination of late planting, a lack of irrigation water at planting time and subsequent winter killing affected many fields. The sub-standard nature of perhaps half the wheat seed distributed in autumn 2002, with a high concentration of rye seeds, is also affecting yields in about a third of the locations visited by the team, with rye populations in the 20 to 30 percent being common. Late frost in end of March – early April also impacted very negatively on horticulture productions (grapes, fruits and vegetables) and wheat production in the east and north.

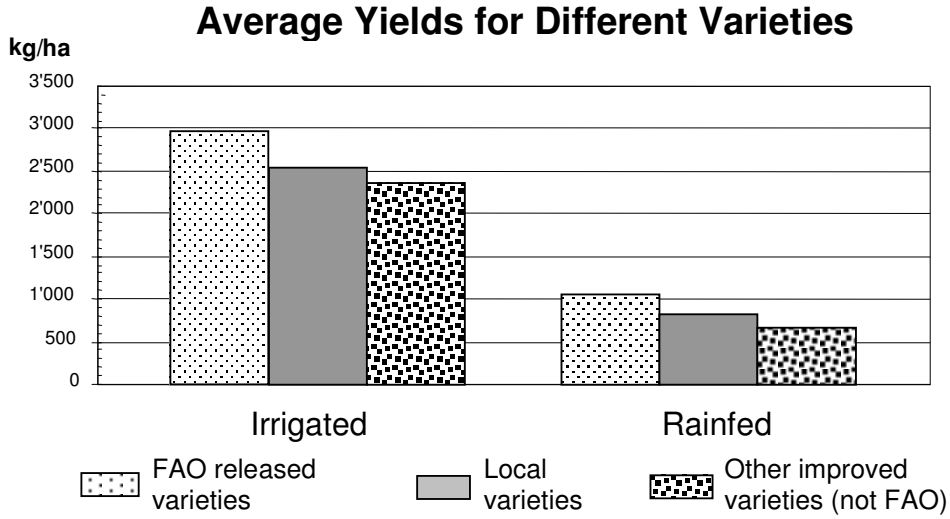
242 According to the post-distribution surveys, the FAO released varieties out-performed local and other improved varieties in terms of yield (Figure 7). The overall yield average for FAO irrigated varieties is almost 3,000 kg/ha, compared to 2,500 kg/ha for local varieties and 2,400 kg/ha for other improved varieties. This represents an increase of 33%. For rainfed varieties the yield average for the FAO distributed seeds was 1,050 kg/ha compared

[36] FAO / WFP, Crop & Food Supply Assessment - August 2003.

to the 835 kg/ha for the local varieties. The yield of the other improved varieties was even smaller, which is a bit surprising.

243 These yields are lower than what could have been expected with QDS seed and fertilizer, but not lower than what mentioned in project documents. Some of the fields we visited were at 7 MT/ha, and many could yield about 5 MT/ha.

Figure 7:



Source: Matthias Mollet

5. Generated Grain Production and Cost-Effectiveness

244 The Review team has attempted to estimate the generated grain production through a comparison with a hypothetical "without project" situation and, on this basis, approximated the cost-effectiveness of the input distribution programme through a comparison with what it would have cost to import the equivalent of this generated grain production from abroad. The full computation is displayed in Annex 5.

245 The computation is based on the yield differential between local and FAO varieties described above. The "without project" situation is obviously hypothetical. Clearly, most beneficiaries would have planted their own seed or seed from some other origin if FAO had not provided them with seed. However, many beneficiaries might have planted more land thanks to the FAO and NGO distributions than they would have cultivated otherwise. Based on our discussions with benefiting farmers, we consider the following hypotheses reasonable:

- Low impact hypothesis: 10% of the land planted with FAO seed would not have been planted without the FAO distribution;
- Medium impact hypothesis: 20%;
- High impact hypothesis: 30%.

246 Based on these hypotheses and cost estimates for food aid purchase, transport and administration from WFP, it is estimated that the FAO agricultural inputs distribution

programme in autumn 2002 generated an additional production ranging from 18,000 to 30,000 MT of wheat in spring 2003. Importing the equivalent grain from abroad would have cost between 1.5 to 2.4 times more than the overall FAO wheat and fertilizer distribution programme in autumn 2002 (US$5.5ml).

247 Note that the national wheat production in 2003 was the highest on record. The emergency distributions generated less than 1% of this bumper harvest, though they helped spread varieties which effect on production will be sustained over several years, a medium-term benefit not taken into account here because such multi-year benefit analysis would have require a wealth of data that are thus not available to the Review team.

248 Another issue with this computation is that the full substitutability of food aid and seed aid may be questionable. The basic premise of the following analysis is that donors have a choice between food aid to bring in food on the one hand, and seed aid to generate a food surplus on the other. Yet:

- Seed aid generates a surplus after four to nine months, not immediately, therefore seed aid presupposes that farmers have no immediate and/or crucial food insecurity problems;
- Seed aid works well with farmers, while food aid is normally distributed to vulnerable people most of whom presumably would not have access to arable land. The surplus generated by farmers may not be available to vulnerable groups, because to them food insecurity is more likely to be an access problem than an availability problem.

249 This being said, some farmers are food-insecure, and a surplus in production normally leads to lower prices and hence greater availability and access to food. Therefore the two approaches, while not totally interchangeable, can still be compared meaningfully, provided one keeps in mind the above caveats.

6. Impact on Wheat Prices and Wages

250 Extensive lalmi cultivation in 2002-03 due to good rains in spring, the resulting "bumper harvest", combined with demand for labour for poppy harvesting and the pick up of commerce and reconstruction, have led to a shortage of manpower at harvest time, high wages and low wheat prices.

251 The 2003 crop and food supply assessment found that "in response to ample supply, average prices of wheat have fallen sharply in some surplus producing provinces such as Kunduz, Takhar, Bughlan and Balkh [Northern provinces]. In certain areas wheat prices are just above the break-even point with expectations that they may fall below the cost of production once the bulk of the harvest enters the market. Rising wage rates have also increased production costs this year significantly. Moreover, the terms of trade have shifted against these farmers as the prices of all other consumer goods relative to grain prices have increased. […] It was noted that labour shortage did not affect significantly the harvesting of crops, but some delay in completing the harvest was noted in parts of northern Afghanistan."[37]

[37] Ibid.

252 We would like to argue that a combination of high wages at harvest time, low wheat prices and erratic yields in rain-fed areas is bound to affect the economics of *lalmi* (rain-fed land) harvesting. In Sari Pul for instance, many fields were not worth the labor cost entailed in their harvest, or just equal to it. A majority of interviewed farmers said that on their worst fields, they would be happy to find workers that would harvest and keep all the wheat (and leave the farmers only hay), or were considering having their fields grazed by cattle or sheep.

253 Farmers having planted much *lalmi* lands found it difficult or uneconomical to harvest all their fields. One should remember that rain-fed wheat is a very extensive and highly speculative production system. As a result, some *lalmi* fields may not be harvested in summer 2003.

7. Impact on Other Crops

254 The vegetable kits allowed the cultivation of some 300 sq.m. each, i.e. quite a significant garden. The induced production was estimated at 400 kg of vegetables, enough to generate a marketable surplus. However, late frost in April seriously damaged production in some areas in the north and Bamyan.

255 It should be noted that there is much vegetable seed available on the market, though quality is often an issue. Many visited farmers were producing onion and onion seed. The market for the most easily transportable vegetables is clearly picking up.

256 One of the goals of these vegetable seed distributions was to provide an alternative to poppy production. This might have worked in some cases, e.g. in Sari Pul where no poppy has been reported to date. But in regions where farmers have already started opium production, it is unlikely that simply distributing seeds and fertilizer would veer them away from such a profitable crop.

257 A small minority of beneficiaries (17 percent) declared that they did not use the distributed fertilizer DAP on their rain-fed wheat crop. Others may have incorrectly declared that they used all of the received fertilizer on their wheat, while they kept a bit for other crops, possibly poppy, since the crop is gaining importance, as seen in section B.1 Overview of Afghan Agriculture.

258 A comparison between the seed and fertilizer distribution maps and the latest UNODC map of opium poppy production (see Annex 4: Maps) indicates limited overlap, mainly in the south (Helmand, Oruzgan), center (Logar, Wardak) and north-east (Badakhshan). The east (Nangrahar, Kunar) is a very important poppy production area where FAO distributed no input, mainly because ICARDA was distributing there.

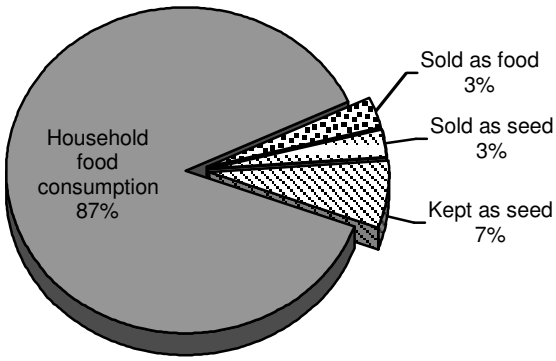
259 A significant impact of the programme on poppy production, either positive or negative, is therefore unlikely. It is however possible that a small part of the distributed fertilizer ended up on poppy fields. The Review team, although it never discussed the matter frontally with farmers, is aware of a few instances where this might have been the case.

8. Impact on Food Security

260 Except in a few marginal areas such as Sari Pul, the programme has produced good or very good crops and one can safely assume a strong impact on household food security. This was one of the main objectives of the intervention.

261 The additional grain production induced by the programme can be estimated at 200 to 500 kg per household depending on the yield, presence of irrigation or not, and rye concentration. While the variability in the data is very wide, this typically amounts to 10 to 30 percent of the total household wheat production.

Figure 8:
Use of the Produced Grain



Share used to reimburse loan unknown at time of review.
Source: Matthias Mollet

262 The majority of farmers interviewed in the post-distribution surveys said they would use most of the harvest obtained from the FAO distributed seeds to cover their household grain food needs. Some farmers kept the majority of the production as seeds, as they were satisfied with the performance of the variety received and took the advantage to renew their seed stock (Figure 8).

263 The final survey report computes that 68 percent of wheat seed and fertilizer beneficiaries were able to reach food self-sufficiency with all the wheat they planted this year, with a higher rate for those which received the irrigated kit compared to those with the rain-fed kit. However, the number of beneficiaries who were able to reach self-sufficiency *before* the emergency distributions is not known.

Box 4: Winter-Hardy Varieties Reach Bamyan

In 2002-2003, the NGO Solidarité distributed 90 MT of wheat seed and fertilizers as well as vegetable seeds and tools to over 600 farmers in 161 villages in the Bamyan province. The wheat seed and fertilizer was received on time (early October) and sold at a subsidized price equivalent to US$ 12 per kit. Beneficiaries were selected in advance by the NGO and community representatives, and given cards as evidence of their selection. Mohammad Ali Topchi has received both the vegetable and wheat kits and was quite satisfied about them. He planted his okra, carrots and onion seedlings in the middle of his potatoes field to protect them from theft. His wheat field had little rye and “off-types” and its potential yield was estimated at 5 MT/ha. According to him, the distributed Pamir-94 yields as much as one third more than the variety he used to plant, allowing him to plant less wheat and more potatoes. He would now like to try Gul-96 because Solidarité variety trials show an even higher yield than for Pamir-94.

264 The impact of the programme on wheat production, the rise in wages and a low wheat price also mean that net wheat buyers, be they small farming households or city dwellers, find it easier to purchase the wheat they need to feed themselves.

