

Proposed Structure and Working Area

Seed and Biotechnology Centre (SBC)



Rural Development Academy (RDA), Bogra
April 2011

Introduction

Rural Development Academy (RDA), Bogra has been working on potato seed development since 1987. Thereafter, a series of research conducted with financial assistance from the Netherlands technical project over the years. The research area mainly covered the improvement of potato seed at the grass-root level both for indigenous and modern varieties and crop husbandry. To disseminate the technology throughout the country RDA organized two national seed fair in 1994 and 2008. Besides, we are regularly organizing Seed Potato development training Courses for Seed Potato growers, traders and NGO's staff.

RDA had been started Biotechnology Laboratory during 2005 for rapid multiplication of disease free seed Potato in one hand and on the other hand to dissemination the tissue culture technology for rapid multiplication of quality potato seed according to national demand. It has started a programme for production of pre-breeder, breeder and foundation seed potatoes of modern potato varieties. RDA follows the latest techniques that are recently used in developed countries, for the production of disease free seed potatoes. The methods followed by RDA for the production of disease free potato clones through meristem culture, their rapid multiplication through micropropagation, production of breeder level seeds. Eventually supply to different seed multiplication companies and farmers. In the context of huge shortages of seed potato (90%) and in light with the 2021 strategies. Micro propagation of Potato (*invitro*) offers excellent technique for rapid multiplication of potato seeds, the methods used depend on a synthetic growth medium, which stimulates the growth of excised explants. The most important advantages as follows: rejuvenation of plant life occurs, rapid multiplication within a short time, totally disease free environment and climatic conditions do not have any influence. It is observed that the impact of solar light its growth, vigour and others quality of plant-lets have improved.

Solar light have immense morphogenetic impact on the growth and development of plant-lets production. The impact as observed on enhance rate of growth on plant-lets height, diameter and leave area index of plant-lets compare to artificial light.

Management System

Biotechnology Centre (BTC) will be set-up within Rural Development Academy, Bogra, Bangladesh with support facilities available from various divisions of RDA. BTC will be headed by Director/Additional Director/Joint Director at the minimum who has atleast 15 years experience in RDA's service in the field of Horticulture/Biotechnology with the following supporting manpower drawn from Agricultural Science and Social Science Division. The Centre will be under the direct supervision and control of the DG, RDA. The organogram of this Centre may be as in **Annexure-A**.

Service Rule

Service rule will be followed by RDA's set service rules and Bangladesh Service Rule (BSR) where ever necessary.

Recruitment Policy of the Centre

Relevant RDA faculty members and staff will be deputed to the Centre by the DG. Some other officials and members of staff may be recruited as temporary basis, subject to availability of fund, according to RDA's recruitment rules. Age may be relaxed in case of highly experienced persons in the field of Horticulture/Biotechnology according to the demand of work. Their services will be regulated under RDA recruitment rules applied in case of contingent staff. This extra manpower will attribute no liability to the govt. Expenditure.

Sources of Funding

1. (a) From the selling of Tissue Culture products, plantlets and different level of seed potato.
(b) 30% of the consultancy charge realised against work on deposit in the establishment of tissueculture lab and relevant project.
2. Income from different income generating training courses:
 - (a) Horticulture and nursery development;
 - (b) Food processing and preservation;
 - (c) Potato Seed Production Technology;
 - (d) Tissueculture Production Technology;

Rural Development Academy (RDA), Bogra

Rural Development Academy (RDA), Bogra sailed its journey in June, 1974 as a specialized national institution for training, research and action research in rural development of Bangladesh. The major objectives of the Academy are to (a) provide training for the rural people and the personnel of different nation building departments and agencies; (b) conduct research and action research or pilot experiments in different fields of rural development; and (c) render consultancy services to different national and international agencies and NGOs on various rural development issues.

Management of BTC: Two Founder Members of BTC run the centre under the supervision of the Director General of RDA. One of them acts as the Director of the centre. All the activities of BTC are periodically reviewed by the Board of Governors (BOG) of RDA. The BOG will be give post approval of organogram containing 24 key positions. Moreover, the Director of the centre appoints any number of staff on temporary basis for specific assignments.

