Asia-Africa Knowledge Co-Creation Program (AAKCP)

Rural Community Development Sub-Program (RCDS)

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ZIMBABWE POLICY RESEARCH PROJECT (PRP)

CAPACITY BUILDING FOR AGRICULTURAL EXTENSION IN ZIMBABWE.

An Operational Manual for Agricultural Extension Workers


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MOZAMBIQUE
Zambezi
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Kariba
Lake Kariba
NAMIBIA
Chinhoyi
HARARE
Binga
Chitungwiza
Kadoma
Inyangani
Hwange
Mutare
Gweru
Save
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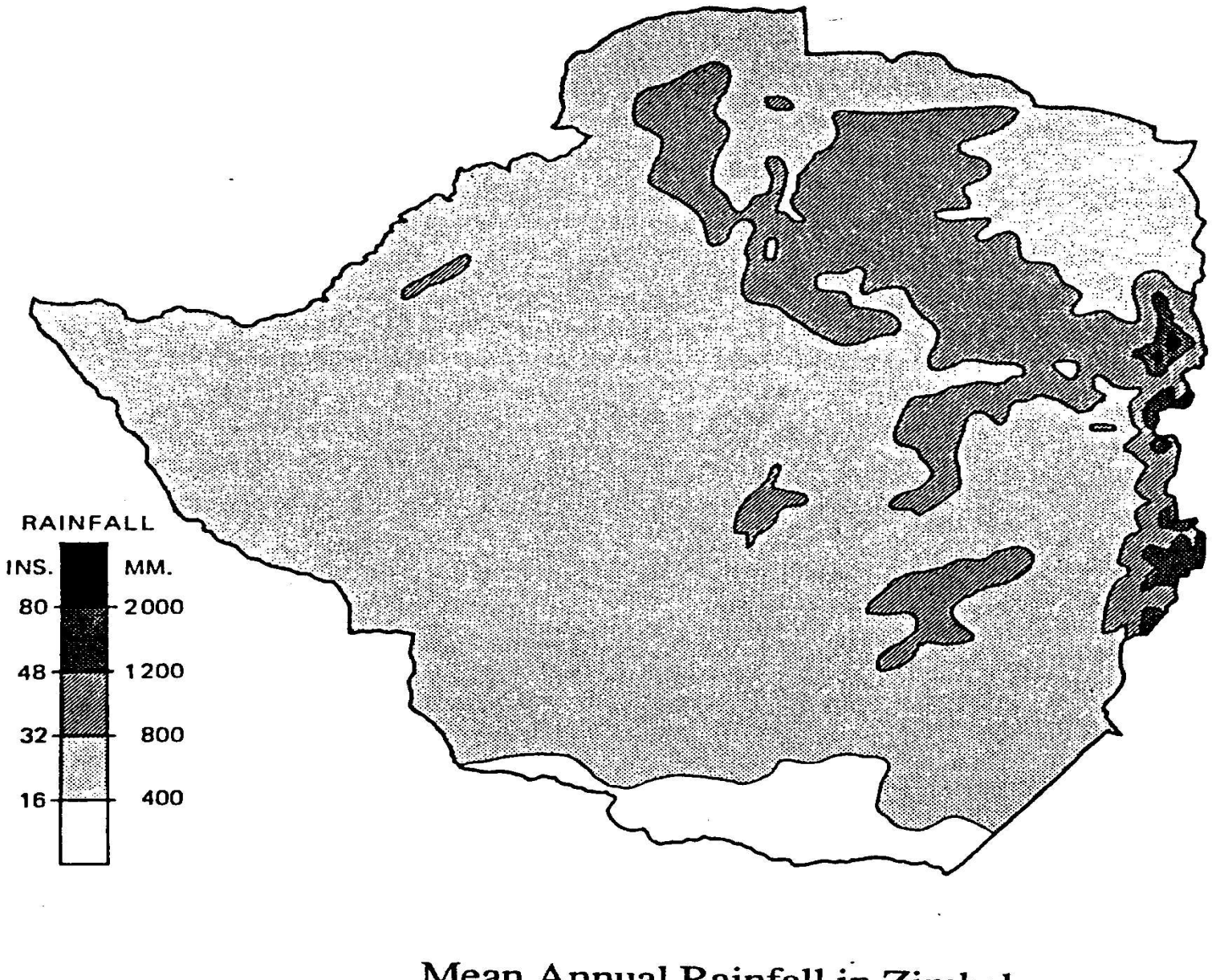
20
Bulawayo
Masvingo
Runde
Rio Save
BOTSWANA
Beitbridge
MOZAMBIQUE
0 50 100 km
SOUTH AFRICA

GENERAL INFORMATION OF THE PRP

- Background of the PRP
- Narrative summary of the PRP
- Amendments of the plan
- Inputs conducted
- Activities implemented

Background of the PRP

- 70 percent of Zimbabwe's population lives in rural areas.
- Majority are smallholder farmers whose primary source of livelihood is agriculture.
- About 60% live in semi-arid regions which receive less than 600 mm of rainfall annually.
- The areas are prone to frequent droughts, poor soil fertility, low agricultural productivity, low yields, food insecurity, and poverty is rife.
- There are various constraints and challenges facing the smallholder farmers amongst which shortage of skilled extension staff ranks top.



