



# **TEA RESEARCH**

**INSTITUTE OF TANZANIA**

**PROCEEDINGS OF THE WORKSHOP ON  
DEVELOPING RESEARCH AND  
DEVELOPMENT STRATEGIES FOR  
SMALLHOLDERS TEA SECTOR  
IN  
MUFINDI, NJOMBE AND RUNGWE  
DISTRICTS**



**By**

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**TTU WORKING DOCUMENT NO.  
2**

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**DECEMBER 1999**  
**FOREWORD**

These proceedings record discussions and deliberations of the participants of the workshop on “**Developing Research and Development Strategies for Smallholders Tea Sector in Mufindi, Njombe and Rungwe Districts**” conducted in Makambako in Njombe district on 7<sup>th</sup> to 8<sup>th</sup> December 1999.

The workshop was organised by the Tea Research Institute of Tanzania (TRIT) through its Technology Transfer Unit (TTU). Participants of the workshop included key stakeholders in smallholders tea sector from Mufindi, Njombe and Rungwe districts.

This workshop is the first in the series of similar workshops to be conducted on regular basis in all key smallholders tea growing areas of Tanzania. Our goal is to work with all interested parties to improve the performance of the Tanzanian Smallholders tea sector.

We would like to thank the participants for accepting our invitation and their valuable contributions, the TTU of TRIT for organising the workshop and the Department for International Development (DFID) for their generous financial support. TRIT will be looking forward to receiving comments.

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## **INTRODUCTION**

### **GENERAL OVERVIEW**

A two days workshop involving key stakeholders in smallholder tea sector in Southern Tanzania was conducted in Makambako starting from 7<sup>th</sup> to 8<sup>th</sup> December 1999. The southern smallholder's tea area includes Mufindi and Njombe districts of Iringa region and Rungwe district of Mbeya region. The workshop was organised by the Tea Research Institute of Tanzania (TRIT) through its Technology Transfer Unit (TTU). The theme of the workshop was to develop research and development strategies for smallholders tea sub sector in southern Tanzania.

The workshop participants included agricultural advisors in Regional Agricultural Secretariats (RAS) offices of Iringa and Mbeya regions, Districts Planning Officers (DPLO) for Mufindi, Njombe and Rungwe, Districts Agricultural and Livestock Development Officers (DALDO's), District Extension Officers (DEO), District Crop Officers (DCO), Division Extension Officers (DIVEO), Village Extension Workers (VEW) in all key tea growing areas, tea researchers and collaborators from TRIT and Kifyulilo research station, representative from factories linking with smallholders such as Brooke Bond Tanzania (BBT), inputs suppliers from Tanganyika Farmers Association (TFA), representatives from smallholders tea growers association and some representative farmers. A full list of the workshop participants is presented in Annex 2.

According to most of the participants the workshop was rated as a success, as for the first time in smallholder tea sector it managed to incorporate wider categories of key stakeholders involved in smallholders tea subsector in discussing transparently key issues facing the sector.

On the other hand the workshop created an important venue for TRIT researchers to interact with stakeholders and plan together with them the strategies that will address pertinent problems and constraints facing the ailing smallholders tea sub sector.

### **GENESIS OF THE WORKSHOP**

The workshop has been organised as a follow-up activity after a comprehensive Socio-economic diagnostic survey was conducted in Mufindi, Njombe and Rungwe districts during mid 1999 by TTU. The TTU used A Farming Systems Approach to identify constraints and opportunities to tea production.

The survey results pointed out a number of issues some cutting across the smallholders sector and some being specific to certain locations and areas. It was thought that these issues needed further synthesis in order to develop a workable strategy for each issue. Involvement of key stakeholders was seen as the best way of expanding scope and depth of the required synthesis. Furthermore, some of the workshop participants are potential future collaborators during implementation of some of the identified strategies. So by involving them in developing a client oriented workable strategy right from the

beginning, it will acquaint them with the necessary background for the future collaborative work.

## **LOGISTICS**

TRIT hosted the workshop by providing all inputs required including transport for all participants, accommodation and meals, stationary and reference materials.

Before formal invitations were sent to participants, a visit by TTU staff was organised to the three districts where potential participants were informally invited. Although later some participants did not receive formal invitation, still they attended the workshop. This indicates their enthusiasm to attend such a unique workshop. Of the total thirty-three stakeholders invited only three did not attend. This means that over 90% of the invited stakeholders attended the workshop.

## **DESCRIPTION OF THE SESSIONS**

The workshop was organised into four major sessions. Each session had a chairperson to guide the discussion.

### **Session 1**

The session covered an introductory part where TRIT Research Director gave opening speech. Followed by participant's pair wise self-introduction. The session progressed with the presentation by the Officer Incharge TTU on activities and the mandate of the unit in serving smallholder tea growers. Presentation of the genesis and rationale of the workshop concluded the session.

### **Session 2**

In this session the findings of the socio economic diagnostic survey were presented. Participants had the opportunity of making their initial comments on the presented findings in the plenary session. During the same session participants split into five subgroups for detailed discussion on specific topics. Terms of reference for group discussions were provided for each group. Each group then spent the whole afternoon discussing issues and proposing strategies that will address key issues that featured in their respective topics. Details of group members and their respective issues discussed are presented later in this document.

### **Session 3**

This was the first session on the second day of the workshop where the workshop progress was reviewed. The review was followed by presentation by group representatives, the output of each group discussion.

## Session 4

This was a conclusive session where participants in the main plenary worked out a priority list of constraints and issues for each smallholder's tea growing district. With the limited resources the priority list will guide all stakeholders on effective scheduling of the intervention measures in order to achieve maximum impact. The prioritisation of issues paved way for the closing of the workshop, the task that was again done by the TRIT Research Director Professor Bruno J. Ndunguru.

The timetable for the workshop is presented in **annex 1**.

## SUMMARY OF THE FINDINGS

The findings of the survey were presented in the main plenary session. The presentation covered various issues as they were reported during the socio economic diagnostic survey. The issues were presented per district whereby three districts Njombe, Rungwe and Mufindi were covered (table 1). The list of issues has not been prioritized. During the presentation, descriptions of inter linkages of these issues and how each issue affects smallholders tea production was made.

**Table 1; Summary of the findings presented in the main plenary session per district**

MUFINDI DISTRICT	NJOMBE DISTRICT	RUNGWE DISTRICT
1. Tea planting materials	1. Tea planting materials	1. Tea planting materials
2. Limited diversity of clonal materials (Genetic bases)	2. Genetic base	2. Genetic base
3. Land pressure for tea cultivation	3. Management of communal fields	3. Land pressure
4. Husbandry practices for tea fields	4. Management practices	4. Husbandry
5. Land tenure systems	5. Land tenure systems	5. Cultural barriers
6. Marketing	6. Marketing	6. Marketing
7. Support services	7. Support services	7. Support services
- Extension	- Extension	- Extension
- Research	- Research	- Research
- Communication	- Communication	- Communication
- Transport	- Transport	- Transport
- Input supply	- Input supply	- Input supply
- Organization of growers	- Organization of growers	- Organization of growers
8. Data bases	8. Data bases	8. Data bases
9. Information uptake Pathways		

Some issues were found to be cutting across all three districts, whereas others are area or location specific. The details of the issues will be presented later in this report.

However, during this session some policy-related questions were raised and discussed by the participants. These issues were regarded as a critical pre-requisite for a more successful and sustainable smallholder tea sector in respective areas.

1. The future of Lupembe tea factory as it affects marketing of the green leaf in Lupembe division-Njombe District was raised. Participants reaffirmed the need to put the factory into operation as the everlasting solution to the current marketing constraints in Lupembe. The discussion also gave the impression that some problems that hinder reopening of the factory are caused by individuals whose intentions are not for the betterment of the smallholders in Lupembe.
2. The marketing situation in Rungwe district in relation to progress on the divestiture of Katumba and Mwakaleli factories was another issue raised by the participants. The ensuing discussion revealed that the situation in Rungwe is much more promising and the much-awaited investor has been identified and the process is underway to allow the investor to start operations in the two factories.
3. The future of Inputs supplies systems after the demise of Tanzania Tea Authority (TTA) was also discussed briefly and participants decided to reserve the discussion for next sessions of the workshop. However participants observed that this is a very important area that will determine the future performance of the smallholder tea sector.
4. The increase of land rent for farmers by the government was also raised. Most of the participants were concerned with the commercial repercussion of this increase on both estates and smallholder growers as tea is a crop that require relatively larger acreage in order to be viable.

## **COMPOSITION OF SUB-GROUPS AND TERMS OF REFERENCE FOR DISCUSSION**

### **SUB-GROUPS**

After the results were presented in the plenary session the workshop participants split into five subgroups for detailed discussion of the issues. Each group was given specific topics related to their position and experiences on tea. Furthermore terms of reference for each topic was provided to group members.

