Proposal for Tigrai Grand Regional Conference

Conference Name - Quo Vadis Tigrai: Quad-helix as a vehicle of transformative and knowledge-driven development

Short Name - Quo Vadis Tigrai

Short Name (Tigrigna) - ከጊል ድልን ዓላማ

Place: Tigrai/Mekelle

Date: Summer 2018 (July-August)
Table of Contents

1. Background and Rationale ........................................................................................................ 3
2. Consensus as Conference Mission .......................................................................................... 7
3. Conference Goals and Objectives ......................................................................................... 8
4. Conference Organizing Bodies ............................................................................................... 9
4.2. Industry: EFFORT and Private Industries ......................................................................... 9
4.3. Academia ............................................................................................................................. 9
   4.3.1. Academia: Tigrai-based higher institutions (Universities) ........................................... 9
   4.3.2. Academia: The Global Society of Tigraian Scholars (GSTS) ...................................... 10
4.4. Civil Society Organizations (CSOs) .................................................................................. 10
5. Conference Structure and Deliberation Forms ....................................................................... 10
5.1. Conference Leading Questions ......................................................................................... 11
5.2. Main Presentation Forms ................................................................................................. 12
5.3. Sessions of the Main Conference ...................................................................................... 12
6. Conference Thematic Areas ................................................................................................... 12
7. Conference Outcomes and Post-Conference Results .............................................................. 13
8. Conference Organization ......................................................................................................... 14
   8.1. Conference Board ........................................................................................................... 15
   8.2. International Advisory Committee ............................................................................... 15
   8.3. International Scientific Committee ............................................................................... 15
   8.4. Conference Organizing Committee ............................................................................. 16
9. Conference Financing and Budget ........................................................................................... 16
10. Conference Timing, Duration, Venue and Working Language ............................................... 16
11. Sustainability of the Conference .......................................................................................... 17
12. Sideline and Post-Conference Events .................................................................................. 18
13. Conclusion ............................................................................................................................ 18
Annex(s) ..................................................................................................................................... 19
I. Conference Audiences, Target Groups and Potential Stakeholders ......................................... 19
1. Background and Rationale

For thousands of years, the people of Tigrai have played an important role and made a critical contribution to the Ethiopian mosaic of architecture, commerce, culture (such as heritage, music, religion, art etc.), economy, education, governance, heroism, linguistics, literature, military, patriotism, philosophy, politics as well as in safeguarding the territorial integrity of the country against foreign invasion. This was done against all odds that were imposed from internal and external forces. However, regardless all these priceless values, the region has been excluded from any kind of state-run development agendas for the past many decades. Building on the above mentioned historical successes and the region’s comparative advantage, the natural question is what is next for Tigrai in an ever-changing national and global realities of dynamism? What would be required for a fast-paced inclusive and sustainable development of Tigrai and its people?

Success stories from different parts of the world in terms of innovative and sustainable ways of advancing the economic growth of countries and regions are often related to the implementation of an effectively working quad-helix relationship among academia, industry (both private and non-private sectors), the government (public sector), and civil society organizations (CSOs), hereinafter-described as sectors, addressing the principles of Public-Private Partnership (PPP or 3P). The cumulative integrity of all the sectors result in innovation, which in turn serve as an important element in acquiring knowledge, in enhancing the sustainable and a potent economic growth, global competitive power, and social welfare. The quad-helix model works best when each one of the four sectors mutually interact and play its role in the best way possible considering the needs of the other three thereby, cross-fertilizing the overall work they do in the creation and practical application of knowledge in an innovative environment. Subscribing to the quad-helix model, not being limited to, provides a framework to structure the contributions of the main actors in the society in enabling the research and practice motor for the sustainable development of a country or a region. The model represents on how to develop quadrilateral relations that can work together in enhancing synergetic functions of knowledge creation (e.g. via producing value added technologies), dissemination (e.g. transfer of research outputs from university to industry, practical knowledge from industry to university etc.) and utilization thereby benefiting all the four sectors and beyond. For instance, it will help universities in Tigrai to lead an enhanced innovation and contribute to the creation of knowledge-based society and thereby a prosperous and climate-resilient green economy. Such transformation requires a well-functioning interaction among the
four helices (four pillars of development) to unleash regional and national economic growth through scientific and technological innovations.