Mean Annual Rainfall in Zimbabwe

Background cont.

- There is a shortage of skilled man power in the agricultural sector in general.
- The need is high to strengthen research and broaden extension services to enable them to adequately respond to the needs of farmers, particularly smallholder farmers.
- The normal training program for extension workers is too long, takes 3 to 4 years.
- Many new farmers have emerged and need skills and resources for agricultural production.
- There is need for direct technical guidance for extension workers.

Constraints to Agric. Extension

- AREX has not been able to extend its tentacles to all corners of the farming areas, thereby generating discontent among farmers.
- Farmers may end up taking wrong decisions during crisis situations thereby compromising on their ability to cope and produce.
- The government approved apprenticeship training for extension workers in a bid to reduce the extension worker to farmer ratio to reasonable and productive levels.
- The Apprenticeship Trainees lack operational manuals and extension guidelines for reference while on training.
- The same also applies to most extension workers, especially the new recruits from colleges.

Narrative summary of the PRP

- The target area was Masvingo Province.
- The direct target groups are frontline extension personnel who are in close contact with farmers.
- The indirect but important beneficiaries are the farmers themselves, whose livelihoods need enhancement as the overall goal of the project.
- The final output of the project is an OM for field extension workers.
- The inputs came from the Zimbabwe side (coordination & implementation), Thai side (technical support and advice), and JICA side (financial support & project facilitation).

Amendments of the plan

- The project was narrowed down to focus on one province instead of the two initially proposed and one output instead of two initially proposed.

Original Plan	Revised Plan	Reasons for Change
Implementation of the project in two provinces of the country	Project implemented in only one province	Budget & time constraints
Production of two outputs: an OM and a Training Program for extension workers	Only an OM has been produced	The timeframe was short
Completion of the project by end of May 2006	Some project activities are still pending	Change in project personnel.

Inputs conducted

Zimbabwean Side:

- Ministry of Agriculture coordinated & implemented the activities of the project.
- Provided staff to the project.

Asian Side:

- Experts from KU and MOAC (Thailand) visited Zimbabwe to assist in the initial stage of developing the OM.
- The experts were from time to time for technical support consulted until finalization of the PRP products.

JICA Side:

- JICA provided financial support to the project.
- JICA expert in AREX and JICA Regional Support Office for Eastern and Southern Africa provided technical expertise to the project.

Activities implemented

- The Project Implementation Unit was established
- The plan of operations was formulated.
- Knowledge exchanges with the Asian partner organization in Zimbabwe were conducted.
- The Operational Manual Workshop was conducted.
- The OM was formulated and drafted
- The study mission from Zimbabwe was dispatched to Thailand to familiarize with the Thai A&RD experience.
- The Draft OM is sent to Thailand for comments and editing.
- Comments incorporated and document finalized.
- Printing of initial copies


JICA

RESULTS OF THE PRP

- Summary of output
- Knowledge co-creation
- Difficulties in implementation of the PRP

Summary of output

- The output of the Zimbabwe PRP is an OM for field extension personnel.
- The OM has 3 sections: Crops, Livestock, and Agric. Engineering and Economics Sections.
- It has been designed to cover all agric. activities involved in the project area
- Designed according to the needs of field extension staff to aid them in their dissemination of information & technology transfer to farmers.
- The OM will indirectly benefit the farmer as their extension agents are capacitated.

CAPACITY BUILDING FOR AGRICULTURAL EXTENSION IN ZIMBABWE¶

¶

AN OPERATIONAL MANUAL FOR AGRICULTURAL EXTENSION WORKERS¶

¶

¶

Kasetsart University¶

Thailand¶

¶

¶

II. SMALL GRAINS¶

¶

SORGHUM, PEARL MILLET AND FINGER MILLET ¶

¶

- OPTIMAL GROWTH REQUIREMENTS:¶
- Soil ¶

They thrive on a wide range of soil and higher yields obtainable from fertile well drained soil but can still grow on relatively poor soil. pH range of 5-6.5 ¶

¶

- Rainfall ¶

Very drought tolerant and can withstand moderate to harsh conditions with minimum requirement of 300–400mm per annum hence can be grown in the very dry areas where maize cannot thrive of which Masvingo is one such province. But of the 3 small grains Pearl millet is even hardier such that it can even grow with as little as 200–300 mm per annum. ¶