The Terms of Reference (ToR) for group Discussions;

- To review the survey findings and expand issues to specific locations,
- To give recommendations on how to solve each specific problem reviewed above,
- To prioritise the given recommendations (which one should start),
- To indicate key actors for implementing each of the given recommendations.

## COMPOSITION OF THE GROUPS

Composition of the group members was based on the current role, position and experience of participants in tea. In each group at least one tea researcher and a farmer or representatives of the farmer's organization were present. This composition was necessary in order to ensure that accuracy and depth of the discussion is achieved. For example a farmer had to update other group members by explaining the current marketing situation in Lupembe division Njombe District and how smallholders are affected. The groups are presented in table 2.

**Table 2; Composition of the groups and the topics for discussion.**

GROUP	GROUP MEMBERS	DESIGNATION	TOPICS FOR DISCUSSION
<b>A</b>	Mr. A.Kivambe Mr. J.Mbogoni Mr. V.Msofu Mr. T.Lupembe Mr. N.Kapyella Mr. J.Ndanzi Dr. E.Kimambo	Estate manager – BBT Branch manager – TTA Rungwe Branch manager TFA Njombe Farmer – Isoliwaya village Rep. Smallholders Rungwe Rep. Smallholders Mufindi Researcher, TRIT	Linkages between farmers and factories. - Marketing - Inputs supply - Organisation of smallholders
<b>B</b>	Dr A. Faya. Ms P.Pili Mr F.Mizambwa Mr M.Mhosole Mr Y.Mhidze Mr D.Ndamugoba Ms S.Mwaipeta Mr K.E.Kushoka	DALDO – Rungwe Extension – Rungwe Researcher – TRIT Researcher – Kifyulilo Rep. Smallholders Njombe Researcher - TRIT/TTU Extension – Njombe Extension – Mufindi	Research and extension services. - Planting materials - Limited diversity of clonal materials - Tea extension services - Information uptake pathways
<b>C</b>	Mr A.Mapunda Mr C.Mwageni Mr E.Simbua	Planning officer – Rungwe Planning officer – Mufindi Researcher – TRIT/TTU	- Land tenure systems (legislation) - Land pressure - Cultural issues
<b>D</b>	Mr S. Nyoni Mr J.Kessy Mr B.Kilangi Mr C.Mwakisopile	Agric. Advisor RAS–Iringa Agric. Advisor RAS–Mbeya DALDO – Njombe DCO – Rungwe	Statistics and Policy - Tea data base - Policy issues - Financing farmer experimentation
<b>E</b>	Mr E. Willilo Mr E. Katengu Mr F. Mahega Mr V. Luvinga Mr P. Nyunza Mr C. Haulle Ms A. Nyanga	DIVEO – Lupembe VEW – Igoda DIVEO- Kifanya DIVEO – Igominyi Farmer – Mkonge village Manager - TSTDA Mufindi Researcher - TRIT/TTU	- Tea extension services - Information uptake pathways

## STRATEGIES DEVELOPED FOR EACH GROUP

In this section the strategies developed by each group are presented. The basis for these group discussions was the findings from the Socio-economic diagnostic survey. The texts on the boxes indicate summarized findings of the diagnostic survey per topic for each group.

### GROUP A: LINKAGES BETWEEN SMALLHOLDERS AND FACTORY OWNERS

The group comprised mostly representatives of the factories that purchase tea from smallholders, inputs suppliers, representative of farmers organisations, researchers and farmers (mixed group). The group was assigned a task of discussing the linkage issues between factory owners and farmers. The main areas of concern were marketing, input supply and organisation of smallholders.

#### THE SUMMARIZED FINDINGS OF THE SOCIO-ECONOMIC DIAGNOSTIC SURVEY:

##### **(A) MARKETING**

*Smallholders in Mufindi district are served with a relatively better marketing system. By the virtue of being in the vicinity of bigger estate growers like BBT and MTC, smallholders' benefits by getting access to the processing factories as outgrowers. MTC buys green leaf from majority of smallholders in Mufindi. A small number of progressive farmers owning trucks market their green leaf through BBT.*

*In Njombe district, the marketing environment is divided in two geographical categories. Lupembe division, which used to be served by TTA, is facing a very severe marketing instability. Since TTA owned Lupembe factory stopped its operations in 1998, there has been substantial decline in production of tea in smallholders. Recently some distant buyers have started buying green leaf from smallholders in Lupembe, but this is likely to be a short-term intervention as its sustainability is very questionable.*

*The long lasting solution for marketing uncertainties in Lupembe is putting into operation the defunct Lupembe tea factory.*

*In Rungwe district the smallholder's tea growers were served by two TTA factories at Katumba and Mwakaleli. Currently these factories are at the advanced stages of divestiture. Commonwealth Development Cooperation (CDC) is a prospective investor and the memorandum of understanding between CDC, smallholders Association and PSRC was signed on 14/11/1999 at Rungwe. With this new development it is anticipated that CDC will take over TTA Rungwe branch in collaboration with UMOJA by launching operational company to be known as Rungwe Tea Company. The company will run all necessary operations, which was being done by TTA Rungwe branch. In Rungwe marketing is a core and severe problem. One of the reasons is that tea was the major cash income earner in most of the households. The problem is based mostly on delayed payments for the green leaf and low prices. Furthermore, the marketing is made more difficult by the poor state of the roads from producing areas to the factory. The reliability of green leaf collecting system adds to the problems.*

*In all three districts there are few issues, which seem to create misunderstandings between factory owners and smallholder growers. These issues need to be addressed in order to improve and streamline the current marketing system.*

- *The factory owners pay growers basing on Factory weight i.e. weight of green leaf upon delivery and acceptance at the factory gate. Meanwhile farmers sell their green leaf at collection points where field weight is recorded. In several occasions' field weight, does not match with factory weight. The problem becomes critical if the factory weight becomes less than field weights. Currently there is no clear mechanism to deal with this discrepancy.*

- *Another issue is the lack of a forum where factory owners and growers can exchange views in order to improve their grower-processor partnership. This is a weakness that can be addressed very easily if both parties recognise the importance of partnership.*
- *During the TTA era, smallholder green leaf prices used to be announced by the authority. The price setting mechanism was not clear, and in most cases the prices were set below economic viability of growing tea. Prices are potential incentive to increased production if set properly. It is important to institute a more transparent price setting mechanism that will involve smallholder growers in order to stimulate production.*
- *Farmers have also complained on lower green leaf prices. Most farmers had recommended a price increase from 55/= per kilogram of green leaf to not less than 100/= per kilogram. According to farmers, the price setting mechanism did not consider the production costs of growing tea. As a result profitability of smallholder tea growing becomes unattractive for most of the smallholders.*
- *Prompt payment for green leaf to farmers is another important issues in smallholder tea production. The pattern of cash flows in smallholder tea production is closely tied with requirement for purchase of inputs for tea production as well as procurement of other household requirements. Delayed payments tend to affect both, sustainability of tea production as well as general welfare of the households. Farmers are easily discouraged by delayed payments, and if there is other production options farmers will switch to it and neglect tea production.*

### **(B) SUPPORT SERVICES-INPUTS SUPPLY**

*Input supply is a critical support service in smallholder tea production. The condition of supply of fertilisers, herbicides and other necessary farm inputs determines the productivity of the tea industry in a particular area. As with other services, input supply service was given by TTA. Currently there is no reliable input supply system to replace TTA.*

- *In Mufindi district MTC offers to supply input to farmers on loan basis. This is a very important service to smallholder growers, though repayment modalities do not conform to ability and interests of some growers.*
- *In Njombe district, this problem cuts across both divisions. The situation is more critical in Lupembe division where distance to potential suppliers in Njombe township is substantial. Some farmers in Igominyi division have started to make independent arrangement of buying inputs from stockists in Njombe. Farmers have complained on the poor quality of inputs supplied by individual suppliers.*
- *In Rungwe district where farmers used to get inputs through TTA the situation is very difficult, as there are very few private input suppliers. These suppliers are mostly specialised in inputs for other crops apart from tea.*

### **(C) ORGANISATION OF THE SMALLHOLDERS TEA GROWERS**

*Smallholders need to be organized at various levels village, division or district. This is an important move that will facilitate easy access by various change agents to majority of farmers.*

- *The organization should be focused and specialised on specific crop e.g. tea in order to ensure that efficiency is achieved.*
- *It should have specific strategic objectives. There is very wide range of options in promoting crop production, however with the limiting resources it is important to opt for more critical intervention measures. The desired farmers organisation need to have that capacity of identifying critical constraints and adopt rational approaches to solving these constraints.*
- *Should be effective with few people in order to avoid overhead costs and bureaucracy.*

The workshop participants in the group agreed that the issues found out during the survey are relevant and indeed contribute to weak linkages between factories and smallholders tea growers. The group members also pointed out that organisation of smallholders and input supply should also be included in Rungwe district.