The quad-helix visualizes a collective and mutual exchange of knowledge in a given nation and/or region by the synergetic action of the sub-systems (i.e. helices), such as via government-university (e.g. research grant), university-business (e.g. incubator), government-business (e.g. business start-up grants) etc. The role of the helices in a knowledge-based economy and society is multiplex and is shortly presented as follows.

**Academia**: This refers to higher institutions (universities) and is considered as the source of highly effective and skilled human capital (for example: teachers, scientists/researchers, academic entrepreneurs etc.) who serve as inputs to the remaining three parties (sectors) and beyond. It serves as a center for Research & Development (R & D), education, supplying technical products and services, knowledge transfer, set up spin-off enterprises etc.

**Industry**: Industries take the lead in product and service development, providing smart solutions, platforms, know-how, and focus on the economic capital such as entrepreneurship venturing, machines, products, technology, money etc.

**Government**: This component of the helices is attributed for overseeing the contractual relationships capable of guaranteeing interactions and stable relationships of exchange with universities, civil society organizations, and economic sectors (industries, firms, etc.) engaged in producing new knowledge and technological innovation. It is of crucial importance because it formulates the ‘will and strategic vision’, where the country or region is heading towards the future. It is also responsible for defining, organizing as well as administering the general conditions of the country/region, as well as ‘political and legal capitals’ (for example: ideas, laws, plans, policies, politicians, etc.).

**Civil Society Organizations (CSOs)**: This component of the quad-helix serves as a bridge between the society and the state, as an increasingly important agent for promoting good governance like transparency, effectiveness, openness, responsiveness and accountability. It combines different forms of capitals, namely culture-based public (social capital) enlisting assets such as tradition, values, etc., media-based public (for example: television, internet, newspapers, etc.) containing ‘capital of information’ (for example: news, communication, social networks) and civil societies. Media helps to enhance the diffusion of knowledge created, to share experiences and skills, and ultimately playing a vital role in helping to bring sustainable socio-economic and environmental development in the region and beyond. The civil society plays an important role in
the co-production of public services, building social capital, and assuring digital inclusion, society initiatives, demands for goods and services etc.

The natural resource management (environment) is considered as crucial basis for sustainable development and provides a nation or region with a ‘natural capital’ and essence of sustainability. This component which will be taken care of by all the four sectors of the helix is as equally important as the other components for emerging economies like Ethiopia, where polices are strategically designed to include the climate-resilient green economy concepts. The evolution in the mutual interaction and synergistic cooperation of the above-mentioned four helices result in a sustainable, climate resilient green and knowledge-driven economy backed by the introduction of innovation-inspired concepts such as science parks, techno polis, and at a more advanced stages to innopolis (smart cities with exceptionally comfortable conditions for living, working and high level of social services with advanced infrastructure, advanced business concepts, and are hubs for high-tech technologies).

As we are still at the beginning of an agricultural development led industrialization or industrial-led development, a well-developed quad-helix relationship provides a fertile ground of sustainable formation and growth of companies that will play a critical role in job creation and value generation that directly and/or indirectly support expansion of investment on infrastructure because of increased government revenues from taxes. Identifying bridging entities that connect the four helices and creating and maintaining meaningful interaction among them is crucial. A successful quad-helix relationship that aims at creating a regional innovation system serves as an effective vehicle for the transfer and diffusion of knowledge and technology in the region's context with the lenses of the federal and global perspectives. There are two well recognized building blocks in a regional innovation system: a system of generation and diffusion of knowledge and a system of application and exploitation of knowledge.

