DEVELOPMENT OF SATO-UMI FISHERY TECHNOPARK IN INDONESIA

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The concept of management and utilization of fishery resources in the coastal area by involving the community actively to:

• Increase **the productivity** of fishery resources and sustainable fishery production in coastal areas;

• Maintain the productivity of fishery resources **in balance and harmony** with the potential resources.

• Improve **the welfare of coastal communities** through the development and optimum utilization of fishery resources by increasing the diversity of aquaculture commodities and various processed fishery products.
**Mono-culture (Traditional Method)**

- Low productivity and biodiversity
- Poor ecosystem
- Low water quality
- Diseases carries

**SATO-UMI**

- High productivity and biodiversity
- Healthy ecosystem
- Remove diseases
- Supply feed
- Recycle waste (feces)
- Purified water
SCIENCE/TECHNOPARK

• An integrated region (specifically managed) consisting of one or more centers of science, technology and innovation (STI) activities, productive/business/industrial activities and people/community engagement in a functional and spatial hierarchy of innovation system based area.

• An organization managed by specialized professionals whose main aim is to increase the wealth of its community by promoting the culture of innovation and the competitiveness of its associated businesses and knowledge-based institutions (*the International Association of Science Parks/IASP, 2002*)
RELATIONSHIPS AMONGST KEY STAKEHOLDERS IN A TECHNO PARK

Key Stakeholders

Innovation Center as an Innovation Hub

IS : Innovation System
ICI : Industrial Cluster
IN : Innovation Network

Agency for the Assessment and Application of Technology (BPPT)
Presidential Decree No 2/2015:
RPJMN 2015 – 2019

BACKGROUND

Badan Pengkajian dan Penerapan Teknologi akan membangun sejumlah Science Park dan Techno Park di beberapa Provinsi/Kabupaten/Kota antara lain:

1. 1 (satu) buah National Science and Technology Park di Kota Serpong (Provinsi Banten).

2. Techno Park sebanyak 8 (delapan) buah di Kabupaten Pelalawan (Provinsi Riau), Kota Pekalongan (Provinsi Jawa Tengah), Kabupaten Bantaeng (Provinsi Sulawesi Selatan), Kabupaten Penajam Paser Utara (Provinsi Kalimantan Timur), Kabupaten Lampung (Provinsi Lampung), Kota Cimahi (Provinsi Jawa Barat), Kabupaten Grobogan (Provinsi Jawa Tengah), dan Kabupaten Gunung Kidul (Proinsi DIY).

Kementerian Perindustrian akan membangun sejumlah Science Park dan Techno Park di beberapa Provinsi/Kabupaten/Kota antara lain:

THE IMPLEMENTATION APPROACH OF THE PROGRAM: INNOVATION SYSTEM ➔ KPI

- Innovation ecosystem
- Techno Park
- Industrial cluster, increase value-added
- Development of innovative business
- Innovation networks, specific areas

Strategic needs, Fulfilling Basic Needs
Innovation System

Creation / Added Value (Productivity) of Leading Industrial Cluster

Integrated area for partnerships, services and support for Science, Technology & Innovation

Innovation ecosystem to build a conducive environment; infrastructure, regulation, culture

Fulfillment of basic needs of society

Supporting institutions

Innovative Business Development

PROGRAM OUTPUT/OUTCOME and RELATIONSHIP ILLUSTRATION
ONGOING TECHNO PARK PROJECTS 2015

1. Teknopolitan Pelalawan
2. Techno Park Lampung Tengah
3. Techno Park Cimahi
4. Techno Park Pekalongan
5. Techno Park Grobogan
6. Baron Techno Park Gunung Kidul
7. Techno Park Penajam Paser Utara
8. Techno Park Bantaeng
9. BIT - PUSPIPTEK
PEKALONGAN COASTAL CONDITIONS

• Catch fisheries was one the most important economic potentials for the City of Pekalongan, but no longer significant recently;
• In the last 10 (ten) years, Pekalongan has been affected by flood which caused lost of approximately 300 hectares of agricultural land turned into fishpond/brackish water (= unproductive area);
• Technopark was proposed as a “breakthrough” solution and focusing on the development of aquaculture (revitalizing the ponds);
• Fishery Technopark Area development is expected to accelerate Pekalongan economic development especially in the fishery sector.
OBJECTIVES

1. growth and development tilapia superior fish farming and multi trophic in Pekalongan, particularly in the Area of Techno Park;

2. growth and development innovative companies, especially SMEs fish processing in Pekalongan, particularly in the area of Techno Park.