## **CONSTRAINTS AND BOTTLENECKS PER DISTRICTS**

### **(A): MUFINDI DISTRICT**



*PLATE 1: MTC truck collecting greenleaf from smallholders in Mkonge village, Mufindi district. The linkage between factories and outgrowers need to be cultivated into effective partnership.*

### **CONSTRAINTS**

The following constraints have been identified in smallholder tea sector in Mufindi district;

- Lack of clear mechanism for setting green leaf prices, that has lead to big diversity on prices paid to smallholders, sometimes on the same production environment. Farmers are not represented in the current price setting process.
- Lack of forum between factory owners and smallholders to discuss greenleaf prices, farm input, business contracts and transportation of greenleaf
- Prices of inputs particularly fertilizers are too high for average farmers to afford on cash basis. In Mufindi a 50kg bag of NPK fertiliser is sold at 11,500/= T.shillings.
- Lack of adequate processing facilities/factories from smallholder's tea particularly during peak production periods.

### **RECOMMENDED INTERVENTION MEASURES**

1. Need to have a strong and effective farmers association that will represent interests of the smallholders tea sector in the district. Currently *Chama cha Wakulima wa Chai Mufindi* (CHAWACHAMU) though desirable but still need to be aggressive in negotiating with processors. Areas that need immediate attention include;
  - 1.1. Tea prices,
  - 1.2. Green leaf transportation,

### 1.3. input supply and

1.4. Contractual obligation by both processors and farmers, this will ensure that fair handling of excess produce during peak production seasons prevails.

2. Need for subsidizing the input prices through government policy, donor's assistance and potential investors in tea sector was highly recommended by the group.
3. Need to encourage suppliers to set up delivery/retail shops closer to consumption centers is another strategy suggested by the group. Farmers will have easy access to the required inputs so that they can be able to plan more effectively on the purchase and use of inputs.
4. The processors should also plan to expand their processing capacity in order to accommodate smallholder's crop. This is a most feasible option for solving the current problem in Mufindi.
5. The long-term strategy towards solving the problem of overproduction is to build another factory that will cater for smallholders in the district. However this strategy will only work if there is economic justification for such expansion investment. Also this strategy can only work if there are funds set aside for the purpose.

## **(B) NJOMBE DISTRICT**



**PLATE 2:** *Some of the greenleaf from smallholders finds its way to this modern, state of the art Kibena Tea Factory in Njombe district. The distance between producing areas (Lupembe) to the factory is big hence the need to re-open the closed nearby Lupembe Tea Factory.*

## **CONSTRAINTS**

The following constraints have been identified in smallholder tea sector in Njombe district:

- Lack of reliable and permanent markets for green leaf has been pointed out as the primary constraint in Lupembe division.
- Prices of inputs particularly fertilizers are too high for average farmers to afford on cash basis. In Njombe a 50kg bag of NPK fertiliser is sold at 12,000 Tanzanian shillings.
- Lack of focused farmer's organization that deals with genuine issues of concern for smallholder's tea growers. The current *Muungano wa Vyama vya Ushirika Lupembe* (MUVYULU) is molded basing on the older set-up, which reduces its effectiveness as an institution capable of coordinating the activities of smallholder's tea growers.
- Lupembe tea factory is older and current effort to divestiture it has been frustrated by the ownership wrangles. However, the participants were informed that these outstanding issues were resolved and a way forward has been paved for divestiture. Even with privatization of the factory huge investment is required to upgrade machinery.

## **RECOMMENDED INTERVENTION MEASURES**

1. The long-term solution is for the government, farmers association and all important stakeholders to search for a reliable investor to run the factory in a sustainable basis. Experience in tea processing business and adequate capital should be the main criteria for selecting such an investor.
2. Need for subsidizing the input prices through government policy, donor's assistance and potential investors in tea sector was highly recommended by the group.
3. The need for setting an input supply system where farmers can get input on loan basis was emphasized. This system worked very well during TTA tenure and it still works well in Mufindi between MTC and smallholders. The loan will normally be recovered through deductions from green leaf sold during that particular season.
4. Need to encourage input suppliers to set up delivery/retail shops closer to consumption centers is another strategy suggested by the group.
5. There is a short-term investor who has agreed together with relevant stakeholders in Lupembe to run the factory until the permanent investor is engaged. On temporary basis it was suggested that the current investor should continue to buy and process smallholder tea until permanent investor is engaged.
6. Need for strong and purposeful smallholders association was seen as a necessary pre-requisite towards a more dynamic smallholders tea industry in Njombe. The role of the association should be to unite all groups and individual farmers and link them with the prospective markets, input suppliers and other necessary services demanded by smallholders tea producers.

**(C) RUNGWE DISTRICT**

*PLATE 3: The big potential existing in Rungwe is not fully utilised due to marketing problems. The future for such smallholders in Rungwe now looks promising with the successful divestiture of Katumba and Mwakaleli Tea Factories.*

**CONSTRAINTS**

- There is an outstanding debt that smallholders in Rungwe are owed by TTA. Currently farmers have been paid up to May 1999. Also there are still outstanding Tanesco bills to be paid.
- Prices of inputs particularly fertilizers are too high for average farmers to afford on cash basis. In Tukuyu a 50kg bag of NPK fertiliser is sold at 14,500 Tanzanian shillings.
- Due to long term problems relating to marketing of tea in Rungwe there is a substantial acreage of tea fields that has been abandoned or neglected. It is important that these fields be rehabilitated and brought into production.
- Production potential is far higher compared with the current levels of installed factory capacities in Rungwe.
- In Rungwe district where farmers used to get inputs through TTA the situation is very difficult, as there are very few private input suppliers. These suppliers are mostly specialised on inputs for other crops apart from tea.

**RECOMMENDED INTERVENTION MEASURES**

1. Need to expand and rehabilitate the available factories in order to maximize or expand the potential.
2. Consider expansion of the processing capacity by building new factory in Rungwe district.

3. Need to encourage input suppliers to set up delivery and retail shops closer to consumption centers is another strategy suggested by the group. Rungwe district was sighted as an example of areas where lack of input supplies has affected management of tea fields even where some farmers can afford to buy inputs when available.
4. Need for subsidizing the input prices through government policy, donor's assistance and potential investors in tea sector was highly recommended by a group.
5. The need for setting an input supply system where farmers can get input on loan basis was emphasized. This system worked very well during TTA tenure and it still works well in Mufindi between MTC and smallholders. The loan will normally be recovered through deductions from green leaf sold during that particular season.
6. Effort to rehabilitate the fields that has been abandoned in order to utilize the current prospective good marketing environment should be given higher priority.
7. Roads to villages where tea is grown need to be rehabilitated and maintained throughout the year.

**GROUP B:  
TEA RESEARCH AND EXTENSION SERVICES FOR SMALLHOLDERS**

This group comprised of researchers from TRIT, Kifyulilo Research station, and District Agricultural Department officials. The agenda of group B was to discuss issues relating to:

- Tea planting materials
- Management practices of tea fields
- Diversifying of clonal materials
- Tea extension services and
- Information uptake pathways

THE SUMMARIZED FINDINGS OF THE SOCIO-ECONOMIC DIAGNOSTIC SURVEY:

**(A) TEA PLANTING MATERIALS**

*Lack of reliable sources of planting materials was found to be a constraint in Mufindi, Njombe and Rungwe. In the past, TTA established central nurseries to avail planting materials to smallholders' tea growers on loan basis. The nurseries are no longer operational. Currently farmers in Igominyi-Njombe are trying to solve this problem by establishing nurseries but they are not well versed with nursery husbandry techniques. Some farmers in Rungwe and Lupembe -Njombe have adopted a coping strategy of using self-set seedlings from mature tea and also by obtaining seedling from older tea plantations like Manow mission in Rungwe. Neither coping strategy guarantees the quality of the planting materials.*

*With the demise of TTA, smallholders' tea growers in Mufindi district get planting materials from estate growers MTC and BBT. However, Estate growers prefer cash payment. MTC provides planting materials on loan basis. But, the loans are deducted from green leaf sale. This procurement system is accessible only to villagers with established tea fields and not potential new growers.*

**(B) MANAGEMENT PRACTICES OF TEA FIELDS**

*Farmers in Rungwe tea based farming system are well informed about good tea management practices. Application of the good management practices in their tea fields is poor. This is probably due to the marketing constraints and the lack of access to reliable sources of inputs. As the results most of the tea fields are abandoned and some of them are in very bad condition.*