The shorthand name of the conference, Quo Vadis Tigrai (“ትግራይ በወንድ?”), could be interpreted as ‘Where is Tigrai heading to?’ or more conveniently ‘Where do we want Tigrai to be?’. The concise term is used to connect the journey that the region has gone thus far with its future one. It aims at using the past and present as a springboard for the future with more focus on highlighting the challenges and opportunities to come and setting an effective working interaction between the four sectors through effective research and education as a hub for meaningful collaboration to achieve what we want, i.e. environmentally sound, fast, sustainable and
science/technology/innovation assisted all-rounded growth. The regional government can play a more effective role in facilitating research and innovation, education, development and services in tandem with some level of support from the private sector. The universities should excel in innovative research and education in areas that leverage on the natural and human potentials of the region, giving it a more focused competitive edge. Policies and incentives should be developed to help both the private and the public sectors and to some extent civil societies prey on the results of research and education for pulling the people out of poverty and placing the economy on a sustainable transformative trajectory.

The conference will be used as an orchestrator of exchange of experiences on best practices and state-of-the-art technical as well as institutional success stories from different parts of the world in the context of the realities in Tigrai/Ethiopia.

The outcome of the conference not only will be helpful in supporting the successful implementation of the development goals enshrined in the second Growth and Transformation Plan (GTP-II) as well as UN-2030 sustainable development goals (SDGs) at regional level but also serves as an input to the next phases of growth and transformation visions and plans of the country. As Tigrai strives to achieve a science and technology-driven economic development, there is an urgent need to see the role of the universities evolving from performing conventional research and education functions to serving as an innovation-promoting and center of excellence knowledge hubs.

This conference will facilitate the discussion and consensus building around the comparative as well as competitive advantages of Tigrai from the perspective of playing a leading role as a center of knowledge hubs that outpace in terms of development in prioritized and specialized areas such as software engineering, advanced health care, data mining and analysis based on big data; emerging technologies (such as bio-technology, energy, materials science, and nanotechnology), high-tech manufacturing, high-value mechanized agriculture, high standard tourism industry, the Geez advantage and indigenous knowledge, etc. These areas of interest emanate from the pragmatic approach of addressing needs that would be met with what is local and indigenous knowhow on one hand, and other needs that require state-of-the-art and cutting-edge technologies. The quest for leveraging on comparative edges of the region will be realized by more strategic and less prescriptive approach that enables organic developments within the four sectors that independently and interdependently respond to the changing environment both nationally and globally.

Based on insights from experiences of other knowledge hubs elsewhere (for instance: Western and Asian tiger economies), the conference will dwell on how institutional leadership,
organizational forms and boundary-spanning roles that meditate among the four sectors can be fostered in the context of Tigrai regional state.

The globally prevailing knowledge-based economy relies more on the intellectual capabilities of the human capacity (capital) than on physical inputs or natural resources, and hence the practical engagement of the intellectual society (scholars) is of paramount importance. One of the reason for the rapidly growing economy of countries like India, China, South Korea, etc. is the development of sound policies, platforms and reforms that enable the full-scale engagement/active involvement their scholars in general, and those in overseas (developed countries) in particular. Hence, this conference will also open several opportunities to practically engage Tegaru and Tigrai origin scholars in the ongoing developmental activities of the Tigrai region and beyond.

The Global Society of Tigraian Scholars (GSTS) will take a leading role as one organizer of the international conference by playing a significant part in the initiation, organization and management of the conference. GSTS as a not-for-profit, non-political and non-religious professional organization focuses on academic, research, technology/knowledge transfer/exchange/, knowledge creation/ diffusion and innovation, industry, knowledge-driven services and related issues. Founded in 2013, GSTS has currently more than 900 scholars in its electronic data-bank and more than 650 of these are of second degree and above academic rank holders, more than 250 with Doctorate/PhD. GSTS through its membership constituting of students, educators, intellectuals, high level technicians etc. strives to empower the scientific, technological, research and academic endeavours of our region and nation by serving as platform for scholars both in Tigrai/Ethiopia and those in abroad. Majority of these scholars are from high demand fields such as basic sciences, technology/engineering, medical sciences, economics, information communication technology (ICT) etc. The largest share of these scholars resides in overseas endowed with solid experiences, talents, exposures and world class positions. In addition to the preparation that leads to the conference, GSTS in tandem with all stakeholders will contribute to the post-conference follow-up and implementation of the outcomes. Hence, this conference is also believed to serve as a platform to bring all these and other scholars, share their talents and experiences, and take practical engagements to support their region (Tigrai regional state) and its people.

