WAPCOS @ 55 beyond....





1969 to 2024

Commemorative Book







Lasting Impacts - Creating Values



WAPCOS @ 55 & beyond....



As we embark on Journey of

Viksit Bharat by 2047,

we aspire to build more resilience, continue
to demonstrate excellence and promote

Brand WAPCOS

and catalyse lasting positive impacts on the society through our work in years to come. 99



OUR INSPIRATION



66

Every country experiences a phase in its history when it propels its developmental journey multiple folds ahead. It's like the 'Amrit Kaal' (golden era) for that nation. For Bharat, this 'Amrit Kaal' has arrived now. This is the period in the history of Bharat when it is about to take a quantum leap. Every individual, every institution, every organization must move forward with the pledge that whatever I do, it should be for a 'Viksit Bharat'. Your goals, your resolutions should have only one aim – 'Viksit Bharat'

Narendra Modi
Prime Minister of India

OUR GUIDING FORCE



Shri C. R. Paatil Hon'ble Minister for Jal Shakti



Dr. Raj Bhushan Choudhary Hon'ble Minister of State for Jal Shakti

सी आर पाटील C R Paatil



जल शक्ति मंत्री भारत सरकार Minister for Jal Shakti Government of India

2 5 JUN 2024

MESSAGE

It is a matter of pride and satisfaction for our Ministry that WAPCOS Limited, a Central Public Sector Enterprise under its administrative control is going to complete 55 years journey of Excellence on 26th of June 2024.

Throughout this journey, WAPCOS have completed various prestigious projects in challenging geographical and climatic regions, which are testament to its capabilities. The skills and expertise shown by WAPCOS professionals in the fields of Water Resources. Power and Infrastructure are commendable.

As our nation moves ahead with the vision of our Hon'ble Prime Minister Shri Narendra Modi for Viksit Bharat @2047, the Water, Power and Infrastructure sectors will be the key drivers of growth. WAPCOS being a premier technical organisation will play a pivotal role in realizing this Vision.

I wish to make a special mention that WAPCOS as part of Ministry of Jal Shakti has spread its footprints over 75 countries during its glorious journey and hence plays a crucial role in bolstering India's bilateral relations through the excellent engineering services, it renders to numerous developmental projects abroad.

The release of Coffee Table Book "WAPCOS @55 and beyond: Lasting Impacts- Creating Values" is an effort to showcase WAPCOS's experience and expertise gained through working in diverse geographical terrains. I wish this book may be read and liked widely.

I wish WAPCOS success in times to come.

जल शक्ति अभियान मन्य वस, बेस्तर कर्त (CRPAATIL)

Office: 210, Shram Shakti Bhawan, Rafi Marg, New Delhi-110 001 Tel: No. (011) 23711780, 23714663, 23714200, Fax: (011) 23710804 E-mail: minister-jalshakti@gov.in



राजनाथ सिंह RAJNATH SINGH



रक्षा मंत्री भारत DEFENCE MINISTER INDIA

Date: 25-06-2024

Message

I am happy to know that WAPCOS Limited is completing its 55 years of outstanding journey of engineering consultancy on 26th June 2024 and bringing out a coffee table book titled "WAPCOS @ 55 and Beyond: Lasting Impacts – Creating Values" to mark the occasion.

WAPCOS has received global recognition as an exemplar of a cuttingedge engineering organization providing services from "concept to commissioning."

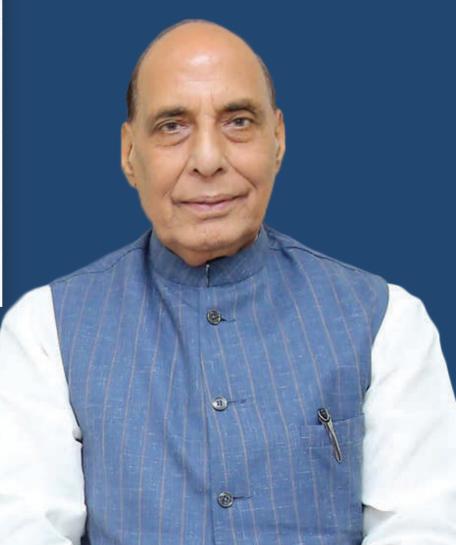
I am sure that this book will effectively showcase customized technical solutions and the latest advancements adopted by WAPCOS for efficient, reliable, and cost-effective implementation of projects in water, Power and infrastructure sectors. WAPCOS's contribution and association with some of the important strategic defence projects deserve special mention.

