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Swiss Confederation

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State Secretariat for Economic Affairs SECO

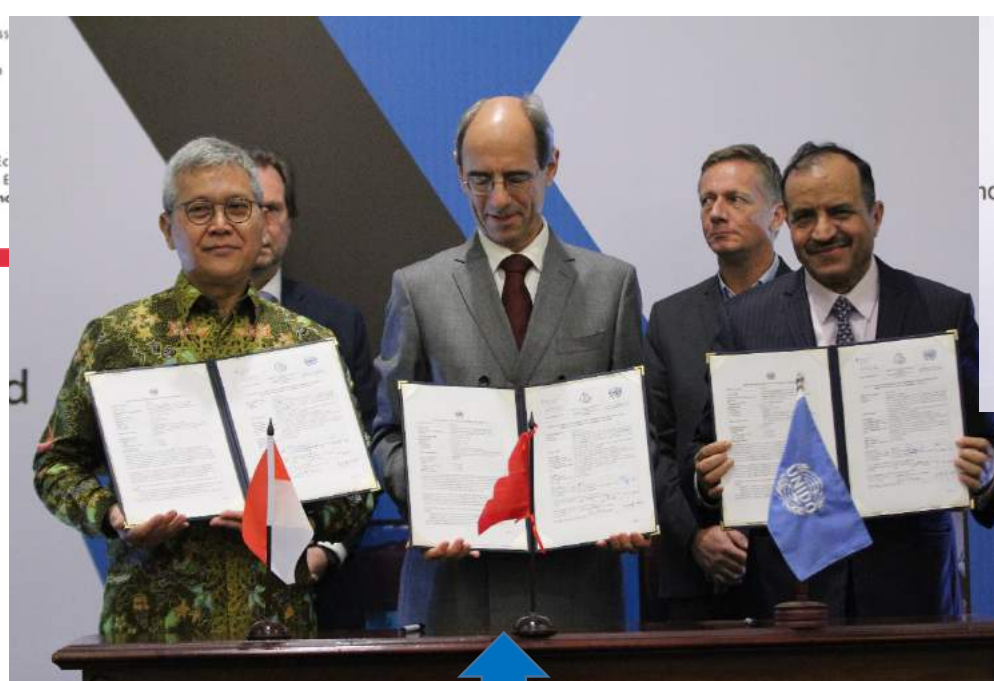


GLOBAL QUALITY
AND STANDARDS PROGRAMME
SMART-Fish II
Indonesia

DRIVING INNOVATION TO IMPROVE COMPETITIVENESS OF THE INDONESIAN SEAWEED INDUSTRY

Sudari Pawiro
National Chief Technical Advisor of GQSP Indonesia
SMART-Fish 2





LAUNCHING 4/7/2019

OVERALL OBJECTIVE

Market access for SMEs both domestically and internationally is facilitated as a result of strengthened and proven compliance capacity in quality and standards in the fisheries sector.

DONOR

Swiss Confederation, through the Swiss State Secretariat for Economic Affairs (SECO)

IMPLEMENTING AGENCY

United Nations Industrial Development Organization, UNIDO

COUNTERPARTS

Ministry of Marine Affairs and Fisheries (MMAF), BSN, Associations



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4 MINUTES VIDEO ON SEAWEED



FACTS ON SEAWEED IN INDONESIA

- ☐ Largest producer of tropical seaweed- around 10 million ton (wet)
- ☐ Economically important – source of income for around 500-600,000 people in coastal communities
- ☐ Foreign exchange earning – exports
- ☐ Sizeable seaweed processing industry (agar & carrageenan) - >50 plants employing over 3000 workers
- ☐ As source of food
- ☐ Contributing to better environment: absorb CO₂, reduce pressure on fish stock, potentially as material for bio-plastic and bio-fertilizer, biofuel, added into Cow's feed reduce methane