2. Consensus as Conference Mission

The overall mission of the conference is to bring about a consensus among the intellectual, political, economic and social elites of Tigrai with regard to the opportunities and challenges of realizing a holistic sustainable economic, social and environmental development of the
region. The most critical avenues for action to be agreed upon during the grand conference will be documented in the form of a consensus report. The regional government will play an important role of giving its endorsement to the consensus report and its practical implementation. There will be a number of missions following the first grand conference and between subsequent conferences. An educational packet based on that report will be prepared and made available to every organization, schools and other bodies so that the people and students can learn the basic elements of the consensus. Famous artists and celebrities will be mobilized to go on media in and outside Tigray to promote projects to be developed in line with the consensus that cumulatively, in the long run, will help in setting the region on a sustainable development trajectory. This will involve on one hand promoting the rich history of the region including traditional knowledge such as the Geez literature, while embarking on a socio-economic transformation of using cutting-edge technologies in different areas of the economy by capitalizing on Tigray’s absolute and comparative advantages. This systematic and broader approach is adapted from the process and experiences followed by developed countries such as Sweden when they developed their national consensus.

3. Conference Goals and Objectives

The overall goal of the conference is to seek a well-functioning quadrilateral relationship among the four sectors with all-inclusive consideration of the natural resource management/environment sector with the goal of creating a knowledge-driven economy in Tigray by 2030, in line with the sustainable development goals (SDGs) of UN-2030. The specific objectives of the conference include:

- Developing indicators of successful actual interactions among the four parties and the natural resource management/environment and identifying the specific actors within each sector
- Identification of the absolute and comparative advantage as well as gaps and challenges of Tigray nationally and globally
- Developing a list of successful outcomes of the interactions in the quadruple helix relationship
- Establishing a model of sustainable relationships between the four sectors based on planned interaction and goal of achieving a knowledge-driven society as well as economy
- Determining the drivers of the interaction by focusing on how the interaction will evolve over time and thereby applied in the perspective of the region
• Establishing regional/international task forces and relevant working forces based on the outcomes of the conference from all sectors, and accompanying follow up mechanisms to evaluate the progress of agreed working plans.

4. Conference Organizing Bodies

The major organizing bodies of the international conference will be the Tigray regional state government and its bureaus/offices, Tigray based (local) universities, private and non-private industries and endowment firms (REST, TDA etc.), civil society organizations and the Global Society of Tigrayan Scholars (GSTS). Though their detailed roles and responsibilities will be detailed later, their specific functions could be generally highlighted as follows:

4.1. Government: Tigray Regional State Government

Though initiated by the international society of Tigrayian scholars, the conference is going to be hosted by the Tigray regional state government. Hence, the regional state government and its bureaus/offices as well as local universities are going to be the major financing bodies of the grand conference. In line with this, it will be the responsibility of the regional government to establish the conference board, local organizing committee and thereby oversee the overall process and nature of the conference from the preparation to its post-conference activities and implementation phases. An important role of the regional state government is to help establish a sustainable structure and resource base to run the grand conference as a regular conference that will monitor the promises and achievements of preceding conferences.

4.2. Industry: EFFORT and Private Industries

As sources of industrial, urban and other facets of R & D, and as test bench of important elements of the expected outcome of the grand conference, industries will play a role along the life cycle of the grand conference. Besides to serving as committee members at various stages of the organization of the conference, the industries will be responsible for arranging organized visits, and thereby demonstrate their technologies, challenges, gaps, and areas of collaborations with the conference participants. Moreover, they are expected to sponsor part of the conference events/programs, sessions etc.

4.3. Academia

This has two elements namely: Tigray-based institutions of higher education (Universities) and the Global Society of Tigrayan Scholars (GSTS).

4.3.1. Academia: Tigray-based higher institutions (Universities)

The local universities will be the intellectual backbone of the grand conference. They will be the sources for identifying specific areas of interest to be discussed in the conference as well as
follow-up discussion on establishing permanent bodies responsible for taking the outcome of the conference to the next level. In addition to leading the scientific and local organization of the conference, they will be responsible for preparing post-conference events in their respective universities. Moreover, they are expected to sponsor/finance part of the conference events in various ways. The coalition of the academia could be led by Mekelle University (MU).

