

Republic of the Philippines
DEPARTMENT OF SCIENCE AND TECHNOLOGY
Bicutan Taguig, Metro Manila



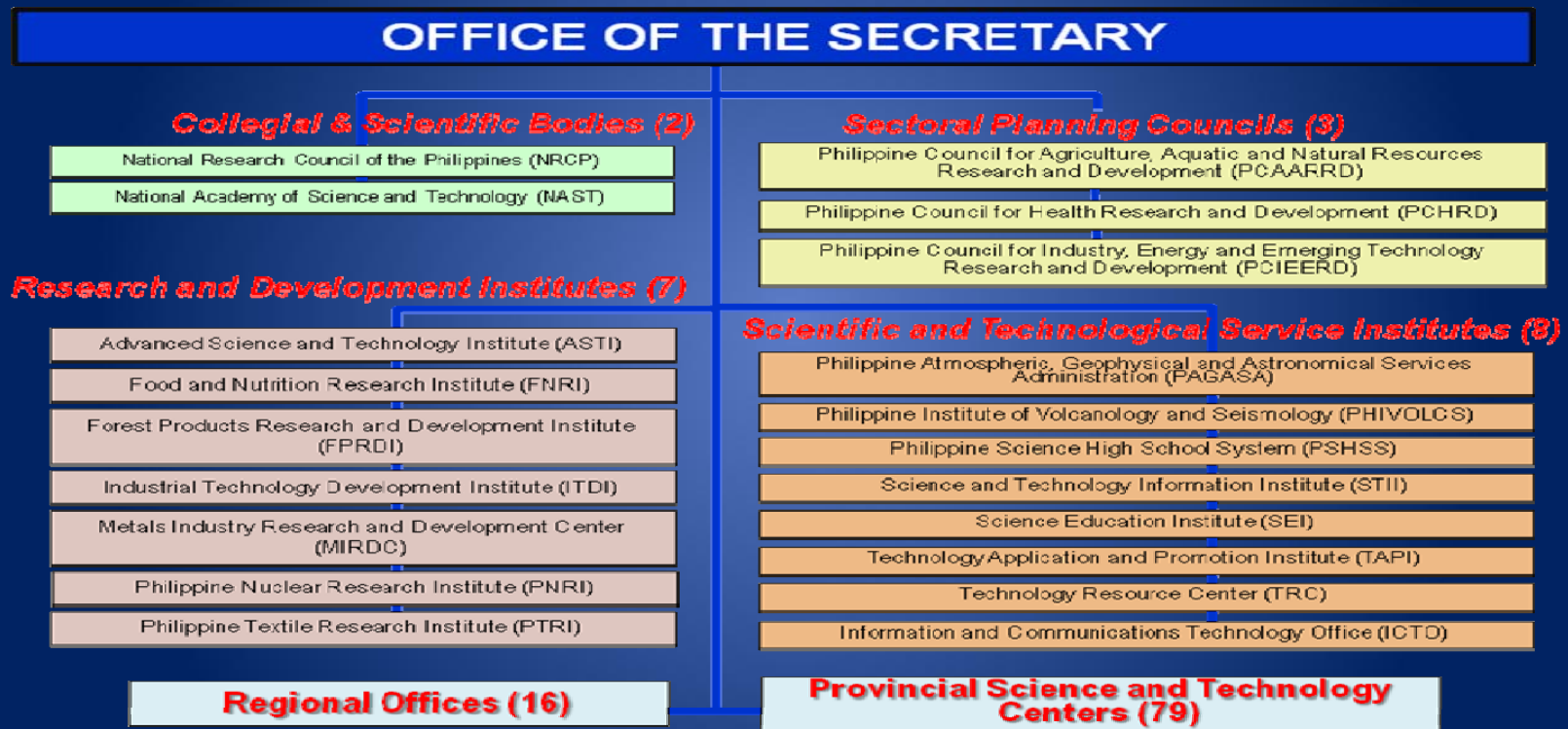
**SMALL ENTERPRISE TECHNOLOGY UPGRADING
PROGRAM (SETUP):**

A responsive program to address needs of industry



DR. URDUJAH A. TEJADA
Assistant Secretary and Program Manager for
Countryside Development

Administrative Framework on S&T



Organizational Structure of DOST

HARMONIZED NATIONAL R&D AGENDA 2013-2017

NATIONAL R&D AGENDA OUTCOMES:

- A better life for the Filipino through science, technology and innovation
- Globally competitive capacity for science, technology and innovation

I. POVERTY ALLEVIATION AND INCLUSIVE GROWTH

Expanded and strengthened socio-economic development programs for all, particularly the poor, vulnerable and marginalized through science, technology and innovation.

