

# **“Accelerating transition to a carbon neutral and sustainable future”**

**T20 Japan TF3 (Climate and Environment)**

**Prof. Kazuo Matsushita**

Lead co-chair of TF3

Professor Emeritus, Kyoto University

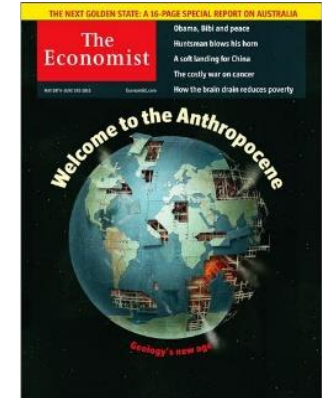
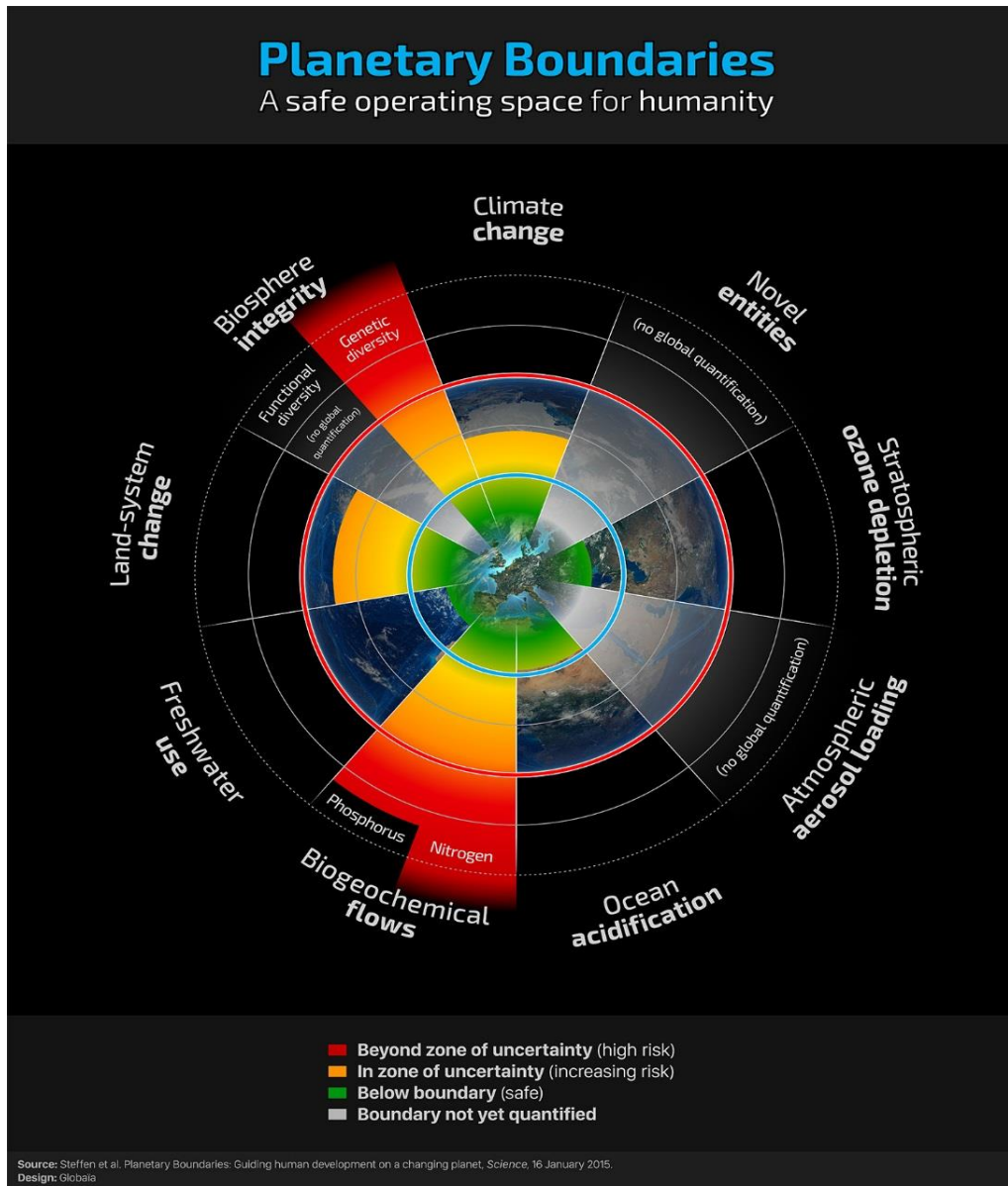
Senior Fellow, IGES

