

3 Project framework

3.1 Developmental goals

The goal of FAO's Wheat Rust Disease Global Programme is to contribute to global food security through the prevention and management of emerging wheat rust diseases and the enhancement of wheat productivity.

3.2 Immediate objectives

The Programme focuses on preventing rust epidemics in wheat producing countries at significant risk through improved preparedness and policy support, enhanced national surveillance and monitoring, strengthened national variety registration and seed systems and proper field management.

3.3 Programme outputs and activities

FAO has defined achievement of its immediate objectives in terms of the following five critical outputs to be achieved through a series of concrete activities. See Annex 1 for more detail.

Output 1: Policy support to preparedness and contingency planning provided

Policy support to countries for the enhancement of their preparedness in facing emergency situations through advocacy, development of contingency plans and regional cooperation provided through the following activities:

- 1.1 conduct socio-economic and yield loss assessments in the countries affected by the disease or at direct risk;
- 1.2 carry out advocacy and awareness raising for policy-makers and the international community;
- 1.3 provide policy support to countries for the development and implementation of national contingency plans; and
- 1.4 provide support for regional coordination mechanisms.

Output 2: Surveillance and early warning systems enhanced

In order to enhance the establishment of an effective and sustainable national surveillance system for wheat rust disease monitoring, including pathotyping and the establishment of a global early warning system to support decision-making for implementation of preventive actions and control operations, the following activities will be carried out:

- 2.1 provision of policy and technical support for the establishment of effective and sustainable national surveillance teams;
- 2.2 direct support to national wheat rust surveys and virulence monitoring through harmonizing surveillance protocols and strengthening national disease surveillance and pathotyping capacities;
- 2.3 support to regional interaction and information exchange; and
- 2.4 establish a wheat rust early warning system at FAO.

Output 3: National wheat varietal registration programmes for release of resistant varieties enhanced

In order to strengthen national varietal registration programmes and international exchange of information and material in support of the development of durable rust resistant wheat varieties, the following activities will be carried out:

- 3.1 assess wheat rust disease resistance breeding capacities/varietal registration and areas for improvement of individual countries;
- 3.2 based on the assessment, provide technical support to countries in national multilocation adaptation and pest and disease resistance trials for rust resistant varieties;
- 3.3 based on the assessment, provide policy and technical support to national strategies and varietal release procedures; and
- 3.4 provide policy support to countries for improving international cooperation in testing breeding material and information exchange.

Output 4: Seed systems for quick multiplication and distribution of resistant varieties enhanced

In order to strengthen national seed systems for the quick multiplication and distribution of resistant replacement varieties, the following activities will be carried out:

- 4.1 work with national authorities to popularize adapted rust resistant varieties among farmers through seed campaigns, including field demonstration plots;
- 4.2 strengthen systems for early generation seed multiplication of rust resistant varieties in each country;
- 4.3 with national authorities, develop and support a strategy for the multiplication and distribution of quality seed of rust resistant varieties to replace rust susceptible varieties through both the public and private sector; and
- 4.4 strengthen the National Seed Certification Agency's database through a national variety catalogue of released varieties and information on quantities of certified seeds available, including information on significant pests and diseases for each variety and their tolerance to these pests and diseases, in particular Ug99 rust strains.

Output 5: Wheat rust management at the field level improved

In order to enhance the wheat field management practices of farmers through participatory methodology, the following activities will be carried out:

- 5.1 reach agreement with the various national authorities on the establishment of participatory methods such as FFS to support wheat farmers in proper field management;
- 5.2 support to identified or established farmer groups or FFSs;
- 5.3 support to farmer groups through season-long participatory training; and
- 5.4 develop training and reference wheat management guides for farmers and facilitators, based on local experiences.

3.4 Sustainability

While a number of activities are urgently required, it is envisaged that the initial phase of the proposed Programme will last four years with the possibility of extension. It will cover 29 countries that differ greatly in development status, human and infrastructure capacities, the relative importance of wheat in the economy and the level of risk of being affected by Ug99. All these factors will affect the success of Programme implementation and the sustainability of its activities.

Within the duration of the Programme, participating countries will have acquired the necessary infrastructure and sufficient critical mass of trained scientists able to undertake surveys and pathotyping. A system will be in place to share information within each country and at regional and global levels. Equipment and technical capacities for wheat variety evaluation and registration and the quick multiplication and distribution of replacement resistant varieties will be available. National strategies for seed increase and distribution will also be in place, and this should permit sustainability of these activities. Within the duration of the Programme, a critical mass of wheat farmers and facilitators will have been trained and empowered through participatory methods enabling them to improve their productivity, reduce the risk of diseases and support their national extension systems.

The activities of the proposed Programme respond to the needs of governments in facing the threat of Ug99, and incorporate a system that enables countries to face and prevent threats from other virulent wheat rust strains that might emerge in the future. Because the Programme deals with prevention and risk reduction, the awareness of policy-makers of the risks and consequences of lack of preparation and preventive measures and the development of appropriate contingency plans and their implementation are probably the most critical factors for sustainability of the Programme's activities. As a result, these have been given adequate attention. The Programme's activities will contribute to safe-guarding wheat production in these countries, which will contribute to long-term sustainable economic, social, and political stability.

