

Increasing effective contributions by the JCM to NDCs

MOEJ/OECC's JCM check sheet for accelerated NDC implementation

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JCM's contributions to NDC (Viet Nam's case)

Viet Nam's NDC sectors	NDC#	Numbers of JCM Projects
Energy	E11-17	5
	E7, 9	1
	E5, 6	6
	E10	3
	E1-4	0
Agriculture	A3, 5, 9, 12-14	0
Waste	W3	2

+ F-gas 1 Project

Total 18 JCM Projects

As of 2019 Apr



8,579tCO₂/year
By total projects

Introduction of Amorphous High Efficiency Transformation



1,145tCO₂/year

Introduction of High Efficiency Water Pump in Da Nang City



4,481tCO₂/year

Energy Saving in Factories with air-Conditioning

Examples of suggested technologies for accelerated implementation of NDC (by Low Carbon Technology Assessment)

Submitted the INDC in 2016	
Contribution to the GHG emission mitigation	
Sector	Energy, Agriculture, LULUCF, Waste
Period	from 01/01/2021 to 31/12/2030
BAU Scenario	GHG emissions in 2010: 246.8 million tCO2
	GHG emissions in 2020: 474.1 million tCO2
	GHG emissions in 2030: 787.4 million tCO2
	The BAU starts from 2010 (the latest year of the national GHG inventory)
Unconditional Contribution	To reduce GHG emissions by 8% compared to BAU
Conditional Contribution	The above-mentioned 8% contribution could be increased to 25%

Viet Nam's NDC sector	NDC#	Recommended technologies by each sector
Energy	E11-17	Power Generation Infrastructure (Renewable Energy: PV, Wind, Hydro Transformer and others)
	E7, 9	Transport Infrastructure (CNG, EV, Renewable Energy in Port and Airport, Freight Transport Switch and others)
	E5, 6	Industrial Infrastructure (Steel, Aluminum, Cement, Chemical, Pulpe and Brick-making)
	E10	Commercial Infrastructure (Shopping Mall and Office)
	E1-4	Residential Infrastructure (Air Conditioning, Refrigerator, Lighting and Solar Water Heater)
	Agriculture	A3, 5, 9, 12-14
Waste		



*Information NDC will be updated according to the policy development of the Vietnamese Government.

MOEJ/OECC's JCM check sheet: Sectors covered by NDC and status of JCM Projects

Environmental Infrastructure: Important Sector, Policy, Country and Region
Formulate Policy and Law which are based on JCM Project examples, Each Country and Region

Submitted the INDC in 2016

Contribution to the GHG emission mitigation

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Overview of the NDC

Information source
(NDC, laws, policies etc.)

Viet Nam

References:

- Socialist Republic of Viet Nam, 2015, "Intended Nationally Determined Contribution of Viet Nam"
- Ministry of Natural Resources and Environment, 2015, "Viet Nam's Intended Nationally Determined Contribution"
- Japan International Cooperation Agency, Overseas Environmental Cooperation Center etc, 2017, "Socialist Republic of Viet Nam Project to Support the Planning and Implementation of Nationally Appropriate Mitigation Actions (NAMAs)/Low Carbon Technology Assessment (SPI-NAMA/LC Tech) Progress Report"
- Japan International Cooperation Agency, Overseas Environmental Cooperation Center etc, 2017, "Socialist Republic of Viet Nam Project to Support the Planning and Implementation of Nationally Appropriate Mitigation Actions (NAMAs)/Low Carbon Technology Assessment (SPI-NAMA/LC Tech) Second Progress Report"
- Ministry of Natural Resources and Environment of Viet Nam and JICA Technical Assistance Project to Support the Planning and Implementation of NAMAs in a MRVable Manner (SPI-NAMA), 2018, "Low Carbon Technology Catalogue: Mitigation actions in the Context of Viet Nam's Nationally Determined Contributions and Beyond"

Sector	NDC (tCO2e)	Other Mitigation Actions (tCO2e)	Representative JCM Projects (registered projects and financed projects)	Representative JCM Projects in other countries (registered projects and financed projects)	Relevant Law and Policy	Relevant Ministry	Others (expected improvement policy/ representative vietnamese association)
Power Generation Infrastructures							
Hydro Power							
Transmission							
Urban Infrastructures							
Waste Power							
Industrial Infrastructures							
Steel, Aluminum and Cement							

Sectors defined in the Japan's "strategy for export of infrastructure system"

Emission reduction target of the NDC

Corresponding JCM Projects in each sector

Relevant laws and policies in the country

Relevant Ministries

Barriers for replication /relevant organizations

Example 1: Replication of projects in the same countries

Sector	NDC (tCO2e)	Other Mitigation Actions (tCO2e)	Representative JCM Projects (registered projects and financed projects)	Representative JCM Projects in other countries (registered projects and financed projects)	Relevant Law and Policy	Relevant Ministry	Others (expected improvement policy/ representative vietnamese association)
Urban Infrastructures							
Energy Saving Water Supply and Waste Treatment Site		Other Mitigation Actions (Waste Transfer Station)	Introduction of High Efficiency Water Pumps in Da Nang City (Expected GHG Emission Reductions: 1,145tCO2/year) Energy Saving by Introduction of Inverters for Raw Water Intake Pumps (Expected GHG Emission Reductions: 1,043tCO2/year)	Energy Saving Wastewater Treatment Plant in Battambang: Cambodia (JFJCM)	The prioritized projects of climate change plan in Ho Chi Minh, Hanoi, Hai Phong, Da Nang and Can Tho) on Waterworks Energy Saving	MOC	Incorporate green purchase into public procurement policy
					Decision No. 1440/QĐ-TTg (2008): the Prime Minister approving the Planning on construction of solid waste treatment facilities in three Northern, Central Vietnam and Southern key economic regions up to 2020.		
					Decision No.2149/QĐ-TTg (2009): Approving the national strategy for the integrated management of solid waste by 2025 and a vision towards 2050		
					Decision No.798/QĐ-TTg (2011): Approving the Program for Investment in Solid Waste Treatment during 2011-2020		
					Decision No.986/QĐ-BXD (2011): Promulgating action plan of solid waste treatment investment program in period of 2011-2020		
Decree No. 59/2007/ND-CP: on Solid Waste Management	MOC						