3. growth and development research, development and application of technology of cultivation and processing of fish in Pekalongan, centered in the Techno Park.

4. Techno Park Area as a source of Pekalongan public welfare enhancement.
Innovation System

PROGRAM DIRECTOR

Program Manager

Chief Engineer

ORGANIZATIONAL STRUCTURE OF THE PROGRAM IMPLEMENTATION

WBS 1
Aquaculture development and IMTA
Local Partner

WBS 2
Processing Technology Fishery Products
Local Partner

WBS 3
Innovation Ecosystem Development
Local Partner

WBS 4
Improvement Industrial competitiveness
Local Partner

WBS 5
Regional Innovative Capacity enhancement
Local Partner

WBS 6
Innovative SME development
Local Partner

WBS 7
Improved of Basic Needs Compliance
Local Partner

WBS 8
Knowledge Management
Local Partner

Industrial cluster, increase value-added

Innovation ecosystem

Innovation networks, specific areas

development of innovative business

Strategic needs, Fulfilling Basic Needs

Techno Park

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Technopark Location

Innovation System

Technopak
Perikanan Kota
Pekalongan

Technopark Location

Technopark
Zona budidaya
Zona industri perikanan rakyat
Zona industri perikanan skala besar
Zona pemasaran
Zona pendidikan tinggi
1. **Techno Park Launching**  April 2\textsuperscript{nd} 2015.

2. **Establishment Techno Park Area**  
   - Kelurahan Panjang Wetan, Kec. Pekalongan Utara
3. Site Plan of Technopark Management Area.
4. Initiation Tilapia Aquaculture Demonstration and Application of Model-based IMTA Fisheries Sato Umi in Degayu.
5. Training on product processing for groups of fisherman
LOCATION OF IMPLEMENTATION SATOUMI CONCEPT IN BANTAENG TECHNOPARK

- Techno Park Management Center
- Nipanipa Village, Pa’jukukang (4 Ha)
- Seaweed
  - Pa’jukukang Village, Pa’jukukang District (0.6 Ha)
- Tilapia
  - Rappoa Village, Pa’jukukang District (1.2 Ha)

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• Techno Park Management Center
• Nipanipa Village, Pa’jukukang (4 Ha)

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• Seaweed
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Development and Dissemination of Tilapia and Seaweed Culture in the Techno Park Bantaeng

a. Introduction of genetically improved Tilapia strain, i.e. GESIT (Genetically Supermale Indonesian Tilapia) and SALINA (Saline Indonesian Tilapia)
b. Improving capability of Local Hatchery (BBI) to produce good quality of tilapia seed
c. Development of marine tilapia seed and tilapia mariculture
d. Implementation of Good Aquaculture Practices in seaweed culture
e. Training and workshop
1. **SEED PRODUCTION OF MALE MONOSEX TILAPIA**: > 600,000 larvae
2. **DISTRIBUTION OF MALE MONOSEX TILAPIA SEED TO FISH FARMER IN BANTAENG DAN PANGKEP**
3. **IMPROVING OF LOCAL FISH HATCHERY (BBI) PERFORMANCE**
4. **INITIATION OF TILAPIA REARING IN MARINE CAGE CULTURE**
5. **INITIATION OF GOOD AQUACULTURE PRACTICES IN SEAWEED CULTURE**
6. **MONITORING OF WATER QUALITY IN AQUACULTURE ACTIVITY AREA**
7. **DISSEMINATION AND TRAINING PROGRAM**
IMPLEMENTATION PROGRESS 2015
TILAPIA SEED PRODUCTION
IMPLEMENTATION PROGRESS 2015
DEVELOPMENT OF TILAPIA MARICULTURE
IMPLEMENTATION PROGRESS 2015
SEA WEED FARMING
IMPLEMENTATION PROGRESS 2015
DISSEMINATION AND TRAINING PROGRAM

September, 10 - 11
THE TARGET ACHIEVEMENT, THE BENEFITS, CHALLENGES, CONSTRAINTS AND OBSTACLES

✓ TA : Establish Bantaeng as a seed production center for the East Indonesia region
✓ B : Improve the welfare of coastal communities Bantaeng
✓ CH : Increase employment opportunities
✓ C : Limitations of skilled human resource
✓ O : Improving environmental conditions
Gerakan Membangun Sistem Inovasi, Daya Saing dan Kohesi Sosial di seluruh Wilayah Nusantara (National movement to develop innovation system, competitiveness, and social cohesion through out the Country)

... in harmony we progress ...

Thank You

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