I congratulate WAPCOS Limited on its 55th annual day and wish for the book's successful publication.

With good wishes,

(Rajnath Singh)

Office: Room No. 104, Ministry of Defence, South Block, New Delhi-110011 Tel.: +91 11 23012286, +91 11 23019030, Fax: +91 11 23015403 E-mail: rmo@mod.nic.in



नितिन गडकरी NITIN GADKARI



मंत्री सड़क परिवहन एवं राजमार्ग भारत सरकार Minister Road Transport and Highways Government of India

MESSAGE

I am happy to learn that WAPCOS Limited is completing 55 years of success and excellence on 26th June 2024. On this occasion, WAPCOS is bringing out a coffee table book titled "WAPCOS @ 55 and beyond: Lasting Impacts – Creating Values". I am sure this book will be very informative and useful to stakeholders.

Being an international organisation of repute, WAPCOS has been associated with road and highway sector since long both in India and abroad. It has made significant contribution by undertaking various assignments across the world through its professional approach and engineering excellence. The international character of WAPCOS is instrumental in furthering Government of India's diplomatic initiatives with other countries and to me this role of WAPCOS is notable and significant.

On this occasion, I congratulate all the members of WAPCOS and extend my best wishes for grand success of the event. I am confident that WAPCOS shall continue to surge high and make significant contribution to development of the country.

Mealler (Nitin Gadkari)

Date: 19th June, 2024 Place: New Delhi **MESSAGE**

Room No. 501, Transport Bhawan, 1, Sansad Marg, New Delhi – 110 001, Tel.: 011-23710121, 23711252 (O), 23719023 (F) E-mail: nitin.gadkari@nic.in; website-www.morth.nic.in



सर्बानंद सोणोवाल SARBANANDA SONOWAL

SAGARMALA



पत्तन, पोत परिवहन और जलमार्ग मंत्री भारत सरकार

Minister of Ports, Shipping and Waterways
Government of India

Message

It is a matter of pride that WAPCOS Limited, a Public Sector Enterprise under the Ministry of Jal Shakti is celebrating 55th Annual Day on June 26, 2024. The Commemorative Book being brought out by WAPCOS on this occasion will be insightful to all the stakeholders.

WAPCOS has been associated with Ports, Shipping and Waterways sectors for past several decades. Some of the notable consultancy works include Dredging at Deendayal Port, Gujarat; Stability of Coastal Inlets at Lakes, Rivers & Fish Landing Centre, Portonova – Annankovil; Development of Riverine Port and Captive Jetty on both sides of River Mahanadi; Coal/Liquid Berth/Jetty facilities; Hooghly Estuary Shipping Channel of Syama Prasad Mukherjee Port amongst others.

Besides there, the services provided by WAPCOS for development of Water Resources, Power and Infrastrucure sectors all over India and in more than 75 countries desrves special appreciation.

On this momentous occasion, I extend my best wishes to WAPCOS.

19th June, 2024 New Delhi

(Sarbananda Sonowal)

Room No. 201, Transport Bhawan, 1, Sansad Marg, New Delhi - 110001 Ph.: 011-23717422, 23717423, 23717424 (O),23356709 (F)

E-mail: minister-shipping@gov.in; Website: www.shipmin.gov.in

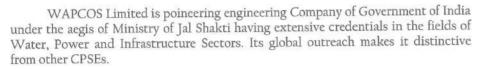
गजेन्द्र सिंह शेखावत Gajendra Singh Shekhawat



संस्कृति मंत्री एवं पर्यटन मंत्री भारत सरकार Minister of Culture and Minister of Tourism Government of India

1 8 JUN 2024





It is heartening to know that on the occasion of its 55th Annual Day, a Coffee Table Book is being released by WAPCOS to showcase its global credentials. The Commemorative Book which WAPCOS is bringing out on this auspicious occasion will provide greater insight to the contribution, it has made towards the development of the society at large throughout the world.

WAPCOS association with the tourism and culture sectors is impressive and diverse. Its contribution in restoration, renovation and modernization of various heritage sites in the country has given impetus to tourisms in the country. Some of the notable works include Heritage Circuit Works under Swadesh Darshan 1.0 and Swadesh Darshan 2.0 Schemes, externally aided Tourism Projects, association with Foundation Investigation of Statue of Unity and development of tourist destination in various states in the country, development of ghats, islands and water front development amongst others. WAPCOS has carried out various prestigious projects for preservation of cultural historical monuments under Archaeological Survey of India.