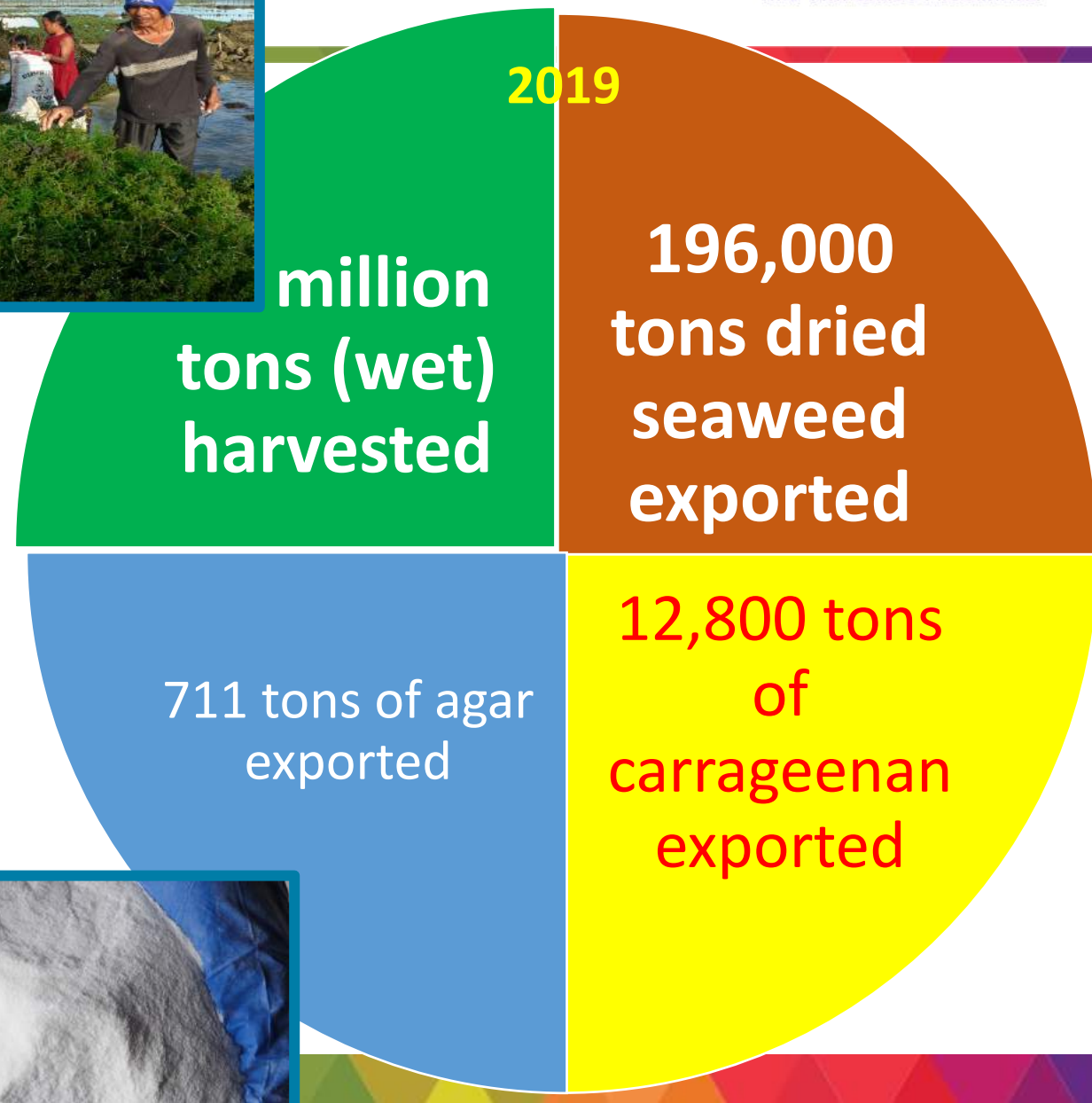
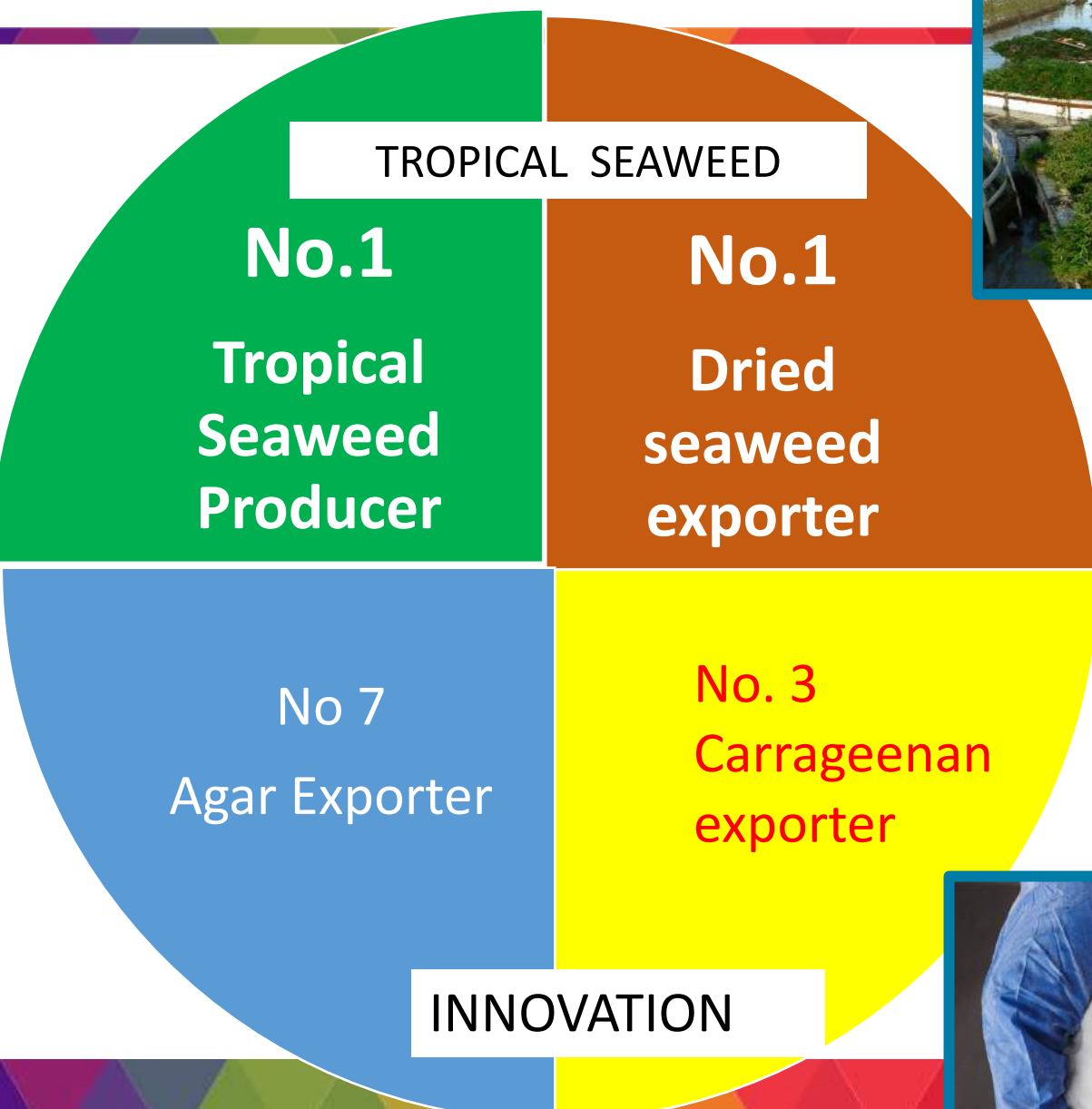
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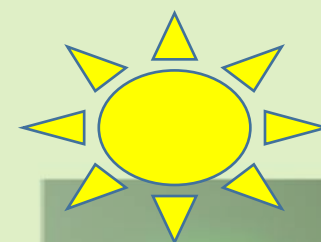
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Indonesia Seaweed Products