9. Equity in Input Distributions and Impact on Communities

265 Beneficiary targeting depends very much on the willingness of the concerned IPs to undertake lengthy surveys and facilitate the process. Some do it, most do not and delegate this task entirely to the village councils or shuras. Shuras left to their own devices (in particular where representation is limited to half-a-dozen prominent figures) will in most cases attribute the seed and fertilizer to themselves, and whatever is left over to other farmers. This tendency is reinforced by the fact that the better-off have better access to key production factors such as land and water (e.g. tube wells).

266 Under the beneficiary selection modalities of the autumn 2002 and spring 2003 campaigns, most of the programme's goodies went to average or even to well-off farmers. The average land owning declared in post-distribution surveys has moved from 17.4jb in the first survey (9 jb irrigated and 8.4jb rain-fed) to 14.7jb in the second survey (6.54jb irrigated and 8.21jb rain-fed). In general it can be concluded that these declared land owning of beneficiaries are average for Afghanistan or even above average for the first survey. The data collected by the evaluation team in the second mission supports this conclusion.

267 There are a few exceptions, wherever the NGO in charge of beneficiary identification took it upon itself to select the poorest in the community. Among the NGOs that we visited, ACF selected many sharecroppers and farmers with small land ownership. DACAAR also seemed to have selected more vulnerable households than most NGOs did.

268 The size of the distributed package (50 kg of seed, 50 kg of urea, 50 kg of DAP) may be a factor here. Sufficient to plant 2 jeribs (0.4 ha), the package for irrigated conditions is worth some Afg.1500 (US$30) in the least and may be viewed as a "bounty" attractive enough even for well-off farmers. In addition, pre-war research has tended to demonstrate that the application of 50 kg /jb of DAP was not economical in irrigated wheat, and recommended a dose of 25kg/jb.[38]

269 Distributing smaller packages to more people, or allowing the distributing NGO to define the size of the package in consultation with local shuras, may help reach out to the more vulnerable farmers. If the seed and fertilizer were distributed free, the best (or least bad) solution in terms of equity would be to distribute the same amount, albeit small, to all farmers in a given area.[39]

270 The emergency programme has been experimenting with a more formal and participatory beneficiary selection process in autumn 2003.[40] The new methodology adds data from the

[38] Prof. A.Q. Samin, personal communication.

[39] This sort of blanket distribution to all farmers in a community may be happening already albeit unnoticed by the programme. It has been reported that some communities, dissatisfied with the selection of a limited number of beneficiaries among them, took it upon themselves to redistribute the programme inputs to all farmers in their community.

[40] During the second review mission, the new methodology was being tested in a few villages under the guidance of Javier Escobedo, ECU Agronomist.

MRND on natural disasters, acute malnutrition data from UNICEF and UNHCR numbers of returnees to the data sets used in 2002 for geographic targeting. The methodology envisages formal village meetings facilitated by the concerned NGO for the selection of beneficiaries at the village level. This approach is promising and deserves to be tested on a large scale.

271 Another interesting feature is the repayment scheme, whereby *shuras* would recover 4 bags of grain (or perhaps seed) for every kit of 3 bags (seed, urea and DAP) and use this resource to spread benefits further. The *shuras* are supposed to be the driving force for the recollection, but in effect much depends on NGOs "facilitating" the process. Some seem to be trying seriously (e.g. ACF, Afghanaid, AKDN, MCI). Others prefer to sell the inputs at subsidized price (Solidarité, AREA, Swedish Committee) rather than go through the trouble of recollecting the loans. Yet other NGOs rely on *shuras* and decentralized governmental officials to facilitate the recollection process. This work is quite difficult for NGOs with limited staff on the ground. Some farmers find excuses and/or get political support from the *Uluswal* (district) office not to repay. It was too early at the time of the Review to tell how many of the loans would be recollected.

272 Many interviewed *shuras* said they would redistribute the collected wheat as seed to farmers who have not received seed in 2002 (secondary beneficiaries). Other said they would fund collective works with the wheat. Eighty-six percent of beneficiaries interviewed in the post-distribution surveys have stated that they are willing to reimburse their loan.

273 Note that the recollection of 3 to 4 bags of wheat per farmer and their redistribution by shuras *as seed* may help spread the benefits of improved varieties, although the quality of such seed would be open to question, depending on good crop husbandry by the primary beneficiary and his effective payback in wheat of the variety he received originally, and in grain from another field or from the market. Most of the recollected wheat will probably be used as grain – either monetized, handed out as food to vulnerable households or used as food-for-work – but one cannot rule out the use of some of it as seed. Whether this is the case or not, the varieties distributed by the emergency programme are likely to be disseminated further is in subsequent years thanks to farmer-to-farmer exchange.

274 The development programme is understandably more skewed towards well-off farmers than the emergency programme. We met during our second mission with quite wealthy contract growers (see Box 5). While these people are probably good contract growers, capable of delivering quality seed in sufficient quantity, they clearly did not need the subsidies in fertilizer price the programme was extending to them until 2002.

10. Impact on Resettlement of Refugees and Internally Displaced Persons[41]

275 Some wheat seed and all the vegetable seeds and tools projects included the facilitation of refugee resettlement as one of their objective. The vegetable seeds and tools distributions have targeted returning refugees quite specifically, to the extent that in one project implemented with UNHCR, the kits were distributed when refugees were boarding on

[41] UN agencies and singularly the UNHCR often make a distinction between "refugees", leaving their own country to seek refuge in another one, and "internally displaced persons" who sought refuge in another region of the same country. For brevity's sake we do not maintain this distinction in the present section and indifferently call both groups "returning refugees" or "returnees".

UNHCR trucks. Monitoring reports indicate that most of these kits were used by farmers and produced crops, and that must have been of some help to the returning families. The wheat seed and fertilizer operations, conversely, listed returning refugees as one of the vulnerable groups the distribution should target. The post-distribution surveys indicate that about 18 percent of all wheat seed beneficiaries were returning refugees.

276 Returnees clearly constitute a group in need of assistance. They may not have been able to cultivate their land while away from it, and therefore may lack self-grown seed. Even when the returning household has been able to keep its land under cultivation while they were refugees and therefore may have an easier access to seed of reasonable quality, receiving the kits from FAO allowed them to save resources for other needs or to reimburse debts.

Box 5: Some Prosperous Contract Growers

The Afghanistan seed development programme has always admitted it tended to work with well-off farmers to facilitate seed multiplication. Here are two of the richest contract growers we met during our second mission. Although they are obviously not representative of other contract growers, they illustrate the tendency of the development programme to work with "progressive farmers", in a classic development approach where social justice is less important an objective than supporting agricultural production. For security reasons we could not visit contract growers from the NGO VARA, but the NGO staff reported that some of their biggest contract growers in Bakoah, Farah province owned about 600 ha of land.

Hadji A. M. from Logar has been a contract grower with **ISRA** for the past 8 years. He owns 12 ha of irrigated land, one tractor and one deep well to water his orchards (2 ha) and his onion and potato field (2 ha). Last year he sold 22.5 MT of wheat seed to ISRA. He planted 5.6 ha of wheat in autumn 2002, all under contract with ISRA. His yield was about 7 MT/ha, so he could sell some 35 MT to ISRA this year. His main motivation to work as a contract grower was the provision of subsidized, good quality fertilizer until 2002. But the FAO development programme does not sell fertilizer anymore, and there are a lot of fraudulent goods on the market, such as urea mixed up with salt. So he set up his own shop to import fertilizer from Pakistan. He is also importing consumer goods from Dubai for selling on the local market. "What else can we do? Wheat doesn't pay anymore."

K. M. Z. lives near Kandahar. He has been a contract grower with **MCI** for the past 6 years and sold them 22 MT of wheat seed last year. He owns two tractors and 60 ha of irrigated land, 20 of which are under wheat and maize double-cropping, another 20 ha are planted in black cumin (*Bunium persicum*), and the rest under various cash crops (onion, mungbean, groundnut, cucumber). His average wheat yield this year was about 5 MT/ha. Many sharecroppers work on his land; his share of the harvest is usually four fifth while sharecroppers get only one fifth. He had to dig ten tube wells during the drought; one was drying up after the other. This costed him a lot of money and he asked for help in terms of irrigation and fertilizers.

Part 3: Looking Forward: Recommendations and Lessons Learned

I. Emerging Issues: the Future of the Seed Programme

277 The 2003 harvest was the best on record. The first and foremost issue about the future of the emergency input distribution is obviously: Given that the wheat production has been restored nationally and that seed availability is not longer an issue, should TCE keep on emergency input distributions or should it start de-emphasizing them? Many refugees have still to come back and could use some help. The distributed volumes should normally decrease rapidly to take into account the good 2003 harvest. The security situation represents an increasing concern. Continued or even renewed fighting could still stem the rate of return of refugees and disrupt large-scale operations in parts of the country.

278 TCE-operated emergency seed distribution projects have significantly contributed to refurbishing the facilities of the seed production programme with equipment and machineries that were looted or damaged during the conflict in 2001 (22 portable seed cleaners, 6 mobile seed cleaners, 16 tractors and trailers, 18 threshers, 50 motorcycles, two full sets of laboratory equipment, for a total estimated value of US$1 ml). In addition, in autumn 2002 and autumn 2003, the emergency projects procured from the implementing partners of the FAO long-term seed production programme a total of 6,700 MT of quality declared wheat seed (QDS), worth approximately US$1.9 million. Yet subsidizing the seed sector in Afghanistan over the long term may induce an assistance syndrome, making both seed producers and consumers dependant on external assistance.

279 There is currently no precise plan for the utilization of the sale proceeds accumulated by multiplication IPs (ISE, ISRA, VARA, etc.). After a season when all relief agencies procured seed from a few FAO-supported organizations, sale proceeds now represent a significant resource (at least US$6 ml at the time of the mission) to which FAO, UNDP and WFP largely contributed: all equipment and most consumable were charged to the seed programme for years, and IPs procured the seed free of charge thanks to food-for-seed.

280 The current policy of the Afghan Government is to privatize public enterprises. The fate of ISE is not decided yet. Privatization is favored by the MAAH, but may face some resistance in the Ministry of Finance, custodian of public enterprises. No investor has come forth with an offer yet. The EC project document lay out a cautious path towards privatization, planning to privatize "some of the 17 existing Seed Production Units" and upholding the role of ISE as a public provider of *foundation seed* to a gradually privatized seed industry. Much of the EC project is concerned with the creation of a national seed quality control mechanism under the statuary cover to be provided by properly drafted seed legislation, a much-needed and relevant endeavor.

281 It should be noted that most seed sector specialists these days tend to advocate seed production by a network of farmers rather than by one big public enterprise. This was exactly the strategy pursued for years by the FAO seed development programme. Its network of dispersed contract growers, a network adapted to war times, may prove to be an

asset in times of peace as well. It should be viewed as a valuable resource to be taken into account in any future scenario for the sector.

282 State farms, including ISE's, are being "privatized" forcefully by commanders and local populations, in particular in the north. In the view of the Review team, this constitutes an urgent policy matter for FAO and the Government. Some skaters may have valid legal claims on ISE land, while others may just take advantage of the agency current weakness. ISE is clearly incapable of cultivating all its farms, nor does it need to if its purpose is to produce foundation seed to a private seed multiplication sector. But the restructuring of ISE assets must proceed in an orderly manner to avoid a land grab by commanders that could definitely cripple the agency. Fortunately the governor of Herat, Ismael Khan, has always supported the local ISE branch and its large and well equipped Falahat Farm.[42]

283 The 2003 Crop and Food Assessment raised the issue of water rights on long canals flowing through several villages. Villages and local commanders controlling the head of irrigation systems have tend to use "more water than their traditional share, to irrigate on a permanent basis what used to be intermittently cultivated land. Therefore, villages at the tail end of the system are left with water insecurity as to when and how much water is flowing in their irrigation canals. [Their] lands become simply part of the surrounding desert, with no possibility of cultivation."[43] The Review encountered related situations. It is quite clear that a long term political solution and the establishment of the rule of law at the provincial level are prerequisites for long-term gains in agricultural production.