4 Implementation arrangements

4.1 Institutional framework and coordination

FAO will implement the Wheat Rust Disease Global Programme in close collaboration with the recipient institutions (i.e. the Ministries of Agriculture of participating countries). FAO's Plant Production and Protection Division and FAO's Emergency Operations Service will execute the Programme in the framework of the Plant Pests component of the Crisis Management Centre for the Food Chain (CMC-FC). The CMC-FC will operate under the technical supervision of the Chief Plant Protection Officer and the operational responsibility of the Chief of the Emergency Operations Service.

Technical activities will be coordinated through a technical team led by the Lead Technical Officer of the Plant Production and Protection Division at FAO headquarters. This team will include a Regional Technical Coordinator in each region covered by the Programme (i.e. Near East, South Asia, and Central Asia/Red Sea). A team from the Food Chain Emergencies Management Unit of the Emergency Operations Service (TCEO-FCEMU) at FAO headquarters will coordinate operational activities, in close cooperation with emergency coordinators and operations officers in the concerned regions and countries.

Work will be carried out in close collaboration with the FAO Representatives in the countries involved, with the relevant FAO Regional and Subregional Offices and the Emergency Coordination Units. The Programme will work in synergy with ongoing emergency and rehabilitation activities implemented by FAO in the various countries. The Programme team will actively liaise with all stakeholders and agencies in order to: (i) avoid duplication of efforts; (ii) ensure complementarities with other initiatives; and (iii) promote local ownership of Programme activities.

Technical guidance will be provided by: (i) staff from the Plant Production and Protection Division; (ii) the Regional Technical Coordinators; (iii) international and national consultants; and (iv) relevant technical staff from BGRI partners, including ICARDA, CIMMYT and Cornell University.

The Ministries of Agriculture of the participating countries act as the government counterpart institutions responsible for implementation. The Ministries will make available the services of qualified staff as necessary and ensure the clearance of Programme inputs free from custom duties.

As a member of the BGRI, the Programme will benefit from the technical and scientific guidance of the BGRI Executive and Technical Committees, which include participants from the National Agricultural Research Systems of the concerned countries. This will also ensure coordination between Programme activities and those of BGRI.

The Programme will have an FAO Oversight Committee responsible for overseeing the operational and managerial implementation of the programme. The Committee will ensure that activities are delivered in a proper and timely manner as per the work plan, donor requirements and the overall vision and priorities of FAO.

4.2 Methodology

The general methodological approach will be consultative. At an early stage of the process, regular national and regional meetings and workshops will be held with national counterparts to raise awareness with policy-makers on the Programme's components, and to assess country situation and needs. Based on these consultative meetings, the most appropriate and adapted modes for the implementation of national activities, including the development of contingency plans, will be identified and a work plan will be agreed. National focal points will be appointed and given the authority to communicate, coordinate and share information with FAO, its partners and other identified stakeholders.

25

The Programme will focus on capacity building and support in the provision of infrastructure and equipment.

4.3 Technical support and programme staff

Technical and operational support for the Programme will be provided through the following human resources:

- a Lead Technical Coordinator, based in Rome, responsible for overall technical coordination of the Programme;
- an Assistant Programme Manager, based in Rome, responsible for supporting the Lead Technical Coordinator in his/her tasks, liaising with the Regional Technical Coordinators and responsible for the preparation of project proposals;

- a Monitoring and Forecasting Specialist, based in Rome, responsible for the development of a Global Cereal Rust Monitoring System and the technical backstopping of national teams in effective cereal rust tracking and monitoring;
- an Information Expert based in Rome;
- three Regional Technical Coordinators based in the regions of the Near East (one in Cairo [at the FAO Regional Office for the Near East] or in Aleppo [at ICARDA], one in South Asia [preferably in India], and one in either Central Asia [possibly at FAO's Subregional Office for Central Asia in Ankara] or in the Red Sea region;
- an International Programming and Operations Officer, based in Rome, primarily providing operational support to the entire Programme at HQ as well as to the Regional Technical Coordinators;
- a National Assistant to each of the Regional Technical Coordinators, stationed in the regions;
- Regional Operations Officers stationed in the regions and providing support to the Regional Technical Coordinators;
- Subject Matter Specialists (international consultants): wheat breeders, seed specialists, plant pathologists, agronomists, geographic information system specialists, database/information technology specialists, socio-economists, communication specialists.
- Subject Matter Specialists (national consultants);
- national focal points for surveillance and monitoring activities and for seed multiplication and support to improved field management; and
- FAO headquarters staff from the operational and technical divisions ensuring adequate operational and technical backstopping to the Programme.

4.4 Work plan and budget

While in response to an urgent need, FAO's Wheat Rust Disease Global Programme combines both short and medium to longer term activities. The recommended activities and related budget within this Programme document (Annex 2) refer to an initial four-year period, which may be modified in the light of emerging issues and special projects funded within the Programme.

The timing of implementation of Programme activities will be directly related to the risk of Ug99 in the various countries. The level of support to each country will also be dependent on the estimated need for infrastructure, capacity building and area planted to wheat in the country. Beneficiary countries within this Programme could be grouped into the four categories indicated below based on the presence or risk of being affected by Ug99:

1. countries already affected by Ug99;
2. countries at immediate risk;
3. countries at high risk; and
4. countries at risk.

The work plan over the four initial years based on the categories of beneficiary countries is shown in Annex 3. The logical framework of the Programme is presented in Annex 4.