

# Training Needs Assessment

# Consultancy report

# February 2018



TRAINING



**Provision of Adequate Tree Seed Portfolios in Ethiopia, 2017-2020**

**DRAFT REPORT**

**Short-Term Consultancy**

**on**

# **Training Needs Assessment**

**February 2018**

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**Carried out over 26 days, between 1 February – 10 Marts 2018**

## **Training Needs Analysis addresses:**

- Is training the best solution?
- What training is needed and why?
- Where is training needed?
- Is the training cost-beneficial?
- Who needs training?
- How will training be provided?
- What will be the impact on business?

The present report is a draft consultancy report prepared for the project. The draft is subject to review by PATSPO before finalisation.

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## ABBREVIATIONS

AFE	Amara Forest Enterprise
CEE-FRC	Central Ethiopian Environment & Forest Research Centre
EEFRI	Ethiopia Environment and Forest Research Institute
FRC	Forest Research Centre
GoE	Government of Ethiopia
JICS	Japan International Cooperation System
MEFCC	Ministry of Environment Forest and Climate Change
PATSPO	Provision of Adequate Tree Seed Portfolios (Project name)
TNA	Training Needs Assessment
TSC	Tree Seed Centre
TSTCU	Tree Seed Technology Coordination Unit

## 1.0 Introduction and setting the scene

The project “Provision of Adequate Tree Seed Portfolios (PATSP0)” aims to enhance productivity and resilience of Forest Landscape Restoration in Ethiopia. It is implemented over a four-year period (2017-20) by the World Agroforestry Centre (ICRAF) in close collaboration with the Ethiopian Environment and Forest Research Institute (EEFRI).

Specifically the PATSP0 support Ethiopia in its ambitious programme of forest landscape restoration with a commitment to restore more than 20 million ha of degraded forest landscapes, by provision of genetically diverse planting material of a range of multiple productive tree species.

The project will contribute towards Ethiopia’s Green Growth Strategy via the national forest restoration targets for the next 20 years and beyond. Restoring and planting of vast landscapes require an able and effective organization to provide large quantities of quality seed for tree planting. PATSP0 addresses this directly by providing a multiple tree species programme able to provide:

1. organizational setup of the tree seed sector, including stakeholder identification and roles and responsibilities, based on a sector analysis;
2. species specific knowledge for most priority tree species;
3. a built up of the tree genetic resources for the future, comprising exploration, mobilisation, conservation, establishment, management and improvement; and
4. capacity to monitor and deliver quality seed and seedlings of multiple species required for large scale restoration.

A basic precondition for fulfilment of the goal and outputs is that the organisational set-up, including PATSP0 and major stakeholders involved, have the required technical, institutional and motivational capacity.

This Training Needs Assessment is therefore a first step in analysing and assessing the capacity situation at allied intuitions and key stakeholders, in relation to the tasks ahead.

The terms Training Needs Assessment and Training Needs Analysis are used interchangeably in this report and abbreviated TNA. The understanding applied for TNA in this report, is stated in the box below.

Training Needs Analysis (TNA) can be proactive or reactive. In both cases, the goal of the TNA is to identify performance issues that can be remedied through the introduction, practice, or reinforcement of specific skill-, knowledge, and or attitude sets.

## Purpose of the Training Needs Assessment and Analysis

TNAs can be conducted at any time in a project's life cycle, but in order to use resources optimally and build up motivation, an assessment during the early stages of a project is usually desirable.

Rather than assume that all employees need training, management can on the basis of a TNA, make informed decisions about the best ways to address institutional capacity challenges. Moreover, a TNA also outlines competency gaps among individual employees or specific job categories.

A TNA is the first step to any successful training program and is critical for continued capacity development. Conducting this analysis allows PATSPO, in turn to focus efforts on areas in need of capacity development and to successfully meet the defined goals and mission.

## 2.0 Methodology: One Approach -- Four Steps

**NB: The approach applied is graphically illustrated in the attached slide presentation(Appendix F).**

### Step 1 -- Perform a "Gap" Analysis

A core part of the TNA is a gap analysis, which involves assessing the current staff's performance and comparing this to the desired level for effectively accomplishing the tasks and reach the goals. A TNA GAP analysis was undertaken to check the actual performance of PATSPO's allies and key stakeholders against the standards required to meet the project goals. We may divide that into two categories:

The "performance gap"	The analysis takes into account what results the organization needs from the staff compared to which competences the staff presently has. In this regard the TNA identifies what knowledge and skills the learner must gain to accomplish what the organization needs.
The "growth gap"	This analysis also indicates the individual's growth gap, that is, to become able to complete advanced tasks or fill a higher position.

### Box 1. Approach Adopted

<b>The approach applied by the Consultant at each of the four visited regional TSCs.</b>
<ol style="list-style-type: none"><li>1) Observation at the centres and discussions with staff</li><li>2) Focus group/individual interviews</li><li>3) Examination of existing job-descriptions and</li><li>4) A one-day workshop with all available staff at each centre consisting of a open floor discussion, presentation on learning and TNA and the filling-in of a three-layered self-</li></ol>



assessment TNA questionnaire (Appendix F). The questionnaire aims at three levels: a) Strategic/organisational; b) Operational/functional; c) Personal capacity level).

**A gap analysis considers two scenarios; The “desired situation” versus the “current situation”.**

### **Desired situation**

This analysis focuses on the necessary performance as well as the skills, knowledge and abilities needed to perform optimally. It is attempted to distinguish real needs from perceived needs (i.e. the “wants”).

### **Current Situation**

Determination of the current state of skills, knowledge, and abilities of the current staff. In addition, this analysis also examines internal and external constraints linked directly to staff performance.

The “gap” identifies the:

- capacity/training needs,
- objectives and scope of a subsequent training programme.

### **Assessment of the overall strategy, business case and organisational set-ups**

Sometimes training is not the answer to all capacity issues. There may be different organisational issues that would be better addressed through other means like for example goal clarification, reorganising or realigning of departments or financial structural improvement.

This part of the TNA identifies strategic effectiveness and inadequacies of the organisation. It uncovers the competencies, knowledge and skills that are needed by the company to bridge performance gaps. An organisational assessment also takes external factors into consideration and determine if and where training is needed and how it will be conducted and when. This analysis therefore attempts to answer the question:

- “Which capacity needs exist at the strategic level and which cannot be covered or alleviated by training” alone

### **Task-function assessment**

The task assessment identifies knowledge, skills and attitudes required for 100% fulfilling a particular key job function. Using job descriptions and skill analyses questionnaires, interviews and observation, this assessments helps to determine competencies required for optimal performance. Task assessments answer the following question:

- What skills, knowledge and/or behaviour must be mastered in this job function?

## Individual-personal assessment

The individual assessment determines the individual's existing skills, knowledge and competencies, learning style and capacity. The individual analysis identifies whom within the organisation requires training and what kind of training is needed. The individual assessment forms the basis for the creation of a customized training. This assessment answers the following key questions:

- Does the employee have the necessary skills?
  - What training is required for the employee to acquire the necessary skills?
- 

### Step 2 - Identify Priorities and Verify Importance (Suitability and Cost-benefit analysis)

**Prioritisation:** The first step have produced a list of performance needs to be addressed by training or other means. Attention here is given towards that the alleviation of some needs gives greater value than alleviation of others. All in respect, to PATSPO's goal hierarchy (outputs, objective, outcome), the realities and constraints.

**Suitability analysis:** Next a suitability analyses were performed and the following questions were answered:

- Is inadequate performance due to a lack of knowledge and skills or are there other reasons?
- Is training the best solution?
- Is training part of the solution in combination with other means?

Other means could for example comprise improvement of management sanctions and rewards, feedback, an information sharing system or removal of system obstacles.

**Cost-benefit:** Eventually an analysis of the Return on Investment (ROI) was considered. Effective training must result in a return of value to the organization that is greater than the initial investment to produce the training. The cost-benefit considerations tried to answer:

- Is it worth the effort to undertake the proposed training?
- What will be the return on investment of the proposed training?
- Are there any cost-benefit benchmarks for the proposed training?

For the recommendations these needs were re-examined in order to assess to which extent they are real, important worthwhile addressing as well as their urgency and prioritisation (all in relations to PATSPOs goals) are assessed.

The results of analyses and prioritisations are summarised into recommendations based on weighing of expected impact and cost of training; or whether other means than training would potentially result in greater impact and great value.

In short, recommendations are based on that resources are limited, alleviation of some needs gives greater value than alleviation of others, and that training must be worthwhile.