On this joys occasion, I extend my best wishes to WAPCOS and having known WAPCOS for years, I am confident that WAPCOS shall continue to play an important role towards the vision of our Hon'ble Prime Minister for "Viksit Bharat".

I wish greater success in future to WAPCOS led by Mr. R. K. Agrawal, CMD.

(Gajendra Singh Shekhawat)





Chief Minister, Gujarat State

Dt. 18-06-2024

Message

In the wake of Green Revolution; acceptance of sustainable development along with renewable energy, have registered their status among government machineries and corporate houses. With the emergence of the modernity, the system for water and environmental conservation, developing irrigation is under drastic change. Honourable Prime Minister Shree Narendra Modi asserted in one of his addresses that "We have natural resources because our previous generations protected these resources. We must do the same for our future generations." It is essential to motivate our youth and guide them to choose the right path so that they can achieve their dreams and goals by conserving the environment.

I am much pleased to learn that WAPCOS Limited is releasing a Coffee Table Book "WAPCOS @ 55 and beyond: Lasting Impacts – Creating Values" with an aim to mark its completion of 55 years on 26th June, 2024. The spectrum of services rendered by WAPCOS over several decades in the state of Gujarat is diverse and impressive. This organization is also associated with many Pumped Storage Projects in the state which will pave way to realize our clean energy objectives. I am sure, this book will encourage the next generation to inspire and enhance their knowledge in showcasing its journey for excellence and credentials in Water Resources, Power and Infrastructure sectors. I hope the topics covered in the book will became a pathfinder to next generation and will be beneficial in widening the avenues of knowledge and skills. I convey my best wishes to the entire team of WAPCOS on its 55th Annual Day to continue on the path of success and excellence in all the future endeavours.

(Bhupendra Patel)

To,
Shree R. K. Agrawal, Chairman-cum-Managing Director,
WAPCOS Limited,
508, 5th Floor, Ugati Corporate Park,
Kudasan, Gandhinagar-382421.
Email: cmd@wapcos.co.in, ktr@wapcos.co.in
Mo: 7887582452

Apro/ab/2024/06/18/rs







Mantralaya Mumbai 400 032

1 9 JUN 2024

Eknath Sambhaji Shinde Chief Minister Maharashtra

MESSAGE

I am happy to know that WAPCOS, a Public Sector Enterprise under aegis of Ministry of Jal Shakti, Government of India, is celebrating its 55th Annual Day on 26th June 2024. It is indeed a remarkable journey by WAPCOS in service of nation through their dedicated services in the development of Water, Power and Infrastructure sectors.

It is heartening to know that WAPCOS has been associated with wide spectrum of developmental projects in the state of Maharashtra over several decades. Some of the recent key contributions of WAPCOS in the state include Water and Sewerage systems to ensure cleaner and healthier communities; Waterfront developments to help transform urban spaces making them more vibrant and sustainable; residential and commercial projects to provide modern and comfortable living spaces to citizens etc.

Company's contribution in irrigation projects deserves special mention as it has made significant contribution in our goal to enhance agricultural productivity and support our farmers who are the backbone of our economy. In the areas of road construction and pumping stations, WAPCOS's role is noteworthy.

On this occasion, I acknowledge WAPCOS contribution in Maharashtra's development journey and extend my best wishes to all the officers and staff of WAPCOS led by its Chairman-cum-Managing Director, Shri R. K. Agrawal.

Wish them many more years of innovation and excellence.

(Eknath Sambhaji Shinde)

Tel.: 022-2202 5151/2202 5222, Fax: 022-2202 9214

E-mail: cm@maharashtra.gov.in, Website: www.maharashtra.gov.in



MOHAN CHARAN MAJHI CHIEF MINISTER, ODISHA



LOKASEVA BHAVAN BHUBANESWAR

MESSAGE

I welcome the release of this Commemorative Book highlighting the achievements of WAPCOS in developmental projects in Water, Power and Infrastructure sectors globally and showcasing its journey of excellence.

WAPCOS has been a key player in the development of Odisha, and has been providing its engineering services for various projects in the state since many decades which include the fields of Water Resources development, Irrigation, Energy Storage, Power Transmission and Distribution, Water Supply and Infrastructure Development. Their contribution for the development of Odisha is oustanding.

