Industrial Resource Efficiency and Renewable Energy for Low Carbon Development

Asia-Europe Sustainable Development Goals and Financing Workshop

Ha Noi, September 7, 2017

Vu Tuong Anh
IFC PROVIDES SUSTAINABLE DEVELOPMENT SOLUTIONS

THE WORLD BANK GROUP’S TWIN GOALS

- Ending Extreme Poverty
  - From 18% to 3% of world population by 2030

- Boosting Shared Prosperity
  - Increased incomes for bottom 40% of every country

- A member of the World Bank Group
- Provides investment, advice, and finance mobilization
- 60-year operational history in 175+ emerging markets
- Climate change and sustainability are key pillars

IFC is the largest global development institution focused exclusively on the private sector in emerging economies
IFC’S CLIMATE BUSINESS: TECHNOLOGY, PRODUCTS AND SERVICES THAT “DO MORE WITH LESS”

ENERGY: Low carbon generation, energy efficiency, storage, smart grids.

TRANSPORTATION: Vehicles, systems, fuels and logistics

WATER: Capture, treatment, conservation, wastewater treatment

AIR & ENVIRONMENT: Emission control, trading and offsets

BUILDINGS: Low carbon strategy, energy efficiency, sustainable materials.

MANUFACTURING: Resource Efficiency, Green chemicals, RE/EE supply chain, cleaner production.

AGRICULTURE & FORESTRY: Land mgmt, low carbon and adaptation strategies, biomass.

RECYCLING & WASTE: Recycling and waste treatment services

$3.8B of climate investments facilitated through FIs
Demonstrate Business Case

Access to Finance

Sector Scale-Up

...FOR INTEGRATED SUSTAINABILITY SOLUTIONS

- Practical solutions to address climate risks, reduce operating costs, & increase productivity
- Simple low-cost modifications as well as more complex projects with good developmental impacts
- Beyond consultant audits to implementation, financing facilitation, & sector scale-up
- Leverage impacts by engaging with multiple global brands, NGOs, associations, government

IFC CLEAN ENERGY & RESOURCE EFFICIENCY PROGRAMS

...Operate at scale to generate impact

IFC's APPROACH
CHINA WATER PROGRAM
Catalyzing Industrial Water Efficiency

KEY ACHIEVEMENTS

- **Freshwater saved** due to projects implemented: **16 million m³/year**
- **GHG emissions avoided** due to energy savings: **300,000 tonnes/year**
- **Operating costs avoided** due to lower resource use: **$30 million+**
- **CAPEX Investments** by factories in China Water Program: **$57 million**
- **Additional financing** by IFC Partner BoB in China wastewater market: **$87 million**

SECTOR SCALE-UP WITH NRDC

- Pooling of global brand clients
- 100+ REF projects jointly developed in three Chinese provinces
- Joint training for 1000+ participants
- Inputs to China national standards
- E-learning modules being developed
PROBLEM AND APPROACH

- Inefficient use of water resources; 3X compared to good practices
- Textile industry one of the largest polluters in Bangladesh
- Dhaka groundwater tables declining by 1-2 meters/ year
- Conducted basic CP assessments and deep dives for 100-200 mills
- Capacity building, self assessment tool, chemical management guide
- PaCT provided common voice for cluster level engagement

PARTNERSHIPS WITH BRANDS

- Specific water consumption reduced significantly
- Factories voluntarily invested $38M for recommended improvements
- IFC also invested $16.5 million in two growing textile companies
VIETNAM HIGH ENERGY DEMAND, LOW EFFICIENCY AND HIGH CARBON EMISSION: RESOURCE EFFICIENCY OPPORTUNITY

Energy Intensity (toe per GDP) compared to select Nations

Facts:
- Vietnam is the most energy intensive country in East Asia
- Electricity consumption more than tripled in the past 10 years
- Energy consumed by industry is continuing to increase
- Over 2000-10 Vietnam CO2 emissions growth- fastest in the region, highest in the world,

Challenges:
- Energy Security
- Low efficiency, less competitive, unsustainable development
- Resource limitation

Opportunities:
- Resource Efficiency
- Renewable Energy

Source: World Development Indicators.
Note: Only axis the year 2000 = 100. EAP = East Asia and the Pacific; GDP = gross domestic product; OECD = Organisation for Economic Co-operation and Development; PDR = People’s Democratic Republic.
**VIETNAM IMPROVEMENT PROGRAM (VIP)**
Scaling Up impacts in Apparel, Textile, and Footwear Sectors

**KEY ACHIEVEMENTS**

- **Freshwater saved** due to projects implemented: **1.2 million m³/year**
- **GHG emissions avoided** due to energy savings: **110,000 tonnes/year**
- **Operating costs savings** due to resources saved: **$ 15 million**
- **Investments** by factories in improvement projects: **$ 11 million**
- **Additional financing** by IFC Partner Vietinbank: **$ 5 million**

**....IN FIRST 18 MONTHS**

- Catalyzing supply chain RE solutions
- Promoting circular economy solutions in industrial zones in VN
VIETNAM IMPROVEMENT PROGRAM (VIP)
Eco Industrial Park Promotion

On-going works

✓ Develop National Eco-Industrial Park Technical Guideline
✓ Promoting circular economy solutions in industrial zones in VN
✓ Pilot Industrial Symbiosis Application at selected industrial zone (IZ) (e.g. Hoa Khanh IZ)

Challenges

✓ Lack of awareness
✓ Lack of incentives
✓ Existing environmental regulations do not allow industries doing waste exchange, waste recycling within industrial zones
DO MORE WITH LESS FOR SUSTAINABLE DEVELOPMENT

Thank you!

Vu Tuong Anh
Industrial Resource Efficiency
Program Lead
E: vanh1@ifc.org
M: 0913 340 133
A: 3rd Floor, No. 63 Ly Thai To
Hoan Kiem District, Ha Noi