A. FOOD & NUTRITION SECURITY

B. COUNTRYSIDE DEVELOPMENT

C. COMPETITIVE INDUSTRIES

D. DELIVERY OF SOCIAL SERVICES

E. BIODIVERSITY CONSERVATION AND SUSTAINABLE DEVELOPMENT

II. CLIMATE CHANGE MITIGATION AND ADAPTATION AND DISASTER RISK REDUCTION

Safe and disaster-and-climate change-resilient infrastructures and communities empowered by science-based meteorological, hydrological and geological information, climate change scenarios with associated impact assessments and decision support systems

A. INNOVATIONS ON WEATHER AND FLOOD FORECASTING AND CLIMATE CHANGE MODELLING

B. WATER SECURITY

C. CLIMATE CHANGE-RESILIENT AGRICULTURE

D. CLIMATE CHANGE MITIGATION

E. URBAN PLANNING & HYDROLOGICAL DATA SET

F. DISASTER RISK REDUCTION

G. ECOLOGICAL SYSTEMS

Strategy to
Enhance productivity and competitiveness of
TMSMEs through
Uechnological innovations and
Pupgrading of products and processes towards
Progress and growth in the countryside

-  ***Technology Needs Assessment***
-  ***Access to and Acquisition of Appropriate Technology***
-  ***ISS Fund Assistance for Acquiring Appropriate Equipment***
-  ***Capacity Building and Technical Trainings***
-  ***Consultancy and Technical Advisory Services***
-  ***Product Standards and Testing***
-  ***Packaging and Labeling***
-  ***Information System***

SETUP Program Framework

add value to local products and processes through S&T interventions

enhance the competitiveness of MSMEs through better products and processes

contribute to the creation of a robust local economy powered by highly competitive MSMEs

create employment, generate revenues, help **alleviate poverty** and social unrest.





Food
Processing



Gifts, Decors and
Handicraft (GDH)