4.3.2. Academia: The Global Society of Tigrayan Scholars (GSTS)

GSTS will be mainly engaged in mobilizing and reaching out the necessary human capital (mainly Tigrayan and other scholars) serving as an input for the conference and post-conference activities, document best practices around the world. It will also serve as main actor in the organization of the conference (as part of the scientific advisory board, scientific committee and other related organizing bodies), and also in identifying specific areas of interest for the discussion/presentation along with the local universities. Though the majority of GSTS members lie in the academia sector, there are many from various sectors such as from the industry, government bodies, civil societies etc., and in this regard, they may be regarded as GSTS academia, and when needed, they will be sorted out to be aliened to the different sectors. In addition to all GSTS registered scholars, those Tigrayan intellectuals in other federal and private higher institutions out of the Tigrai regional state in Ethiopia and in overseas could be included in this academia.

4.4. Civil Society Organizations (CSOs)

This group includes REST, TDA and other local civil society organizations focusing on different sections of the society such as women and youths. These organizations play a key role in mobilizing resources for routine development activities and as well as for responding to emergency situations of different types. CSOs will be represented in the organizing committees and will bring their unique voices and contributions to the conference and post conference elements.

5. Conference Structure and Deliberation Forms

The Tigrai regional state government will present the overall developmental strategies and policies covering areas of focus, and future engagement directions of the different sectors. Tigrai based public universities, private and public industries, civil societies and related sectors will also deliver their institutional capacities, enlisting their potential and areas of competences, opportunities and limitations/challenges with clear indication for the post conference intervention and collaboration schemes with the different stakeholders. As Tigrai is endowed with highly talented indigenous knowledge, the scaling up of these best practices within the communities, from south to north and from east to west will be taken into account.
The conference will have plenary and keynote addressing sessions for overarching themes and several parallel sessions for different streams that will be organized based on a problem-solving as well far-reaching perspectives that caters to current and foreseeable challenges with concrete recommendation on accompanying innovative solutions pertinent to the specific situation in the region.

Papers to be presented in different sessions and plenary speeches to be held will have either the focus on the absolute and comparative advantages of Tigrai or lessons to be learned. Proposals and concept notes will also be accommodated in roundtable/panel discussions and in other form of the event.

5.1. Conference Leading Questions

The conference themes and sessions will be developed in such a way that the overall outcome contributes in addressing at least the following overarching questions:

- What does an effective working quad-helix relationship look like in the specific context of Tigrai? What is the current status?
- What are the absolute and static/dynamic comparative sector and commodity-wise advantages of Tigrai in view of both national and global perspectives? Where is Tigrai now in these areas? What should be done to exploit them to their full and advanced scale?
- What is the status of the academia and R&D in Tigrai? Where do we want it to be in 2030? What enabling conditions can be created through a working quad-helix relationship?
- What is the status of the industry and businesses in Tigrai? Where do we want it to be in 2030? What enabling conditions can be created through a working quad-helix relationship?
- What is the status of the public sector in Tigrai? Where do we want it to be in 2030? What enabling conditions can be created through a working quad-helix relationship?
- What is the status of the civil society in Tigrai and those Tigrai affiliated in overseas? Where do we want it to be in 2030? What enabling conditions can be created through a working quad-helix relationship?
- What is the status of natural resources, natural resource management, agriculture, environment etc. in Tigrai? Where do we want it to be in 2030? What enabling conditions can be created through a working quad-helix relationship?
- What is the status of the infrastructure sector and service delivery (such as water & electric supplies, road development, waste management) in Tigrai? Where do we want it to be in 2030? What enabling conditions can be created through a working quad-helix relationship?
• What is the degree of participation of Tigraian scholars/intellectuals those both residing in and outside Ethiopia? How can Tigrai benefit from these untapped minds in the context of implementing the above agendas or strategies? What are the opportunities and challenges with the full-scale engagement of scholars in and outside Ethiopia?

Sessions will also cater to the status, productivity and potential contribution of Tigrai scholars in the region/national development. The conference will bring about an understanding and crafting strategies to exploit the comparative advantages of Tigrai and how to fully leverage on them.