### Step 3 - Causes of Performance Problems and Opportunities

After having identified the needs and the performance gap the next step undertaken was to look at causes and or opportunities in order to proceed with adaptable and recovering recommendations for solutions.

### Step 4 - Identify Possible Solutions and Growth Opportunities

The consultants view is generally *"If it ain't broke, don't fix it."* In this context meaning that training and on other capacity developing interventions are only recommended when they are important enough to bring about real improvements in quality and effectiveness (including motivation).

Capacity development may be considered as consisting of:

- Training
- Organisational development

Training may be the solution when there is a problem of lack of knowledge, skills or need for better initiatives. Whereas organisational development, may be the solution when the problem is primarily associated with needs for systematic change. Solutions here may include strategic planning or organization restructuring.



Intense work on filling in TNA questionnaires.

## 3.0 Findings

### Amara Forest Enterprise Tree Seed Centre

The consultants visited the Tree Seed Centre (TSC) 3 days from 8-10 February 2018. Activities were undertaken in line with the approach outlined in Box 1 p. 6

**History:** the TSC was established in 2014 through Ethiopian and JICS support. Buildings, furnishing and equipment were supplied along with two weeks seed handling training. None of the trained staff are at the TSC today.

**Organisation:** The Tree Seed Centre is a fully integrated unit of the Amara Forest Enterprise (AFE). The Enterprise has eight branches and the TSC is one of them. The Forest Enterprise is a public enterprise under the Regional Agriculture and Natural Resource Management Authority and refers in all operational matters to the Regional Authorities. The Seed Centre receives its entire budget from the AFE.

Ministry of Environment, Forest and Climate Change (MEFCC) provides only technical instructions and guidelines.

**Strategy, mission, objectives and business governance:** The TSC has developed a strategy, mission and overall objectives. All strategic matters are interlinked with those of the AFE.

A brochure addressing good governance and CSR is produced. In addition, a Team Charter is developed and contains sections on:

- Prevention of Corruption
- Good Governance
- Mission and goals
- Job-descriptions
- Inter-linkages with the mother enterprise
- Business Plan Model for seed collecting groups

A seed availability leaflet has also been produced.

It is the goal that the TSC, within the near future, will be economically sustainable through seed sale. Currently the centre's economy is not balancing. The strategic plan outlines a goal of an annual collection and distribution of 80 tonnes of seed, which will make the centre's economy to balance. The TSC is convinced that they are delivering good physiological and genetic seeds.

**Status, operation and challenges:** The TSC administers 226 seed sources comprising 48 tree species. National tree seed standards are available for few species. Customers are primarily government institutions but also NGOs and private.

Collection have exceeded distribution in the recent years: During 2013-17 about 70 tonnes were collected but less distributed. Distribution have however shown positive trends the last two years due to simple marketing initiatives. For example in 2017 a distribution of 20 tonnes were reached. Nonetheless, demand is much bigger.

Grey market: This seed demand gap is covered by the grey market where swarms of private tree seed merchants are flourishing. A licence to trade with tree seed is easily obtained if just one person with tree seed related knowledge (e.g. a forester) is associated, but does not work on a daily basis, with the business. License is obtained from the “Regional Quarantine authority”.

The TSC is currently staff with:

- Manager (Mr. Charlie Beyene, BSc Agroforestry)
- Seed Collection and Quality Control Officer (BSc Resource Mgt.)
- Tree Seed Laboratory Technician (BSc Plant Science )
- Human Resource and Property Management Officer (Diploma Human Resource)
- Tree Seed Source Development and Laboratory Technician (BSc Resource Mgt.)
- In addition eight field based Branch Tree Seed Collectors (BSc)

Staff turn-over: Statistic of staff turn-over was not obtainable but was expressed as high. The reason was pointed out as receiving lesser incentives being a tree seed officer. None of the staff at the centre has received any training related to TSC operation. The AFE is however in a process of raising salaries for all the branches significantly and this will also benefit seed centre officers with effect from this year.

Visibility: Visibility and marketing is weak and is undertaken by the mother enterprise. TSC staff seems neither to assume major responsibilities on marketing nor to have the much interest to engage in marketing considerations. Eye-catching posters, media spots and other marketing means are not developed.

Table 1: Summary of workshop, questionnaire self-assessments, interviews and observations (first column is separate and second and third column are interlinked); (Questionnaire formats, Appendix E).

Strategic, organisational and business case	Operations and functions	Performance self assessment. Scale 0-10 ( 10=Excellent performance)
Generally good knowledge of the Enterprise's overall strategy, vision and mission. Need training in developing one at TSC level.	– Advanced management functions identified and well understood, including annual planning, guideline preparation and coaching	7
It is acknowledged that there is a poor understanding of the overall business mechanisms.	– Production of extension and awareness material – Production of training material for training to farmers and communities	2
Inadequate quality assurance and feed-back mechanisms.	– Seed source development and management (incl. mother tree selection) – Seed collection and processing – Seed storage and documentation (key info: from where, when? by whom? Seed lot no. etc.)	7

	- Cold store management and maintenance	
Recognition of poor knowledge of business case development.	- Planning laboratory work - Laboratory seed testing methods (including No. of seed/kilo, purity, germination tests/rate, moisture (especially for knowledge on indigenous seeds). (Juniperous spp. a special challenge).	6
Regional/international exposure.	- Analytical and innovation	1
	- Marketing and PR	1

Conclusion: The centre is currently not financially sustainable. It is staffed thinly with only four technical staff. There are a couple of unfilled posts but since this is an enterprise, number of posts is flexible. Fast staff-turnover is a problem. In addition, there are bigger number of Forest Enterprises officers based permanently in the field and working with various forestry and seed assignments.

Seed demand is high in the region, i.e. more than 80 tonnes, the TSC collects not enough to cover demand but is also not able to distribute/sale what they are collecting. Private merchants are competitive. The perception that the TSC sells better qualitative seeds is not rooted among customers. Thus, awareness, PR and assurance activities pointing out that seed from the TSC are truly better and should be undertaken. Basic technical TSC and seed procurement knowledge is inadequate.



Self-learning is not taking place.

Chain of custody seed systems are weak.

### SNNPRS Tree Seed Centre

The consultants visited the Tree Seed Centre (TSC) 3 days from 12-14 February 2018. Activities were undertaken in line with the approach outlined in Box 1 p. 6.

History: The TSC was established in 2014 through Ethiopian and JICS support. Buildings were supplied by JICS and equipment were supplied by the GoE. No training took place.

**Organisation:** The Tree Seed Centre refers in all matters to the Regional Environment Authority under MECC.





Seeds are processed manually.

Ministry of Environment, Forest and Climate Change provides some technical instructions and guidelines.

**Strategy, mission objectives and business governance:** The TSC has developed a strategy, mission and overall objectives. In addition, a detailed annual work plan, with an operational budget of 6. Mill. Bir is developed. The centre received a budget on 1. Mill. Bir for operations in 2018 from the Regional Bureau of Finance.

The TSC's mission is to distribute seed free of charge to tree planters for the region's development. Seeds are delivered to specific tree planters and only by written authorisation and direction from the Regional ME FCC. Commercial planters and NGOs are not likely to receive seed from the TSC as they are not directly regarded as public or community organisations for the region's development.

NB: The TSC has handed in requests and plans for becoming an enterprise. The wish is to become a Forestry Enterprise covering several aspects of forestry in the region.

**Status, operation and challenges:** Seed source establishment is undertaken in cooperation with forest districts and farmers. The TSC buys seed from village cooperatives and hires workers to collect and to process.

Staffing:

The TSC is allocated seven professional and support staff. It is currently lightly staffed with:

- Manager (Mr, TSegaye Fikaud, BSc, MSc Forestry)
- Forest Rehabilitation Development and Management Expert (MSc Forest Development)
- Forest Development and Management Expert (BSc Forestry)
- Secretary
- Property Management Officer
- Cleaner and two guards

Staff turn-over: The TSC does not have staff with expert knowledge on seed procurement and change of staff, and with that, drainage of knowledge, is a key problem. Operational capacity to use most of the equipment is absent.

The cold store is not functional.

In order to display professionalism and customer relations attractiveness of the premises would benefit from a physical cleaning up.

Table 2: Summary of workshop, questionnaire self-assessments, interviews and observations (first column is separate and second and third column are interlinked); (Questionnaire formats, Appendix E).