Agriculture/
Horticulture



Marine/
Aquaculture



Metals &
Engineering



Furniture



ICT



Others: Health
Products

SETUP Priority Areas

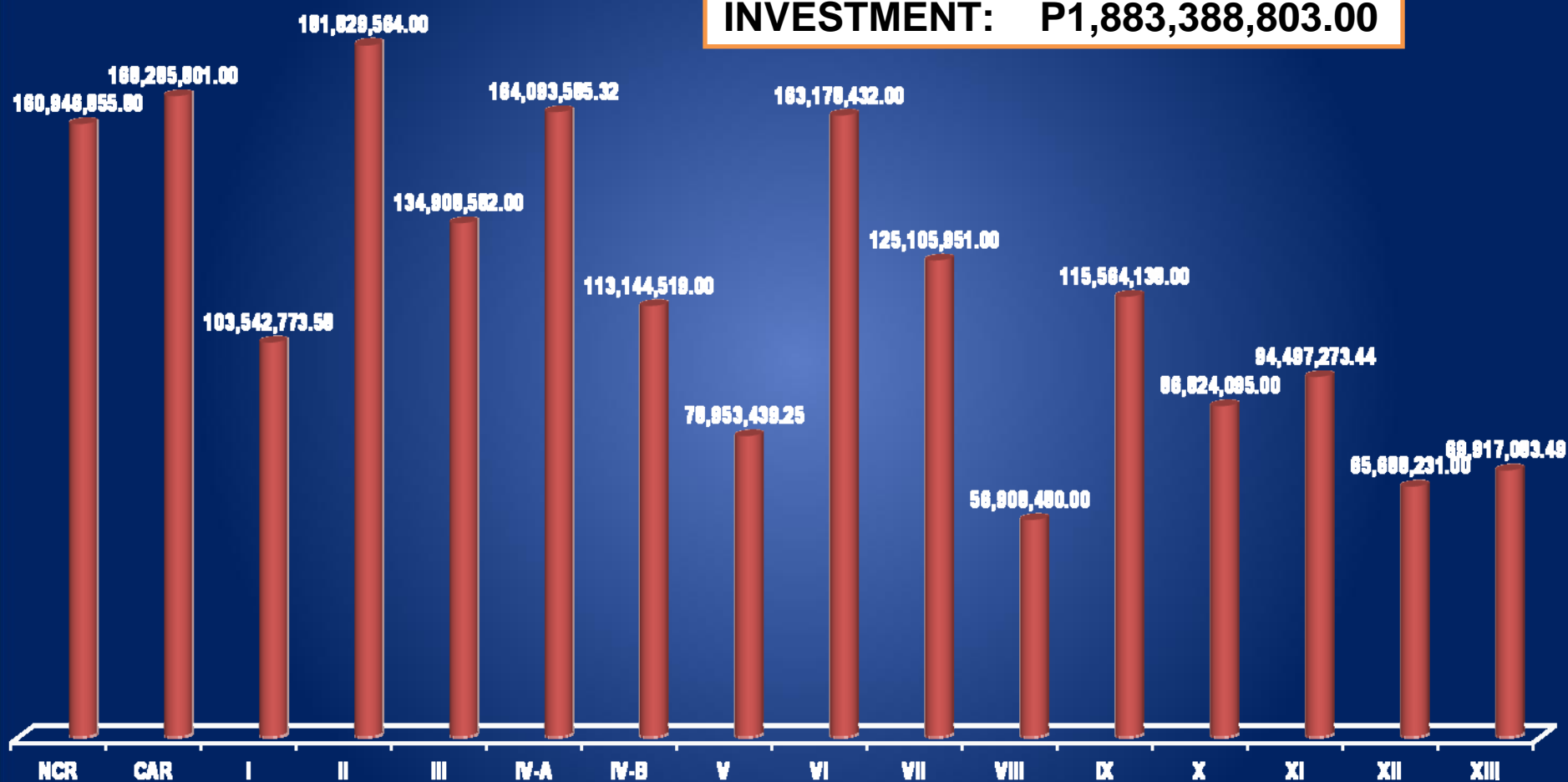