# Challenges

- We are in the **Age of Paris Agreement and SDGs**.
- G20: Work together to realize Paris Agreement, challenge energy and economic transition to a decarbonized and sustainable society, while improving peoples' welfare.
- Proper **policy interventions** such as setting **ambitious targets**, providing proper **economic incentives**, and **regulatory measures** based on sound analysis are required→Role of T20/TF3

# Preconditions in the 21<sup>st</sup> Century

## - Planetary Boundaries -



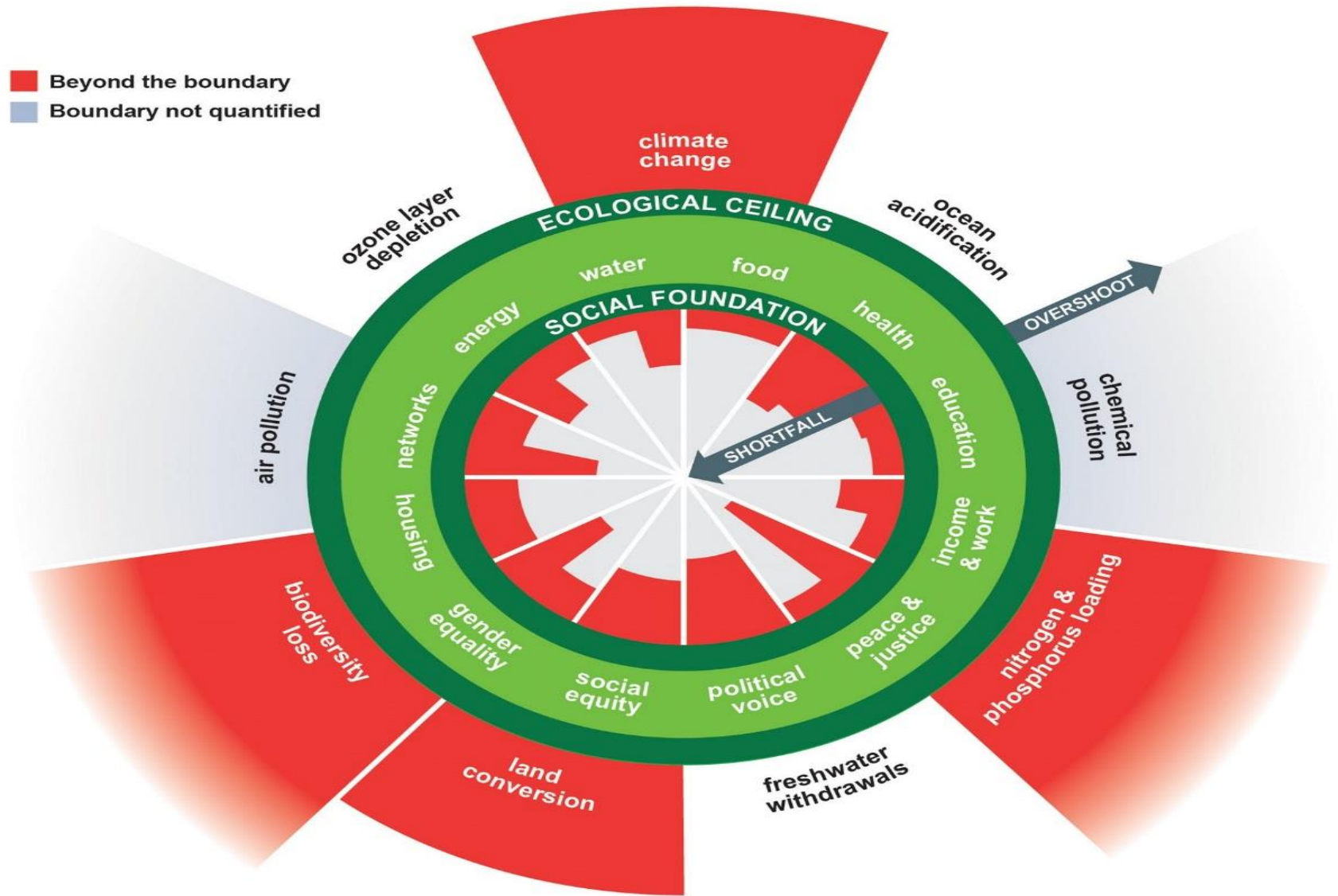
⇒ from Environmental Problems to Earth System Transformation  
c.f. Anthropocene  
(Crutzen 2002)