<b>Strategic, organisational and business case</b>	<b>Operations and functions</b>	<b>Performance self assessment. Scale 0-10 (10=Excellent performance)</b>
Good knowledge on the present strategy. Uncertainties on the transition and transforming of strategy, vision and mission when transforming into enterprise status.	<ul style="list-style-type: none"> <li>– Dialogue and support on policy inputs.</li> <li>– Preparation of management tools as strategy and plans</li> <li>– Cross-sectoral cooperation</li> <li>– Management, organisational development, works principles</li> <li>– Identification of research needs</li> </ul>	5
Business case is not intact as the belief is that only an enterprise set-up will be economically viable.	<ul style="list-style-type: none"> <li>– Production of extension and awareness material</li> <li>– Production of training material to be used to farmers and communities</li> </ul>	2
Lack of budget hinders most activities	<ul style="list-style-type: none"> <li>– Seed source inventory, development and management (incl. mother tree selection and mapping)</li> <li>– Seed collection, safety</li> <li>– Seed processing and drying and storage (prevention of pests and storage locally)</li> <li>– Seed documentation (key info: from where, when? by whom? Seed lot no. etc.)</li> <li>– Seed orchard establishment</li> <li>– Cold store management and maintenance</li> </ul>	4
Recognition of poor knowledge of business case development	<ul style="list-style-type: none"> <li>– Planning laboratory work</li> <li>– Use of seed lab equipment</li> <li>– Laboratory seed testing methods (including no. of seed/kilo, purity, germination tests/rate, moisture (especially for knowledge on indigenous seeds).</li> <li>– Preparation of standards for seed</li> </ul>	6
Unaware of market powers	<ul style="list-style-type: none"> <li>– Analysis methods and innovation</li> </ul>	1
	<ul style="list-style-type: none"> <li>– Marketing and PR</li> <li>– Awareness and advocacy function</li> <li>– Function for preparations of manuals</li> </ul>	1
International and regional professional exposure is lacking	<ul style="list-style-type: none"> <li>– PC-use and Word, Spreadsheet and Presentation programmes</li> </ul>	3
	<ul style="list-style-type: none"> <li>– Remote sensing</li> </ul>	4



Conclusion: The TSC needs to strategies match ambitions with budget means. The transition to a seed or even a forest enterprise will bring about many diverse challenges of management, business culture, marketing, accounting, competitiveness and technical seed procurement etc. Challenges that the TSC is not ready for. In terms of capacity, the TSC is almost at the beginning with only three technical staff. In addition, there are a couple of unfilled post. A massive and broad spectra of capacity developments would be necessary for the TSC to become a successful sustainable enterprise competing in the market.



Use of equipment is little.

Self-learning is hardly taking place.

Chain of custody seed systems are inadequate.

#### CEE-FRC Central Tree Seed Centre (EEFRI)

The consultants visited the Central Tree Seed Centre (TSC) 2 days, 19 and 21 February 2018. Activities were undertaken in line with the approach outlined in Box 1 p. 6.

**Organisation and strategy:** The centre is the oldest seed supplier in Ethiopia and is a branch of the EEFRI. The TSC's strategy is also an integrated part of EEFRI, which embraces tree seed matters. The TSC makes up a significant element of central EEFRI.

**Infrastructure:** This centre has not received constructions through the JICS assistance in 2014 and buildings are therefore older but operational. Three of four cold store compartments are not in operation. The premises would benefit from a general clean-up.

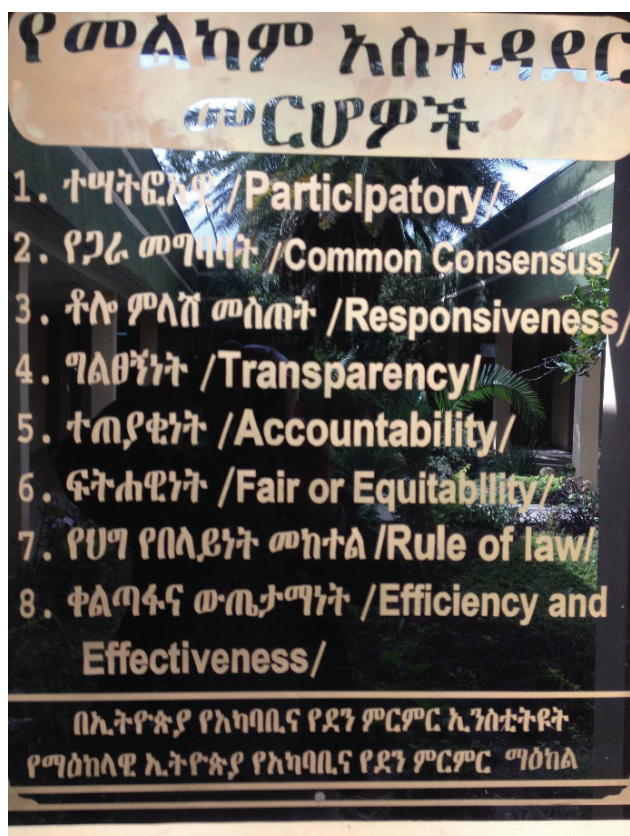
**Status, operation and challenges:** The centre appears to be well staffed (>20). Manager is Mr. Tsadik G. Wondwossen.

Recent years about eight tonnes of seed have been collected and distributed.

Table 3: Summary of workshop, questionnaire self-assessments, interviews and observations (first column is separate and second and third column are interlinked); (Ref. Appendix E).

Strategic, organisational and business case	Operations and functions	Performance self assessment. Scale 0-10 (10=Excellent performance)
<p>Staff has knowledge on the EEFR Strategy Plan and its strategic aim to become among the five leading research institutions in East Africa.</p> <p>The CEE-FRA is striving towards becoming a centre of national excellence in terms of quality seed procurement.</p> <p>The CEE-FRC is not an enterprise and therefore not directly in competition but aims to supply good qualitative seed to the national reforestation program.</p>	<ul style="list-style-type: none"> <li>– Dialogue and support on policy inputs</li> <li>– Management, organisational development</li> <li>– Identification of research needs</li> <li>– Seed research/technology</li> <li>– Vegetative propagation</li> <li>– Tree improvement and + tree selection</li> <li>– Seedling and clonal orchard establishment</li> <li>– Provenance testing and establishment</li> <li>– Seed zonation</li> <li>– <i>In situ and ex situ</i> conservation methods</li> <li>– Preparation of standards for seed</li> </ul>	4
The centre should have a better balance between production, research, innovation and budget		
Learning on the job has been undertaken but coaching is needed.	<ul style="list-style-type: none"> <li>– Seed source and site identification</li> <li>– Seed source inventory, development and management (incl. mother tree selection and mapping)</li> <li>– Seed collection planning , seed collection and tree climbing</li> <li>– Seed handling and transport</li> <li>– Seed processing and drying and storage (prevention of pests and storage locally)</li> <li>– Seed documentation and tagging (key info: from where, when? by whom? Seed lot no. etc.)</li> <li>– Pre-treatment</li> <li>– Cold store management and maintenance</li> <li>– Packaging seed</li> </ul>	6
Development of a tree seed policy and proclamation and standards on seed matters are not receiving sufficient attention for sustainable seed procurement.	<ul style="list-style-type: none"> <li>– Planning laboratory work</li> <li>– Use of seed lab equipment</li> <li>– Seed testing methods (including No. of seed/kilo, purity, germination tests/rate, moisture (especially for knowledge on indigenous seeds)</li> <li>– Viability test</li> </ul>	8

The centre has plan for initiating a gene conservation programme.		
Preparation of the Seed Standards is a major priority. Including standards for: <ul style="list-style-type: none"> <li>- Seed quality</li> <li>- Collecting</li> <li>- Processing</li> <li>- Storage</li> <li>- Distribution</li> </ul>	<ul style="list-style-type: none"> <li>- Seed sells data recording</li> <li>- Seed information leaflets</li> <li>- Awareness and advocacy function</li> <li>- Function for preparations of manuals</li> </ul>	6
The entire seed sector is hampered by lack of coordination	- PC-use and Word, Spreadsheet and Presentation programmes	5
International exposure and partnerships		



Nice charters are on display.

Conclusion: The TSC unit is rather well-staffed and apply seed procurement technologies in collection and in lab testing. It is a unit under a research institute, which is reflected in their priorities in research versus mass seed collection. The centre is only collecting 6-8 tonnes of seed. This centre has a knowledge base in seed handling which is better than anywhere else. Chain of custody systems are not sufficient.

### Oromiya Forest and Wildlife Enterprise, Dima Tree Seed Processing and Storage Centre

The consultant visited the Centre on 20 February and undertook the activities in line with the approach outlined in Box 1 p. 6.

The centre's infrastructure was constructed by Jica assistance in 2014.