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SETUP
S & T innovations for MSMEs

AMOUNT OF INVESTMENT PER REGION as Of Dec 2014

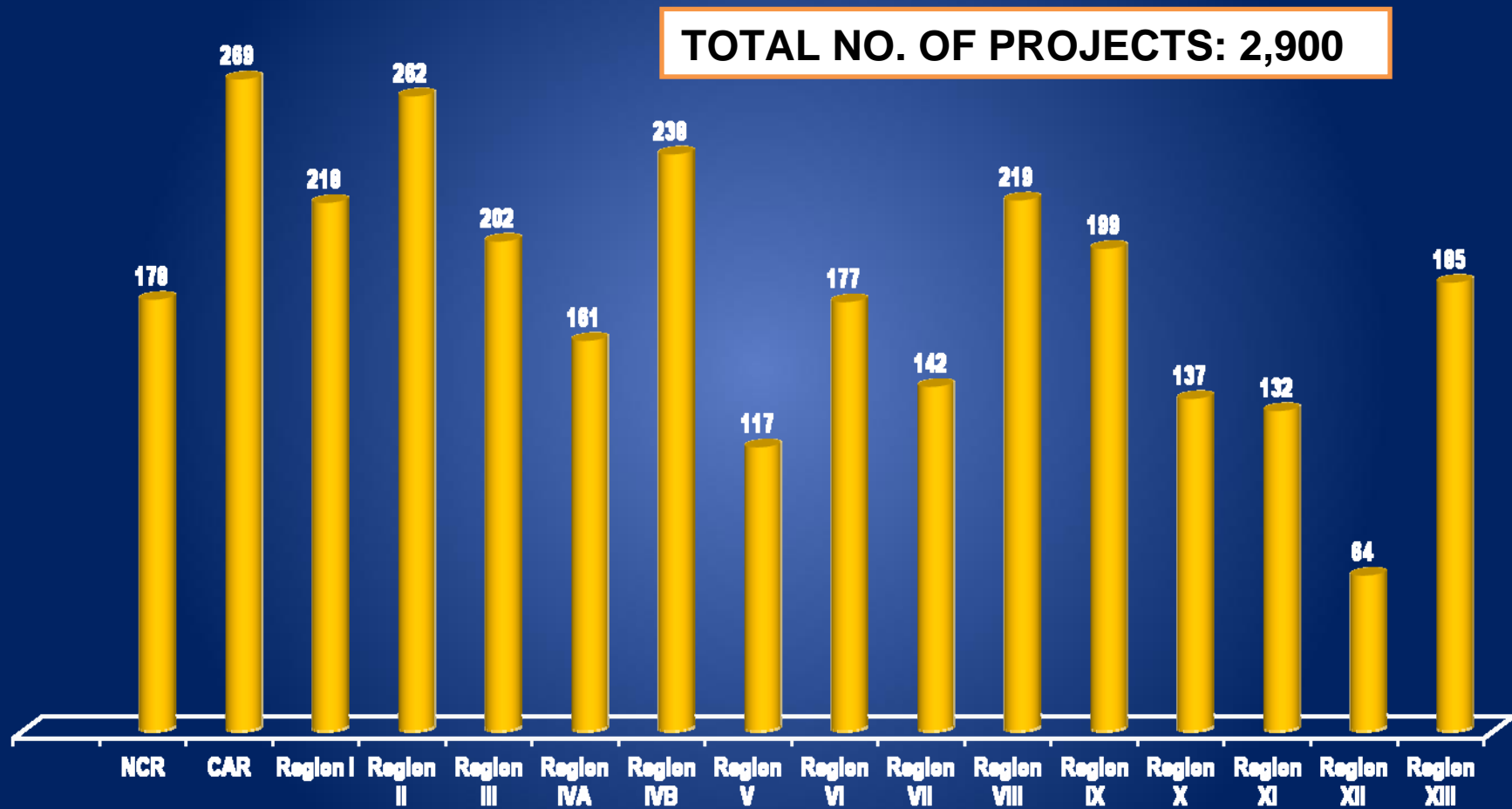
**TOTAL AMOUNT OF
INVESTMENT: P1,883,388,803.00**