Steffen et al.,  
Science  
(2015)

# Donut Economy: The safe and just space for humanity.

Source: Kate Raworth, 2012

## Ecological Ceiling & Social Foundations



# Role of T20

- The primary goal of the Think 20 (T20): to develop, research-based policy recommendations to enable a broader vision in directing the G20 policy making process.
- T20' s mission is to think, produce evidence and actively look for new solutions in order to achieve an economically prosperous, environmentally sustainable and socially inclusive future.

# 2019 Think20 (T20) Japan

- Organizers:
  - Asian Development Bank Institute (ADBI) (main)
  - Japan Institute of International Affairs (JIIA)
  - Institute for International Monetary Affairs (IIMA)
- T20 Process:
  - Each TF will develop several policy briefs
  - TF summary and policy proposals based on policy briefs
  - Based on a set of TF summaries, T20 Report will be developed and submitted to the G20
- <https://t20japan.org/>

# Task Forces of Japan T20

- TF1: 2030 Agenda for Sustainable Development (JICARI)
- TF2: An International Financial Architecture for Stability and Development(IIMA)
- TF3: Climate Change and Environmental Issues(IGES, MRI)
- TF4: Economic Effects of Infrastructure Investment and its Financing (ADB)
- TF5: Cooperation with Africa (AfDB Tokyo Office, JICARI)
- TF6: Social Cohesion, Global Governance and the Future of Politics(JIIA)
- TF7: Future of Work and Education for the Digital Age (ADB)
- TF8: Trade, Investment and Tax Cooperation (RIETI)
- TF9: SME Policy faced with development of Financial technology (RIETI)
- TF10: Aging Population and its Economic Impact (ADB)

# Japan T20 TF3

## Climate Change and Environment

### (1) Co-chairs:

Prof. Hiroshi Komiyama (MRI, Japan, Former President of Tokyo University)

Prof. Kazuo Matsushita (IGES, Japan) Lead Co-chair

Prof. Miranda Shreurs (Technical University of Munich, USA/Germany),

Mr. Gabriel Lanfranchi (CIPPEC, Argentina)

Dr. Ajay Mathur (D-G, TERI, India)

Prof. John Kirton (University of Toronto, Canada)