**Organisation and Strategy:** The TSC is part of the Oromiya Forest Enterprise and as such operating fully as a public enterprise. Consequently, also its strategy is integrated in the mother enterprise's strategy. An annual work-plan with associated budget is prepared. The centre uses seed collection groups to collect major part of the seeds.

Staffing is largely in place. The Manager is Mr. Alemayehu Haileselassie who is supported by five BSc forestry officers and nine support staff.

**Infrastructure:** This Centre is neat and clean and radiates productivity. It consists of the same Jica Building set-up (2014) as other regional centres. However, the main building is collapsing and will be teared down this year. JICS is in the process of organising for building a replacement, also this year.

Cold store compressors are not working. Seed storage both cold and standard is informed to be insufficient.

**Status, operation and challenges:** The Centre has during the last five years collected 150 tonnes of seed and of that 51 tonnes were collected and distributed in 2017. Collection and distribution is expected to increase steadily in the coming years. Government agencies are the major customer consuming more than 80% of the seed harvest.



Impressive amounts of seed are collected and stored.

Internal challenges are related to inadequate human capacity and knowledge of how to use equipment and to supervise and control seed harvest.

External challenges are mainly caused by the informal seed market supplied by many private vendors and the inexpedient public bidding system, which in turn is favouring the element of price and the private vendors.

Table 4: Summary of workshop, questionnaire self-assessments, interviews and observations (first column is separate and second and third column are interlinked); (Questionnaire formats, Appendix E).

Strategic, organisational and business case	Operations and functions	Performance self assessment. Scale 0-10 (10=Excellent performance)
Good knowledge on the present strategy but need more support (loyalty) from Government customers.	<ul style="list-style-type: none"> <li>– General administrative functions</li> <li>– Accounting, financial and ledgers</li> <li>– Budget control functions and responsibilities</li> <li>– Dialogue and support on policy inputs.</li> <li>– Preparation of management tools as strategy and plans</li> <li>– Identification of research needs</li> </ul>	5
<p>Organisation of and work for a public enterprises is not part of employees background and education and staff is therefore not familiar to work standards.</p> <p>Market linkages and promotion is hardly being undertaken.</p> <p>Attempts by staff to technically upgrade themselves have been done with weak result. Capacity is below threshold for acceptable operation.</p>	<ul style="list-style-type: none"> <li>– Production of awareness material</li> <li>– Production of training material to be used by collection groups</li> <li>– Marketing and PR</li> <li>– Awareness and advocacy function</li> <li>– Function for preparations of manuals</li> </ul>	1
The centre is still developing and improving its business case. In 2017 50 tonnes were collected and 48 tonnes sold. However, in spite of these impressive numbers the centre is not yet profitable (but almost). Management is considering endeavouring into seedling production and sale for improving its profitability.	<ul style="list-style-type: none"> <li>– Seed transportation</li> <li>– Seed source inventory, development and management (incl. mother tree selection and mapping)</li> <li>– Seed collection methods</li> <li>– Seed processing and drying and storage (prevention of pests and storage locally)</li> <li>– Seed documentation (key info: from where, when? by whom? Seed lot no. etc.)</li> <li>– Seed store management and maintenance</li> </ul>	5
Much emphasis is directed towards developing seed standards as a forerunner for a proclamation in order to limit poor seed on the market.	<ul style="list-style-type: none"> <li>– Planning laboratory work</li> <li>– Use of seed lab equipment</li> <li>– Laboratory seed testing methods (including no. of seed/kilo, purity, germination tests/rate, moisture (especially for</li> </ul>	5



	knowledge on indigenous seeds). Preparation of standards for seed – Pre-sowing treatment	
There is no control body on seed (or on compliance with the upcoming seed standards)	– Analysis methods and innovation	1
Need to document quality and impact by following seed lots to through the nursery to seedling production	– Spreadsheets for accounting and money control	1
Competition from private sector and illegal seed vendors is increasing		
The public bidding system favour lowest price is a challenge for delivering good quality seed.		

Conclusion: It is a relatively well-staffed centre. Lack of staff was not expressed as a problem but rather lack of know-how was. This is an enterprise so the number of positions, whether filled or not, is considered as a rather flexible term.

In terms of seed collection, the centre is buying impressive amounts of processed seed from seed collector groups (farmers) for distribution to customers (85% is solely for government bodies). The centre is much focused on being profitable and plans to establish a nursery to elevate the centre's income. In terms of seed processing, testing and control and chain of custody, it was the impression that they are in the first stages.

Self-learning is not taking place. Chain of custody seed systems are inadequate. Awareness and extension to seed collection groups are not undertaken.

## Interview with Tree Seed Technology Coordination Unit (TSTCU) under EEFRI/MEFCC

The consultant visited the Tree Seed Coordination Unit on 19. February 2018.

A 10-year strategy: “Tree Seed Technology Coordination Unit – Strategic Plan 2016-25” has been adopted by EEFRI/MEFCC, which forms the platform for the Unit’s work. This strategy is very compatible with the PATSPO document.

The TSTCU works through a Technical Steering Committee consisting of senior representatives from the MEFCC, EEFRI, Biodiversity agency, public and public tree seed enterprise, private sector tree seed enterprise, quarantine authorities, regional bodies.

The Director Dr. Yigadu informed that the role and major focus areas of the TSTCU are:

- Ensure quality seed procurement nationally
- Develop capacity of all actors in the tree seed sector
- Develop efficient seed supply systems in the country
- Identify and conserve seed sources

Three major goals are directing action:

1. Procure 97 tonnes of seed
2. Identify seed sources and develop seed sources on 86 ha of land.
  - Develop a national tree seed zoning system
  - Develop Seed Orchards
3. Act as a tree seed coordination networking forum and capacity strengthening body
  - Evaluate existing tree seed supply systems.
  - Coordinate development and info sharing on tree seed
  - Back-stop on technical matters

The TSTCU is part of the EEFRI and its seven regional research centres. Four of these (Jimma, Bahir Dar, Awassa and Central) are collecting seeds from their mandate areas. However, storage and distribution are currently being undertaken by Central (CEE-FRC) only.

Up-coming tasks and challenges are to:

- Develop Tree Seed Standards
- Tree Seed Policy and Proclamation
- Control mechanism of seed standards
- National data base for all Seed Sources
- HR capacity building

#### Note on background and training for professional staff

Many universities and colleges are offering courses addressing various elements of seed biology and seed procurement. These courses are usually nursery courses of which the seed elements make up a minor part. Specific courses on tree seed science and seed procurement do not exist in Ethiopia and graduates are leaving their education with only an introductory level knowledge of tree seed procurement. Thus, graduates are not, in any way, equipped to engage directly in tree seed management. There is an obvious need and justification for a comprehensive capacity building programme by PATSPO.



## 4.0 CONCLUSIONS AND RECOMMENDATIONS

### **RECOMMENDATION 1: LEARN to LEARN FOR SUSTAINABLE CAPACITY DEVELOPMENT - LEARNING IS A LIFELONG PROCESS NECESSARY FOR PRODUCTION, JOB-SATISFACTION AND COMPETITIVENESS.**

The consultant found it worrying to experience that the ability and drive to - learn to learn, - learn via trial and error – learn via experimenting – learn via on the job learning - is very limited.

**The overall conclusion is that the attitude platform for learning needs a turn-around.**

Multiple of examples of inadequate knowledge and skills were encountered, which are also acknowledged by staff. Challenges in use of equipment and seed procurement were presented for the consultant who could ascertain that almost none attempts have been done to solve the challenges by trying out.

Little will and encouragement to, learn to learn and experiment, would easily change the situation to the better. One among many examples was when the consultant was shown a piece of equipment and informed that it was not used because staff were not trained in it. In the consultant's view, we are in these matters not dealing with rocket science, and not much learning initiative is required find a solution through:

- a) Searching the internet for a manual for the piece of equipment or,
- b) Searching the internet for the producer of the equipment and request a manual or,
- c) Experimenting and use trial and error with a couple of handful of seeds or,
- d) Communicate and exchange experience with other seed centres in and outside the country, and seek advice on how to use the equipment.

In capacity building the main driver for learning must come from the learners themselves. A coach or trainer in "learn to learn" may kick-start of the process, eventually leading to better long-term capacity sustainability.

The pamphlet *"Recommendations for the Performance of Heads and Staff Members at Regional Tree Seed Centres and the TSC under Central Ethiopian Environment and Forest Research Centre"* make up a fine piece for work and attitude principles for such a course.