Its long experience and professionalism is reflected in the quality of work, timely implementation of projects executed in India and abroad. These projects have significantly contributed towards improvement in the "lives & livelihood" of the people.

I hope that WAPCOS will continue to play a significant role in the growth of Odisha in the years to come.

On the occasion of its 55th Annual Day, I congratulate WAPCOS and wish continued success in its future endeavors.

Jai Jagannath

(Mohan Charan Majhi)

1885-CMG-22,06.224



डॉ. जितेन्द्र सिंह राज्य मंत्री (स्वतंत्र प्रसार), विज्ञान और प्रीधोगिकी मंत्रालय, पृथ्वी विज्ञान मंत्रालय, राज्य मंत्री प्रधान मंत्री कार्यालय, कार्मिक, लोक शिकायत तथा पेशन मंत्रालय, परमाणु उर्जा विभाग तथा अंतरिक्ष विभाग, भारत सरकार



DR. JITENDRA SINGH

Minister of State (Independent Charge),
Ministry of Science & Technology,
Ministry of Earth Sciences,
Minister of State, Prime Minister's Office,
Ministry of Personnel, Public Grievances and Pensions,
Department of Atomic Energy & Department of Space,
Government of India



MESSAGE

It is a matter of satisfaction that WAPCOS Limited, a Central Public Sector Enterprise incorporated in 1969, is providing its services to the nation as well as at global level.

It is befitting that on completion of its 55 years of journey, WAPCOS is coming out with a Coffee Table Book "WAPCOS @ 55 and beyond: Lasting Impacts - Creating Values". I am sure this book will increase the WAPCOS outreach and will help the stakeholders to know more about WAPCOS competencies by going through the contents of this book.

As WAPCOS is celebrating its glorious journey of 55 years on 26th June this year, I congratulate WAPCOS for its contribution in the task of nation building and for the betterment of society by providing its engineering services.

(Dr. Jitendra Singh)

MBBS (Stanley, Chennai)

MD Medicine, Fellowship (AIIMS, NDL)

MNAMS Diabetes & Endocrinology

FICP (Fellow 'Indian College of Physicians')

Anusandhan Bhawan, 2, Rafi Marg New Delhi - 110001 Tel.: 011-23316766, 23714230

Fax: 011-23316745

South Block, New Delhi - 110011 Tel.: 011-23010191, Fax: 23016857 North Block, New Delhi - 110001 Tel.: 011-23092475, Fax: 011-23092716





अर्जुन राम मेघवाल Arjun Ram Meghwal





विधि एवं न्याय राज्य मंत्री (स्वतंत्र प्रभार) व

संसदीय कार्य राज्य मंत्री भारत सरकार, नई दिल्ली—110001 MINISTER OF STATE (I/C) FOR LAW & JUSTICE

MINISTER OF STATE FOR
PARLIAMENTARY AFFAIRS
GOVERNMENT OF INDIA, NEW DELHI-110001

Message

It gives me immense pleasure to learn that WAPCOS is celebrating its 55th Annual Day on 26th June 2024. It is a matter of pride that over the years, WAPCOS has established itself as a leading international Company in the fields of **Water**, **Power and Infrastructure**. It has earned good name for itself by providing quality services to Clients in its areas of operation and its achievements are well known at global level.

Besides its presence in nearly every State and Union Territory of India, global footprints in more than 75 countries is a matter of proud for the Nation. WAPCOS has always contributed to many prestigious Government of India flagship Schemes and always been a front runner in providing its services other friendly countries. Its impeccable track record of engineering excellence in executing projects of all scales is matter of pride. It has taken up projects in some of the most difficult situations such as Salma Dam project in Afghanistan, desrves special mention.

On the occassion of 55th Annual Day the initiative to bringing out a Coffee Table Book titled "WAPCOS @ 55 and beyond: Lasting Impacts - Creating Values" is praisworthy. It will encapsulate its glorious journey and achievements of the WAPCOS fraternity.

I am confident that WAPCOS will play a vital role in achieving the vision of Viksit Bharat through its endavours in infrastructure sector. I praise the hardwork and dedication of the employees of WAPCOS for its growth and wish them for brighter future ahead.