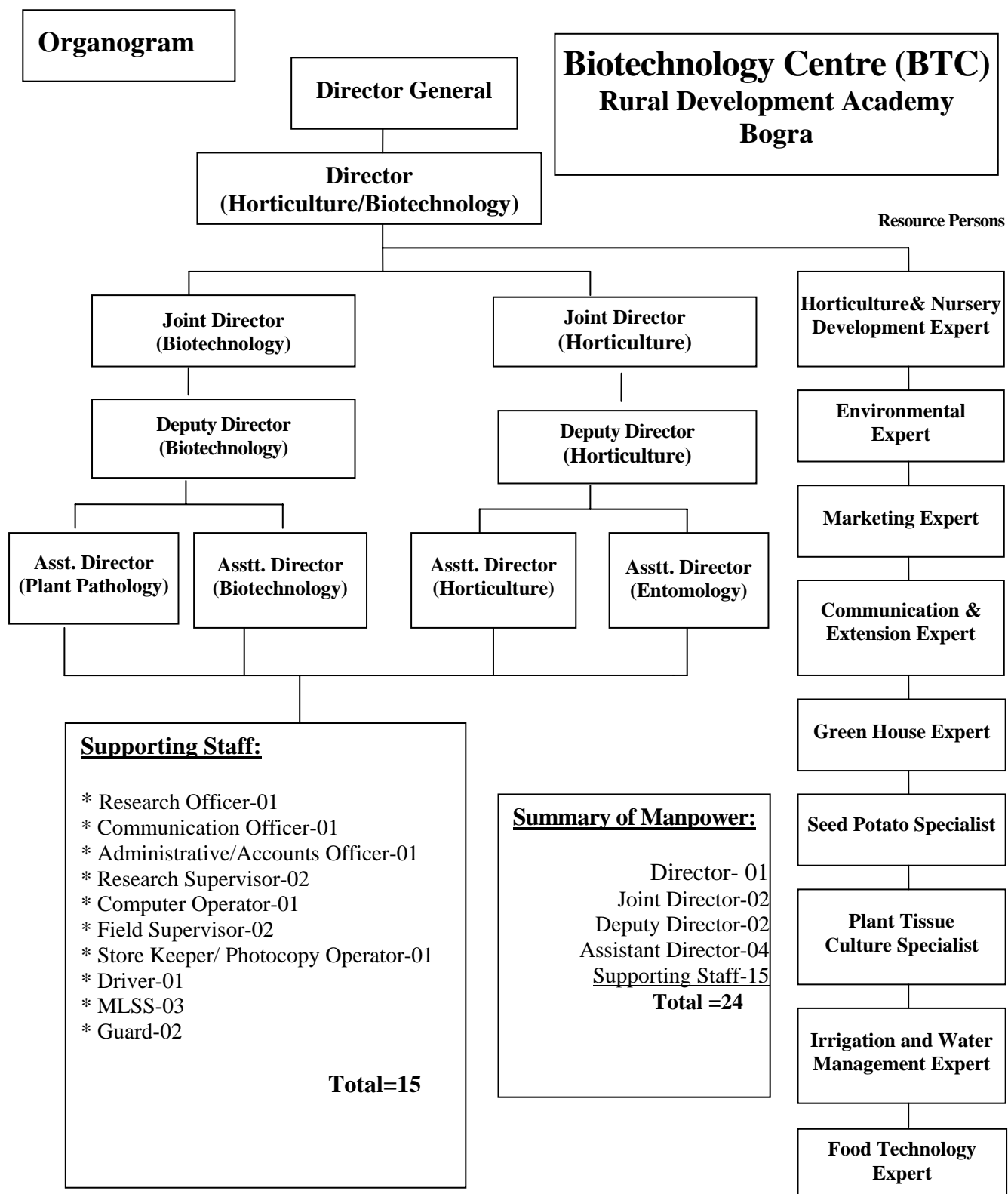
RDA Demonstration Farm: This farm operates on 29.5 ha of land and is being used for research/ experiments, demonstration of cost-saving high-return new technologies and as training ground. There are food processing plant, soil and plant health lab, biotech lab, germplasm repository, a herbal garden, two horticulture nurseries, crop, dairy, poultry, farm power and fishery/hatchery units, several fish production ponds/canals and fruit orchards are under this farm. Breeder level seed potato will be cultivated in this farm 10 to 15 acres.

Objectives of the Centre

The experienced gathered by RDA, Bogra in the field of Seed Potato Development and Extension based rural development helping in establishment of Biotechnology Centre (BTC), as a specialized programmatic concept for over coming 80% seed potato shortage in Bangladesh. The main objective of establishing the centre is to conduct training, research, action research, piloting/implementation of the recent technology on Plant Biotechnology.

The specific objectives are as follows;

1. To exploit tissueculture technology for Commercial Breeder Potato Seed production;
2. To dessiminate the plant biotechnology among the Private and Public sectors;
3. To build up institutional linkage with different national and International organizations with in the country or outside the country;
4. To develop capacity building of the RDA Faculty Members and also staff incountry training or overseas;
5. To conduct seminar/workshop about success and dessimination of the technology;
6. To increase revenue income of the Academy, so that Academy budgetary pressure on Govt. will be reducing gradually;
7. To conduct training on Seed Potato Production and Plant Tissueculture Technology for Private and Public sectors people or organizations;
8. To conduct research on varietal development of potato, banana, zinger, turmeric, orchids, zerbara etc. for commercial exploitation of the farmers;
9. To enhance food production through development of disease free seed with high profitability.



The Organogram may be changed according to demand of work, subject to prior approval of the BOG, RDA, Bogra