Recommended solution: Ref. Recommendation no. 7

### **RECOMMENDATION 1a: PROPER INTERNET CONNECTIONS**

**NECESSARY INFRASTRUCTURE IS ALMOST A PREREQUISITE FOR SELF-LEARNING. IT IS THUS RECOMMENDED, AS AN INFRASTRUCTURE PRIORITY, THAT CENTRES RECEIVE PATSPO SUPPORT FOR PROPER INTERNET CONNECTIONS AND WI-FI AT THE PREMISES.**

Recommended solution: PATPO supports internet as an infrastructure priority.

## RECOMMENDATION 2: CAPACITY BUILDING IN TSC MANAGEMENT AND SEED DOCUMENTATION

Seed centres may easily fall in the trap of just becoming a middle-station for seed transport, if the TSCs are not adding value in terms of thorough control, documentation and tests. A role as a middle-loading station is not meeting minimum expectations of a TSC.

The consultant got the impression that in several cases seed were just bought from collection groups/famer groups and even processing were also undertaken by the collection groups. Moreover, such processes are not always supervised and controlled by TSC officers. In that way TSCs are merely becoming an intermediary seed central, not adding any other value than storage. A thorough control i.e. **a bullet-proof chain of custody system** Should be applied for fulfilling minimum requirements and standards of seed procurement. Training in building chain of custody systems and seed documentation needs to be implemented.

Solution: Ref. Recommendation no. 7 supported by a consultancy.

## RECOMMENDATION 3: JOINT AGENDAS and CAPACITY BUILDING FOR POLICY, REGULATIONS and AUDIT

A notable low awareness and interest for influencing the sector's political status, including sowing the message of the importance of using quality seed,- were observed. The on-going work on developing seed standards, in this first round for obligatory information on germination percentage, is a step in the right direction. Capacity building to support to help to establish audit functions, which through a third party, can document the quality and origin of the seed, will elevate the credibility of the TSCs, and with that customers trust.

It is also important that TSCs and PATSPO share the same goals and mission, and that this is visible for everyone.

Solution: Coaching support on policy dialogue and development of an audit mechanism is recommended. **A series of consultancies could possibly make a leapfrog forward on these matters.**

## RECOMMENDATION 4: CREATE AWARENESS AND ADOPT MARKET OUTLOOK; INCLUDING CUSTOMER RELATIONS, VISIABILITY AND TRUSTBUILDING.

TSCs staff's fixation on technical matters is honourable but technical capacity is only one essential element among several for a well-managed seed sector. The consultant agrees fully with a need for technical capacity building but believes that equal attention should be directed towards marketing, awareness, trust building and customer relations.

Some TSC do not have a signboard signalling the centre's name. In other cases signboards are poorly placed and again in others it may be so dirty that the text cannot be read. Visibility and professionalism are important elements, also in seed procurement.

Solution: Ref. Recommendation no. 7 possibly supported by a consultancy.

#### RECOMMENDATION 5: THE QUEST FOR PROFITABILITY IS A RISKY GOAL AND SHOULD BE RE-ASSESED.

**It is recommended that the National Tree Seed Technology Coordination Unit, supported by PATSPO and leading Enterprises assess whether it is fair, possible and smart to expect fully profitability from tree seed procurement.**

It is the consultant's view that the transforming of TSCs to public enterprises is a big endeavour, which inevitable brings about significant changes in the organisational structure, financial flow and work culture. A change, which contains risks and potential advantages. The advantages are in relation to efficiency and flexibility. The risks are related to the quest for profitability and with much focus on profitability; activities are likely to be biased on short-term gains and less attention towards seeds' genetic quality.

In general it can with some justification be said that the provision of good genetically and psychological seed is a higher goal than profitability. Therefore, the Government and the forest enterprises should carefully consider how much they want to push for TSCs' profitability. Since the provision of good quality seed is a long-term benefit (through health, growth and timber quality) and benefitting the coming generations of Ethiopians, everyone in the seed sector should reflect on the hierarchy of goals; - short-term TSC profitability or long-term financial sustainability of plantations? Tree seed centres' benefit and sustainability should rather primarily be assessed through seed of good genetically and physiological quality of desired species.

Solution: Use the Management forum meeting suggested in Recommendation no. 7 as a mean to find a viable and sustainable way forward.

#### RECOMMENDATION 6: PROFESSIONAL OPERATION AND APPEARANCE

In all centres, there is a general need for organising the premises out- and indoor neatly in order to appear as professional enterprises and/or competent public offices. It includes a thorough clean-up and reparation of office inventory. This include general cleaning, organising of light and cables, documents, inventory etc.

Solution: Topic for the Management Forum Meetings.

#### RECOMMENDATION 7: SYLLABUS OUTLINE, CAPACITY BUILDING COURSES AND ACTIVITIES

Recommendations outlined in the table below are based on the findings and results from the described TNA methodology in combinations with following considerations:

- What training is already being offered, and should it continue to be offered?
- Will the training be conducted in-house or externally?
- Can and should the training be conducted online?
- What is the learning style of the participants?
- How are the participants used to learn?
- To which extent is self-learning a viable option?

## SYLLABUS OUTLINE CAPACITY BUILDING COURSES AND ACTIVITIES

Capacity building activities and course based on TNA (Titles in bold; description below)*	Objective (in bold) // Justification	Expected outcome	Priority for sustainability (1-3) 1=highest	Priority for Operation (1-3) 1=highest	Participants**	Duration (preparation in bracket)	Location/Resources/Training material
<b>Management Planning Forum</b> Quarterly meetings headed by Project Director Agenda for each meeting.	<b>Optimise Management within the PATSPO umbrella//</b> Need for better project coherence and ownership. Exchange of knowledge among centres is limited.	Effective management and PATSPO Mission ownership	3	2	TSC Managers and ICRAF staff	1 day (4 times per year)	Addis and centres.
<b>Management Training Forum</b> Market powers Business case dev., Marketing, Motivation, Personnel, development, Strategy development, Org. development Cross-sectoral coop., Quality assurance. Optimise existing skills to match new organisational structures.	<b>Help TSC management through the organisational transition to become an enterprise or a more effective public institution.</b> // HR management and market powers must be understood, mastered and benefitted from. Some TSCs have become enterprises and more are following. Such transitions affect big challenges, which needs preparation.	Smooth transition into enterprise	2	3	TSC Managers + (7 pax)	5 days	Addis, Facilitator
<b>Building capacity and sustainability through building of self-learning capability.</b> A tailor-designed support process.	<b>Develop a positive and proactive attitude for learning.</b> // Officers and staff are not currently assuming responsibility for problem-solving and for staying updated.	The officer/staff is both capable and assume responsibility for being technical updated.	1	1	TSC Officers, and admin. staff (18 pax)	6 + 6 days (homework 12 days)  Refresher in 2020, 10 days	Meeting room in Addis. Good internet connections required. PC access. A facilitator. Pre-formulated assignments.

Capacity building activities and course based on TNA (Titles in bold; description below)*	Objective (in bold) // Justification	Expected outcome	Priority for sustainability (1-3) 1=highest	Priority for Operation (1-3) 1=highest	Participants**	Duration (preparation in bracket)	Location/Resources/Training material
							Training material to be developed specifically to TSC context. Well functioning Wi-Fi.
<b>Training of Facilitators. ***</b> (Pedagogical approaches for non-formal training).	<b>Learn and train non-formal training approaches for better teaching and cooperation with villagers, farmers, seed collection groups and cooperatives//</b> Currently none staff has had any pedagogical training.	A cadre of trained trainers and communicators	1	2	TSC managers and field officers (12 pax)	8 days  Refresh er 6 days in 2020	Meeting room. Internet connections. Trainer. Transport for 2 days field exercise
<b>Outreach</b> (Awareness, Extension and PR methodologies and products).	<b>Learn to assess what information is needed and train production of awareness, extension or PR materials and media shots and spots.//</b> Hardly any outreach activities are taking place in tree seed sector.	Awareness of the importance of using good seeds	1	2	TSC and Enterprise officers (10 pax)  Refresher 5 days in 2020	7+7 days	Addis PC and internet access A Trainer. Budget for producing some of the products. All outreach material to be developed.
<b>Marketing &amp; Customer Relation course,</b> (including innovation, demand survey, customer satisfaction analysis) (incl. use of SWOT, PESTAL).	<b>To be become conversant with the basics of marketing.//</b> Being a trendsetting and competitive in tree seed sale business requires understanding and mastering of basic marketing	Ability to arrange for and targeting marketing towards the target segments	2	2	TSC and enterprise officers (8 pax)	5 days	Trainer Meeting room Internet and PC access.