(Arjun Ram Meghwal)

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Delhi Residence : 5A, K. Kamraj Marg, New Delhi-110 001 • Tel : 011-23011770/71 Telefax : 011-23011772
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E-mail : mlioffice@gov.in/arjunrammedhwal@gmail.com



डॉ. राज भूषण चौधरी Dr. Raj Bhushan Choudhary



जल शक्ति राज्य मंत्री भारत सरकार नई दिल्ली-110001 MINISTER OF STATE FOR JAL SHAKTI GOVERNMENT OF INDIA NEW DELHI - 110001



Message

It is indeed satisfying to know that WAPCOS, a Central Public Sector Enterprise under our Department is celebrating its 55th Annual Day on 26th June 2024 and coming out with a Coffee Table Book "WAPCOS @ 55 and beyond: Lasting Impacts - Creating Values" on this occasion.

WAPCOS is known for its stellar contribution for strengthening India's bilateral relations with footprints in more than 75 countries. WAPCOS has contributed efficiently for nation building by providing its specialized engineering services for various projects in almost all the States and Union Territories of India and to many flagship schemes of Government of India.

It is heartening to know that over the years, WAPCOS has got recognition of a customer centric and solution-oriented organisation.

I am confident that this book will provide insight about the credentials of WAPCOS in the fields of Water, Power and Infrastructure.

I congratulate WAPCOS on this occasion and wish great success in future under leadership of Mr. R. K. Agrawal, CMD.

New Delhi

(Dr. Raj Bhushan Choudhary)

215, श्रम शक्ति भवन, रफी मार्ग, नई दिल्ली -110 001, 215, Shram Shakti Bhawan, Rafi Marg, New Delhi-110 001 दूरभाष: (011) 23708419, 23718759, फैक्स: 011-23354496, Tel.: (011) 23708419, 23718759, Fax: 011-23354496 ई-मेल/E-mail: mos-mowr@nic.in

KUNVARJIBHAI BAVALIYA



No.: Min/W.R.&W.S.,F.,C.S.& C.A./

1202 4

Minister,

Water Resources and Water Supply, Food, Civil Supply & Consumer Protection Affairs,

Government of Gujarat

Swarnim Sankul-1, 2nd Floor, Sardar Bhavan,

Sachivalaya, Gandhinagar-382010

Phone No.: 079-23250105 Fax No.: 079-23257973

Email: min-ws@gujarat.gov.in

Date: 1 8 JUN 2024

It is with great pleasure and pride that I extend my heartfelt congratulations to WAPCOS, a distinguished public sector enterprise under the Ministry of Jal Shakti, Government of India, on the occasion of its 55th Annual Day on 26th June 2024. This significant milestone is a testament to WAPCOS' unwavering commitment and remarkable contributions to the development of the water, power, and infrastructure sectors in our nation.

WAPCOS has played a crucial role in Gujarat's development journey for many decades, serving as a key partner in numerous projects that have significantly influenced the state. Notably, projects like the Sardar Sarovar Project and the ASTOL project exemplify their impactful contributions.

WAPCOS' execution of projects under flagship schemes such as PMKSY, AMRUT, Jal Jeevan Mission, WASMO, and GWSSB, along with their contributions to the Bulk Drug Park, Gujarat Natural Farming Science University, NAU, GNLU, GMERS Scheme for hospitals, and housing projects under PMAY and MMGY, are commendable. These efforts have significantly contributed to the state's growth and prosperity.

On this momentous occasion, I express my sincere appreciation for WAPCOS' outstanding contributions to Gujarat's development. I extend my best wishes to WAPCOS Ltd. May you continue to achieve greater heights of innovation and excellence in the years to come.

Best wishes,

(Kunvarjibhai Bavaliya)





Dr. Nimmala Ramanaidu,

Minister for Water Resources Government of Andhra Pradesh



Room No.212, 1st Floor, 4th Building, A.P. Secretariat, Velagapudi, Amaravati – 522238. Ph.No.0863-2444680, 2444683

Dt. 25-06-2024

MESSAGE

I am happy to know that WAPCOS, a Public Sector Enterprise under the Ministry of Jal Shakti, Government of India is celebrating its 55th Annual Day on 26th June 2024. It is indeed a journey having its imprints of achievements in the development of water, power, and infrastructure sectors in the country and in the State of Andhra Pradesh. WAPCOS has been associated with a range of key developmental projects in the state of Andhra Pradesh over several decades and have provided its engineering services for various prestigious projects which include Polavaram Irrigation Project, Vykuntapuram Barrage on River Krishna, Water Front Development in Amaravati and several Pumped Storage, Irrigation, Water Supply, Housing and Strategic Defense projects across the State.