284 One source of concern for the support to the seed sector in Afghanistan in the future is the apparent tendency of the ICARDA country office not to abide by the MoU re-affirming the need for more cooperation between FAO and ICARDA and spelling out areas of competence for each organization.

285 A void in the seed policy area (and more generally in agricultural policy setting) has been recognized by all, and partners are looking at FAO to fill this gap. The Code of Conduct was a good start, and did disciplined donors and agencies to some extent, but it is only a stop-gap measure. The support given by FAO to set up of a National Seed Council clearly goes in the right direction.

J. Recommendations

Phase down seed aid and diversify the FAO portfolio

286 Following the 2003 bumper harvest, to which the emergency programme contributed, the amount of seed distributed in 2003 and 2004 should normally decrease significantly, with due consideration to the volatility of the current political situation and the persistence of natural disasters such as drought or floods.

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[42] Falahat farm, close to the Herat airport, is the ISE farm *par excellence*, a stretch of 2,200 ha, of which 250 to 300 ha have been leveled and are irrigated by four massive tube-wells. The farm was rehabilitated by FAO in the 1990s. Ismael Khan has donated US$ 50,000 to repair one additional tube-well.

[43] FAO / WFP, Crop & Food Supply Assessment - August 2003.

287 TCE should heed the call of the May 2003 Stakeholder Workshop on Effective and Sustainable Seed Relief Activities and of the Commission on Genetic Resources for Food and Agriculture by studying thoroughly the informal seed systems used by farmers, how they were affected by the drought and conflict, and what are the remaining areas or groups that are seed insecure.

288 While it progressively phases down its emergency seed aid operations, FAO/TCE should expand its present involvement in the policy area, the rehabilitation of irrigation systems and extension / animal health services, and the setting up of a viable agricultural vocational training system.

Target more precisely

289 Geographical targeting i.e. the quantities of inputs and varieties to be distributed per province and district, shall be finalized in June for the autumn campaign. The criteria used in the autumn 2003 distribution seem appropriate. At the district level, decentralized government authorities should be working with FAO regional representations and NGOs to design a distribution plan that would address the main needs at an aggregated village level.

290 The best approach to beneficiary selection may be to focus on 1) farming households having returned to their village in the past year, and 2) farmers having gone through natural disasters such as floods or continued drought. The criterion of access to land is of course to be maintained, but this does not necessarily means ownership. Farmers renting out land and possibly sharecroppers should qualify as well. With respect to the process for household selection at the village level, the new approach promoted by the programme deserves to be tried on a significant scale. If and where this is not feasible, the programme could ask *shuras* to draft beneficiary lists but there should be time allocated for a verification of *shuras*' lists by NGOs (at least one month).

291 For the 2003 autumn and 2004 spring campaigns, the ECU has strengthened the collaboration with MAAH for targeting beneficiaries and monitoring activities. The ECU will train MAAH staff at central and decentralized levels to increase the national capacity to respond to emergencies. Only those districts and people certified to be facing an emergency (flood, drought) should be entitled to receive free or subsidized agricultural inputs, for instance through a voucher scheme. As for returnees, they could be endowed with a basic tools and seed package as part of a UNHCR repatriation package, as was the case for vegetable seeds in 2003.

Plan well and distribute sooner

292 Although funded by different donors, TCE has implemented the spring 2002, spring 2003 and autumn 2003 input distribution campaigns as single programmes, with (a) one single procurement process; (b) one global distribution plan; (c) one global plan for the Letters of Agreement (LoAs) with NGOs; and (d) one global monitoring and evaluation process. However, TCE reported individually to the various donors on programme achievements, and the maintenance of accounts has proven arduous. To lower transaction costs, a programme approach should be negotiated with donors based on the Transitional Assistance Programme for Afghanistan (TAPA), whereby a single input distribution programme per year or per campaign would be formulated based on the consolidated appeal and financed jointly by different donors. Those vying for visibility should be given

whole geographic areas or particular types of goods. For such types of national emergency programmes, FAO should advocate relentlessly for the adoption of a single set of reporting procedures accepted by all donors.

293 The funding of such a programme – or of discrete projects if they are continued – should be closed no later than June. As the FAO emergency programme is well aware of,[44] it is better to refuse or postpone funding than accept them and fail to deliver on them.

294 It is crucial for the quality of beneficiary targeting that Letters of Agreements with Implementing Partners are signed earlier than is currently the case. More generally, the calendar of emergency distributions should be brought earlier by at least one month: finalize quantities and varieties with NGOs in June/July (as generally but not systematically done in 2002) so that they can organize the beneficiary selection and distribution properly in August-September; procure seed and fertilizer as early as possible and at the latest in August-September; dispatch in September-October. No dispatch should be done after the 15th of November, after which it is better to store remaining seed and fertilizer for the next campaign.

Improve administration and logistics

295 The Review was not intended to look at administrative issues in any significant depth. However, accounting problems and a very short-term view of staff management have been recognized as long-standing weaknesses of the programme. Hiring staff on a longer-term basis can only improve morale and a sense of responsibility to the Organization and the country. If allowed to continue, difficulties to accounting for the programme could damage the financial reputation of the Organization.

296 The fit between FAO procurement procedures and emergency operations should be further studied. Based on the result of such analysis, the procedures should be reviewed with a view to set up a multi-criteria bid analysis process, whereby each factor such as timeliness, cost, fit to specifications, etc. would be given weights rather than be determining in and by itself. Another, complementary idea would be for TCE and AFSP to jointly craft, at the onset of massive emergency operations such as those in Afghanistan, an annual or biennial procurement strategy spelling out the likely sources and optimal periods for procurement of a variety of inputs. The strategy would be approved by the procurement committee and revised as appropriate. All procurements done in accordance with the strategy would not need lengthy waivers, even if they were at odd with some part of the normal procedure, since such departure from the normal rule would have been already approved in principle by the procurement committee.

297 Logistical problems should be ironed out. As much as possible, the programme should try and avoid moving seed from one region to another. ISE Mazar should provide for the North, ISE Herat for the West, etc. Technical staff from the emergency programme must attend, control and facilitate dispatches in Darulaman and other warehouses to make sure that no shipment leaves with improper waybill, variety, or delivery address. The same technical staff should be in daily contact with regional offices to make sure they contact NGOs and prepare reception of shipments.

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[44] Some Swiss funding proposal was declined last September because it could not have been used for the autumn 2002 season.

298 FAO should continue to let NGOs approach from their own particular angle the issue of input payment at distribution time or on credit. NGOs who wish to sell the seed and fertilizer at a subsidized price should be allowed to do so. The objective must be to test and document various approaches so as to learn more about what works and what doesn't, not to enforce one single approach. If the recollection experience is successful, it could be advisable in the future to allocate specific funding to those IPs with suitable recollection activities.

Strengthen the relationship with, and capacity of, Implementing Partners

299 While keeping the Ministry-chaired agricultural coordination group, FAO should consider focusing it on policy issues, and resuming working group meetings with NGOs and lower-level ministry staff, so that implementation issues can be debated at length in a timely manner. Such working-level meetings should discuss at length, and get to an agreement on geographical targeting, the modalities for beneficiary selection, transport, distribution and reporting procedures and the methods for payment or recollection of loans for seed and fertilizer after harvest.

300 More frequent training and orientation of NGOs is required both on project implementation issues (e.g. beneficiary selection,) and on broader technical issues (e.g. vegetable and cereal crops, seed production, agronomical characteristics of different varieties and their adaptability to various agro-ecological zones, etc.). The distributions of vegetable seeds should systematically be accompanied by a small training of beneficiaries, to be provided by the distributing IP. Their capacity to provide training and extension services on the ground should be an important criterion in their selection, and should be supported by FAO. The Organization should also train the concerned Government staff in the MAAH and regional offices, involving area managers in the five provincial offices as appropriate. There may be a need to hire additional national staff or consultants to set up and operate a well-funded training programme for Government and NGO staff.

301 More generally, TCE should consider reforming its relationship with NGOs in emergency operations, now essentially envisaged on a contractual plane, to make it more of a true partnership amongst equals. FAO can provide technical expertise, good quality inputs, funds, and coordination and logistical capacity, while good NGOs provide a strong grass-root network and staff on the ground, and can operate under more difficult security situations than FAO.

Enforce stringent seed quality control mechanisms

302 Seed quality needs to be taken very seriously. FAO developed and promoted the QDS standard, and cannot compromise with it. If ISRA and VARA continue to have rye infestation problems, they should consider cleaning seed manually as done e.g. by ISE in Pul-i-Khumri or by Euronaid. Manual cleaning is done by women, often widows – hence a gender benefit – and results in very clean seed under proper supervision. The seed development programme should also step up its quality control missions and visit contract growers' fields more often, focusing on the largest contract growers who provide most of the seed.

303 Ultimately however, the TCE emergency programme is responsible for the quality of the seed it procures from the development programme, and can afford to be exigent in view of

the high price paid. Germination and purity tests should be continued, as in the past campaign, but they are too little too late. The emergency programme should set up a rapid quality control mechanism at each of the FAO warehouses, whereby competent and motivated staff visually inspect all incoming lots. Lots with more than 1% wild oats and rye seed should be discarded, not paid to the concerned IP, and removed from the FAO warehouse at the IP's own cost. If the demand of seed from different agencies continues to exceed the availability of QDS in the country, with ensuing tensions on price and quality, TCE must retain the possibility of procuring certified seed of tested varieties from seed companies located in neighboring countries.

304 As a minor point, the programme could distribute tools without their handle. This would decrease procurement and transport costs. Farmers will easily make or find good-quality handles by themselves. Stronger sickles should also be produced.

Improve monitoring systems

305 In Afghanistan, TCE invested appreciable efforts and resources into developing M&E procedures, particularly for agricultural input distributions. The post-distribution surveys conducted in Afghanistan are interesting tools and certainly have a role to play in M&E of emergency operations. They do not constitute an M&E system in and by themselves. Other key elements of such a system should be: a) NGO implementation reports, and b) rapid, participatory outcome/impact assessment at the community level. A simple and light reporting template and schedule should be designed and agreed upon with NGOs. On this basis and through extensive field trips, the programme should continuously evaluate NGOs performance in targeting, distribution, monitoring and reporting.

306 The methodology of the post-distribution survey could be improved. The following points have been noted and some have been implemented in later installments of the survey, in close cooperation with PBEE:

- The questionnaires should be designed one or two months prior to each survey and circulated for comments to concerned project and headquarters staff to make sure that they address as many relevant issues as feasible;
- The questionnaires should also include more questions on beneficiaries' satisfaction about a series of factors such as IP performance, distribution dates, logistics at distribution point, seed and fertilizer quality, varieties and adequacy vis-à-vis local agro-ecology, beneficiary selection and the likes;
- One thousand questionnaires are enough and will yield very good margins of errors; a larger sample is a waste of resources;
- NGOs having taken part in implementation should not conduct the surveys; and
- During analysis, a critical review of the data and possible biases is a prerequisite to make sure one does not jump to conclusions.