- Dried Seaweed
- Alkali Treated Seaweed (ATS) : spinosum, cottonii, gracilaria
- Alkali Treated Seaweed Chips (ATSC) : spinosum & cottonii
- Semi Refined Carrageenan (SRC), food & non food grade
- Refined Carrageenan (RC)
- Refined Agar
- Blended/Application Product
- Seaweed powder
- Edible Seaweed in various forms
- BioStimulant (fertilizer)
- Various Products from liquid & solid wastes
- Bio-plastic/bio-degradable packaging





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- ✓ There are many Gov. R&D Centres involved in seaweed under different ministries, Univ., agencies, but lack of coordination
- ✓ hundreds of new and innovative products from seaweed developed
- ✓ Disconnect with Industry – few are up-scaled into marketable innovative product

Main reasons:

- ❑ Products Developed may not match with the industry's needs
- ❑ Economically is not viable to be upscaled/produce at commercial scale
- ❑ Too expensive for investment
- ❑ Industry may not aware of what being developed by R&D centres



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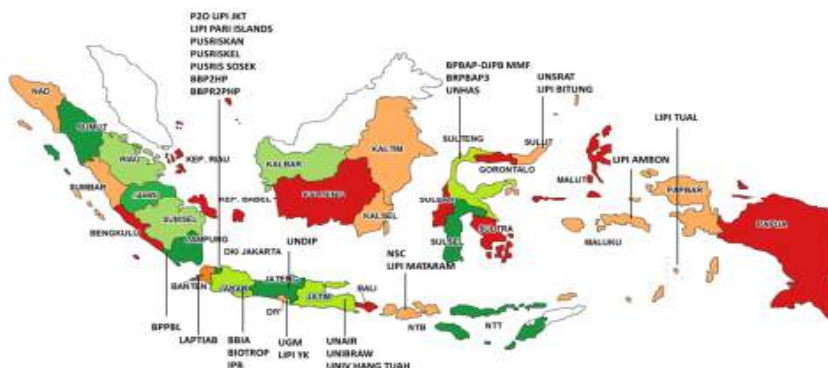
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REPORT

MAPPING FOR SEAWEED RESEARCH, DEVELOPMENT AND INNOVATION NETWORKS



Submitted to:

SMART-Fish Indonesia

Prepared by:

Ratih Pangestuti, Ph.D

Date: 5 March 2018

27 institutes focus on seaweed:

BPBAP Takalar; BRPBAP3 Maros;
BBPBL Lampung; BBRP2BKP Slipi
Jakarta; BBP2HP Setu Jakarta;
PUSRISKAN, PUSRISKEL;
PUSRISSOSEK, BPBL Lombok
(National Seaweeds Center)

BBIA Bogor

UNHAS, UNSRAT, IPB, UNDIP, UGM,
UNAIR, UNIBRAW, Univ. Hang Tuah

LAP TIAB Tangerang

P2O LIPI, PKSDMO Pulau Pari,
BBIL Mataram, LKBL Tual,
LKBL Bitung, PPLD Ambon,
BPTBA Yogyakarta

SEAMEO BIOTROP Bogor



* Most are government institutes except Univ. Hang Tuah

CONNECTING INNOVATION TO BUSINESS

- ✓ Improve coordination and collaboration among R&D centres; access by industry players to R&D centres; as 'market places' for promoting innovative products



<https://www.seaweednetwork.i>

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TSIN Tropical
Seaweed
Innovation
Network

TSIN - NETWORK

20

R&D Center

19

Industry

8

University

TSIN - EXPERTS

161

Experts

7

Expertise

1. Taxonomy
2. Monitoring
3. Aquaculture
4. Genetics
5. Processing Technology
6. Biotechnology
7. Socio-economy

TSIN - SERVICES

4

Category

1. Analysis
2. Consultation
3. Certification
4. Training

19

Sub Category