*In Mufindi, it was found during the survey that, smallholder tea growers realise low tea yields ranging from 200-500kgs of made tea per ha per annum. Poor management especially low plant population due to vacancies, poor weed control, low fertiliser use, poor plucking and pruning strategies has contributed to low yields. Potentially smallholder tea growers in Mufindi under rain-fed condition can harvest about 2000kgs of made tea per hectare per annum.*

*In Njombe district there is geographical demarcation on knowledge gap in recommended tea management practices. In Igominyi division, farmers survived with abandoned tea area under TTA expansion schemes. The long term of in-activities have led to farmers being less informed about practices. The critical areas include pruning strategies, rehabilitation of abandoned fields, plucking skills and quality aspects.*

*In Lupembe division, the situation is the contrast of that in Igominyi. Farmers are well informed on tea management practices due to long term experiences. Despite of this awareness, farmers hardly follow recommended management practices. Major reasons for non-adoption being, marketing constraints, limited support systems especially inputs supply and inadequate extension services*

*According to farmers, the recommended 3 years pruning cycle is not compatible with their farming systems for the following reasons: Njombe is a cooler area so tea growth rate is slow, the management practices have changed so do the tea bush growth rate.*

**(C) LIMITED AND NARROW DIVERSITY OF CLONAL MATERIALS (GENETIC BASE)**

*The bulk of tea planted by smallholders in Mufindi, Njombe and Rungwe districts was planted through TTA schemes. The genetic diversity of planting materials was very limited due to dependency on limited commercial sources. Notably, clone 207 has been found to be more dominant in the Mufindi districts. While in Rungwe district clones 6/8 and TN 14/3 were predominant. This is a narrow genetic base that poses risk to smallholder tea industry in case of occurrence of any disaster.*

*The survey has revealed that most of the smallholder tea in Njombe district is seedling tea. There are very few farms planted with clonal tea. This situation offers limited room for increased productivity. Most growers are moving away from seedling tea in favour of clonal tea.*

**(D) TEA EXTENSION SERVICES**

*The tea extension system in Mufindi, Njombe and Rungwe has a characteristic trend, which is linked with the existence of TTA. The TTA used to have their own extension workers known as leaf officers. Each tea growing area or scheme used to have its own leaf officer. Apparently, the role of these leaf officers was limited to commercial aspects of tea production. Input supply and quality related issues of tea were emphasized. Their role in addressing production related constraints were limited. In Igominyi-Njombe TTA activities were phased out earlier compared with Lupembe division. In Njombe and Rungwe it is not known whether potential factory owners will employ ex TTA leaf officers or not.*

*The TTA continued to use leaf officers as their outreach independent extension structure. The government village based extension workers concentrated mostly on annual food crops as well as cash crops. Presence of leaf officers seemed to detach tea crop from mainstream extension system. Further evidence to that is the exclusion of tea related topics in District extension system, monthly training sessions and lack of follow up from higher authorities on the performance of tea sub-sector.*

*Due to structural reasons, the level of competence of government employed extension staff to address tea issues is very low. This is due to limited knowledge on tea husbandry.*

*Unfortunately these extension workers have a mandatory status of addressing extension issues covering all grown crops including tea.*

**(E) INFORMATION UP-TAKE PATHWAYS**

*In Mufindi tea based farming system, the survey has found out that most of the husbandry practices in smallholder's tea production are copied and modified by smallholder tea growers from neighbouring estate growers. Some of the practices copied included: fertilizer use strategies and de-centering as the method of bringing tea into bearing instead of pegging as estate growers stopped using it. Farmers being closer to the large-scale tea growers have prompted the coping of the management practices.*

**CONSTRAINTS AND INTERVENTION MEASURES FOR EACH ISSUE****PLANTING MATERIALS**

**PLATE 4:** *Reliable sources of good planting materials is a necessary pre-requisite for a sustainable smallholder Tea Sector capable of expanding its size and scale of production. The village-based tea nurseries can provide reliable sources of planting materials.*

**CONSTRAINTS**

- This problem affects smallholder in all three districts, Mufindi, Njombe and Rungwe.
- Lack of reliable and good source of planting materials has lead to;
  - Limited opportunity for expansion of the tea fields.
  - Limited opportunity for filling of the gaps in the existing tea fields.
  - Potential new farmers can not get planting materials for new establishments.

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## **RECOMMENDED INTERVENTION MEASURES**

1. Where opportunity exist in areas like Mufindi smallholders and larger scale growers can work out a system where smallholders will obtain planting materials from estates nurseries on agreed terms of trade.
2. Village based nurseries will go a long way towards providing a sustainable, reliable and good source of planting materials. However extension efforts is required in the area of nursery management practices, as most of the smallholders have no skills in this area.
3. Individual and groups should be encouraged to establish small commercial nurseries in areas where demand for planting materials is high. TRIT has a role of assisting such groups and individual in terms of technical backup on proper ways of running tea nurseries.
4. Involvement of various stakeholders is necessary in order to set-up a self-sustaining mechanism for production and supply of planting materials of acceptable quality for smallholders. Collaborators such as, Research institutions (TRIT), private tea companies (BBT, CDC, MTC etc), smallholders tea growers associations and individual farmers (smallholders) need to work together towards achieving a desired objectives.
5. Resources need to be mobilised from farmers themselves and other interested stakeholders such as local governments, non governmental organisations, farmers associations and donors community in order to facilitate provision of reliable source of planting materials for smallholder growers.
6. Several materials are necessary for establishing a tea nursery. These may be obtained from commercial input suppliers, private companies. The roles of research are to advice and provide sources of planting materials (cuttings).

## **MANAGEMENT PRACTICES**

### **CONSTRAINTS**

This problem has a variable manifestation in different tea growing areas. Whereas in some areas the problem is caused by;

- Lack of knowledge on better and improved management practices.
- Lack of resources to procure necessary inputs required on tea production.
- Low yields and hence lack of profitability of smallholder tea production.
- Poor quality of the harvested crops that leads to low returns and hence the low productivity of smallholder tea production.
- Poor livelihood of the tea growers as the tea production does not sustain farmers adequately.

## **RECOMMENDED INTERVENTION MEASURES**

1. Extension effort focusing on proper spacing for tea, use of inputs like fertilizers, herbicides, proper pruning strategies, plucking policies should be intensified.
2. Farmers should be advised on the importance of using more productive clonal materials compared to the use of self-set seedlings.

3. Farmers, researchers and extension workers should work together towards identifying more productive and desirable management practices.
4. Institutional support is needed for providing necessary inputs for searching, testing and supplying desirable clones to smallholder farmers.
5. Researchers in collaboration with extension staff and farmers need to set demonstration plots in key smallholder tea growing areas for demonstrating good tea management practices.

### **LIMITED DIVERSITY OF CLONAL MATERIALS**



*PLATE 5: Smallholders need to be enlightened on the availability of more productive planting materials in the research stations. Here TTU staff discussing with farmers the qualities of the clonal materials to be planted in the Clonal Field Trials (CFT) in Mkonge village, Mufindi district.*

### **CONSTRAINTS:**

- Though there are known sources of proven better clones, these are not accessible to smallholders due to distance and or lack of mechanism to avail these materials to smallholders.
- In most areas there is over dominance of one or two clones. This limits possibilities of improving quality and productivity.
- Farmers are not aware that there are better clones/planting materials than their traditional ones. As a result farmers are not looking for alternative planting materials.
- Dominance of single clone on the farming systems poses greater risk for catastrophes, like disease and insects attack.

### **RECOMMENDED INTERVENTION MEASURES**

1. Research and extension system in tea growing areas should establish a feasible mechanism of exposing and availing various planting materials to smallholders.

- Use of demonstrations plots, clonal mother bushes and extension leaflets, video shows, farmers fields days can contribute significantly towards improving farmers awareness of existing better clones.
2. Research should continue to search and produce appropriate clones for farmer's use. Farmers in collaboration with researchers and processors should define the traits for these clones.
  3. In order to achieve maximum impact, joint effort involving researchers, extension staff and farmers is required whereby farmers need to define their preferences for the required materials.

### **TEA EXTENSION SERVICES (INSTITUTIONAL SET-UP)**

#### **CONSTRAINTS:**

- Lack of extension staff in tea based farming systems.
- The available extension officers have limited experience on tea hence not capable of serving smallholders tea growers.
- The available extension staffs don't have adequate working facilities such as transport, reference materials etc.
- Poor linkage between extension, research and farmers.
- Lack of reliable market for tea has limited farmer's uptake of recommended tea management practices.