I am pleased to learn that on this occasion a Coffee Table Book "WAPCOS@55 and beyond: Lasting Impacts - Creating Values" is being brought to provide deeper insight about the strength and expanse of the Company. As we are committed to expedite all the developmental projects in the state in mission mode, I am sure that WAPCOS will continue to render engineering services with excellence in this direction. On this occasion, I acknowledge WAPCOS contribution in the state of Andhra Pradesh and extend my best wishes to WAPCOS.

(Dr. NIMMALA RAMANAIDU)

To
Sri R.K. Agrawal,
Chairman-Cum-Managing Director,
WAPCOS Limited,
Kudasan, Gandhinagar.



SECRETARY



मारत सरकार जल शक्ति मंत्रालय जल संसाधन, नदी विकास और गंगा संरक्षण विभाग GOVERNMENT OF INDIA MINISTRY OF JAL SHAKTI DEPARTMENT OF WATER RESOURCES, RIVER DEVELOPMENT & GANGA REJUVENATION



MESSAGE

I am delighted that WAPCOS is releasing its Coffee Table Book "WAPCOS @ 55 and beyond: Lasting Impacts - Creating Values" on completion of its 55 years' journey. This book will offer insights about the Company's robust technical know-how and the range of projects executed in India and abroad in the fields of Water, Power and Infrastructure.

Established in year 1969 to share India's experience with friendly countries in the Water Resources sector, WAPCOS today, stands as a CPSE of its own kind with its footprint in more than 75 countries and vast credentials accumulated over the years in its sectors of expertise.

It is a matter of pride that a Company under the administrative control of this Ministry is performing brilliantly over the years.

WAPCOS has earned a reputation as a premier technical organisation across the world and I am confident that this book will demonstrate WAPCOS' extensive experience and capabilities in projects executed within the country and outside.

I am confident that WAPCOS will continue to grow in pursuit of excellence and capitalize on opportunities in the global market and will further diversify into new areas by adopting new technologies from time to time. Through the large public projects that it has executed successfully, WAPCOS has made and will continue to make a meaningful contribution to the society at large.

I congratulate all the employees of WAPCOS on its 55^{th} Annual Day and wish the Company and all members of the WAPCOS family great success in future.



(Debashree Mukherjee)

श्रम शक्ति भवन, रफी मार्ग, नई दिल्ली-110 001 / Shram Shakti Bhawan, Rafi Marg, New Delhi-110 001 Tel. : 011-23710305, 23715919, Fax : 011-23731553, E-mail : secy-mowr@nic.in, Website : http://www.mowr.gov.in

MESSAGES FROM FOREIGN DIGNITARIES AND CLIENTS







ব্ৰাপ্তৰ নিজ্ঞানী কৰিছিল ব্ৰাপ্তৰ কৰে কৰিছিল কৰিছিল Ministry of Energy and Natural Resources Royal Government of Bhutan Thimphu

BHUTAN *Believe*

MINISTER

MoENR/WAPCOS/2024/54

17th June, 2024

Message

On behalf of the Ministry of Energy and Natural Resources, Royal Government of Bhutan, I extend our sincerest congratulations and best wishes to WAPCOS Limited, India on achieving the remarkable milestone of 55 years in operation celebrated on June 26, 2024.

We are deeply appreciative of WAPCOS's contribution to the development of Bhutan's energy sector. WAPCOS' expertise and dedication have been instrumental in realizing several key projects that have significantly contributed to Bhutan's development.

The strong partnership with WAPCOS exemplifies successful international cooperation for mutual benefit by working together to achieve our shared goals for a secure and prosperous energy future.

WAPCOS has been associated with the development of hydropower projects in Bhutan for over four decades. The contribution of WAPCOS, on various completed and ongoing projects is noteworthy and deserves special mention.

I look forward to WAPCOS' continued support in successful commissioning of the Punatsangchhu-II project later this year. This milestone achievement will significantly enhance Bhutan's hydropower generation capacity.

Once again, congratulations on WAPCOS' 55th Annual Day and wish continued success in the years to come.

Gem Tshering 2024

Minister for MoENR & Chairman, PHPA-I & II



Telephone: +975-2-322211 www.moenr.gov.bt (wash your hands, wear a mask and watch your distance)







REPUBLIC OF LIBERIA MINISTRY OF HEALTH P. O. BOX 10-9009 1000 MONROVIA 10, LIBERIA WEST AFRICA

MOH/GOL/NGH/WAPCOS/2024/17

June 24, 2024

Message

On behalf of the Ministry of Health, Republic of Liberia, we extend our sincere appreciation and best wishes to WAPCOS Limited, India on achieving the remarkable milestone of 55 years in operation celebrated on June 26, 2024.