¶

- Temperatures¶

Hot warm conditions preferred with temperature ranges of 15-30°C. During flowering too high temperatures are experienced sorghum may fail to head well. Early frost on immature grains also affect all the 3 small grains and can cause drastic yield losses ¶

¶

- CULTIVAR SELECTION AND RECOMMENDATIONS: ¶

Most of the local varieties are open pollinated and low yielding while the hybrids are higher yielding¶

¶

- LAND PREPARATION¶

Just like any other crop, land should be ploughed after harvesting of previous crop to a depth of about 20–25cm. This is to allow for moisture conservation and decomposition of crop residues. A finer seedbed is required because the seeds are small¶

¶

- FERTILIZER APPLICATION¶

Soil analysis is necessary to determine soil nutrient and pH status but the general recommendation is for 5–8 tonnes/ha organic manure, or 30–100 kg compound D at planting. Top dressing can be applied +–5 weeks after crop emergence. Fertiliser use is especially advised for the lighter soils, while for the heavy rich basalt of Chiredzi and part of Mwenezi then there will be no need to fertilise ¶

¶

- Nutrient Deficiency Symptoms: ¶

They are the same as for maize ¶

¶

- PLANTING ¶

It should be noted that when choosing a planting date the main aim should be to avoid ripening of crop in the rains. Dry planting in October is advised for areas with very short seasons. If planting is done with the rains it is advisable to do it with the first effective rains. For areas with relatively longer seasons then planting can still be done even in December ¶

¶

Knowledge co-creation

- Thailand's participation at the workshop opened up new ideas on A&RD policy and programs implementation.
- The comprehensive OM is a new concept to Zim & a product of contributions from both the Thai and Zimbabwe sides.
- New ideas in the manual were developed and modified to suit local conditions.
- The linkage between the political, agricultural research & extension, and farming systems has great implications on the development of agriculture. This is a concept which needs to be introduced as policy recommendations to policy makers in Zimbabwe.

Knowledge Co-creation cont.

- Thai's familiarization with the Zimbabwe situation lead to identification of two project ideas for intervention to RCD problems in Masvingo province.
- The Thai agricultural research and extension system is being adapted to the Zimbabwe context, with modification, especially the leading farmer concept. This will be helpful in tackling agriculture and rural development problems in Zimbabwe.
- Thai A&RD programs have been very successful; if these could be adapted and replicated to the Zimbabwean situation the problem of underdevelopment and poverty may be eradicated.

Knowledge Co-creation cont.

- The OM produced is expected to contribute immensely to the development of capacity for extension workers.
- Thailand has shown success in promoting value addition to agricultural products at farm level, which has been lacking in Zimbabwe's agriculture.
- Zimbabwe's agriculture has been heavily dependent on production and marketing of unprocessed commodities.

Difficulties in Implementation of the PRP

- Climatic conditions are quite different between the two countries, which require some modifications to adapt the Asian systems to local ones.
- It will be difficult to exchange crop varieties as there are biotechnological regulations that need to be complied with.
- Some Asian technologies require highly sophisticated equipment and machinery which may not be available in Zimbabwe.
- Language is posing some barrier between the two countries' agricultural systems. Most documents are written in Thai, which makes it difficult for Zimbabweans to understand.

LESSONS LEARNT

- There is need for close collaboration between research and extension institutions and farmers (a lesson from the ATTC experience in Thailand).

  Farmers are an important component of the agricultural research and extension system, therefore, the need to involve them at all stages of technology generation and dissemination.
- Crop diversification and value addition at farm level are imperative for poverty reduction.
- Incorporation of Asian knowledge and experiences can enhance rural development and economic development in general.

Lessons Learnt cont.

- Continued interaction and collaboration is necessary for extensive knowledge co-creation.
- There are very good crop varieties in Thailand which can be brought and perform well in Zimbabwe.
- Agricultural and rural development polices and programs need full political backing to yield good results.
- Asian initiatives, especially the lead farmer concept can be the benchmark for RCD in Zimbabwe if fully adopted and implemented.

FUTURE PLAN AFTER THE PRP

- At least 300 copies to be printed and distributed to the extension workers in the project area.
- An evaluation sheet shall be incorporated as annexure for feedback. The feedback shall help improve the manual before it can be disseminated to all the other provinces of the country.
- A proposal will be made to the treasury for funding to replicate the outputs to other provinces of the country.
- A local university will be engaged for collaboration with AREX Masvingo Province.
- Two projects for further collaboration between Zimbabwe, KU and JICA have been identified and project proposals are being formulated by the Zimbabwean side.

Thank You All!