#### **RECOMMENDED INTERVENTION MEASURES**

1. Extension staff should be posted in all key tea growing areas. These staff should be upgraded through exposure on appropriate tea husbandry topics so that they can serve farmers effectively and satisfactorily.
2. The available extension staff should be assisted by relevant parties such as local government, TRIT or potential investors to get working gears so that they can effectively serve smallholders.
3. Communication and linkages between researchers and extension services and farmers should be strengthened, joint workshops, seminars, farmers field days, field tours, farmers exchange visits, were recommended as the viable strategies to strengthen the links.
4. The good marketing environment for smallholders' green leaf is a pre-request towards more responsive farmers towards recommended strategies.
5. Extension approach of using progressive farmers should be tried whereby; some representative farmers can be used as the learning centers for other farmers in the locality.
6. Joint effort involving local governments (District councils), TRIT, smallholders growers associations and farmers is needed for facilitating setting of effective tea extension systems in Mufindi, Njombe and Rungwe districts.
7. Resources need to be mobilised and carefully planned. The most important resources include; funds to host workshops, farmers exchange visits, seminars, transport and working gears for extension staff.

## **INFORMATION UP-TAKE PATHWAYS**



*PLATE 6: Visiting Tea Researchers and some members of TRIT advisory panel discussing a farmer owning a clonal field trial in Mufindi. Demonstration impact of such plots can be enhanced by regular visits by change agents.*

### **CONSTRAINTS:**

- The group had noted that farmers could not learn voluntarily from their neighbours. This has been observed in almost all tea growing areas.
- This fact may well limit the potential impacts of demonstration plots set on individual farmer's plots.
- Slow uptake of improved tea husbandry practices leading to general low productivity of the smallholder's farms.
- Low impact on extension activities that does not involve external change agents.

### **RECOMMENDED INTERVENTION MEASURES**

1. Institutional plots such as school farm, church farms can provide an ideal site for setting demonstration plots that will be effective and that will eliminate farmers reluctance to learning from neighbours.
2. Farmers should be sensitized at village levels on the need to change and look for solutions of their constraints/problems initially at village level before elsewhere.
3. Farmers should also be encouraged to learn from one another. Use of farmers exchange visits will go a long way towards making this strategy a success.
4. On the other hand presence of larger estates or facilitating extension staff tends to raise farmers curiosity towards a new technology.

5. More studies on factors that contribute to adoption process by farmers need to be done by researchers and result should be applied to derive a more responsive and adaptable recommendations to farmers.
6. Resources such as Human resources (researchers, extension staff and farmers), funds for organizing farmers visits, procurement of inputs for demo plots and materials such as plants, farm inputs and transport need to be mobilised in order to facilitate all necessary measures earmarked for implementation.

**GROUP C: THE ROLE OF DISTRICT COUNCILS TOWARDS IMPROVING AND PROMOTING SMALLHOLDERS TEA PRODUCTION.**

The group comprised of district planning officers and an agricultural economist based in the Technology Transfer Unit (TTU) of TRIT. The group was assigned the task of assessing issues relating to land tenure system, land scarcity and legislation issues on input supply system.

THE SUMMARIZED FINDINGS OF THE SOCIO-ECONOMIC DIAGNOSTIC SURVEY:

**(A) LAND TENURE SYSTEM**

*In Njombe most of smallholder tea was established in communally owned village block farms. Most villagers prefer individual ownership. Some villagers have decided to demarcate the block farms into smaller fragmented fields. These plots are too small to be economically productive. Some villages have opted to contract few individuals to manage the block farms and pay levy to village government. Generally, there are no clear modalities to institute privatization of communal farms.*

*Except for Mkonge village, the majority of smallholder tea in Mufindi district was planted in village block farms with communal ownership. Management of these fields has been a very serious problem in most of the villages leading to poor husbandry or total neglect.*

*Land ownership is an important factor in smallholder tea production. Tea is a perennial crop hence decision to plant is closely linked with availability and assurance of land.*

*Currently there are three key land tenure systems existing in tea growing areas.*

- Traditional land tenure system (Rungwe, Mufindi and Njombe)
- Leasehold land tenure system (Rungwe, Mufindi and Njombe)
- Communal land tenure system (Mufindi and Njombe)

**(B) LAND PRESSURE/SCARCITY FOR TEA CULTIVATION**

*During the survey, it was found that farmers in Mufindi district recognise the importance of establishing tea in a virgin land. However there is significant land pressure that makes it difficult to find idle virgin land for tea farming. Most of the arable land is cultivated with annual crops, predominated with maize. Farmers are now increasingly looking at these maize fields for tea farming. Farmers also are aware of tea establishment problems in plots that were previously planted with maize fields.*

*Land pressure in Rungwe district is more prevalent in Segera, Maseba and Rungwe Kapugi schemes. There is a tendency to replace tea with annual crops, pasture, fodder crops, or other perennial crops. The problem has been intensified by the lack of reliable market for green leaf.*

**(C) INPUT SUPPLY (LEGISLATION)**

*TTA used to supply most of the input requirements for smallholders. Currently there is no reliable input supply system for tea. The problem cuts across Njombe and Rungwe district with the exceptional of Mufindi where MTC provides the service. The situation is more critical in Lupembe division where distance to*

*potential stockists in Njombe is substantial. Some farmers in Igominyi division have started to make independent arrangement of buying inputs from stockists in Njombe. Farmers have complained on the poor quality of inputs supplied by individual stockists. Furthermore fertilizer bags supplied have no label indicating expiry date.*

The group agreed that all three issues falls mainly on the mandate of the local governments (district councils). So the group rephrased the topic to read; *'The role of district councils towards improving and promoting smallholders tea production.'*

## **CONSTRAINTS AND INTERVENTION MEASURES FOR EACH ISSUE**

### **LAND TENURE SYSTEMS**

#### **CONSTRAINTS:**

- Traditional land tenure system tends to limit farmers' access to land for tea cultivation. The problem is intensified by the presence of people who own larger acreage under traditional tenure system without developing the land.
- Communal land ownership contradicts with the current government policies, that encourages liberalization of trade and production activities as the government is leaving these activities to individuals and private firms.
- The group also noted that communal land ownership has mislead some farmers into believing that tea production is for larger estates companies or village farms and it can not be grown by individual farmers

#### **RECOMMENDED INTERVENTION MEASURES**

##### **1) Traditional land ownership**

- Need for setting by-laws that will limit people from holding large acreage without developing it for at least three consecutive years. The laws will put provision for relocation of such land to other people who have immediate use. An example of the Rungwe District Council by-laws that operate successfully to curb land missuses.

##### **2) Leasehold land tenure system**

- The government should make reforms on the land policy whereby individuals should not be given larger acreage unless they have clear plans on how to utilize it.
- Equitable distribution for areas with scarce land should be a criterion for allocating land under this type of tenure.
- In areas where tea is a predominant cash crop, priority should be given to investors who are interested in tea cultivation rather than on other uses.

##### **3) Communal tenure system**

- This mostly concerns village block farms whereby most of them have been neglected. These farmers need rehabilitation and also modalities on how to hand them over to private tenure.

- In some villages these farms has been leased to individuals who pay a proportions of proceeds to village government and in exception cases these plots has been to sold individuals.

## **LAND SCARCITY FOR TEA CULTIVATION**

### **CONSTRAINTS:**

- The group observed that land is not a renewable resource once used up there is no feasible way of increasing its availability. Reclamation and other options used elsewhere in the world were considered not feasible given the technological level of most farmers in tea growing areas.
- Causes of land scarcity were noted to be increasing population density and lack of intensification in agricultural production.
- Hoarding of large acreage of land by some individuals and institutions using traditional or leasehold land tenure systems has denied some potential farmers access to good land for tea cultivation.

## **RECOMMENDED INTERVENTION MEASURES**

- 1) In areas where land is scarce such as Rungwe the district councils through their agricultural and livestock department should promote efficient use of the available land. Use of intensified agricultural practices should be encouraged in order to ensure that farmers get more produce from the small area.
- 2) Researcher should investigate the best optimum combination of inputs that will maximize output per unit area of land. The results of such investigation should reach farmers in the quickest way possible.
- 3) Land reforms need to be introduced to ensure that all arable land is properly allocated and used by farmers.

## **INPUTS SUPPLY SYSTEM**

### **CONSTRAINTS:**

- The input supply system operates haphazardly with serious lack of coordination. The district trade officers are responsible for issuing trade licenses through close liaison with District Agriculture and Livestock Development Officers (DALDO) the later having the responsibility of ensuring adherence to quality and safety standards by input suppliers and traders.
- The link between licensing authorities and quality controllers is not strong hence creating loopholes for emergence of dubious suppliers with poor and potentially harmful products.
- There is no clear mechanism for determining or perceiving the demand for inputs in smallholder tea sector. This has been caused by lack of field staff as well as institutional setup to make pre-season inventory of input requirement from individual farmers.

- Also the group noted that a substantial proportion of the suppliers are not conversant with the type and quality aspects of the key tea inputs. This is more critical with fertilizers where most suppliers are more used with fertilizers for other crops excluding tea.