Capacity building activities and course based on TNA (Titles in bold; description below)*	Objective (in bold) // Justification	Expected outcome	Priority for sustainability (1-3) 1=highest	Priority for Operation (1-3) 1=highest	Participants**	Duration (preparation in bracket)	Location/Resources/Training material
	skills, which is currently almost absent.						
<b>Income generation via applications and exit strategy.</b> The art of writing proposals for funding	<b>Train skills and strategic thinking in writing proposals for funding.</b> // Need for endeavouring into new research or development areas.	Options for increased funding and sustainable PATSPO exit transition	2	3	Officers	8 days	Facilitator experience fundraiser as
<b>PC Professional Driving Licence.</b> Refresher course (tailor made for TSC needs).	<b>Master MS Office Pack and Browsers.</b> // Currently staff has inadequate skills in making registration and records and to obtain knowledge from surfing the web. Moreover, the use of Excel for accounting and databases is unfamiliar.	PC literate officers will be able to engage productively in most functions at the TSC	2	3	TSC officers and admin staff (12 pax)	4 days	Good internet and pc access. Local supplier (Knowledge on NRM and TSC).
<b>Seed source establishment, development and management</b> (incl. mother tree selection and seed orchard establishment and practicals.	<b>Become capable of establish and manage seed sources.</b> // Currently there is little know-how among TSC staff in management of seed sources and also in selecting good mother trees. Neither of the necessity of producing good seed and documentation of mother trees attributes	A cadre of core staff fully capable of identifying, establishing and managing different types of seed sources	1	2	TSC officers 18 pax	10 days Refresher 5 days in 2020	Trainer. Field site with 2 sources.
<b>Seed collection, transport, processing, storage and monitoring</b> (Including practicals).	<b>Become capable of managing the entire value chain from collection, transport, processing, packing.</b> //Most appointed staff is	A cadre of core staff fully capable of seed harvesting,	1	2	TSC officers, including	10 days	Trainer. Field site with 2 sources.



Capacity building activities and course based on TNA (Titles in bold; description below)*	Objective (in bold) // Justification	Expected outcome	Priority for sustainability (1-3) 1=highest	Priority for Operation (1-3) 1=highest	Participants**	Duration (preparation in bracket)	Location/Resources/Training material
	not able to comply with ordinary technical standards.	transporting, processing and storage			lab staff (18 pax)	Refresh er 5 days in 2020	
<b>Chain of custody seed documentation and monitoring.</b>	<b>Learn to set-up professional chain of custody and seed documentation systems//</b> Seeds are inadequate labelled and registered. A proper chain of custody is necessary for seed centres to be viewed as professional and gain customers trust.	A strong seed documentation system ensures good seed quality and brings about customer trust	1	1	TCS officers (12 pax)	5 days  Refresh er 5 days in 2020	Trainer. TSC facilities. Training material to be developed.
<b>Seed lab operations</b> A) Seed testing methods (including no. of seed/kg, 1000 seed/weight, purity, germination rate, moisture contents and vitality tests. B) Use of equipment seed lab and processing equipment	<b>Become skilled in basic seed lab operations and basic processing.//</b> Laboratory exists and are equipped but most are not in operation. For the seed centre to develop laboratories must be functioning.	Basic seed testing is being conducted for all lots	3	2	Lab officers with an additional back up person (10 pax)	14 days	Trainer. Seed lab.
<b>Seed biology</b> Flower and seed phonology, morphology, botany, physiology	<b>Learn the basis of seed biology.//</b> Basis seed biological knowledge helps to understand seed handling and processing requirement.	A theoretical platform for learning seed testing	3	2	Seed officers (8 pax)	5 days	Trainer. Seed lab room.
<b>Regional Study Tour</b> Focused on TSC management, regulations, policy and trade – in the Region. East – South Africa	<b>Exchange experience and create partnership with TSCs in the regions//</b>	Broader knowledge of TSC management and	2	3	Selected staff (10 pax)	7 days	Technical and tour logistic organiser. Tour leader.



Capacity building activities and course based on TNA (Titles in bold; description below)*	Objective (in bold) // Justification	Expected outcome	Priority for sustainability (1-3) 1=highest	Priority for Operation (1-3) 1=highest	Participants**	Duration (preparation in bracket)	Location/Resources/Training material
	Staff has very little exposure and hardly and contact with other seed centres in the region.	professional network					Reflective exercises to be developed.
<b>International Study Tour</b> Focused on the state of the art Tree Seed Management, advocacy and policy development.	<b>Learn state of the art tree seed management, business and mechanism for policy development</b>	Participants equipped with a word-wide outlook for the benefit of the Ethiopian Tree Seed Sector	1	3	Selected staff (8 pax)	9 days	Technical and logistic organiser. Tour leader. Reflective exercises to be developed.

**\* Trainings level:**

Generally, with the skills and knowledge based observed, all course takes point of departure at basic level.

**\*\* Participant selection**

In the upcoming training plan principles for participant selection could be considered and defined. It is very crucial that only the relevant staff are trained in relevant subjects. To some extent when staffing is low and operation depend on the qualifications of only 1-2 staff and there is a risk of losing capacity in the case of staff turn-over; in such case a strategically planned overlap of participants can be considered as a back-up of competences.

**\*\*\*Train Managers to Train**

Definite advantages exist for when you have developed the training capabilities of mid-level managers and respected seniors. Teach managers to train and you will increase the effectiveness of your internal training.

Additionally, training, coaching and mentoring become an expected and utilized part of the managers' jobs. Employees react positively when managers provide training, too. The employees will be given the opportunity to use the training, they react more positively to the expectations of the manager versus a traditional trainer.

When they provide training, managers are able to articulate what they believe is important and to reinforce these ideas with employees. Employees are impressed that the training topic is so important that the manager takes the time to do the training. Having managers to train employees is one of the most effective on-the-job training strategies.

### **\*\*Train Employees to Train Co-workers**

Definite advantages exist for your organization when you have developed the training capabilities of your most capable employees.

Teach employees to train and you will increase the effectiveness of your internal training.

Employees are familiar with the workings—both good and bad—of the TSCs. They are familiar with the work culture and environment including the centre's weaknesses, and they know the actual employees. This gives employees an advantage over a trainer coming from outside.

# RECOMMENDATION 8: PROPOSED SCHEDULE FOR CAPACITY BUILDING COURSES

Activity	Duration days	2 Q 2018	3 Q 2018	4 Q 2018	1 Q 2019	2 Q 2019	3 Q 2019	4 Q 2019	1 Q 2020	2 Q 2020	3 Q 2020	4 Q 2020
Management Planning Forum	1											
Seed biology	5											
Building of self-learning capability	6+6											
Seed source establishment, dev. and mgt	10											
Training of Facilitators *	8											
Outreach	5+5											
Seed collection, transport, processing, storage, M&E	10											
Seed lab operations	15											
Chain of custody seed documentation and monitoring	4											
PC Professional Driving Licence	4											
Management Training Forum	5											
Marketing & Customer Relation course	5											
Income generation, applications exit	5+5											
Regional Study Tour	7											
International Study Tour	9											

## RECOMMENDATION 9: TRAINING MATERIAL

A general principle is that training material is best produced by the trainer. However, in some standardised subjects ready-made training material is available. The table below attempts to identify in which topics, training material already exists and in particular, in the last column, to pin-point where special efforts are required to develop training material for capacity building of the Ethiopian tree seed sector.

Generally, tree seed technical material is readily and free available at University of Copenhagen's, ICRAF's and others Webpages.