5.2. Main Presentation Forms

The conference will have many forms of presentations including:
- Paper presentation sessions on various issues and forms
- Symposiums
- Interactive roundtable/panel discussions
- Interactive showcases, posters, gallery sessions, exhibitions
- Workshops
- Flipping sessions and others

A detailed working guideline and areas of interest will be worked out by the programme and scientific committees following discussions with all involved stakeholders and target groups.

5.3. Sessions of the Main Conference

As outlined above, the Quo Vadis Tigrai grand regional conference aims to develop a new "blueprint" for more effective synergy and functioning relationship among the four actors to rapidly transform the ongoing economic development in a more sustainable and scientific way. Accordingly, it will have sessions targeting at creating a renewed road map for an enabling policy and well-functioning institutional platform and forum among the four major parties in order to fast-track the ongoing socio-economic development, lessons and best experiences to be learned from various regions of the word. More technical and scientific presentations and networking activities will be also carried out.

6. Conference Thematic Areas

As mentioned above, the conference thematic areas will focus on a wide-spectrum of issues including providing responses to the above and related questions and presenting lessons to be learned for gauging the future directions of Tigrai in purposely prioritized areas. These specific thematic areas will be identified once all the necessary preliminary organizational steps are finalized. However, they will heavily focus on critically identifying the absolute and comparative advantages of Tigrai from both national and global perspectives and thereby infer workable
organizational and implementation structures as well as monitoring systems. To be more indicative, it will include: education, innovative technology, R & D, establishing high-tech knowledge hubs, energy, urban development, indigenous knowledge, technology/knowledge transfer/diffusion/exchange, science/knowledge/driven economy, Information Communication Technology (ICT) and its applications, agriculture, advanced health care, good governance and justice, youth and women empowerment, heritage and culture, illegal migration, brain drain of Tigraian scholars, industrialization/manufacturing, Public-Private Partnership, tourism industry, natural resource management/environment, mining, entrepreneurship, media and advocacy, institutional academic/business linkages and partnerships etc.

The scientific committee that will be formed soon will set various sectoral (profession-based) teams that will work on the details of the conference thematic areas in consultation with the conference and scientific advisory boards.

7. Conference Outcomes and Post-Conference Results

This conference is believed to be a game changer platform, a means of solving societal problems via introduction of innovative and scientific-based solutions, ultimately resulting in a sustainable and knowledge-driven development. It will lead to practical actions, and chain of other conferences that address topical and timely issues, and in this context, the conference is not an end by itself.

In addition to the conference proceedings, roadmap and practical engagement indicator documents that highlight recommendations for each of the four sectors will be produced. The roadmap documents, among other things, will contain sectors, services, areas, technologies that will give Tigrai a comparative advantage in the federal as well as global context. The conference will also generate a document on elements of effective quad-helix relations that would potentially be used by the regional government for implementing recommendations. The expectation is specific collaborative projects and clear working roadmaps that lead to actions will be developed based on the recommendation documents and conference reflections. Based on group and plenary consultations, the establishment of dedicated working groups/task forces will be considered. In terms of overall outcome, the cumulative decision of the conference participants and individual action items will be followed through developing a progressive monitoring system that will be adopted at the end of the conference.

As one important result following the conference, specialized (professional) think-tanks comprising of high profile scholars living both in Ethiopia and abroad on purposely selected targeted areas such as health, ICT, science and technology, developmental policy, education, military, R & D, energy etc. shall be created.
A second important result will be related to the establishment of special scheme for the collaboration of scholars abroad in areas such as joint research with local universities and industries, consultation to industries/government offices and civil societies etc. This will include introduction/transfer of new and adaptable technologies, establishment of green corridors for joint ventures in high-tech areas such as information technology, emerging technologies (biotechnology, energy, nanotechnology, materials science etc.), health-promoting technologies, heavy manufacturing/mining industries, environment and sustainability related technologies, establishing knowledge and state-of-the-art regional research hubs, science museum, digitalizing hawelti semaat of Tigrai, Science, Technology, Engineering, Arts and Mathematics center (STEAM) and/or science and technology and smart cities in Tigrai etc.