### **RECOMMENDED INTERVENTION MEASURES**

District councils must coordinate and monitor the input supply system by strengthening interdepartmental cooperation i.e. Agriculture and trade. The specific areas of concern are;

- 1) Establishing demand levels for different types of inputs.
- 2) Ensuring that potential suppliers are informed and assisted to make available in the district the required inputs at appropriate time.
- 3) To facilitate smooth supply of inputs to various demand centres
- 4) To strengthen extension work particularly on how best should the inputs be used, timing for input use, application ratios and potential benefits as opposed to non-use of inputs.
- 5) Putting in place a strict monitoring system that will ensure only quality and recommended products are supplied to farmers.

### **TRANSPORT AND COMMUNICATION**

#### **CONSTRAINTS:**

- A substantial area in the tea growing districts is not accessible particularly during wet season. The roads are in bad condition with poor drainage and lack necessary bridges.
- The situation worsens during wet season hence posing serious constraint to efficient collection of greenleaf from farmers during peak production season.
- Other communication media like newspaper, telephone, TV and radio are very poor and in most case not accessible to tea growers.
- The mass media options mentioned above rarely cover issues relating to tea production hence rendering them less useful to smallholder tea growers.
- The greenleaf collection trucks are not adequate and most of those operating are makeshift with frequent breakdowns. The condition of the trucks combined with bad roads leads to unnecessary losses to both farmers and factory owners.

### **RECOMMENDED INTERVENTION MEASURES**

The district councils with the support of the central government and any other interested donors should look at ways to improve the situation by making provision on their budgets for;

1. Maintaining rural/feeder roads in tea growing areas on regular basis
2. Building and repairing bridges
3. Installing necessary infrastructures and media for improving communication such as;
  - 3.1. Tea newsletter/Newspaper.

- 3.2. Telephone.
- 3.3. TV and Radio programs featuring various aspects of tea production.
- 3.4. Radio networks for communication across rural areas.
- 3.5. Postal/mail services.
4. Need to replace the green leaf trucks with more reliable and properly designed ones in order to ensure delivery of quality products to the factory gates.

## **GROUP D: TEA DATA BASES, STATISTICS AND POLICY ISSUES**

This group comprised of Regional Agricultural Advisors for Regional Administrative Secretariat of Iringa and Mbeya Regions. The group also incorporated one District Agricultural and Livestock Development officer and a District Crop officer. The group members have extensive experience on handling issues relating to data aggregation and agricultural statistics.

The task of the group was to look into the tea databases, statistics and policy issues. Also the group basing on the knowledge that there is no desirable baseline data on smallholders tea sector worked out a strategy to develop a database that will bridge this gap. The group also tackled the issue of financing farmer's experimentation. Workshop participants felt that farmers should be encouraged to set their own experiments that will suit their production goals and curiosity.

### THE SUMMARIZED FINDINGS OF THE SOCIO-ECONOMIC DIAGNOSTIC SURVEY:

#### **TEA DATA BASES**

*The survey has revealed that, farm level data keeping is very poor in smallholder tea production of Mufindi, Njombe and Rungwe. At district level data fragmentation has been found to be a serious problem, particularly during this era of liberalization of marketing systems. The most missing data sets include location wise data on green leaf production, population, acreage, farm size and input use.*

*These data are important in determining issues like productivity, production trends, and expansion of the tea industry. Adoption of the recommendations by potential beneficiaries of the tea industry can easily be measured using these data sets. Furthermore inputs use data can be used to facilitate and attract potential input suppliers*

### **CONSTRAINTS AND INTERVENTION MEASURES FOR EACH ISSUE**

#### **TEA DATA BASES**

##### **CONSTRAINTS:**

- Poor data keeping at farm level by most of the farmers in tea growing areas.
- Aggregated data particularly on production, population, acreage, farm sizes and inputs uses are highly missing. This has been caused by fragmentation of data sources

with complete absence of a central system to consolidate aggregation of various data sources.



*PLATE 7: The average farm size is determined also by number of available family members. Such basic information is missing in smallholders tea sector in Tanzania. In this Photo, members of the tea growing family in Igominyi division, Njombe district posing in their well-maintained tea field.*

## **RECOMMENDED INTERVENTION MEASURES**

### **1. BASELINE SURVEY**

- 1.1. Conduct a baseline survey that will establish a data base on smallholders tea sub-sector covering the following issues:
  - 1.1.1. The current tea areas
  - 1.1.2. Size of the tea fields (average)
  - 1.1.3. Productivity (production per unit area)
  - 1.1.4. Number of smallholders per location
  - 1.1.5. Number of farmers per households per location (Household sizes)

### **STEPS:**

In order to conduct a baseline survey successful, use of available human resources and institutional setup is envisaged whereby the following steps will have to be adhered to:

#### **A) Designing of a questionnaire:-**

To cover potential tea area, population, number of farmers and total number of households.

#### **B) Pre-testing the questionnaire:-**

- To aid logistical planning such as duration of the interviews, sample sizes, resources requirement etc.

- Make necessary logistical adjustment.

**C) Identify Village Extension Worker (VEW's) enumerator and train them:-**

- This activity will have to be done by designing of the questionnaire in collaboration with district supervisors (statistics).

**D) Data collection in the field**

- The given time is between January to December 2000.
- This includes also manual checking of the data in the fields by District and Regional statistician and TRIT researchers.

**E) Delivery of the data to TRIT/TTU for processing**

- This includes thorough review and analysis of the information that will lead to compiling location summaries and statistics. Various locations will be compared in terms of similarities and differences.

**F) The report to be published for user purposes.**

- The report will be written and formatted to cater for interests of various stakeholders. It is expected that the report will serve as the source of baseline information on smallholder's tea sub-sector.
- The copies of the report will be distributed to various key stakeholders.

## **POLICY ISSUES ON DATA COLLECTION AND HANDLING**

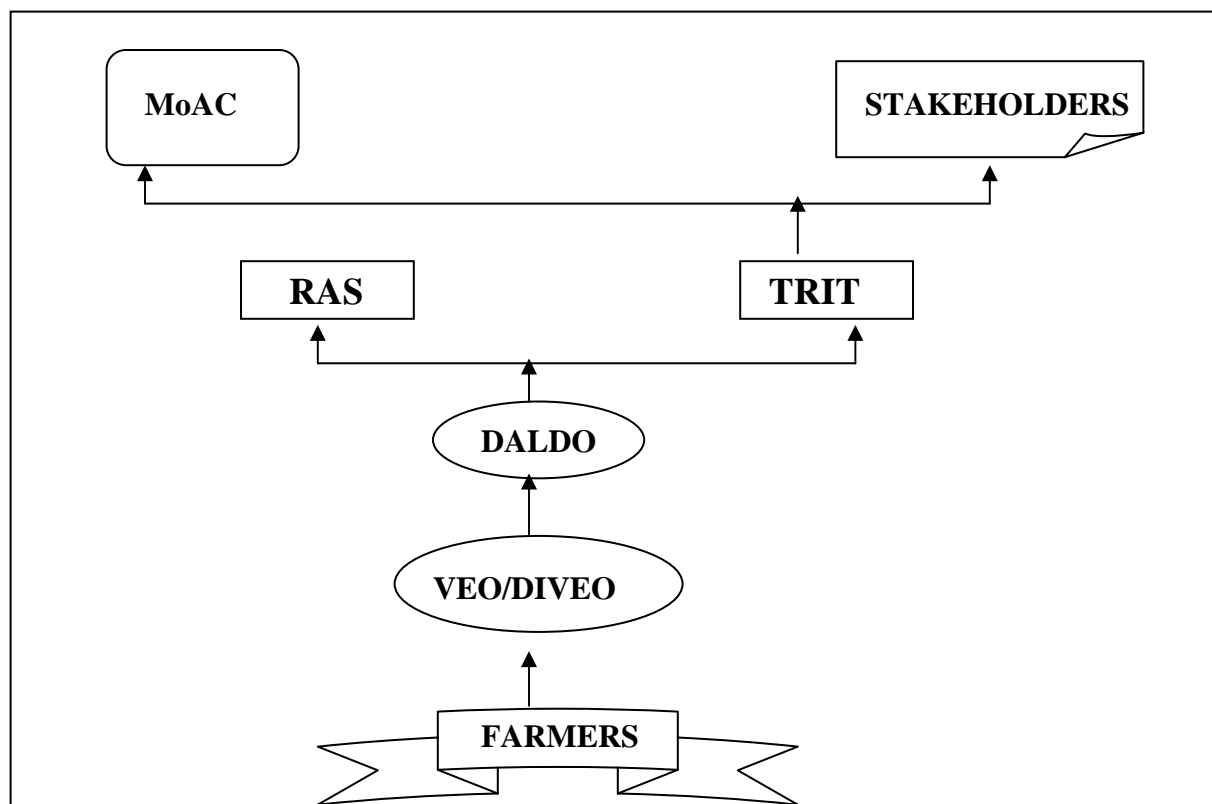
### **CONSTRAINTS:**

- Currently there is no clear policy on who should collect and handle data on tea
- No institutional set-up to handle aggregation of data for various uses in tea sector
- Lack of necessary infrastructure to collect and process data
- Lack of centralized source for aggregated data sets on tea sub-sector