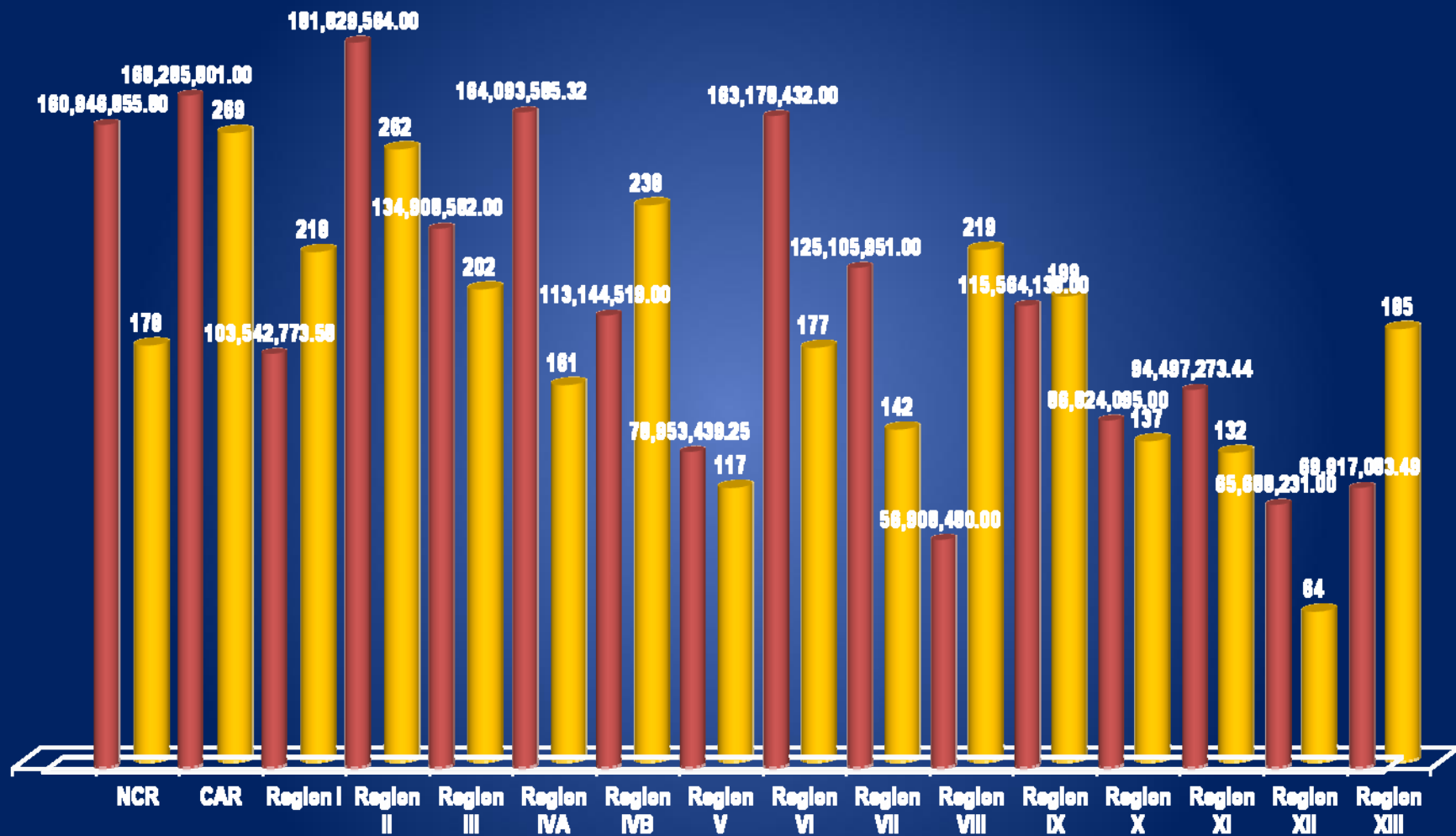
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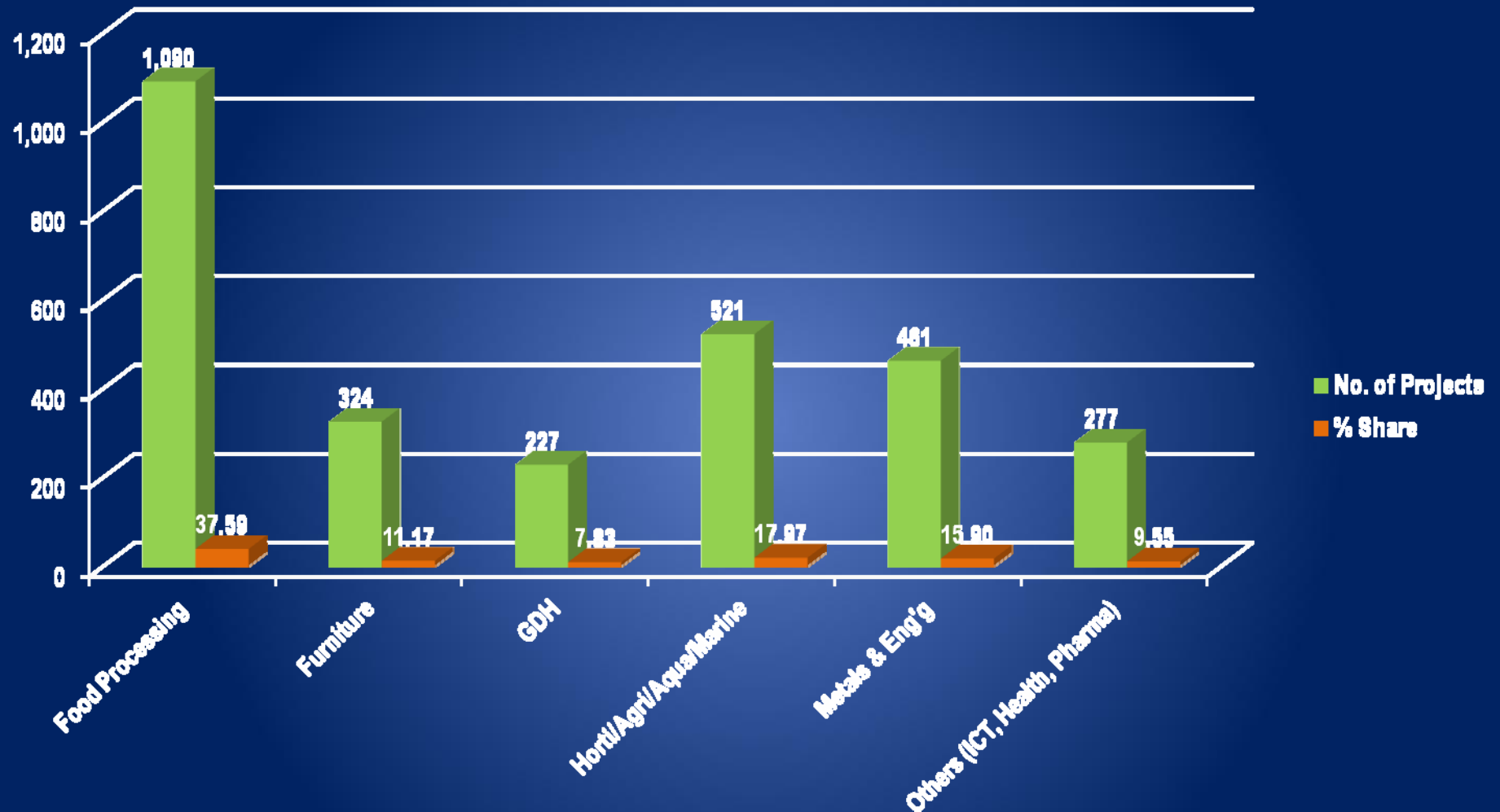
NO. OF PROJECTS PER REGION