We deeply appreciate WAPCOS's contribution on completing Project New Redemption Hospital Phase -1.1. WAPCOS' expertise and dedication have been instrumental in realizing several key projects that have significantly contributed to the Republic of Liberia.

The strong partnership with WAPCOS exemplifies successful international cooperation for mutual benefit by working together to achieve our shared goals for a secure and prosperous energy future.

WAPCOS has been associated with developing Water Supply Sector, Drainage, and Infrastructure projects in Liberia for over 5 Years. The contribution of WAPCOS, on various completed and ongoing projects is noteworthy and deserves special mention.

I look forward to WAPCOS' continued support in the successful commissioning of Project New Redemption Hospital Phase -1.1 and 1.2 in March 2025.

Once again, congratulations on WAPCOS' 55^{th} Annual Day and wish continued success in the years to come.

For and on behalf of the CLIENT

OF

Louise M. Kpoto, MD, MPH, MMed OBGYN, PhD

Minister of Health

Ministry of Health, Republic of Liberta

MINISITERI Y'UBUHINZI N'UBWOROZI REPUBLIC OF RWANDA



MINISTRY OF AGRICULTURE AND ANIMAL RESOURCES

OFFICE OF THE MINISTER

Kigali, on 23/06/2024 Nº1367/11.30/M

Dear Mr. R K Agrawal and Esteemed Members of WAPCOS,

I am delighted to extend my warmest greetings to each one of you, as you celebrate a significant milestone of completing 55 years journey of unwavering commitment, innovation, and excellence.

On this occasion, I am reminded of the instrumental services that WAPCOS has been rendering to our country in the implementation of Export Targeted Modern Irrigated Agricultural Projects supported by the Government of India.

Rwandans will greatly benefit from these projects, as they will boost agricultural production by decreasing reliance on rain-fed agriculture through modern irrigation technologies, shifting from subsistence farming to commercial agriculture targeting exports, and contributing to the socio-economic development and capacity building of Rwandan counterparts.

Together, we shall continue to collaborate and nurture partnerships between the two nations and create a positive impact on society.

I wish WAPCOS success in its future endeavors and convey my appreciation for your unwavering support, resilience, and passion.

Sincerely,

Dr. Ildephonse MUSAFIRI

Minister of Agriculture and Animal Resources





THE UNITED REPUBLIC OF TANZANIA MINISTRY OF WATER

Telephone: +255 (0) 26 2322602 Website: www.maji.go.tz E-mail:ps@maji.go.tz



Government City, Maji Street, P.O. Box 456, DODOMA.

In reply please quote: Ref. No. BA.226/303/18/26

25th June 2024

Mr. R.K. Agrawal

Chairman-cum-Managing Director WAPCOS LIMITED 76-C, Institutional area, Sector-18, Gurgaon Haryana – 122018.

Ref: Letter of Appreciation

Dear Mr. R.K Agrawal,

On behalf of the Ministry of Water of Tanzania, I extend my heartfelt congratulations to WAPCOS limited on the occasion of your 55th anniversary on June 26, 2024. This milestone is a testament to WAPCOS's enduring commitment to excellence and innovation in the water and power sectors.

- 2. Over the years, WAPCOS has been an invaluable partner to Tanzania, contributing significantly to our national development through numerous successful projects. Your expertise and dedication have helped improve the quality of life for many Tanzanians by enhancing our water management and infrastructure.
- As we celebrate this significant achievement, we also look forward to strengthening our collaboration in the years to come. Together, we can continue to address the challenges of water management and sustainability, ensuring a better future for all.
- 4. Once again, congratulations on this remarkable milestone. We wish WAPCOS continued success and look forward too many more years of fruitful partnership.

JUMAA HAMIDU AWESO (MP) MINISTER OF WATER TANZANIA



REPUBLIC OF BURUNDI

Bujumbura 95 / 06/2024



MINISTRY OF HYDRAULIC, **ENERGY AND MINES**

GENERAL DIRECTORATE OF ENERGY

N/Réf: 760.03 / DGE /.53.4../ 2024

Mr RK Agrawal

Chairman cum Managing Director

WAPCOS Ltd

In India

Object: Regarding Wapcos services in Burundi

On behalf of the of the Government of Burundi, I extend my heartfelt congratulations and best wishes to WAPCOS Limited, New Delhi, under the Ministry of Jal Shakti, Government of India, on the occasion of their 55th Annual Day, observed on 26th June 2024.