### **RECOMMENDED INTERVENTION MEASURES**

1. Revise the Ministry of Agriculture policy where by village and divisional extension workers collect data at village and divisional level respectively.
2. Introduce ledgers at village level for record keeping by VEO under the supervision of DIVEO's. Summary of the record should be reported periodically to district supervisor for further analysis and aggregation. A monthly report has been proposed from VEO to DIVEO's.
3. DIVEO compile reports at divisional/ward levels and submits to DALDO's office on monthly basis. The report format should be synchronized in all location for maintenance of consistence. Feature to be included in the report are:
  - 3.1. Acreage total
  - 3.2. Acreage farm sizes
  - 3.3. Yield per unit area
  - 3.4. Inputs used
  - 3.5. Number of farmers

- 3.6. Records of general management of the field such as number of weeding, herbicides use and application, in filling, pruning etc.
4. The next stage is for the district authorities (DALDO, DCO, DEO) to compile district report, on the agreed format to TRIT, DED and RAS. The later two will need the reports for their records.
5. TRIT will have to compile the report basing on the relevant format and sources of information. The report will then be sent to stakeholders and Ministry of agriculture and Cooperative for further use.
6. Logistical support for each stage of the process will be needed. However details of this need to be worked out clearly by all relevant parties such as District councils, Ministry of Agriculture and TRIT.



**Figure 1: Flow chart showing stages and involvement of various people and institutions in data collection and handling process.**

## **FINANCING FARMERS OWN EXPERIMENTATION**

### **CURRENT SITUATION**

- Most of the on-farm trials are being financed by projects such as ASPS,CMU
- Some are funded through training components such as research institutions staff development and universities outreach research programs.

## **RECOMMENDED INTERVENTION MEASURES**

1. Farmers should be selected and be made aware of the advantages of having their own experimentation/demonstration practices (farmers need to be encouraged).
2. TRIT and other research institutions should produce experimental/demonstration materials such as planting materials (clones), technical support and coordination of such trials.
3. Cost of inputs such as labour, land and capital should be borne by farmers themselves.
4. Once the trials are fully established farmer's field days should be organised with the support of TRIT or any other extension agency (IFAD, NAEP II etc) at village, division or district level.
5. Farmers should own the produce from the trial and demonstration plots after extension agents or farmers themselves have taken all the data /records.
6. An alternative option whereby farmers after being sensitized on the importance of the trials, be encouraged to form associations and contribute money to run the trials. Money can be collected at village level in terms of cess or any other self-sustaining means.
7. Alternatively, the district councils can set aside some funds specifically for covering all farmers own initiatives to test various tea aspects in their respective districts.

## **GROUP E: RESPONSIBILITIES OF THE VILLAGE EXTENSION WORKERS TOWARDS IMPROVING SMALLHOLDER TEA PRODUCTION**

The group comprised of the field level extension workers from key smallholder tea growing areas, representative of farmer's organisations and some representative farmers from various villages. The task of the group was to discuss issues relating to tea extension services and information uptake pathways. The group noted that the issues mostly covers the responsibility and mandate of the village based extension workers, so they rephrased the topic to read; '*Responsibilities of the village extension workers towards improving smallholder tea production*'.

### **THE SUMMARIZED FINDINGS OF THE SOCIO-ECONOMIC DIAGNOSTIC SURVEY:**

#### **(A) EXTENSION SERVICES**

- *In Mufindi, Njombe and Rungwe districts, tea extension system was molded around TTA establishment. TTA used to have their own extension workers known as leaf officers. These leaf officers concentrated more with commercial aspects of input supply and quality aspects of the product (green leaf). Their role in production related constraints were very limited.*
- *In Njombe district two different scenario exist whereby, in Igominyi division TTA activities were phased out earlier compared with Lupembe division. In Lupembe TTA continued to use Leaf officers as their outreach independent extension structure.*

- *The government village based extension workers concentrated mostly in annual food crops as well as cash crops. Presence of leaf officers seemed to detach tea crop from mainstream extension system. Further evidence to that is the exclusion of tea related topics in District Extension system monthly training sessions and lack of follow up from higher authorities on the performance of tea subsector.*
- *Due to structural reasons, the level of competence of government employed extension staff to address tea issues is very low. Unfortunately these extension workers have a mandatory status of addressing extension issues covering all grown crops.*
- *In Rungwe district similar situation exist whereby under the TTA system, each scheme used to have its own extension worker known as a leaf officer.*

### **(B) INFORMATION UP-TAKE PATHWAYS**

- *The survey has found out that husbandry practices in smallholder's tea production are copied and modified by smallholder tea growers from neighbouring estate growers. Some of the practices copied includes fertilizer use strategies and de-centering as the method of bringing tea into bearing instead of pegging as estate growers stopped using it. This was observed mostly in Mufindi district where substantial proportion of smallholders are closer to bigger tea estates.*
- *On the other hand the survey has found also that smallholders tea growers are very reluctant to copy or learn from their fellows within the village even if those innovators are performing well. This is a very big constraint on the potential of the demonstration plots as effective extension approach.*

### **CONSTRAINTS AND INTERVENTION MEASURES**



*PLATE 8: Members of the TTU accompanied by government employed extension staff in Njombe district discussing with the smallholder grower on the problems affecting his tea field. Government extension staff needs training on basic tea production aspects.*

### **CONSTRAINTS:**

- Tea extension services are not adequate due to limited number of experienced tea extension staff.
- Limited availability of working facilities for available extension staffs e.g. transport, working gear and other essential tools.

- Due to lack of exposure on tea, most of the extension workers are not experienced hence incapable of advising and addressing tea production problems.
- Lack of experienced subject matter specialists on tea and lack of tea related topics in the training sessions for district extension staff.
- Poor linkages between research, extension and farmers.

### **Effects to smallholder tea sector**

- Poor management of the tea fields leading to overall lower productivity of the smallholder's tea production.
- Abandonment and neglect of the smallholder tea fields due to despair by some farmers.
- Extension staff lacks confidence and interest to get involved with the tea crop.
- Widening knowledge gap on tea management practices by both farmers and extension workers.
- Unnecessary losses to farmers caused by lack of linkage with research and extension particularly on getting advises on quantity, quality and timing for input uses.

### **RECOMMENDED INTERVENTION MEASURES**

Group members proposed the following measures listed here in order of importance.

1. In order for the extension workers to be effective, working tools such as gum-boots, field measuring equipment, handbooks, brochures, leaflets are necessary. There is a need to equip extension staff with these tools in order for them to be efficient.
2. Regular training for both farmers and extension workers on key management issues should be strengthened. The training should be both formal and informal but with potential for sharing experiences. Seminars, workshops, study tours, farmers exchange visits and farmers field days are potentially useful training sessions if prepared well and with appropriate combination of the participants.
3. Linkages between research, extension and farmers should be strengthened. With the current privatisation policies, it is very important to involve all stakeholders in ensuring that the smallholder tea sector is dynamic, well linked and functioning properly.
4. The district agricultural authorities must make deliberate effort to include on regular basis tea related topics in their respective districts training sessions. Such sessions could be more effective if subject matter specialists are invited from renowned institutions such as TRIT, large-scale tea estates etc.
5. Government employed extension staff should be encouraged to get themselves involved in tea extension work. Where possible academic support need to be extended to them in order to equip them with necessary tea husbandry knowledge.
6. TRIT, local governments, central government, factory owners and village based extension staff, should work in collaboration to set in place an effective extension

system capable of linking farmers to research outputs that will improve productivity and hence general livelihood of smallholders.

### **PRIORITISATION OF ISSUES PER DISTRICTS**

The issues discussed in sub-groups per district presented in section five were prioritized. The priority list of issues and hence strategies for implementation will serve in case resources for implementation are limiting. Each participant had an opportunity to rank issues in each district. An issue with lowest average score is the highest priority in implementing its strategy by potential collaborator. The average score and ranks of issues per district are presented in table 3.

**Table 3: Priority setting of issues by district**

ISSUES	DISTRICTS					
	RUNGWE		MUFINDI		NJOMBE	
	SCORE	RANK	SCORE	RANK	SCORE	RANK
1. Tea planting materials	6.0	6	4.9	3	6.4	7
2. Limited diversity of clonal materials (Genetic bases)	5.9	5	6.0	8	6.6	9
3. Land tenure systems	6.4	7	6.5	9	6.5	8
4. Land pressure for tea cultivation	5.9	4	7.0	10	6.7	10
5. Marketing	4.4	3	5.1	4	2.8	1
6. Husbandry practices for tea fields	3.3	2	4.4	2	4.3	3
7. Support services	3.1	1	4.1	1	3.9	2
8. Information uptake pathways	6.4	8	5.6	5	6.3	6
9. Data base	6.8	10	5.7	6	6.1	5
10. Organisation of smallholders	6.4	9	5.8	7	5.2	4

The results of the priority setting show a mixture of priority across districts.