Amount of Investment and Number of Projects per Region



Total number of projects per sector

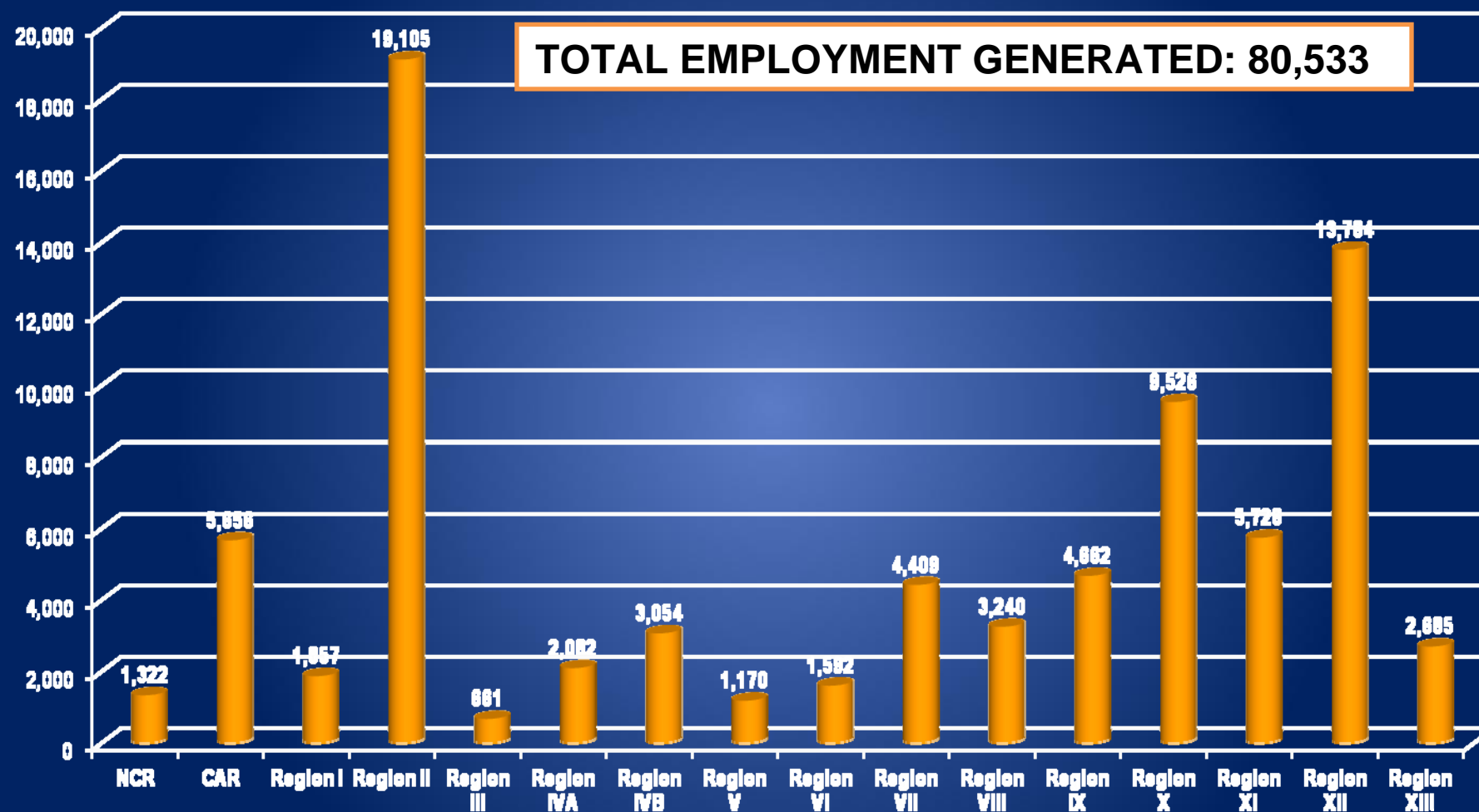


Project Cost per Priority Sector



EMPLOYMENT GENERATED PER REGION (2002-2014)