Capacity building activity (Course title)	Training material exists	Training material to be developed or substantially adapted
Capacity building for policy regulations, audit, (Recommendation # 3)	Not directly	Case material from other sectors and other countries needs to be selected, compiled and analysed for round table workshops
Management Training Forum	Yes largely	Material needs to be carefully selected
Building capacity and sustainability through building of self-learning capability	The PATSPO pamphlet: <i>Recommendations for the Performance of Heads and Staff Members at Regional Tree Seed Centres and the TSC under Central Ethiopian Environment and Forest Research Centre – is a good start.</i>	Highly tailor-made. All materials need to be developed.
Training of facilitators	Yes partly	Material must be directed and adapted to the trainers' individual capacity and the actual training situation that they will be in
Outreach	Nil. But ideas from other seed sectors can advantageously be re-used	Material should be developed in Ethiopia by the participants under facilitators guidance
Marketing & Customer Relation	Standard material exists and can easily be applied.	
Income generation via applications	Some material exists	Additional material has to be adapted to the Ethiopian tree seed sector situation
PC Professional Driving Licence.	Standard material available	
Seed source establishment, development and management	Lots of material exists on Cph. Uni. Web page including: Cambodia	

	Tree Seed Project: "Identification and mgt. of Seed Sources in Nat. Forest". DFSC Lecture notes e.g.: A3, B1, B2, D8, D9 and DFSC Guideline & Tech note # 65+162, ICRAF Lecture note #6,	
Seed collection, transport, processing, storage and monitoring	Lots of material exists on Cph. Uni. Web including: Lecture note DFSC C6. Indo Forest Seed Project: "A guide to Seed Quality". Tree Seed Mgt. A guide for field workers( Windrock Int & ICRAF)	
Chain of custody seed documentation and monitoring	Some seed documentation material	Material here could be developed from other CoC systems e.g. for timber and other products and used in combination with existing seed documentation systems material
Seed lab operations	Cph. UNI. Web: DFSC note C8, "A Guide to Tropical and Subtropical Forest Seed"	
Seed biology	Cph. UNI. Web: E.g. DFSC Lecture C2 and "A Guide to Tropical and Subtropical Forest Seed"	
Regional study tour		Tour guide, reflective assignments and a winding-up workshop to be developed
International study tour		Tour guide, reflective assignments and a winding-up workshop to be developed

## Appendix A – Consultant’s schedule

February – March 2018

01	Preparation of consultancy	18	Organising and preparing for field visit
02	Preparation of questionnaire	19	Interview with Director of Tree Seed Technology Research Coordination Dr. Yigardu Mulatu Half day workshop with the Central Forest Tree Seed Centre of EFFRI Interview with TSC Director Mr. Tsadik G. Wondwossen . Filling of questionnaires
04	International travel	20	Travel, interviews and half day workshop, filling of questionnaires.
05	Intro. to PATSPO. Briefing and clarification of TOR and agreement on methodologies and deliveries. Dr. Kiros and Mr. Moestrup	21	Analysing questionnaire responses
06	Planning of field visits	22	Analysing questionnaire responses
07	Preparation of Workshops and slides	23	Data gathering and report writing
08	Travel to Amara Region. Meeting and discussion with Seed Centre Manager Mr. Charlie Beyene	24	Report writing
09	TNA Workshop and interviews and discussion with all staff. Filling of questionnaires	25	----
10	Official Meeting with Deputy Manager of Amara Forest Enterprise Mr. Biresaw Mahtotlon and Mr. Beyene Return travel to Addis	26	Debriefing and presentations
11	Making handouts to workshop	27	International travel
12	Travel to Awassa. Meeting with Coordinator of the SNNPR Tree Seed Centre Mr. Fikadu.	28	Report writing
13	TNA Workshop and interview and discussion with all staff. Filling of questionnaires	01	Report writing
14	Travel to Addis Ababa	02	Report writing
15	Analysing data from interviews and workshops	03	Report writing
16	Preparing of visit TNA and interviews at the FRA and the Central Tree Seed Centre		
17	Visiting seed lab at the EFFRI		

## Appendix B - People with whom TNA subjects were discussed

(in addition to participants listed on appendix D)

Biresaw Mahtotlon, Deputy Manager, Amara Forest Enterprise
Carsten Nøregaard, Seed Source Consultant Trainee, PATSPO
Chalie Beyene, FRC Senior Scientist
Jens-Peter Lillesoe, Consultant, University of Copenhagen
Kedra Mohammed, Tree Seed Coordination Representative
Kiros Hadgu, Country Director, ICRAF
Meeri Koumalainen, CTA, Agricultural Project, Amara
Niguse Hagazi, Senior Researcher, PATSPO, ICRAF
Poul Elgaard, Seed Source Consultant, PATSPO
Sammy Carsan, Researcher, ICRAF
Soren Moestrup, Team Leader, PATSPO
Dr. Yigardu Mulatu, Director of Tree Seed Technology Research Coordination, MEFCC

## Appendix C - Participants in TNA WORKSHOPS

TNA Workshop conducted in **Amhara Forest Enterprise Tree Seed Centre** on 9. February.

No	Name	Position/Function
1	Chalie Beyene	Seed Centre Manager
2	Bogale Kassahun	Planning Officer, Amara Forest Enterprise
3	Tesfa Dagnew	Seed Collection and Quality Control Officer
4	Alamirew Worke	Tree Seed Laboratory Technician
5	Sisaynesh Abate	Human Resource and Property Management Officer
6	Meselye Aragaw	Tree Seed Source Development and Laboratory Technician

TNA Workshop conducted in **SNNPRs Tree Seed Centre** (Awassa) on 13. February.

No	Name	Position/Function
1	Tsegaye Fikadu	Coordinator
2	Mintamire Hemaiyke	Forest Rehabilitation Development and Management Expert
3	Abraham Alaka	Forest Development and Management Expert
4	Tadesse Humessa	Guard
5	Feleke Lemma	Guard
6	Liya Debebe	Secretary
7	Frehiwot Teshome	Sanitation
8	Almaz Tefera	Property Management Officer

TNA Workshop conducted in CEE-FRC Tree Seed Centre on 19/21 February

No	Name	Position/Function
1	Wendwossen G/Tsadik	Centre Director
2	Kedra Mohammed	Proces repræsentative
3	Shimels Tadesse	Coordinator of tree seed procurement and seed source management division
4	Legesse Alemu	Seed Collector
5	Yami Regassa	Seed Collector
6	Gemechu Guta	Seed Collector
7	Aynalem Tekeba	Seed Processing Worker
8	Kebebus W/Hana	Seed Processing Worker
9	Ayelech Yehualashet	Seed Processing Worker
10	Almaz T/Mariam	Lab Technician
11	Fantaye Sirak	Lab Technician
12	Yeshi Ketema	Lab Technician
13	Terusew Alemneh	Seed Distribution Officer
14	Kalkidan Daba	Seed Distribution Officer

TNA Workshop conducted in Dima (Oromia) Tree Seed Centre on 20 February

No	Name	Position/Function
1	Alemayehu H/Selassie	Head of Centre
2	Wasihun Workineh	Acting Coordinator of Planning and Marketing
3	Fikru Bulita	Acting Head of Tree Seed Technology Process
4	Lemma Edeta	Guard
5	Hirut Birhanu	Material and Tree Seed Stock controller
6	Lidiya Chala	Lab Technician
7	Getu Negash	Driver
8	Edimealem Asmare	Cashier
9	Jembere Feyisa	Finance Head
10	Belay Kebebew	Accountant
11	Meseret Negaro	Guard
12	Regasa Aduna	Tree Seed Store Keeper
13	Kaba Wirtu	Coordinator, Human Resource Development
14	Tadesse Kabeta	Cleaner



## Appendix D - Staff register at each TSC

### Staff register Amhara Forest Enterprise Tree Seed Centre.

S.No	Name	Assigned work area	Technical Subject	Level of education
1	Chalie Beyene	TSC Coordinator	Agroforestry ,Natural resource management	Diploma in Agroforestry and Bsc in Natural Resource Management
2	Tesfa Dagnew	TSC Tree seed collection and quality control	Natural resource management	Bsc in seed dispatch, seed receiving, seed documentation
3	Alamirew	TSC Tree seed laboratory technician	Plant science	Bsc in seed dispatch, seed testing ,seed documentation, seed registration
4	Meselye Aragaw	TSC Tree seed laboratory technician and Tree seed source development	Agroforestry	Bsc in seed dispatch ,seed documentation
5	Sisaynesh Abate	TSC Human resource and property management	Human resource management	Diploma in seed dispatch ,seed documentation
6	Sefialem takele	TSC tree seed store keeper	Natural resource management	Diploma in seed cleaning , seed collection
7	Tilahun	Branch TS collection and quality	FOREST AND NATURAL RESOURCE	Bsc in seed cleaning , seed collection
8	Tadese	Branch TS collection and quality	AGROFORESTRY	Bsc in seed cleaning , seed collection
9	Niguse	Branch TS collection and quality	FARM FORESTRY	Bsc in seed cleaning , seed collection
10	Abidu	Branch TS collection and quality	DRY LAND FORESTRY	Bsc in seed cleaning , seed collection
11	Mangudaye	Branch TS collection and quality	GENERAL FORESTRY	Bsc in seed cleaning , seed collection
12	Belete	Branch TS collection and quality	FOREST AND NATURE CONSERVATION	Bsc in seed cleaning , seed collection
13	Maru	Branch TS collection and quality	FOREST AND NATURE CONSERVATION	Bsc in seed cleaning , seed collection
14	Bekalu	Branch TS collection and quality	NATURAL RESOURCE MANAGEMENT	Bsc in seed cleaning , seed collection