8. Conference Organization

The conference will have an organizing committee and a scientific committee. Membership of the organizing committee will reflect representation from the different sectors of the quad-helix relations as well as scholars from abroad. Different fields of studies from natural sciences, social sciences and humanities etc. will be represented in the scientific committee. The conference organizing committee will have sub-committees dealing with different aspects of the organization such as logistics, advocacy, mobilization, technical etc. A conference board with high-level representation from the four sectors and the scholastic society will oversee the strategic aspects of the conference and its sustainability. See Figure 1 for a schematic structure of the conference organization.
8.1. Conference Board
The Quo Vadis Tigrai conference board consists of representatives from all stakeholders at the highest leadership level. This is recommended to be established by the Tigrai regional government. This body gives an overall guidance and makes decision of strategic values.

8.2. International Advisory Committee
This refers to an international committee consisting of high profile senior researchers, industrialists and professionals working in various organizations in fields related to the conference thematic areas and related items. This could have up to 25 members. It generally:

- Makes recommendations to the international scientific committee in regards to identifying thematic areas for conference, topical priorities within the themes/sub-themes, formats for programs, and guidelines and evaluation mechanisms etc.
- Advise the conference organizing committee on planning, logistics etc.
- Develops operational guidelines for post-conference activities in consultation with the conference board and the international scientific committee.

8.3. International Scientific Committee
The scientific committee comprises of high profile scholars from all fields and is responsible for the day to day overall conference scientific related operations. It will have a maximum of 50 members, who must be active researchers in their field of expertise, and should be selected so as to provide a balance among diversified disciplines. The committee will act independently from the conference organizing committee. The scientific committee will be responsible for:

- Selection/decision on conference themes and choice of type of sessions (in consultation with the scientific advisory board)
- Decide and invite plenary, keynote and other categories of speakers
- Advertise and send calls along with clear guidelines and time tables
- Route concept notes and/or proposals for roundtable/panel discussions to qualified reviewers
- Determine speakers based on blind reviews of abstracts, proposals, concept notes etc. and maintain the list of accepted/rejected papers and accordingly notify to authors
- Design the conference program and circulate preliminary schedules among conference board, scientific advisory members, and conference organizers
- After having and integrating feedbacks, it sends the program to the conference organizer, authors, and webmaster for posting
- Identify chairs, vice-chairs and panellists for the presentations etc.
8.4. Conference Organizing Committee

This committee consists of a team of local and international individuals who will be actively involved in the planning, preparation, and on-site execution of the conference. The committee should ensure adequate secretarial and administrative support from the conference board and international scientific advisory committee. The conference organizing committee shall establish appropriate sub-committees to carry out various tasks such as registration, providing documented information for participants such as accommodation, travel tips, room mentoring, equipment/technical support, stage moderators, music/entertainment sessions etc.

9. Conference Financing and Budget

As mentioned in section 9, the main financing body is the regional state government of Tigrai as it is the host of the grand conference. Besides, local universities and industries could sponsor various sessions, and programs of conference. The detailed financing mechanism and budget breakdown will be drafted after consulting the regional government and other major stakeholders.

10. Conference Timing, Duration, Venue and Working Language

Though the number of conference days will be subject to volume of the thematic areas and topics, tentatively five to seven days for the main conference are recommended and will be held between end of July to end of August, 2018, potentially coinciding with the international Tigrai festival in Mekelle-2018. With the exception of purely scientific presentations and talks that will be delivered in English, the conference will be largely in Tigrigna. The conference preparation and execution timeline is as provided below. Draft list of deliverables along with their timelines is provided in Table 1. It has to be noted that the detailed schedule within this table applies only for the scientific committees and the detailed working plan of the local organizing committee and its sub-committees will be drafted by the committee itself.
<table>
<thead>
<tr>
<th>Deliverables</th>
<th>Proposed/Tentative Timelines</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>April</td>
<td>May-June</td>
</tr>
<tr>
<td>Sharing finalized proposal with Tigrai regional government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consent from Tigrai regional government</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishment of conference board</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formulating or endorsing Term Of Reference (TOF) of the different organs and activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishment of scientific advisory board</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishment of local organizing committee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Establishment of scientific committee</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identification of main conference thematic areas, post-conference and side line events</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Call for abstracts, proposals and invitations for plenary and keynote presentations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Notification of accepted abstracts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Programme schedule (draft) release</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final programme schedule announcement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submission of full presentations of speakers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conference time</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. List of draft deliverables and their operational timelines