307 The possibility of introducing a control group in the sample, i.e. a group of farmers who have not benefited from the distributions, should also be explored.

Encourage transparent and relevant variety research

308 In the long term, a national capacity for variety testing needs to be set up. In the short term, FAO should insist that all actors testing varieties in Afghanistan should do so in a transparent way and disclose their statistical analysis. The most experienced NGOs should continue to participate in the trial schemes. All results should be submitted to the National Seed Council for review.

309 Significant yield gains were achieved though the improvement of irrigated wheat varieties, but the impact of the emergency and development programmes on rain-fed wheat is less impressive. Research should now place more emphasis on rain-fed than on irrigated wheat cultivation in particular in hilly, elevated rain-fed cultivation areas. This may require more staff than is at this time available to the development programme, but even more importantly, it will take a change in the research approach adopted by the development programme staff, a move towards more participatory and farmer-oriented research environments and methodologies such as well-documented farmer field trials.

310 In such a major agro-biodiversity center as Afghanistan, FAO should commission additional research on local varieties, notably but not only in wheat, as well as study the most prevalent farming systems and cropping calendars in the country. Such a small research project could produce a number of publications, including a short, synthetic guide to farming systems and variety improvement in Afghanistan, to be used in the training of Government and NGO staff.

Manage privatization

311 In the seed policy area, the current initiative to set up a National Seed Council should be pursued. An update of the seed law is also required to set the sector on firm footing, the law currently in force having been promulgated some 30 years ago. FAO should urgently address the issue of ISE farms being seized by commanders and communities. Some of this land may have been originally nationalized without proper indemnities, and ISE may not have the capacity to cultivate all of it so returning the land to their original owners may be of benefit to the nation, but one should think that it could be done through a legal process reviewing the claims local populations may have on the land.

312 The network of contract growers, adapted to war times, may prove an asset in times of peace as well. The privatization of the seed sector must not marginalize it. Associations and federations of contract growers should be pursued, so as to give them organization and lobbying capacity. A labeling scheme could be set up whereby the MAAH, helped by FAO, would verify production standards in farmers' fields. The first step in this direction would be to register all current contract growers.

313 Another step the seed development programme should consider is to start experimenting with seed fairs open to all seed producers and dealers (ISE, private seed dealers, contract growers, etc.). If such seed fairs could be set up under strong supervision from the development programme, the emergency programme could even use them to its advantage, distributing vouchers to its beneficiaries rather than the seed itself and thus cutting down its logistical costs. The emergency beneficiaries would then be able to redeem their kits from the fair, with increased choice in suppliers, varieties, quality and price.

K. Lessons Learned

314 From its analysis of process issues (need assessment, coordination, procurement and logistics, partnerships, etc.) the Review team concludes that the autumn 2002 distribution was on the whole well planned and correctly implemented. A few procurement and logistical weaknesses underlined in the report are worthy of further improvement. The campaign was however based on weak procedures in two critical areas: needs assessment and beneficiary selection.

315 The problem, as defined by a combination of depleted farmers seed stocks after the drought, difficult access to vital agricultural inputs due to indebtedness, and the reinstallation of returnees, is a real problem. Many farmers and returnees have significant debts, and many have not been able to save much seed from their last harvest. The question is how many, and how to reach them.

316 The dearth of information and research on the informal seed economy as practiced by farming communities is worth underlining. FAO, after over a decade of work in variety identification and seed multiplication in Afghanistan, has little to show in terms of farming system analysis. The lack of basic agro-system and seed system information makes needs assessment and beneficiary targeting all the more difficult. There is no detailed assessment on how informal seed systems have resisted to drought, and thus we will probably never know how much seed should have been distributed and to whom in autumn 2002.

317 What is clear is that while afghan farmers could have absorbed many times more seed and fertilizer, the amount of seed procured locally by FAO, Euronaid and ICARDA stretched national production capacities to their limit. Everyone was so focused on procuring large *quantities* of seeds on a tight market that *quality* considerations were temporarily set aside or given low priority by many donors and agencies, including FAO.

318 The risk exists for TCE and other partners, yielding to a combination of donor pressure, the ease and "routine" of the seed aid approach, and the legitimate desire to provide rather too much than too little support to countries and people facing disasters, to distribute too much seed or over too long a period. The only solution to this risk of "seed aid routine" lays in the development and piloting of rapid yet reasonably reliable methodologies for the assessment of seed systems and seed insecurity. As emphasized in the May 2003 Stakeholder Workshop on Effective and Sustainable Seed Relief Activities and as pointed out in a report to the November 2003 session of the Commission on Genetic Resources, "*seed relief activities should be built upon a solid understanding of all the seed systems farmers use and the role they have in supporting livelihoods*"[45].

319 The lack of ready-made, well-established or recognized *modus operandi* in other sectors affected by an emergency also plays a role. To some extent, donors prefer to fund a tested modality. Yet in Afghanistan FAO managed to convince donors to fund other sectors such as locust control, irrigation, animal health and horticulture. Policy issues are also gradually being tackled.

[45] CGRFA/WG-PGR-2/03/3: Strengthening Seed Systems, Item 4.1(b) of the Draft Provisional Agenda, Commission on Genetic Resources for Food and Agriculture, Working Group on Plant Genetic resources for Food and Agriculture, November 2003.

320 In Afghanistan the FAO emergency programme was placed in a favorable situation due to the Organization's long-standing support to the seed sector in the country. Even if synergies were slow to come, they did materialize during the autumn 2002 season: the network of seed growers set up by the development programme delivered seed to the emergency programme, the development programme lent staff and fertilizer and provided technical backstopping, etc.

321 This lends some currency to the much talked-of concepts of "emergency preparedness" and "connectiveness" between emergency, rehabilitation and development operations. Yet in practice those terms translate into lots of hard work. The people implementing development and emergency operations come from different working cultures and do not necessarily share compatible objectives. In Afghanistan, the seed multiplication programme is concerned about the long-term consequences of massive seed distributions on the viability of seed production in the future. The emergency programme would need hardy, drought-resistant varieties rather than the more productive but more demanding varieties multiplied by the development programme. These differences can be sorted out and progress can be made provided the particular individuals involved are ready to invest sufficient time and good will.

322 One point worthy of some emphasis is the relationship with NGOs, which is crucial for the entire operation if only for logistical and security reasons.[46] Programme reports and briefs tend to play down NGOs, considered as mere service providers. Yet it should be remembered that this programme was initiated by NGOs in the mid 1980's, and that FAO only came in support of these NGOs pioneering seed aid in Afghanistan. The comparative advantage of FAO in such programmes lies in its technical expertise, coordination capacity and credibility with donors, while NGOs provide the social, distribution and monitoring network at the grass-root.

323 In Afghanistan, NGOs see a need for a closer cooperation with FAO than is currently the case, with more intensive training and coordination as well as earlier and more thorough planning of joint activities. We believe that the Organization – and TCE in particular – could only benefit from a tighter partnership with NGOs, providing the professionalism of the NGOs it works with is regularly assessed, and as long as this partnership with NGOs does not come at the expense of another strategic relationship: that with central and decentralized government authorities.

[46] NGOs have usually less stringent security regulations than UN agencies have, and their staff may therefore move around much more freely than UN staff in countries experiencing emergencies.

Annex 1:
Terms of Reference

1. Background and Purpose of the Evaluation

FAO, in coordination with the national authorities concerned and in collaboration with NGOs, is carrying out a countrywide emergency seed, fertilizer and agricultural tool distribution program in Afghanistan. The program, started in the spring 2000 in response to the drought, but the focus of the present evaluation will be on the autumn 2002 program, focusing on the seed and fertiliser inputs distributions. This program is being implemented under various projects[47] and aims to improve the short-term food security of poor rural communities in selected locations that were affected by the recent conflict and continuing drought in the country.

The objectives of the mid-term review of the agricultural input programme will be to identify overall design and strategy issues and to provide strategic recommendations and orientation for the continuation of the programme and in particular its transition into development. The review will be forward-looking, concrete and specific in its recommendations with a view to providing advice to decision-makers and programme managers on approaches in input supply in the context of Afghanistan. The review will take as a starting point the recommendations and lessons learned from the evaluations carried out in the past three years on similar programmes[48] and will assess the extent of their application in the particular context of Afghanistan as well as practical constraints faced.

The consultancy will take place in two phases. The first phase (three weeks) will be carried out after the distribution and planting period while the second phase (three weeks) will take place after the wheat crop harvest.

2. Scope of the Evaluation

In close consultation with the Monitoring, Information and Evaluation (MIE) Officer:

1. Examine the relevance of the agriculture seeds and fertiliser distribution programme in relation to: its agriculture rehabilitation and food security objectives, the priorities and needs of the farming populations, and the existence of similar programmes implemented by other donors and actors in the country;

2. Review the adequacy and appropriateness of the program design, in particular of the approaches developed vis-à-vis the issues identified and objectives of the program; attention will be paid to the suitability of distributed inputs to the agro-ecological zones of targeted areas, the targeting strategy and criteria for the selection of target beneficiaries and vulnerable groups including female-headed households as applicable, as well as the input procurement approach developed.

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[47] OSRO/AFG/204/BEL, 205/ITA, 206/GER, 208/NOR, 211/SWI, and DP 9/3 AFG/02/XXX

[48] In particular: Multi-donors evaluation of the FAO emergency programme in Kosovo (FAO, 2001); Joint Sida/FAO Evaluation of Sida-funded emergency projects (FAO, 2001); and Evaluation of FAO Strategic Objective A3 (FAO, 2002).

3. Analyse the efficiency and adequacy of programme implementation, including: timeliness of the inputs distributions in relation to the cropping practices and seasons; appropriateness of procurement and distribution procedures and constraints faced; and overall performance of program management.

4. Review the results achieved against original workplans (planned seed, fertilizer and agricultural tool distribution against actual delivery; number of planned and actual beneficiaries, etc.) and constraints faced.

5. Evaluate the impact that the distribution program had on the agricultural production and more generally on the livelihoods of the target households and its effect on the overall agricultural production system in the areas covered by the operation (use made of the distributed inputs, incremental yields, production, changes in farming practices, changes of market prices, etc.);

6. Using participatory methods and involving all stakeholders (beneficiaries, Afghan authorities, national and international aid organisations in Afghanistan), assess the strengths and weaknesses of the agricultural input program in relation to all of the above (with emphasis on results and effects) and identify strategies and measures to overcome key constraints in the future and improve the impact of the program on rural livelihoods and on the overall rehabilitation of the sector.

7. Examine the synergies between the various seeds programmes and to what extent FAO's long-standing presence in Afghanistan and important support to the seeds sector (e.g. PEACE Programme) have created conditions for more relevant and effective emergency operations.

8. Together with the Monitoring and Evaluation Officer, identify information gaps for proper impact assessment and evaluation of agriculture input distribution program as well as make suggestions for future evaluations (theme and time).

9. At the end of each mission, prepare a concise technical report and summary. The first report will focus on relevance, design, implementation issues and will make recommendations on necessary adjustments for the Autumn 2003 programme (points 1 to 4 above) while the second report will focus particularly on results and effects, emergent issues, conclusions and providing strategic recommendations and orientation for the continuation of the programme (points 5 to 7 above).

3. Methodology

The team will use of key informants (both in the field and at FAO headquarters) and review of literature to collect information on:

- the history of the current seed and fertiliser situation (drought and war, etc.),
- Afghan seed markets and input supply mechanisms, including the impact of the war on them,
- impact of the war and drought on livelihoods
- farming systems and seed variety use,

- household and community coping mechanisms (to the extent possible),
- inter- and intra-region differences in seed availability before and during the crisis
- project documents; consultants' mission reports; Letters of Agreement with, and reports from NGO implementing partners
- procurement and distribution procedures followed.