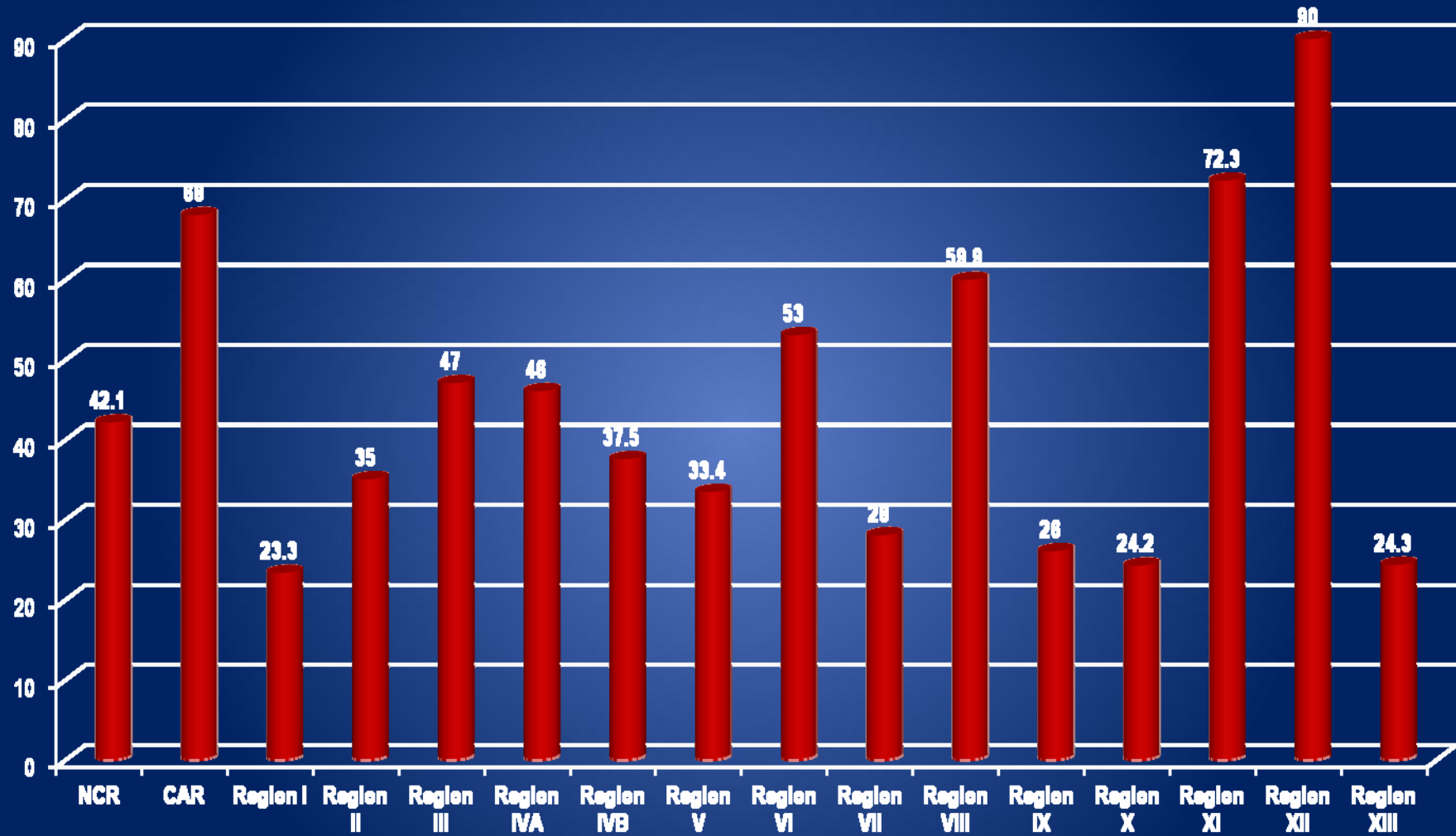
13



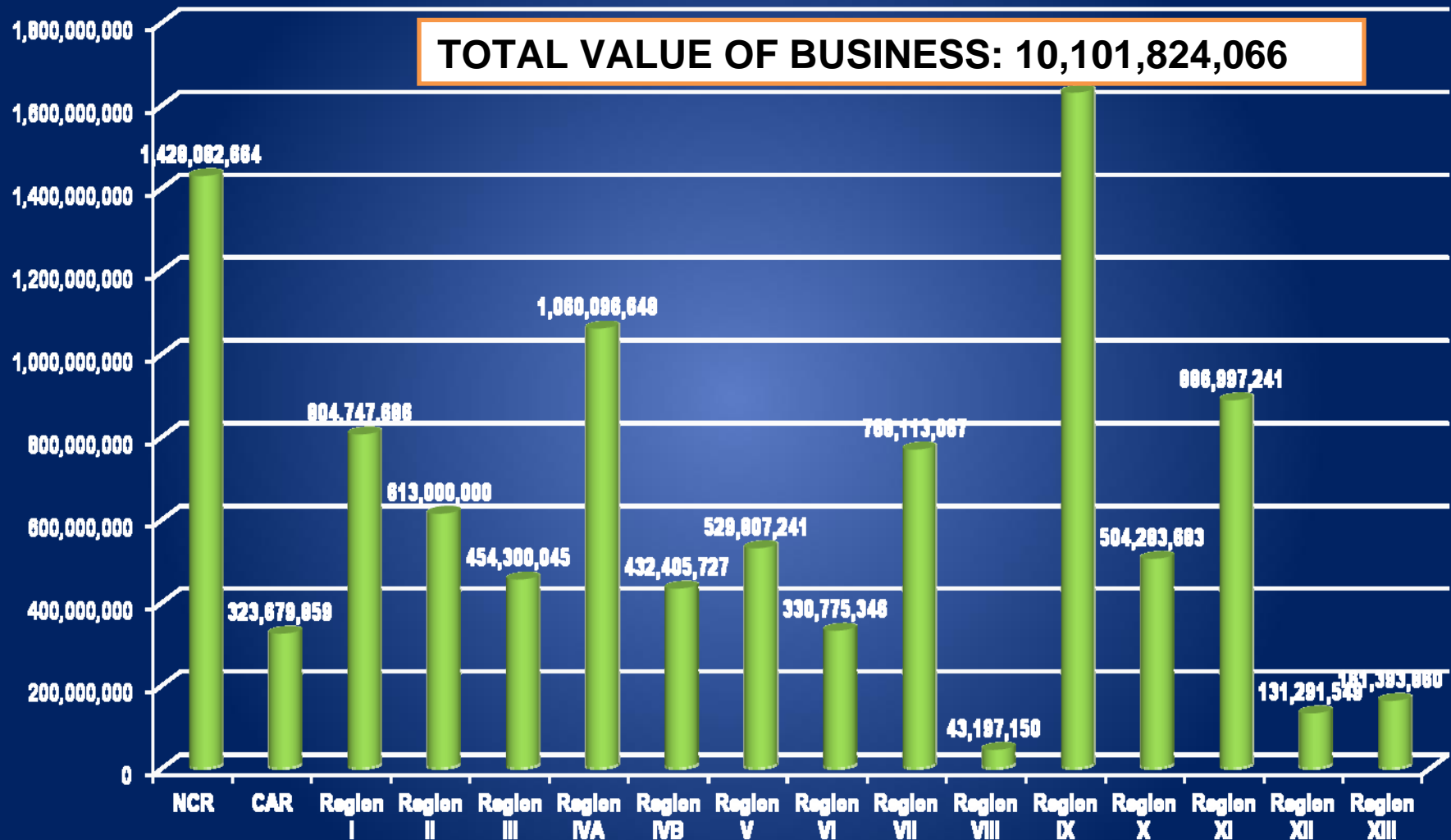
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(%) AVERAGE PRODUCTIVITY IMPROVEMENT PER REGION