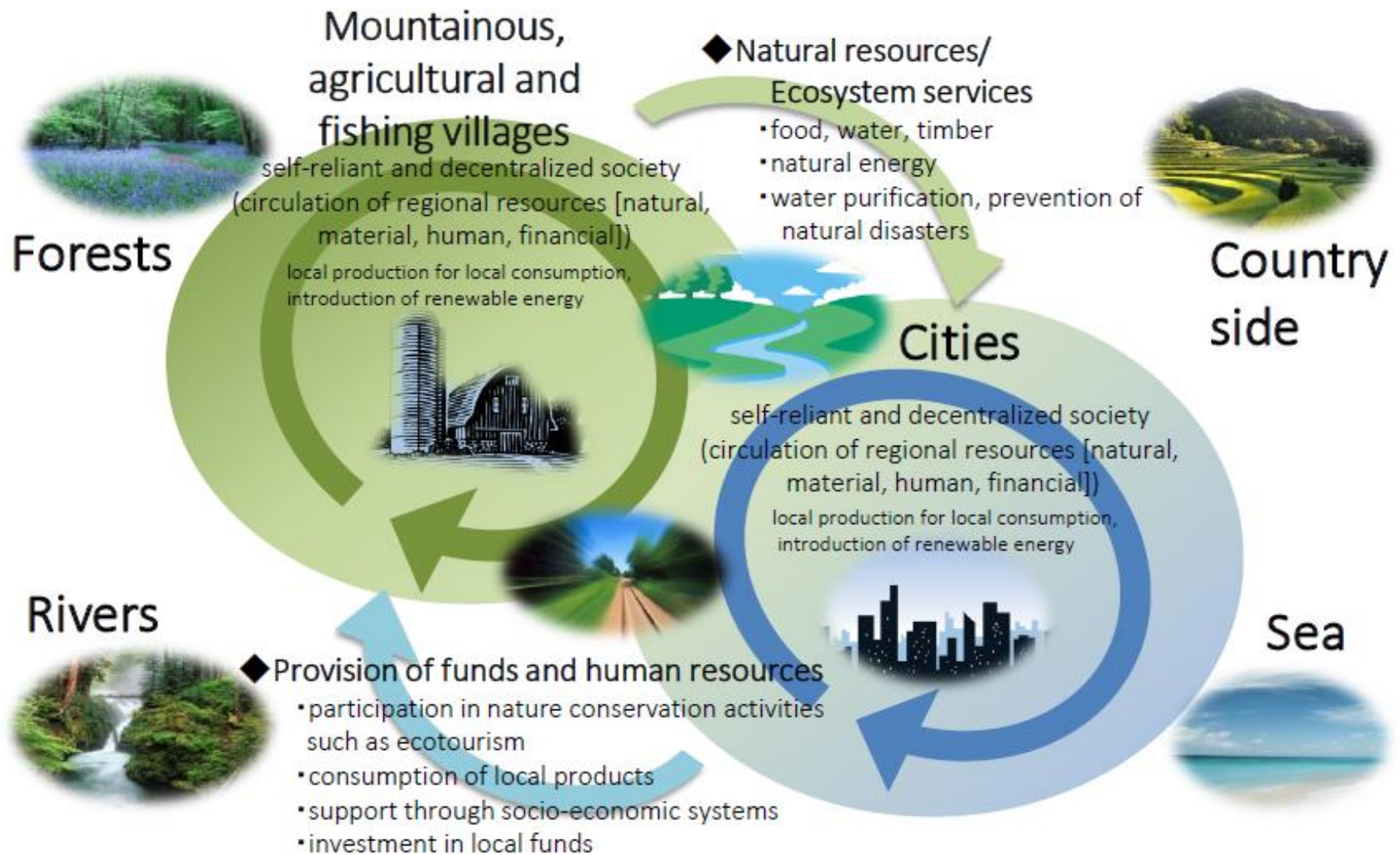
### (2) Policy Briefs Framework and Possible topics:

GoJ has put forward the concept of a **Regional Circular and Ecological Sphere (Regional CES)** in 2018 Fifth Basic Environment Plan as key to realize a paradigm shift towards a sustainable society, fully compatible with the Paris Agreement and the SDGs.

1. Constructing inclusive, prosperous and sustainable future
2. A decarbonized and climate resilient society
3. Resource efficiency and circular economy at multiple levels
4. Revitalising local economies utilizing local resources



## Basic Environment Policy Plan (2018, Japan)



## Regional Circular and Ecological Sphere (Regional CES)

# Policy briefs outline (1)

## 1. Constructing inclusive, prosperous and sustainable future

Inclusive and prosperous aspect of sustainable future underpinned by technological and social innovations.

① Establish a scheme that quantitatively predicts future technological and social innovation

## 2. A decarbonized and climate resilient society

① Scale up efforts to assist developing countries in providing climate risk information and capacity building for policy and project formulation

② Design rules under Paris Agreement to strengthen voluntary activities by each country

③ Wider application and strengthening of carbon pricing

④ Decarbonization of consumer lifestyle

# Policy briefs outline (2)

## 3. Resource efficiency and a circular economy at multiple levels

- ① Establish robust circular economy policies which covers whole life cycle of materials and products
- ② Identify the characteristic of product-service bundle that would reduce resource throughputs in each region
- ③ Economic instruments to incentivize circular economy acceleration have high potential for such policies