11. **Sustainability of the Conference**

In line with the purpose of monitoring and follow-up of decisions and gauging progress made, the conference is proposed to be held every 24 months to 30 months in synchronization with the midterm or end of the five-year planning cycle of the country/region and progress evaluation of the UN-2030 sustainable development goals (SDGs). For example, the next (second) conference is proposed to be at the end of GTP II in 2020. Organizational and funding structure that will ensure the regularity of the conference should be agreed upon through a proposal that will go through the Conference Board and Scientific Advisory Committee.
12. **Sideline and Post-Conference Events**

As a side event of the main conference, targeted tours to nearby industries, development projects, and universities will be arranged. The timing for this side event will be decided later following discussions with the regional government, conference board and advisory committee members. After the main regional conference, additional set of activities in the Tigrai based universities, such as professional seminars, panel discussions, workshops, joint research proposal and work initiatives, etc. will be organized. During this session, scholars from different countries will get the opportunity to provide capacity building trainings, share their research works/experiences, and stimulate collaborations at individual, department, faculty or university levels.

13. **Conclusion**

The proposed international conference of Tigrai-2018 will be organized as a game changer event towards setting far-reaching and sustainable developmental strategies, implementation mechanisms and monitoring systems benefiting from large scale user and knowledge-derived engagements of all the above-mentioned actors. It will bring all the crucial vectors of modern and sustainable development, such as policy/decision makers, academics and research centers (Universities), private and public industries/sectors, entrepreneurs, world-class intellectuals/scholars of diversified expertise and exposure/experience, civil societies, farming communities etc. together under one all-unified platform.

By the end of the conference, properly identified and practical enabling engagements on the full scale synergetic alliance of the stakeholders, and the exploitation of science and technology to support the regional development will be sorted out. This will play a key role in paving the way for setting fundamental infrastructures and knowledge hubs as well as advanced training centers based on the outcomes of the conference. More sounding workable institutional linkages/collaboration packages, high-level engagement schemes of scholars etc. will be identified. The conference will enable to evaluate progresses, identify challenges/gaps, and thereby set innovative solutions and sustainable as well as far-reaching alternatives with multiplying effect. For the proper execution, tasks forces, carefully designed plans, and follow up as well as monitoring systems and guidelines will be drafted as preparation to the conference, during the conference and after the conference.
Annex(s)

I. Conference Audiences, Target Groups and Potential Stakeholders

The international conference will provide a forum for academia, businesses, government offices and civil societies to come together in briefly reviewing the past twenty plus years’ journey of the region taking stock of its present situation objectively, and charting the next fifteen years through the lenses of different fields of studies from the natural and social sciences; and humanities as well as model experiences from developed countries. Stakeholders and participants of the conference include (but are not limited to):

- Tigray regional government and its bureaus and offices
- Tigrai-based universities, and public colleges and selected high schools
- Tigrai Policy Implementation Research and Study Think-Tank (TPIRST)
- The Global Society of Tigrayan Scholars (GSTS)
- EFFORT, REST
- TDA international and its chapters
- Tigrai Intellectual Society (TIS) (Addis Ababa & surroundings)
- Research and Education Advancement through Partnership (ED-REAP)
- Selected private universities, colleges, preparatory and high schools etc.
- Ethio-Witten (Association of Ethio-Germany Medical Doctors)
- Ethiopian Foreign Ministry and its missions abroad, Ethiopian Airlines etc.
- All federal ministries, agencies and other related bodies to the conference
- Private Industries
- Farming communities
- Societies/Unions, Alumni, developmental associations etc.
- Local communities (as source of indigenous knowledge)
- All private and non-private media outlets
- Defence Engineering
- Ethiopian Metal and Engineering Corporation (METEC)
- Information Network Security Agency (INSA)
- Information and Communication Technology and Development Agency (ICTDA)
- Global Knowledge Exchange Network (GKEN)