**Staff register SNNPRs Tree Seed Centre (Awassa)**

<b>S.No</b>	<b>Name</b>	<b>Assigned work area</b>	<b>Technical Subject</b>	<b>Level of education</b>
1	Tsegaye fikadu	Coordinator		Msc in Forestry
2	Abraham alaka	Expert of forest development		Msc in Forestry
3	Mintamir lemayka	Expert of forest development		Msc in Forestry
4	Almaz Tefery	Seed receiving, seed registration seed storing,		Diploma in Accountant
5	Lia debebe	Secretary		Diploma in Secretaryance sience
6	Habtam getachew	Driver		Certificate in Driving and automotive
7	Fre hiywet teshome	Cleaner of rooms		7 grade
8	Tadese humeso	Guard		12 complate
9	Felek lema	Guard		12 complate
10	-	Laboratory worker		Msc/Bsc in Seed testing

### Oromiya Forest and Wildlife Enterprise, Dima Tree Seed Processing and Storage Centre

S.No	Name	Assigned work area	Technical Subject	Level of education
1	Alemayehu Haileselassie	Head, TSC	-Coach tree seed Centre -Give technical support for technical staff -Supervise over all activities of the seed Centre	BSc in Forestry
2	Fenet Ararso	Assistant Laboratory Technician	Assist all Tree Seed Laboratory activities	Bsc in Biology
3	Fikiru Bulita	A/Tree Seed Technology	-Coach Tree Seed Technology Section -Assist technical works -Train Seed Collectors group	BSc in Natural Resource
4	Lidiya Chala	Laboratory Technician	-Conducting all Tree Seed Laboratory activities - Coach laboratory activities	BSc in Biology
5	Tilahun Amante	Technical Assistant	-Assist Tree Seed technical activities - Train Seed Collectors group	BSc in Forestry
6	Bekele Hurisa	Guard		Grade 8
7	Belay Kebebw	Payment officer	-Prepare financial journals	BA in Accounting
8	Chaltu Leta	Cleaner		Grade 10
9	Belew Kankure	Guard		Diploma in Community Development and Leadership
10	Defera Abera	Guard		Grade 7
11	Getu Negash	Driver	-Deliver driving services	Certificate in Electricity
12	Hirut Birhanu	Material and Tree Seed Stock controller	-Control material and tree seed procured, sold and left in store.	Grade.12 Complete
13	Idme'alem Asmare	Cashier	Payment activities	Grade 12 Complete
14	Jembere Feyissa	Coordinator, Finance, Purchasing and Property Administration	-Coach all Finance section activities - Give technical support for Control financial flow of the seed Centre	BA in Accounting and Public Finance

15	Kaba Wirtu	Coordinator, Human Resource Development	Coach human resource of the seed Centre	Diploma in Management
16	Lema Edeta	Guard		Grade 7
17	Meseret Negero	Guard		Diploma in Law
18	Munira Habtamu	Material Storekeeper	Control and administrate material of the seed Centre in store	Level 4
19	Regasa Adugna	Tree Seed Storekeeper	-Receive tree seed brought -Keep tree seed in store -Supervise tree seed quality in store -Dispatch tree seed	BA in Accounting and Public Finance
20	Tadese Kabata	Cleaner		Grade 10
21	Teka Olkaba	Guard		Grade 10
22	Wasihun Workineh	Coordinator, Planning and Marketing	-Coach activities of the section -Work on market Promotion -Facilitate tree seed sells activities	Bain Business Management

**Staff register EEFRI/CEE-FRC Tree Seed Centre**

S.No	Name	Center	Assigned work area	Level of education
1	Yigardu Mulatu	EEFRI	Director of Tree seed technology coordination unit	PhD in Eco-Physiology/Agronomy
2	Kedra Mohammed	CEE-FRC	Tree seed technology process representative and national coordinator of tree seed research division	MSc in Biotechnology
3	Shimels Tadesse	CEE-FRC	National coordinator of tree seed procurement and seed source management division	MSc in Agroforestry and Extension
4	Biruk Tesfaye	JEEFRC	Tree seed technology process representative	BSc in Forestry
5	Marshet Nigatu	JEEFRC	Director of Bedele tree seed sub center	BSc in Forestry
6	Derejie Adugna	HEEFRC	Tree seed technology process representative	BSc in Forestry
7	Moybon Jifar	BEEFRC	Tree seed technology process representative	BSc in Forestry
8	Gemechu Guta	CEE-FRC	Seed collection	Skilled labor
9	Legese Alemu	CEE-FRC	Seed collection	Skilled labor
10	Yami Regassa	CEE-FRC	Seed collection	Skilled labor
11	Tameru Eshetu	JEEFRC	Seed collection	Skilled labor
12	Aynalem Tekeba	CEE-FRC	Seed processing	High school graduate
13	Kebebush Woldehana	CEE-FRC	Seed processing	Skilled labor
14	Ayelech Yehualashet	CEE-FRC	Seed processing	Skilled labor
15	Amelework Zenebe	CEE-FRC	Seed Testing (germination)	Diploma
16	Etetu Maruta	CEE-FRC	Seed testing (germination)	Certificate
17	Yeshi Ketema	CEE-FRC	Seed testing (moisture)	Certificate
18	Atalay Dagnaw	CEE-FRC	Seed testing (moisture)	Certificate
19	Almaz Tekelemariam	CEE-FRC	Seed testing (Purity)	Skilled labor
20	Fantaye Sirak	CEE-FRC	Seed testing (Purity)	Skilled labor
21	Tirusew Alemneh	CEE-FRC	Seed storing	Skilled labor
22	Kalkidan Daba	CEE-FRC	Seed dispatch	High school graduate

## Appendix E – TNA Questionnaire for Seed Centre Staff: Strategic-Functional-Individual level

Questionnaire: TNA: Tree Seed Technology and Coordination + Four Regional Tree Seed Centres.

### STRATEGIC-, BUSINESS CASE and ORGANISATIONAL LEVEL

- Input helps to analyse the strategic, organisational and long term business context and therefore the overall reasons for which type of capacity development is needed to meet

Centre name: \_\_\_\_\_, Your position/function: \_\_\_\_\_ ; Your name: (Voluntary): \_\_\_\_\_

Do you know the strategic goals for your Centre?	
Are you able to translate the strategic goals into actions on the ground. Your suggestions for potential improvement?	
What has been the history of the organization with regard to employee learning interventions?	
Is the business case intact is and is a sustainable economy in place?;- or why not?	
Do you feel increased market competition from other suppliers for your product (tree seed) and what needs to done?	
Do you assess that your Centre has the right balance between production, research and innovation. Your suggestion?	
What are the contextual factors which may hinder practice of the learned competency?	

Is your Centre performing state of art excellence? If not, which 3 interventions are needed for your Centre to become a top performer? Please list in priority.	
Elaborate why you believe training is the solution to these strategic issues?	

Questionnaire: TNA: Tree Seed Technology and Coordination + Four Regional Tree Seed Centres.

## OPERATIONAL TASK ANALYSIS

- The process of collecting information regarding the job, for use in developing training programs, is referred to as task analysis or job needs analysis.
- It is an analysis of the tasks, activities and roles being performed and the competency requirements for effective performance.
- Task analysis explains what must be done to perform a job or complete a process successfully.
- Input helps in ensuring that a given training method and context are aligned with the relevant job role.

Centre name: \_\_\_\_\_, Title of position/function: \_\_\_\_\_; Your name: (Voluntary): \_\_\_\_\_

Tasks	Description of capability needed (in words)	Skills requirements Scale 1-10 (10= max)	Knowledge requirement. Scale 1-10 (10= max)	Behavior/creativity/innovation Scale 1-10 (10=max)	Is task clustered with other task	Task Importance for Centre's running (Scale 1-10)



Questionnaire: TNA: Tree Seed Technology and Coordination + Four Regional Tree Seed Centres.

## PERSON NEEDS ANALYSIS

- A person needs analysis identifies gaps between a person's current capabilities and those identified as necessary or desirable.
- The inputs will be used to a broader analysis of the job performance as a whole rather than on each specific task skill performance.

Centre name: \_\_\_\_\_, Title of position: \_\_\_\_\_ ; Educational background (level and profession): \_\_\_\_\_ Your name: (voluntary): \_\_\_\_\_

Tasks	Description of your existing capability (Skills, knowledge attitude/creativity) in words.	Your level of professional skills for the specific task Scale 1-10 (10= max)	How much knowledge/information do you have for completing this task successfully Scale 1-10 (10= max)	Your personal skills and creativity/innovation in relation to task completion Scale 1-10 (10=max)	Is this task clustered with other task	Which capacity building will help in closing the gap in needed and current capabilities ?

Appendix F - TNA Workshop Contents and slides used





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