## 4. Revitalizing local economies utilizing local resources:

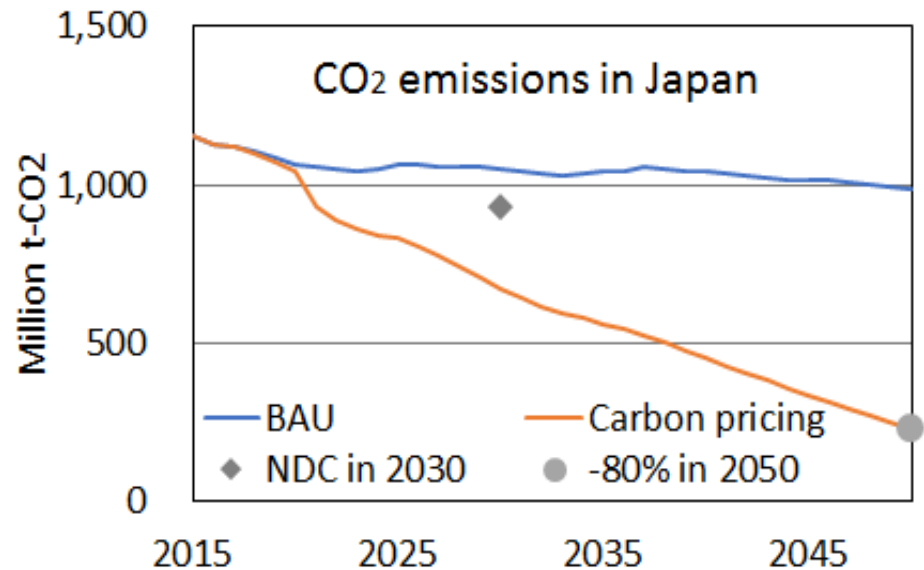
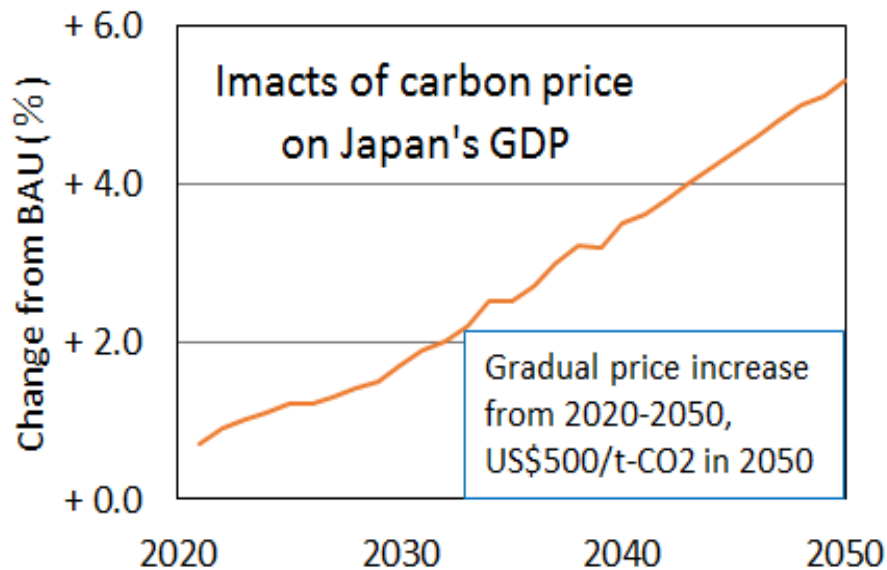
- ① Promote community-based renewable energy development
- ② Formulate the platform of multi-stakeholder dialogues for a multi-layered circulation of resources
- ③ Apply new wealth measurement in stock value to improve policy decision of local level resource allocation

# Policy briefs example

## A decarbonized and climate resilient society

③ Wider application and strengthening of carbon pricing:

**Proposal: G20 member countries should utilise carefully designed carbon pricing for facilitating and promoting the transition to low-carbon and/or carbon neutral society, without causing excessive economic shocks and negative social impacts.**



Source: Kojima S., Asakawa K., Lee S., Chewpreecha U., Suk S. (2018) A proposal of green tax reform towards realisation of long-term low carbon vision: An application of policy assessment based on back-casting approach. *Review of Environmental Economics and Policy Studies* 11(2): 82-86 (in Japanese).

# *Thank you for your kind attention!*

## References:

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- <https://t20japan.org/task-forces/climate-and-environment/>  
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<https://t20argentina.org/wp-content/uploads/2018/09/Communiqu%C3%A9-T20-Argentina.pdf>
- T20 Argentina 2018 Website <https://t20argentina.org/>