VALUE OF BUSINESS PER REGION



OUTCOMES

- ✓ Increased in Productivity
- ✓ Improved product quality and marketability
- ✓ Increased capability to serve wider market
- ✓ Access to bigger market (domestic and international market)
- ✓ Diversification of product lines and expansion
- ✓ Job creations
- ✓ Waste minimization



Inspiring stories of Innovative MSMEs in support to the Food Processing Sector

17

THE FIRM

MONTANO FOODS CORPORATION

TECHNOLOGY INNOVATIONS

- ✓ Application of new technologies to improve production efficiency and product quality (facilities, enclosed solar dryer)
- ✓ Compliance to existing standards such as cGMP/HACCP
- ✓ Continuous R&D on product and process resulting to product expansion/diversification
- ✓ Personnel development



Limited production capacity

- ✓ Generated 81 employment after intervention
- ✓ HACCP- and HALAL-certified
- ✓ Penetrated export market
- ✓ Multi-Million Enterprise



Product: Bottled Sardines



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S & T innovations for MSMEs

Inspiring stories of Innovative MSMEs in the Gift-Decors-Houseware (GDH) Sector

18

THE FIRM

ARDEN CLASSIC INCORPORATION

TECHNOLOGY INNOVATIONS

- ✓ Introduction of electroplating technology
- ✓ Application of white metal casting technology



Inferior quality of outsourced plated component parts resulting to rejects & reworks

- Reduced rejects and reworks from 10% to less than 3% of the production output
- Increased production volume by 100%
- Improved product quality through controlled production of electroplated metal components
- Increase in sales by 30% after intervention
- High flexibility on the design and quality enabling access to new markets



Product: Home Furnishing



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Inspiring stories of Innovative MSMEs in Furniture Sector

THE FIRM

TOTAL WOODKRAFT

TECHNOLOGY INNOVATIONS

- ✓ Lumber Drying Technology:
3000 bd ft Furnace Type
Lumber Dryer
- ✓ Productivity enhancement
consultancy through MPEX
- ✓ Woodworking Technology
- ✓ Training on Lumber Drying
Techniques; Wood
Finishing; Wood Bending



Wooden Furniture and
home furnishings catering
to limited market

- ✓ Reduced product reworks due
to warping and shrinking from
20% to 5% of production
volume
- ✓ Increased production volume
from 2,000 board feet monthly
lumber utilization to 4,000
board feet
- ✓ Increased annual gross sales
by 122%
- ✓ Expanded market from local
retail buyers to high-end
institutional markets
(furnishings for hotels,
restaurants and resorts)
- ✓ Established the first & only
kiln-dryer facility in Bohol



Product: China cabinet,
sideboard, nite
stand, arm chair,
tables



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Inspiring stories of Innovative MSMEs in Metals and Engineering Sector

20

THE FIRM

FAG MACHINE SHOP AND SERVICES CORPORATION

TECHNOLOGY INNOVATIONS

- ✓ Introduction of Precision Engine Lathe Machine with Digital Readout and Precision Bench Lathe Machine with Digital Readout
- ✓ Productivity enhancement consultancy (MPEX)
- ✓ Energy Audit
- ✓ Introduction of CNC Vertical Machining



Light Engineering and
Metalworking Company

- ✓ Expanded production capability and capacity supporting ship-building industry
- ✓ Established a Computer Numerically Controlled (CNCs) Machining Center.
- ✓ Upgraded capability from intermediate precision to high precision machining
- ✓ Reduced cycle time by 50% in high precision machining requirements.
- ✓ Increased gross Income by 279%
- ✓ Generated 60 additional employment (from 20 to 80)



Product: Jigs and fixtures,
Plastic injection
puller, metal
furniture and

fixture, etc



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21

THE FIRM

**PALAISDAAN
NATIN**

TECHNOLOGY INNOVATIONS

- ✓ Farm Layout design & construction
- ✓ Construction of treatment tank
- ✓ Installation of egg-collection/ Hatchery laboratory
- ✓ Training on:
 - Grow-out pond Management
 - Hatchery management
 - Treatment (SRT Management)
 - Feed Formulation & Feeding Management



Before Intervention – Grow-out Pond

Conventional pond management

- ✓ From 5 workers, this project generated additional 30 direct workers.
- ✓ Currently, the hatchery produces from 700,000-800,000 fingerlings/month.



After Intervention – Hatchery

Product: Tilapia Fingerlings



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THANK YOU!



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