The team will use to a large extent participatory rapid assessment methods to assess the results and effects of FAO's seed and fertiliser distribution program with all stakeholders involved, including beneficiaries, government authorities, community representatives, national and international FAO staff, and NGOs.

4. Composition of the Mission

The Mission will be composed of two experts:

- An international expert, specialist in seeds with working experience in emergency/early rehabilitation activities and evaluation. Familiarity with participatory appraisal methods. Good report writing skills. Fluent in English.
- An Afghan expert, agronomist, familiar with participatory appraisal methods.

5. Timetable and Itinerary of the Mission

The duration of the consultancy will be six weeks in two phases. The first phase (three weeks) will be carried out in February 2003 after the distribution and planting period) while the second phase (three weeks) will take place after the wheat crop harvest (July 2003) . Each mission will involve frequent field visits from Kabul in sites where FAO had operations.

6. Supervision and Consultations

The mission will work under the overall supervision of the Chief, Emergency Operations Service TCEO, the general supervision of the FAO Representative in Afghanistan, and the direct supervision of the FAO Programme Manager, in close collaboration with the Emergency Coordinator (EC) and the Monitoring, Information and Evaluation (MIE) Officer,with technical backstopping from relevant Services at FAO headquarters (particularly PBEE), and in close cooperation with international Senior Technical Advisers (STAs), FAO National Project Professional Personnel (NPPPs), TCEO Area Managers, and partner organizations.

7. Reporting

The report will be completed, to the extent possible, in the country and the findings and recommendations fully discussed with all concerned parties and wherever possible consensus achieved on recommendations and orientation for the future.

Annex 2:
Persons Interviewed

Government:

Mohammed Sharif	Deputy Minister	MAAH
Ghulam Mustafa Jawad	Deputy Minister	MAAH
Inoddin	Deputy Director	Logar Agric. Serv.
Mohammed Nabi Sadri	Director	Sari-Pul Agric. Serv.

Donors:

Hélène Quentrec	Afghanistan Correspondent	ECHO
Giuseppe Ramali	Coordinator	Embassy of Italy
Annette Kaiser	Second Secretary	German Embassy
Stig Traavik	First Secretary	Norwegian Embassy
Matthias Anderegg	Deputy Head of Mission	SDC
Robert Wilson	General Development Officer	USAID
Peter Robertson	Programme Manager	National Area-Based Devel. Programme (UNDP)

Organizations with similar programmes:

Nasrat Wassimi	Executive Program Manager	ICARDA
Mahmud Osmanzai	Country Coordinator	CYMMIT
Eric Lavertue	Attaché de coopération	French Embassy
Farouq Baroukzai	Attaché de coopération agriculture	French Cooperation
Richard Williamson	Country Director	Euronaid

Implementing Partners of the emergency programme:

Claire Finici	Food Security Coordinator	ACF
Waheed Wafa	Programme Assistant	ACF
Juan Garrigues	Reporting Officer	ACTED
Tadesse Zerihun	Agronomist	ACTED
Farahnaz Karim	Assistant Country Director	ACTED
Iqbal Kermal	Programme manager	AKDN-FOCUS (Agha Khan Foundation)
Abdul Razaq Nigrabi	Cooperative Supervisor	AREA
Eng. Hashmatullah	Administrator	AREA
Habib Omerkhail	Area Manager	CFA
Mohammad Omer	Agriculture Sector Manager	CHA
M. A. Haidari	Programme Coordinator	CoAR
Ester Watts	Head of PTSU	CONCERN
Charlotte Olson	Deputy Programme Manager	DACAAR Area West
Mohammad Ashem Aslami	IAD Assistance Section Head	DACAAR Area West
Jeff Gilbert	Dep. Programme Director	DCA
Syed Amid	Programme Assistant	GOAL

Sayed Ahrun Abedi	Director	HAND
Philippa Parker	EcoSec Co-ordinator	ICRC
Abdullah Nuri	Agriculture Officer	ICRC
Jado Batila	Programme advisor	Madera
Gail Long	Program Manager	Mercy Corps
Abdul Karim	Agronomist	PINF
M. Sediq Muslih	Deputy Eductation Manager	OI
Sabine Verderber	Programme Officer	World Vision
Anne Tréhondart	Gender Officer	Solidarité - Bamyan
Sylvain Marilleau	Agronomist	Solidarité - Bamyan
Lutfullah	Agronomist	Solidarité - Bamyan

Seed Producing Organizations:

Omer Ahmed Elshiekh	Exec. Director - Central Region	ISRA
Abukandi	Exec. Director – Eastern Region	ISRA
Abdul Hadi	President	ISE
Mohammad Jowad	Seed Manager	ISE
Gholam Mhd Jamsheidi	Regional Director	ISE Herat
Abdul Latif	Regional Director	ISE Mazar
Keith Polo	Agricultural Livelihoods Advisor	MCI
Mohammad Lal	Seed Production Manager	MCI
Ali Madadi	Agriculture Program Manager	MCI
Najmuddin Mojadedi	Executive Director	VARA
Shah Mahmood Farooqi	Seed Processing Manager	VARA
Karmand	Extension Worker	VARA
Karim Khan	Horticulture Officer	VARA

FAO Staff:

Rome:

Fernanda Guerrieri	Chief	TCEO
Cristina Amaral	Senior Operations Officer	TCEO
Mayoufi, Sabrina	Operations Officer	TCEO
Daniela Mangione	Operations Officer	TCEO
Flavio Di Lernia	Purchasing Officer	AFSP
Regina Gambino	Procurement Strategy and Monitoring Officer	AFSP
Michael Larinde	Agricultural Officer	AGPS

Kabul:

Serge Verniau	Representative	FAO Representation
Sayed Mahboob	Assistant FAO Representative	FAO Representation
Manfred Staab	Programme Manager	FAO Representation
Amitabh Mukhopadhyay	Internal Auditor	FAO Representation
Mona Chaya	Emergency Coordinator	Emergency Prog.
Antonio di Leonardo	Emergency Coordinator	Emergency Prog.
Wilson Towongo	Logistics Officer	Emergency Prog.
Etienne Carème	Information Officer	Emergency Prog.

Alain Jean	Evaluation Officer	Emergency Prog.
Matthias Mollet	Consultant Agronomist	Emergency Prog.
Zia-u-Rahman	National Agronomist	Emergency Prog.
N.S. Tunwar	STA Seed	Development Prog.
Ahmad Zia Aria	National Project Officer	Development Prog.
Raphy Favre	Consultant Agronomist	AFSU
Rabah Lekhal	Consultant Agro-Meteorologist	AFSU

Regional Offices:

Rajendra Aryal	Area Manager	Herat Office
Ziauddin Paiman	National Project Officer	Dvpt Prog. – Herat
Gholam Rassul Samadi	National Horticulturalist	Herat Office
Mohammad Hasib Najib	CLO Emergency	Herat Office
Bahti Mohammad Akhtar	Area Manager	Kandahar Office
Mohammad Yussuf	CLO Emergency	Kandahar Office
Gul Jan	Field Assistant	Kandahar Office
Bir Chandra Mandal	Area Manager	Mazar-e-Sharif Office
Aminullah Sediq	CLO Emergency	Mazar-e-Sharif Office
Mir Shafiuddin	National Project Officer	Dvpt Prog. – Mazar
Mohammad Ali Aman	National Project Officer	Dvpt Prog. – Yakaoland

Communities and farmers in:

Village	District	Province
Cheshma-e-Jungan	Dahana-e-Ghori	Baghlan
Chawgani	Khinjan	Baghlan
Kohna Masjed	Puli-Khumri	Baghlan
Bursona	Bamyan (Markaz)	Bamyan
Saidabad	Bamyan (Markaz)	Bamyan
Topchi	Bamyan (Markaz)	Bamyan
Isaq Suleiman	Injil	Herat
Torkan Bala	Injil	Herat
Golbagh	Chahar Asyab	Kabul
Dand	Kandahar (Markaz)	Kandahar
Charqala	Chowki	Kunar
Aubazak	Mohammad Agha	Logar
Gomaran	Mohammad Agha	Logar
Kutubkhil	Mohammad Agha	Logar
Maghulkhil	Mohammad Agha	Logar
Qala-e-Aman	Mohammad Agha	Logar
Surkhabad	Mohammad Agha	Logar
Hesarak	Puli Alam	Logar
Qale Said Akhbar	Puli Alam	Logar
Dandona	Surkh Rod?	Nangrahar
Haji Masjed	Goshpandi	Sari-Pul
Baharak	Sang-Charak	Sari-Pul
Shebekan	Sang-Charak	Sari-Pul

Boghawy	Sari-Pul (Markaz)	Sari-Pul
Kharuti	Maidan Shar	Wardak
Qala-e-Ziarat	Maidan Shar	Wardak

Annex 3:
Reports and Documents Consulted during the Review

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Amitabh Mukhopadhyay: AUD 3103, FAO Emergency Programme – Afghanistan, May 2003

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Antonio di Leonardo: End of Mission Report, FAO-ECU March 2003

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Midterm Evaluation Report of AFG/93/004 – Animal Health and Livestock Production and AFG/94/002 – Integrated Crop and Food Production in Afghanistan (PEACE programme), FAO, April 1996.

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Detailed Needs Assessment for Recovery and Reconstruction of the Agriculture Sector – Mission Aide Mémoire (TCI, Feb 2002)

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Fitzherbert: Report on Poppy cultivation (May 2002)

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A3 evaluation

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Alain Jean: Methodology for an M&E System under the Natural Resource Management Programme, Afghanistan, July 2002

Hector Maletta: The Wages of War: Food Prices and Labour Pay in Afghanistan, 1996-2002, October 2002

Peter Bezkorowajnyj, Concern: Response to Issues of the FAO midterm evaluation, March 2003