Status:

- Projects implemented in the sector
- Consideration on possibility to replicate same type of projects



Expected action:

Increase make project finding efforts for potential project owners and technology suppliers

Example 2: Transfer of experiences in other countries

Sector	NDC (tCO2e)	Other Mitigation Actions (tCO2e)	Representative JCM Projects (registered projects and financed projects)	Representative JCM Projects in other countries (registered projects and financed projects)	Relevant Law and Policy	Relevant Ministry	Others (expected improvement policy/ representative vietnamese association)
Industrial Infrastructures							
Steel, Aluminum and Cement	E5: Cement-making technology improvements (Mitigation Potential by 2030: 16.6 Mt CO2e)	Other Mitigation Actions (Steel)		Power generation by Waste Heat Recovery in the Tuban Plant of PT Semen Indonesia: Indonesia Power Generation by Waste-Heat Recovery in Cement Industry: Indonesia Introduction of 12 MW Power Generation system by Waste Heat Recovery for Cement Plant: Thailand	Adopted energy saving and efficiency benchmarks in the steel sector	MOIT	Steel: Vietnam Steel Association (VSA) Independent company: Hoa Phat Group, VnSteel, Hoa Sen Group, Pomina Steel, Nam Kim Steel, Ton Dong A
					Law No. 50/2010/QH12: Law on Economical and Efficient Use of Energy No: 50/2010/QH12 (as regulated by Decree No.21/2011/NĐ-CP on the Law on Economical and Efficient Use of Energy and Measures for its Implementation) (17 Jun, 2010)		
					Adopted energy saving and efficiency benchmarks.(2016)	MOC	Cement: Energy saving benchmark (MOIT circular) Aluminum: Energy saving benchmark (MOIT circular)
					GHG emission reduction action plan for cement sector (2016)		

Status:

- No project in the sector
- Projects implemented in other countries
- Consideration on possibility to replicate the technology?



Expected actions:

- Check barriers for replication
- Increase project finding efforts for potential project owners and technology suppliers

Example 3: Creating an enabling environments for projects

Sector	NDC (tCO2e)	Other Mitigation Actions (tCO2e)	Representative JCM Projects (registered projects and financed projects)	Representative JCM Projects in other countries (registered projects and financed projects)	Relevant Law and Policy	Relevant Ministry	Others (expected improvement policy/ representative vietnamese association)
Commercial Infrastructures							
Renewable Energy /Energy Efficiency Shopping Mall and Office	E10: High Efficiency Commercial Air Conditioning (Mitigation Potential by 2030: 11.1 Mt CO2e) Not describe about Energy Efficiency per construction in INDC		<p>Introduction of Solar PV System at Shopping Mall in Ho Chi Minh (Expected GHG Emission Reductions: 274tCO2/year)</p> <p>Low Carbon Hotel Project in Vietnam: Improving the Energy Efficiency of Commercial Buildnigs by Utilization of High Efficiency Equipment (Expected GHG Emission Reductions: 294tCO2/year)</p> <p>Efficiency/Environment in National Hospitals in Vietnam (Expected GHG Emission Reductions: 878tCO2/year)</p>	<p>Energy Saving for Air-Conditioning at Shopping Mall with High Efficiency Centrifugal Chiller: Indonesia</p> <p>Installation of Solar Power System and Storage Battery to Commercial Facility: Indonesia</p> <p>Introduction of LED Lighting to Sales Stores: Indonesia</p> <p>Energy Saving for Air-Conditioning at Shopping Mall with High Efficiency Centrifugal Chiller: Indonesia</p> <p>Introduction of 30 MW Rooftop Solar Power system to Large Supermarkets: Thailand</p> <p>Introduction of LED Lighting to Sales Stores: Thailand</p> <p>Energy Saving at Convenience Stores with High Efficiency Air-Conditioning and Refrigerated Showcase: Thailand</p>	<p>Revision of "Urban Engineering Infrastructure (QCVN07:2010/BXD)" and "Regional and Urban Planning and Rural Residential Planning (QCVN01:2008 BXD) in Rural Residential Planning (QCVN01: 2008 BXD) in 2013-2014.</p> <p>Construction and Reconstruction of buildings which is more than 2500 m2 is regulated Guiding procedures on Green Building Assessment</p>	MOIT	<p>Established: improvement of law on economic and efficient use of energy (MOIT circular amendment)</p> <p>Newly: improvement of construction standard (MOC circular amendment)</p> <p>Energy saving report system/improvement standard in the local goverment (DOIT DOC circular in Hanoi, Ho Chi Minh, Hai Phong)</p>

Status:

- Identified potentials to scale up projects

Status:

- Institutional barriers
- lack of incentives etc.



Action:

- Improvements of institutional arrangements thru cooperation

Thank you for your attention!

The JCM check sheet will be available on the website:

Carbon Market Express: <https://www.carbon-markets.go.jp/eng/>



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