- Support services especially input supply, tea extension and transportation was regarded as the first priority in Rungwe and Mufindi whereas in Njombe marketing of green leaf was given first priority.
- Other three important issues per district are husbandry practices for tea fields, marketing and land pressure for tea cultivation for Rungwe; husbandry practices for tea fields, tea planting materials and marketing for Mufindi. Support services especially inputs supply, tea extension services and transportation, husbandry practices for tea fields and organisation of smallholders for Njombe.
- The diversity on the ranking across districts again underlines the specific nature of these issues/problems in various districts. Furthermore, the diversity indicates the need for specific strategy for each location.

- With limited capital and human resources then scheduling of activities in order of importance is necessary in order to maximize effort, attain maximum impact and avoid losses.

## **GENERAL CONCLUSIONS**

### **ACHIEVEMENTS OF THE WORKSHOP**

- The workshop has opened an important venue for various stakeholders in smallholders tea industry to meet and address key issues facing the industry after very substantial policy changes of liberalization has occurred.
- The workshop has also initiated a transformation process on the part of the government employed extension staff to start taking tea seriously on their extension work. This was not the case in the past as the policies kept on alienating tea from mainstream extension activities.
- The workshop also was able to identify potential collaborators from within the participants for most of the recommended intervention measures. This is a very big achievement, as most of the strategies will be implemented in collaboration with the very people who participated on the formulation of those strategies.

### **FUTURE PROSPECTS**

- Need to involve stakeholders at policy level such as members of the tea board will contribute significantly towards setting good environment for better and effective policies for smallholders.
- Frequency of such workshops needs to be increased in order to facilitate integration of various stakeholders in addressing key issues of concern for smallholders.
- Need for developing smallholders tea policy can effectively be achieved through convening meetings and or workshops that incorporate wider categories of stakeholders.
- More representation of farmers in such workshop is necessary.

### **CONSTRAINTS AND PROBLEMS**

- The workshop has revealed huge fragmentation of various stakeholders in smallholder tea sector.
- Researchers over long period were out of touch on what was really happening in smallholders tea sector.
- Extension system was operating in exclusion whereas input supply system also worked independently in the auspices of TTA. Now with demise of TTA a high vacuum on coordination of these activities exist. The initiatives taken by TTU/TRIT will go a long way on filling this vacuum.

**ANNEXES****Annex 1. TIMETABLE FOR THE WORKSHOP**

<b>SESSION 1: CHAIR PERSON Dr Ernest I. Kimambo (TRIT)</b>		
<b>DATE</b>	<b>ACTIVITY</b>	<b>RESPONSIBLE</b>
<b>07/12/1999 a.m.</b>	<ul style="list-style-type: none"> <li>- Opening speech</li> <li>- Participants self introduction</li> <li>- Description of TRIT/TTU and its mandate</li> <li>- Genesis of the Workshop (Background)</li> </ul> <b>Tea Break</b>	TRIT Research Director E. Simbua & participants D. Ndamugoba A. Nyanga All participants
<b>SESSION 2 CHAIR PERSON: Dr. Faya A. Iranga (MoAC)</b>		
	<ul style="list-style-type: none"> <li>- Presentation of PRA findings</li> <li>- General discussion on the findings (Pulling together similar issues for subgroups work)</li> <li>- Participants split into subgroups based on specific topics to discuss issues guided by the provided TOR.</li> </ul>	E. Simbua All participants All participants
	<b>Lunch Break</b>	
<b>p.m.</b>	<ul style="list-style-type: none"> <li>- Continue to discuss issues in sub-groups</li> <li>- Start documenting issues ready for presentation in session 3.</li> </ul>	All participants All participants
	<b>Adjourn</b>	All participants
<b>SESSION 3: CHAIR PERSON: Mr Casian Haule (SDA)</b>		
<b>08/12/1999 a.m.</b>	<ul style="list-style-type: none"> <li>- Review of workshop progress</li> <li>- Presentations from subgroups (Per topic)</li> </ul> <b>Tea break</b>	A. Nyanga Group Representatives.
<b>SESSION 4: CHAIR PERSON: Ms. Anna W. Nyanga (TRIT)</b>		
	<ul style="list-style-type: none"> <li>- Combine common issues for each district</li> <li>- Identify/ isolate specific issues for districts</li> <li>- Wrap-up session</li> </ul>	E. Simbua Group rep/all participants E. Simbua
	<b>CLOSING REMARKS</b>	<b>DMN, BJN</b>

**Annex 2. LIST OF THE WORKSHOP PARTICIPANTS**

S/ NO	NAME	ORGANISATION /DISTRICT/	DESIGNATION	ADDRESS
1.	Dr. A. Faya	DALDO- Rungwe	DALDO	P.O BOX 529 Tukuyu
2.	Prisca Pili	Kilimo/Mifugo Rungwe	For DEO	P.O BOX 529 Tukuyu
3.	C.E. Mwakisopile	Kilimo/Mifugo Rungwe	District Crops Officer	P.O BOX 529 Tukuyu
4.	Norman Kapyella	Rungwe smallholders Tea Growers Association	Secretary	P.O BOX 148 Tukuyu
5.	John A.Mbogoni	Smallholders Tea Development Agency –Rungwe	Branch Manager	P.O BOX 74 Tukuyu
6.	Adolf Mapunda	Rungwe District Council	District Planning Officer	P.O BOX 148 Tukuyu
7.	J.R. Kessy	Regional Administrative Secretary office- Mbeya	Agricultural Advisor	P.O Box 754 Mbeya
8.	S.S.Nyoni	Regional Administrative Secretary office- Iringa	Agricultural Advisor	P.O BOX 858 Iringa
9.	B.A.S. Kilangi	Kilimo-Njombe	For DALDO	P.O BOX 168 Njombe
10.	S.A. Mwaipeta	Kilimo/Mifugo Njombe	For District Crops Officer	P.O BOX 168 Njombe
11.	Victor Luvinga	Kilimo/Mifugo Njombe	DIVEO- Igominyi	P.O BOX 58 Njombe
12.	Emmanuel Willilo	Kilimo/Mifugo Njombe	DIVEO- Lupembe	P.O BOX 2 Lupembe
13.	Yotham Mhidze	MUVYULU Ltd	Secretary	P.O BOX 2 Lupembe
14.	Timoth Francis	Isoliwaya village	Tea farmer	P.O BOX 2 Lupembe
15.	Frediric Mahega	Kilimo/Mifugo Njombe	DIVEO-Kifanya	P.O BOX 54 Kifanya- Njombe
16.	Cassian Haulle	Smallholders Tea Development Agency	Branch Manager	P.O BOX 96 Iringa

S/ NO	NAME	ORGANISATION /DISTRICT/	DESIGNATION	ADDRESS
17.	K.E. Kutosha	Kilimo/Mifugo-Mufindi	For DALDO	P.O BOX 67 Mafinga
18.	Cletus Mwageni	Mufindi District Council	District Planning Officer	P.O BOX 223 Mafinga
19.	Amiri Kivambe	Brooke Bond (T) Ltd	Ngwazi Estates manager	P.O BOX 40 Mufindi
20.	Juliano Ndanzi	Mufindi Smallholders tea Growers Association	Representative	P.O BOX 41 Mufindi
21.	Paulo Nyunza	Mkonge village	Village nursery	P.O BOX Mafinga
22.	E.A.D. Katengu	Kilimo/Mifugo Mufindi	VEO-Igoda	P.O BOX 110 Mafinga
23.	Vitus Msofu	TFA, Njombe Branch	Branch Manager	P.O Box 152 Njombe
24.	Michael Mhosole	Kifyulilo Agricultural Research Station	Officer-in-Charge	P.O Box 93 Mufindi
25.	Prof. B.J. Ndunguru.	TRIT	Research Director	P.O Box 2177 D'salaam
26.	Dr E.I. Kimambo	TRIT	Officer Incharge NTRS	P.O Box 2177 D'salaam
27.	D.M. Ndamugoba.	TRIT	Officer Incharge TTU	P.O Box 2177 D'salaam
28.	E.F. Simbua.	TRIT	Research Officer - TTU	P.O Box 2177 D'salaam
29.	A.W. Nyanga	TRIT	Research Officer - TTU	P.O Box 2177 D'salaam
30.	F.C.S Mizambwa	TRIT	Research Officer - NTRS	P.O Box 2177 D'salaam