Fitzherbert: Mission to Eastern Hazarajat – July 2002

Peter Dickie: Mission to Eastern Hazarajat – July 2002

Peter Dickie: Technical report on spring 2002 distributions

Peter Dickie: End-of-Mission report

Annex 4:
Wheat Varieties Released by the FAO Seed Development Programme

#	Year of release	Name of cultivar	Pedigree or name	Introduced from	Area for which recommended	Salient features
1	1994	Pamir-94 *	7M-0M-8M-2M-0YE	CIMMYT/ Turkey	Adapted in all zones but its yield is Higher in cooler areas.	Facultative bread wheat. Plant height 97 cm, Grain color light red. Chaff color white. Days to maturity in cool areas such as Kabul, logar, Wardak and Ghazni is 279.While in mild winter areas it takes 189 days to mature. The response to leaf rust is 5R and to stripe rust is MR.
2	1996	Kauz (Bakhtawar-92)	CM7458-4y-1M-3Y-1M-3Y-08-OSY	CIMMYT	Wide range of Adaptability in lower elevations	Facultative early maturity, amber grain color, white chaff color, 86cm height, resistant to rusts. In Pakistan it has been named Bakhtawar-92.
3	1996	Gul-96	2WM-OWM-OSE-1YC-OYC	Mexico/ Turkey	cold and mild winter locations	Facultative with more winter hardiness, and prostrate growth habit. The grain color is amber the chaff color is white, rusts resistant are 0-MR. It is 98 cm tall. Days to maturity is 287.
4	1996	Takhar -96	VEE#7/ OPATA	CIMMYT	Low elevation and mild winter, good for north part	Facultative earliest maturing variety. The response to rusts is R. The grain color is between red and amber. The chaff color is white and the plant height is 99 cm.
5	1996	Roshan-96	Bloundan/3/Bb/7 C*2//Y50E/Kal*3	CIMMYT/ ICARDA	Wide adaptability	Facultative medium maturity, has white grain and chaff color. It has erect to semi-erect growth habit. The response to rust is 0-R and to bunt also showed resistant. The plant height is 94 cm.
6	1996	Rana-96	2AP-2AP-2AP-1AP-OAP	CIMMYT/ ICARDA	Cold and mild winter areas	Facultative bread wheat with prostrate to semi erect growth habit. The maturity in Logar and Wardak is 286 days. The response to stripe rust is (0-R)to leaf rust is MS. The plant height is 95 cm and the grain color is white.
7	1996	Ghori- 96	CM59377-3AP-1AP-3AP-2AP-1AP-0AP	CIMMYT / ICARDA	Rainfed areas (west part)	Bread wheat, the response to stripe rust is (0-MR).It takes 175 days in Herat and 113 days in Baghlan to maturity. The grain color is amber and the protein content is 13 %.
8	1996	Diama-96	HD2206/HORK// BUC/BUL	CIMMYT	Rainfed areas (North part)	The grain color is amber. It is an early variety. The Number of days to maturity in Herat is 175 and in Baghlan and Takhar is 113 days. It is resistant to all rusts.
9	1999	Amu-99 (Bloyka)	ICW84-0008-013AP-300L-3AP-300L-0AP	ICARDA/ CIMMYT	Wide adaptability	The growth habit is erect, the chaff color is white and the grain color is amber. The maturity dates varies from place to place. In cold areas such as Ghazni it takes 267,in mild winter areas such as Takhar, Balkh and Herat it takes 204 days to mature. In warm areas such Kandahar and Nangarhar it an average of 185 days to maturity.
10	1999	Herat- 99 (MYNA/VUL//PRL)	CM97958-0M-7Y-030M-030M-84-0M.	CIMMYT	Wide adaptability but released from Herat.	The growth habit is erect and the average plant height is 96cm. Grain color amber and chaff color white. Maturity dates vary from place to place. In cold areas such as Ghazni it takes 228,in mild winter areas such as Takhar, Balkh and Herat it takes 205 days to mature. In warm areas such Kandahar and Nangarhar it an average of 182 days to maturity. Response to rusts: (0-MR)
11	1999	Mazar-99 (Pastor)	CM85295-0101TOPY-2M-0Y-0M-3Y-0M	CIMMYT	Wide adaptability but released in Mazar	Grain color is amber and chaff color white. Plant height 94cm. Response to yellow rust is MR-R, while the response to leaf rust is 0-MR. Maturity dates vary from place to place. In cold areas such as Ghazni it takes more days to mature, in mild winter areas such as Takhar, Balkh and Herat it takes 206 days to mature. In warm areas such Kandahar and Nangarhar it an average of 175-187 days to maturity.
12	2000	Lalmi-1 (Fow-1)	SWM11147-1AP-2AP-1AP-1AP-0AP	CIMMYT/ ICARDA	Well fit for rainfed areas	Selected from RWYT-FA (regional bread wheat yield favorable areas). Grain color red. Plant height 97cm. Takes on average 156 days to mature. Grain size 2M (intermediate and medium). Response to stem rust is (0) and to stripe rust is MR. The protein content is 12 %.
13	2000	Lalmi-3 (Florkwa-3)	ICW84-0074-02AP-3002-1AP-0L-0AP	CIMMYT/ ICARDA	Rainfed areas	Selected from RWYT-SA (regional bread wheat yield semi arid areas). Grain color amber and plant height 78cm. Takes on average 153 days to mature. Grain size is small and plump. Response to stem rust is (0) and to stripe rust is R. The protein content is 12 %. and 1000 kernel weight is 38 grams.
14	2000	Lalmi-2 (Bobwhite1// Mn....)	IC88-063-1AP-0L-1AP-2AP-0TS-0AP	CIMMYT/ ICARDA from Syria	Rainfed areas	Selected from RWYT-SA (regional bread wheat yield semi arid areas). The grain color is amber and the plant height is 83cms. Takes on average 153 days to mature. Grain is plump and medium in size. Response to stem and stripe rust is (0).The protein content is 12 %.and 1000 kernel weight is 32 grams.

Source: FAO Seed Development Programme

Annex 5:
Estimated Cost-Effectiveness of the 2002 Autumn Seed and Fertilizer Distribution as Compared with Food Aid

We opted here for a comparison between the cost of the input distributions by FAO (inclusive of all overheads) and the cost for importing the wheat surplus generated by these distributions. The computation is rather straightforward and based on hypotheses that we can trust to some extent, having being collected for the most part by an extensive survey of beneficiaries.

One problem with this approach is that it does not take into account the benefits accruing over several years, although such benefits should be expected in the case of a variety dissemination programme. Such multi-year benefit analysis (e.g. a computation of the rate of return) would require estimates of levels of fertilizer application without the programme subsidizing fertilizer, yield with such fertilizer applications, costs incurred by farmers in their production cycle (including opportunity labor cost) so as to discount them from the benefits. These data were not collected by the post-distribution surveys and are thus not available to the Review team.

Another problem is that the full substitutability of food aid and seed aid may be questionable. The basic premise of the following analysis is that donors have a choice between food aid to bring in food on the one hand, and seed aid to generate a food surplus on the other. Yet:

- Seed aid generates a surplus after four to nine months, not immediately, therefore seed aid presupposes that farmers have no immediate and/or crucial food insecurity problems;
- Seed aid works only with and for farmers, while food aid is normally distributed to vulnerable people, most of whom presumably would not have access to arable land. The surplus generated by farmers may not be available to vulnerable groups, because to them food insecurity is more likely to be an access problem than an availability problem;

This being said, some farmers *are* food-insecure, and a surplus in production normally leads to lower prices and hence greater availability *and* access to food. Therefore the two approaches, while not totally interchangeable, can still be compared meaningfully, provided one keeps in mind the above caveats.

The issue of what would have happened in the absence of the FAO distributions (without programme situation) cannot of course be resolved with absolute certainty. Clearly, most beneficiaries would have planted their own seed or seed from some other origin if FAO had not provided them with seed. However, many beneficiaries might have planted some more land thanks to the FAO and NGO distributions than they would have otherwise. Based on our discussions with benefiting farmers, we used three hypotheses in the following analysis:

- Low impact hypothesis: 10% of the land planted with FAO seed would not have been planted without the FAO distribution;
- Medium impact hypothesis: 20%;
- High impact hypothesis: 30%

Based on these hypotheses, yield data from post-distribution household surveys, and cost estimates for food aid purchase, transport and administration from WFP, we estimate that the FAO agricultural inputs distribution programme in autumn 2002 was 1.5 to 2.4 times more economical than importing food aid, *over the first year of production* (i.e. not taking into account the benefits of variety improvement over several years, for reasons explained above).

Note that the national wheat production in 2003 was the highest on record. The emergency distributions generated less than 1% of this bumper harvest, though they helped spread varieties which effect on production will be sustained over several years.

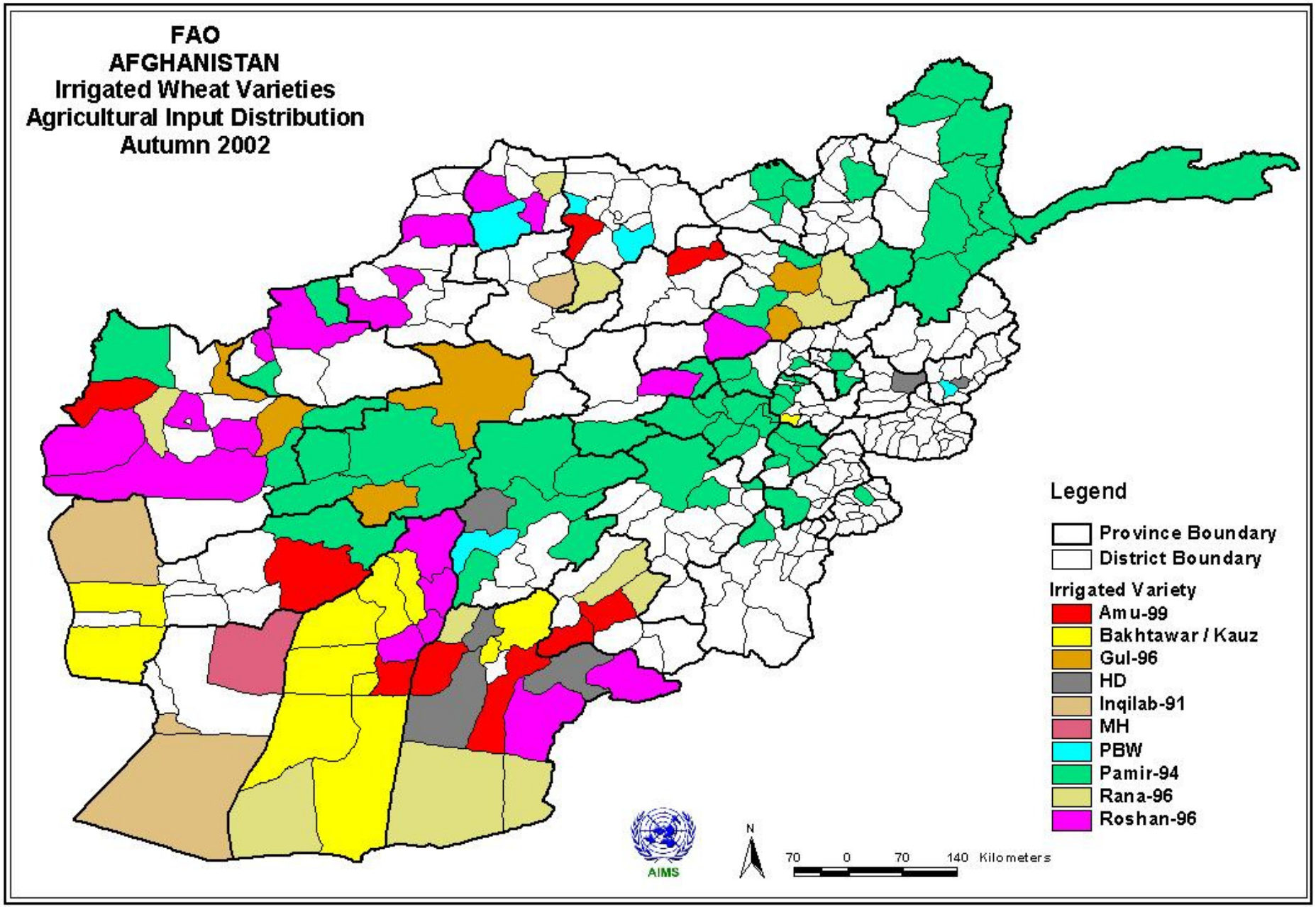
Computations:

Variable	Value	Unit	Basis for value
Seed distributed, irrigated	2883	MT	Programme reports
Seed distributed, rainfed	889.9	MT	Programme reports
Distributed seed planted by farmer	90%	of total given	Matthias Mollet's report
Seed rate, irrigated	131.5	kg/ha	Matthias Mollet's report
Seed rate, rainfed	74.5	kg/ha	Matthias Mollet's report
Average yield with FAO seed, irrig.	2,987	kg/ha	1661 interviews and taking into account distributed varieties and their estimated yield
Average yield with FAO seed, rainfed	1,144	kg/ha	412 interviews and taking into account distributed varieties and their estimated yield
Area planted, irrigated	19,732	ha	Derived from above
Area planted, rainfed	10,750	ha	
Total harvest, FAO irrigated	58,938	MT	
Total harvest, FAO irrigated	12,299	MT	
Total harvest with FAO distribution	**71,237**	**MT**	
Share of FAO seed planted on land that would not have been planted if not for FAO distribution			
Low impact hypothesis	10%		Field visits
Medium impact hypothesis	20%		
High impact hypothesis	30%		
Average yield with local seed, irrig.	2,519	kg/ha	469 interviews
Average yield with local seed, rainfed	833	kg/ha	304 interviews
Harvest without FAO distribution	**Irrigated**	**rainfed**	
Low impact hypothesis	44,733 MT	8,055 MT	Derived from above
Medium impact hypothesis	39,763 MT	7,160 MT	
High impact hypothesis	34,793 MT	6,265 MT	
Production differential due to FAO distribution (generated surplus)			
Low impact hypothesis	18,448	MT	Derived from above
Medium impact hypothesis	24,314	MT	
High impact hypothesis	30,179	MT	
National wheat production in 2003	**4.36**	**ml MT**	**GIEWS**
Share of this attributable to FAO emergency distributions:			
Low impact hypothesis	0.42%		Derived from above
Medium impact hypothesis	0.56%		
High impact hypothesis	0.69%		
Cost of food aid			
Including transport, overheads, staff	440	$/MT	WFP food aid budgets for Afghanistan
Cost of importing same amount of food aid (a)			
Low impact hypothesis	8.12	ml US$	Derived from above
Medium impact hypothesis	10.70	ml US$	
High impact hypothesis	13.28	ml US$	
Cost of FAO emergency distributions (b)	**5.5**	**ml US$**	Total project costs of 2002 input distributions, including overheads & staff costs.
Comparison between seed aid and food aid (ratio a/b)			
Low impact hypothesis	1.48	times seed aid is more cost efficient than food aid in the Afghan context.	
Medium impact hypothesis	1.95		
High impact hypothesis	2.41		

Annex 6: Maps

Map No. 3958 Rev. 1 UNITED NATIONS
November 2000

Department of Public Information
Cartographic Section


FAO
AFGHANISTAN
Irrigated Wheat Varieties
Agricultural Input Distribution
Autumn 2002
Legend
Province Boundary
District Boundary
Irrigated Variety
Amu-99
Bakhtawar / Kauz
Gul-96
HD
Inqilab-91
MH
PBW
Pamir-94
Rana-96
Roshan-96
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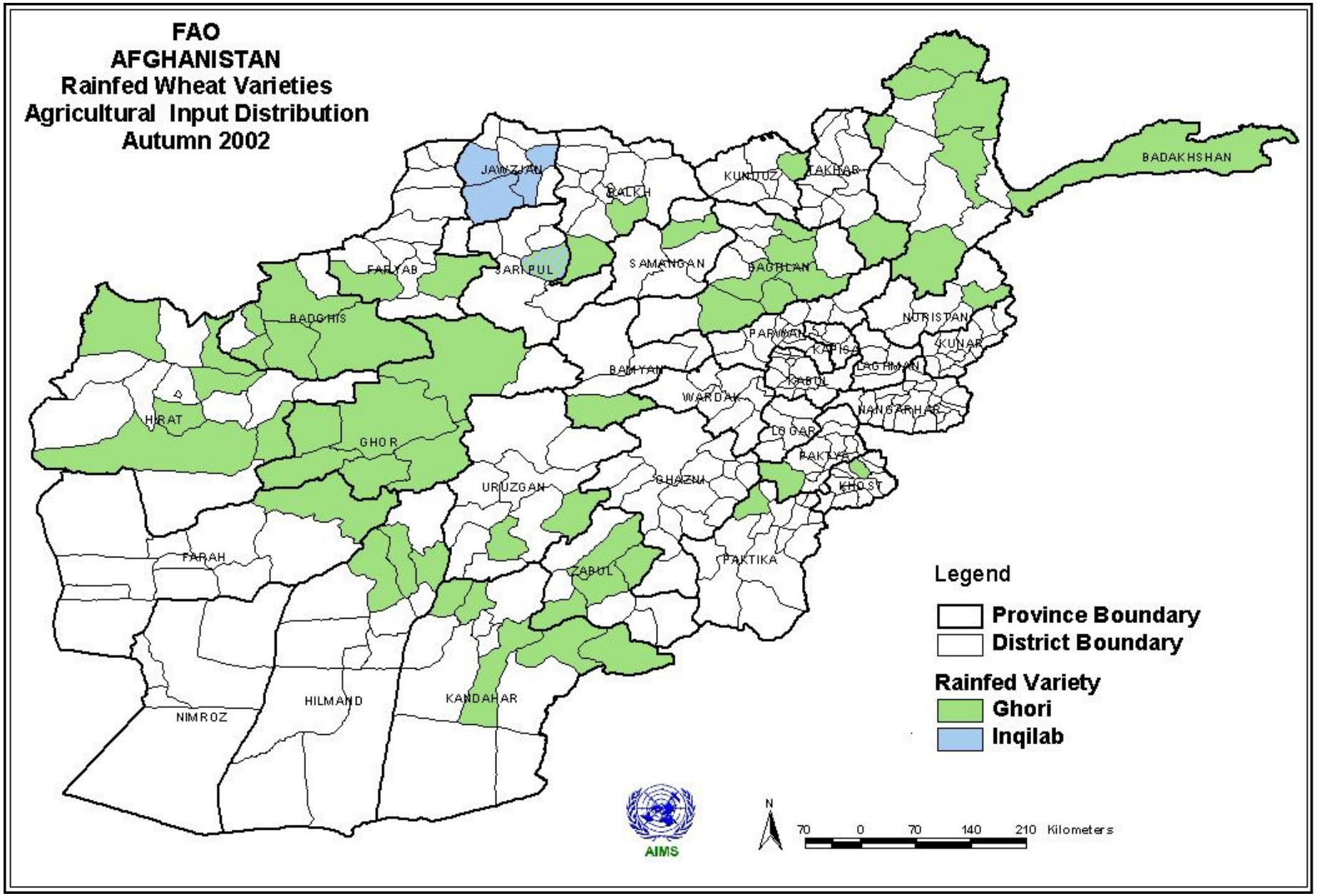
FAO
AFGHANISTAN
Rainfed Wheat Varieties
Agricultural Input Distribution
Autumn 2002
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JAWZJAN
BALKH
KUNDUZ
TAKHAR
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SARI PUL
SAMANGAN
BAGHLAN
BADGHIS
NURISTAN
PARWAN
KUNAR
KAPISA
LAGHMAN
BAMYAN
KABUL
WARDAK
NANGARHAR
HIRAT
LOGAR
GHOR
PAKTYA
URUZGAN
GHAZNI
KHOST
FARAH
ZABUL
PAKTIKA
HILMAND
KANDAHAR
NIMROZ
Legend
Province Boundary
District Boundary
Rainfed Variety
Ghori
Inqilab
AIMS
N
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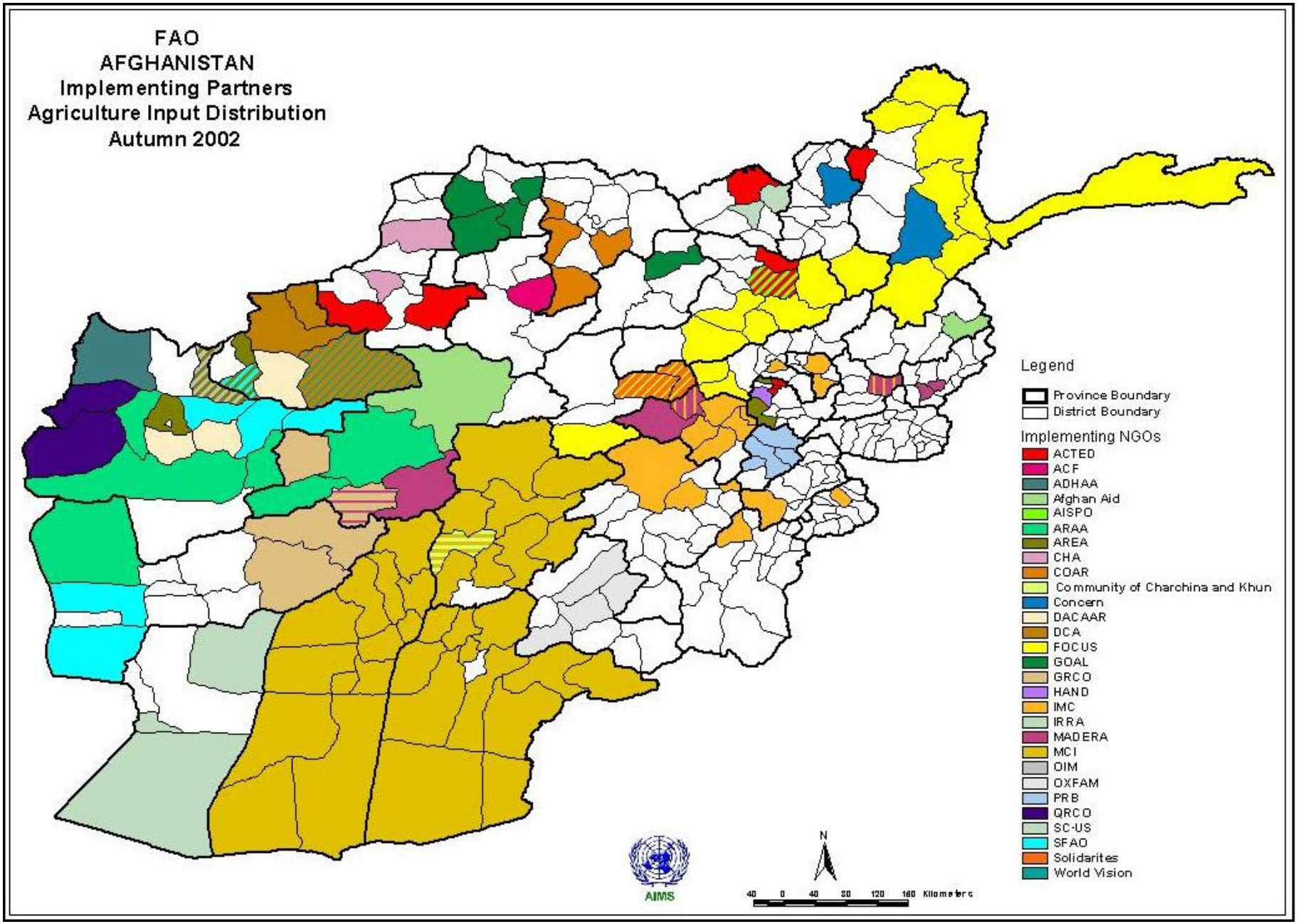
FAO
AFGHANISTAN
Implementing Partners
Agriculture Input Distribution
Autumn 2002
Legend
Province Boundary
District Boundary
Implementing NGOs
ACTED
ACF
ADHAA
Afghan Aid
AISPO
ARAA
AREA
CHA
COAR
Community of Charchina and Khun
Concern
DACAAR
DCA
FOCUS
GOAL
GRCO
HAND
IMC
IRRA
MADERA
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Solidarites
World Vision
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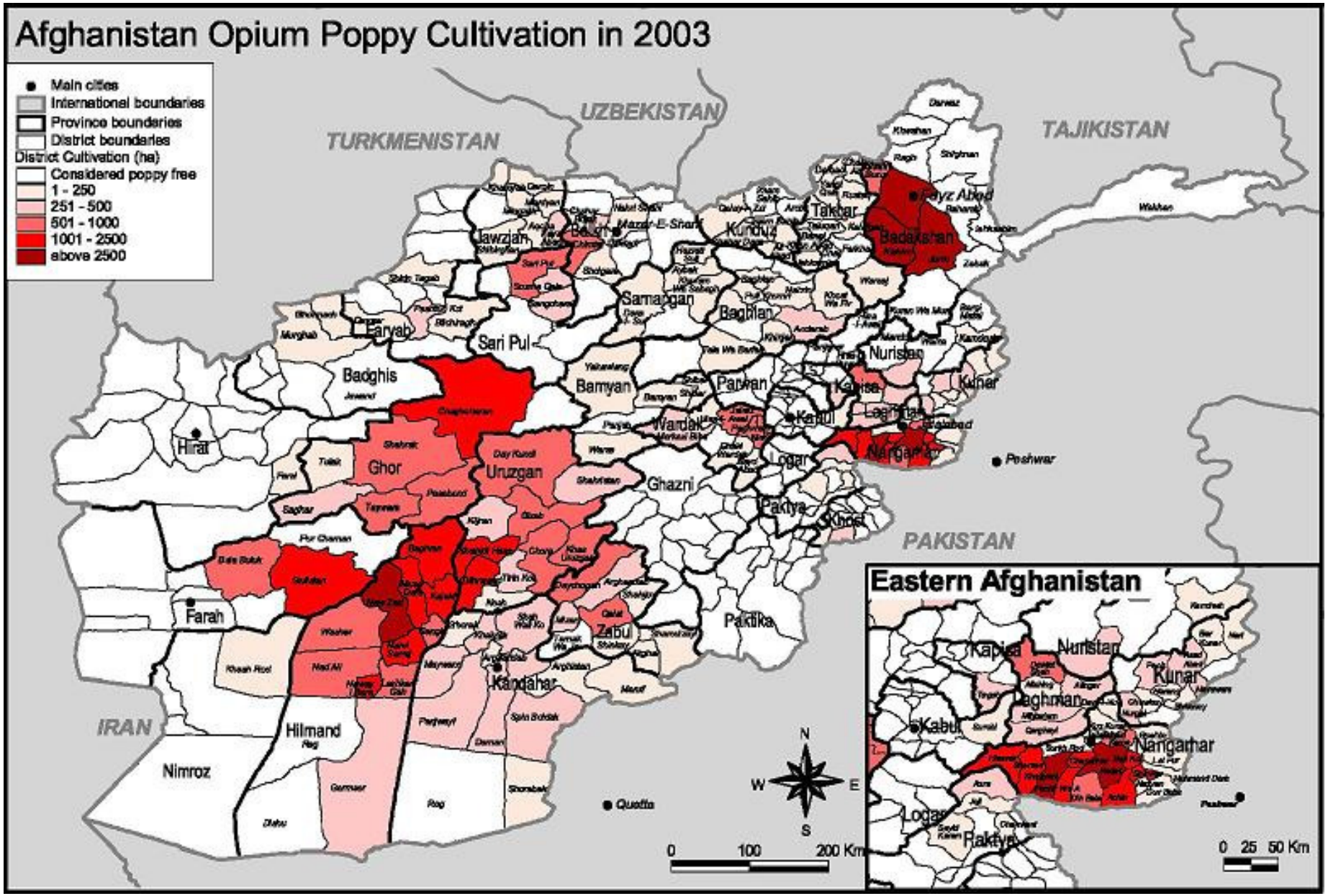

