Welcome to Timor Leste!

The total land area: 14,862 Km²
Roman Catholicism (96.9%)
Timor-Leste National Action Plan to Accelerate Science, Engineering, Technology and Innovation

Content

- Country’s Policy related with SETI
- NAP
- SETI Capacity in Timor-Leste
- Challenges and Opportunities
- Recommendations and alternatives

Country’s Policy Related SETI

Ministry of Education to Council of Ministry (CoM) and Approved on February 27, 2008

- Reform of the education System
- Reform of Education Management

National Institute of Science and Technology

- In Partnership with government to promote, monitor, evaluate and articulate the incorporation of annual plans in the area of science and technology with those related to TL’s SDP 2011-2030
- Provide capacity building, promote and create the reinforcement of the infrastructure in support of scientific research and technological development in higher institutions
- To promote dissemination of the culture, scientific and technological education and provide data and information of National interest. (Decree Law No 23/2-14)
In terms of the National Action Plan a proof by Parliament of Timor Leste is SDG number 2, 3, & 9.

- Nutrition, Health, Infrastructure (2008 Focus)

**TL 2017 SDG Focus**

**SDG Related with SETI**

- Goal 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 7: Ensure access to affordable, reliable sustainable and modern energy for all
- Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster Innovation
Timor-Leste National Action Plan to Accelerate Science, Engineering, Technology and Innovation

AP-FAST related to SDG

SETI related to SDG 9

9.4 - Upgrade infrastructure, increased resource-use efficiency, greater adoption of clean and environmentally sound technologies.

9.5 - Enhance scientific research, upgrade the technological capabilities, encouraging innovation and increase the research number.

9.a - Facilitate sustainable infrastructure development through enhanced financial, technological and technical support.

9.b - Support domestic technology development, research and innovation.

9.c - Increase access to information and communications technology and internet.

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Timor-Leste’s National Action Plan

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OVERVIEW
BACKGROUND
STRATEGIC DEVELOPMENT PLAN

PART 2 SOCIAL CAPITAL
EDUCATION AND TRAINING
HEALTH
SOCIAL INCLUSION
ENVIRONMENT
CULTURE AND HERITAGE

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ROADS AND BRIDGES
WATER AND SANITATION
ELECTRICITY
SEA PORTS
AIRPORTS
TELECOMMUNICATIONS

PART 4 ECONOMIC DEVELOPMENT
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PETROLEUM
TOURISM
PRIVATE SECTOR INVESTMENT

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SECURITY
DEFENCE
FOREIGN AFFAIRS
JUSTICE
PUBLIC SECTOR MANAGEMENT AND GOOD GOVERNANCE

PART 6 ECONOMIC CONTEXT AND MACROECONOMIC DIRECTION

PART 7 CONCLUSION AND STAGING OF THE STRATEGIC DEVELOPMENT PLAN
Timor-Leste National Action Plan to Accelerate Science, Engineering, Technology and Innovation

- SETI Development based on SDP

  Innovation Technology
  ✓ E-health
  ✓ E-Government
  ✓ E-Services

- Capacity of SETI at Timor Leste

  Current condition related to SETI → SDG
  - 11 Higher Education
  - National Center of Scientific Investigation (CNIC)
  - National Institute of Science and Technology (INCT)
  - Research Results: Annual publication @ Revista Cientifica
Example: Capacity of SETI at FoEST-UNTL

Human Resources for SETI → SDG

<table>
<thead>
<tr>
<th>No</th>
<th>Education Background</th>
<th>Grad</th>
<th>Total Lectures</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>2017</td>
</tr>
<tr>
<td>1</td>
<td>Doctoral program</td>
<td>S3</td>
<td>8</td>
</tr>
<tr>
<td>2</td>
<td>Master Program</td>
<td>S2</td>
<td>60</td>
</tr>
<tr>
<td>3</td>
<td>Bachelor Program</td>
<td>S1</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>Diploma Program</td>
<td>D3</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Total Lecturer of FoEST-UNTL</td>
<td>82</td>
<td>86</td>
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Facility for accelerating SETI in TL

Quality of Education

- Increase the quality of education
  - Pre-primary to Universities
  - Quality of educators

- Capacity building
  - Focus areas
  - Applied science, engineering and technology

- Non-formal education
  - Management
  - Industry
  - Commercialization

- Infrastructure support
  - National library
  - National laboratory
  - Technical standards facilities
  - Power energy, water and sanitation
### SWOT ANALYSES

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ 11 Higher Education</td>
<td>✓ Lack of SETI Capacity at Human Resources</td>
</tr>
<tr>
<td>✓ National Center of Scientific Investigation (CNIC)</td>
<td>✓ Lack of infrastructure on SETI</td>
</tr>
<tr>
<td>✓ National Institute Science and Technology (INCT)</td>
<td>✓ Lack of Funds</td>
</tr>
<tr>
<td>✓ Research Results: Annual publication @ Revista Scientifica</td>
<td>✓ Strict bureaucracy on procurement</td>
</tr>
<tr>
<td>✓ SDP 2011 - 2030</td>
<td>✓ Low urban plan</td>
</tr>
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<table>
<thead>
<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Aid Development Agencies</td>
<td>✓ Innovation is very low based on limited</td>
</tr>
<tr>
<td>✓ Fulfill ASEAN requirements</td>
<td>facility of laboratory</td>
</tr>
<tr>
<td>✓ To Achieve SDG Target</td>
<td>✓ Poor Contribution for SDG</td>
</tr>
<tr>
<td>✓ No longer fragile state</td>
<td>✓ Lack of experts related of SETI</td>
</tr>
<tr>
<td></td>
<td>✓ Cyber Crime</td>
</tr>
</tbody>
</table>

### Recommendations

✓ Cyber security for country
✓ Urban Plan related for green environment
✓ Establishment of National laboratory standardization
✓ Establishment of National Scientific Publisher
✓ Establishment of R&D for all SETI related institutions
✓ Keeping education and research relevant
✓ Capacity Building of Human Resources (Researcher, Scientist, Technician)
✓ Promote and maintain strong organizational excellence and sustainability of innovation and entrepreneurship
The capacity of the SETI to improve their knowledge base on the research and economy situation is limited by deficiency of good infrastructure arrangements. This includes not only hardware such as roads, water and sanitation but also software i.e. Systems for maintaining them. Electricity, telephone and information communications technology (ICT) systems have become the subject of national debate, yet not much of it has controlled to the improvement of the systems.
## SETI Development based on SDP

Social Capital and Infrastructure Development

- Education and Training
- Road and Bridge/ **ESTRADAS E PONTES**
- Water and Sanitation/ **ÁGUA E SANEAMENTO**
- Electricity/ **ELECTRICIDADE**
- Marine Airport/ **PORTOS MARÍTIMOS**
- Airport/ **AEROPORTO**
- Telecomunication/ **TELECOMUNICAÇÕES**
- E-health, E-Budget

*Source: Strategic Development Plan*