Source: CND - UNODC Afghanistan Oppium Survey 2003

Annex 7: Code of Conduct
Guiding Principles Governing the Production, Distribution and Import of Seed and Planting Material (SPM) of Field Crops for Afghanistan

Original at: http://www.fao.org/world/afghanistan/pubs_code_en.htm

Seeds' only value is in its quality, as measured by its life (germination and vigor), its physical purity (freedom from foreign matter), its trueness-to-type for variety/landrace and its superior agronomic use-related traits and consumer acceptability.

All seed should be of high quality, and meet locally established standards. If imported, it should also meet export/import regulations.

Seed produced or supplied in an emergency situation, regardless of its source, should have the quality required by farmers. It should not distort the local seed systems and it should be aimed at building the foundation for a sustainable seed supply system in the future.

National Seed Policy (NSP)

The first step in creating and maintaining an improved seed supply for farmers is to establish a formal, official government policy - a National Seed Policy. The NSP has the effect of law and reflects the Government's official approach to seed. The NSP sets out what Government will do, how it views seed supply, and how it will support seed development.

A NSP is the first step in creating an economic environment in which government programs and private sector agencies will be willing to invest their money and efforts in seed. A seed program is a long-term investment. No one is willing to make a long-term investment unless they can be sure of economic, political and operating stability that will permit them to recover and make a profit from their investment.

A good NSP creates the framework and establishes the overall guiding principle on which a country's seed industry is based and encourages the development of the essential infrastructure, institutions, operating procedures, and standards of performance.

The National Seed Law sets out the legal framework and regulations in which the country's seed industry operates. There must be an implementation agency and staff trained, equipped and funded adequately to serve both farmers and seed suppliers. This will require a network of facilities including Official Seed Testing Laboratories, to measure seed quality.

Seed Health Laboratories can be combined with Plant Quarantine programs. An efficient way to implement this might to combine Seed Law implementation, seed testing, and seed certification under the umbrella of one agency. This should be discussed in detail with the Ministry of Agriculture and Animal Husbandry (MAAH).

The main purpose of the NSP is to ensure that farmers receive good seed of established standards, national interests are protected, and investors in the seed industry are rewarded for their investment, management and technical skills, and the risks they take.

Definition of "Guiding Principles"

Guiding principles provide a practical operating guide and common cooperative approach that is followed by all to help maximize effectiveness and ensure maximum benefit for the majority of farmers in Afghanistan. For seed supply, this involves identifying, emphasizing and implementing those aspects-technical, operational, managerial, marketing, business, ethical, etc that ensure that farmers receive the best possible seed.

Why "Guiding Principles"?

Many assistance agencies (national, international, bilateral, multilateral, FAO, ICARDA, NGOs, etc., hereinafter referred to as AGENCIES) are trying conscientiously to help Afghanistan rebuild and develop its agricultural sector. There is a need to establish guidelines and common procedures to

(1) help AGENCIES maximize benefit to Afghanistan from investments made,

(2) maintain trust and respect of the Afghan people, and

(3) minimize confusion, harmful effects, and wasteful duplication.

This is particularly important for seed and planting materials, since these could be subject to deterioration and abuse, and could introduce other problems.

These Guiding Principles are intended to be reviewed, revised, and improved as further experience is gained from seed activities.

Effects on "Informal" and "Formal" Seed Sectors

In Afghanistan's emergency situation, except for FAO's program, little infrastructure of a formal seed sector remains in operation. Throughout most of Afghanistan, the informal seed sector is predominant. This consists essentially of farmers who produce seed for planting their own fields or for farmer-to-farmer exchange and/or sale. These local seed systems have continued operating in spite of the drought and hostilities that have taken place during the past 20 years.

Any seed operation must be careful not to destroy these resilient systems that have helped the communities survive during these difficult years. However, these informal sector farmers often do not have sufficient training, resources or facilities to produce large volumes of high-quality seed. It is essential to provide them with the maximum support, equipment, stock seed, and training.

Code of Conduct: Guiding Principles Agency Coordination

1. A Coordinating Committee for Seed Sector Development (CCSSD) should be established under the umbrella of the MAAH, to be chaired by the Deputy Minister. This committee will consist of voting members who are representatives of departments and institutions concerned with seed, including research, seed production, plant protection, extension; and farmer seed producers, farmer representatives, and others as the need arises.FAO will coordinate the non-voting advisory participation of the International organizations. ACBAR will do the same in respect to the NGOs.

2. The Committee will meet at least four times a year and keep all stakeholders fully informed of activities, developments, norms and methodologies.

3. All AGENCIES involved in seed issues shall abide by the agreed and established guidelines.

Seed Provision Activities

4. AGENCIES involved in seed issues should focus their activities on developing the management and planning skills of local people, in order to assist them to become self-sustaining and handle successful seed operations/enterprises on their own. AGENCY efforts should be planned so as to leave viable local operations in place.

5. AGENCIES should focus on:

- Developing a cost-effective and sustainable seed supply system
- Organizing sources of stock seed
- Promoting the use of adapted varieties
- Training farmers to be seed producers
- Training in equipment maintenance
- Training managers at different levels of operation
- Organizing and equipping seed processing facilities
- Organizing local sources of supply
- Assist in the organization of seed marketing, including timely delivery

These activities and guiding operations will assist in developing an ultimately profitable and self-sustaining local seed industry. They ensure a good "informal" seed sector, which should ultimately move toward a "formal" sector. Different AGENCIES will be responsible for different aspects of the above.

6. A functioning credit system existed in the past. It is essential that such a system be re-established as fast as possible. Without such as system, development of a sustainable seed sector will not be possible. It is strongly recommended that the Afghan Government assume responsibility for this.

7. To the extent possible, seed of locally adapted cultivars should be produced within Afghanistan. This:

- ensures that varieties are adapted
- demonstrates to local seed growers the procedures required
- demonstrates to farmers the cropping value of the seed
- helps develop local agro-industries
- maximizes benefits to target areas
- contributes to the in situ maintenance of useful genetic resources for food and agriculture

8. Where it is necessary for AGENCIES to supply seed directly to farmers, they must ensure that high quality seed is always provided. Quality includes seed of adapted varieties, which are physically pure (freedom from foreign materials), of good germination, and pest and disease-free. To assist in this, an official descriptive list of recommended varieties should be published and kept current. Seed should be treated with an appropriate fungicide before sowing.

9. AGENCIES should not provide seed to farmers free of charge. Seed should be sold or exchanged at a price above the local grain price. This price must be approved by the CCSSD.

Crops and Varieties/Landraces

10. All crops and varieties promoted for distribution and made available to Afghan farmers must have performed well in tests for adaptation and performance in Afghanistan for two years. Only in emergency situations should crops and varieties known to perform well in similar agro-ecologies and deemed most likely to perform well within Afghanistan be introduced without prior testing, and only after due consultation with the CCSSD and approval of the Government.

11. Many varieties have been tested in Afghanistan. The CCSSD should make all information on variety tests, and likely sources of seed, available to all stakeholders.

Seed Import

Seed that meets all Seed Law requirements, both in the country of origin and in Afghanistan, should be imported. In an emergency situation, if such seed is not available, the seed must be of the best possible quality and its quality must be maintained until it reaches the farmer.

12. FAO Guidelines for Imported Quality Seed should be followed.

Quality Standards

13. The 'Quality Declared Seed' standards of FAO, should be used as minimum seed and field standards.

14. For wheat, the minimum standards are as specified QDS standards, with the exception that additional specific standards for rye and wild oats are set as follows:

Field Standards

Rye: max 0.5 %

Wild oats: max 0.1%

Loose smut, bunt: max %

(because of loose smut and bunt, it is highly recommended that seed is treated with an appropriate fungicide)

Seed Standards

Wild oats: max 0.1%

Rye: max 0.5%

15. QDS Standards for other crops, if required, may be developed by the CCSSD.