For the past decade, WAPCOS has been a vital partner in the development of the Kabu-16. Their outstanding contribution to the Kabu-16 Hydro Project which is nearing completion deserves special recognition.

The positive impact of WAPCOS's work on the lives and livelihoods of the Burundian people is significant and deeply appreciated. We look forward to continuing this fruitful collaboration with WAPCOS in the coming years.

On this auspicious occasion of their Annual Day, I extend my best wishes to WAPCOS for their continued success and greater achievements in the future.

GENERAL DIRECTOR OF ENERGY

Adresse : Boulevard de l'UPRONA, Building NYOGOZI, 2^{ème} étage № 47 B.P : 745 Bujumbura Tél : (00-257) 2222

BOTSWANA

Private Bag 00435 Gaborone Botswana



Telephone: 3689399 3907057 Fax No: Internet: www.moa.gov.bw

21 June 2024

Ministry of Agriculture

WAPCOS (PTY) LTD

76-C, Sector -18, Institutional Area,

REFERENCE: AGX 1/7/35 IV

Gurgaon, Haryana, India

E mail: iwrm@wapcos.co.in; sandy70et@gmail.com wapcosbw@gmail.com

Mobile & WhatsApp No.: 0091-9899626075

Ph:0091-124-2399225 Fax: 0091-124-2348030, 2397392

Message

On behalf of the Ministry of Agriculture, Government of Botswana, I extend sincere congratulations and best wishes to WAPCOS Limited on achieving the remarkable milestone of 55 years in operation, celebrated on June 26, 2024

We deeply value WAPCOS' significant contributions to the development of Botswana's Agriculture sector. Your partnership exemplifies successful international cooperation, mutually advancing our shared goals for a secure and progressive future in irrigation.

We look forward to WAPCOS' continued support in the successful implementation of the "Zambezi Agro-Commercial Project". This milestone achievement promises to significantly enhance food security and economic development in our nation.

Once again, congratulations to WAPCOS on its 55th Annual Day. We wish you continued success in your endeavors.

Thank You.

Yours sincerely,

Mr. William Kapele - Project Coordinator Ministry of Agriculture - Headquarters Private Bag 00435, Gaborone, Plot 4701, Station Road, Botswana Tel: +267 3689399 Facsimile: +267 3907057 wkapele@gov.bw

Page 1 of 1





ត្រះព**សាលាខ**ង្រង់ស្ដី

Kingdom of Cambodia ខាតិ សាសនា ព្រះមហាក្សត Nation Religion King

montron

Phnom Penh, 20/06/2024

MESSAGE

On the occasion of the 55^{th} Annual Day, I am delighted to extend my heartfelt congratulations to everyone at WAPCOS. This significant milestone is a reflection of your sustained excellence, innovation, and commitment to delivering quality consultancy services over the decades.

As a longstanding client, I have worked with WAPCOS team on numerous projects such as Stung Tasal Water Resources Development Project, Master Plan of Siem Reap River Basin, Study of Groundwater Resources of Kampong Speu Province and the ongoing Stung Sva Hab Water Resources Development Project. One of the most remarkable aspects of working with WAPCOS is the personalized approach being brought to each engagement. WAPCOS team's ability to understand the unique challenges we face and to provide bespoke solutions is truly invaluable.

Moreover, the professional integrity and dedication displayed by WAPCOS team have been a cornerstone of our successful collaborations. Your consistent communication and unwavering support have not only facilitated our projects but also fostered a strong and trusting relationship..

As you celebrate this momentous occassion, please know that your hard work and dedication are deeply appreciated.

I congratulate WAPCOS on 55th Annual Day and wish greater success in the future endeavours.

Yours sincerely,

BUN HEAN Secretary of State

អនាវលេនៈ ៣២៤ មហាវិថី ព្រះមុនីវង្ស សង្កាត់ ផ្សាកដីមថ្កូវ ខណ្ឌ ចំការមន រាជធានីភ្នំពេញ ខ្មាស់ពួលេនៈ (៤៥៥) ២៣ ២១៦ ៦៧០ #364, Monivong BLVD, Phsar Deumthkov, Chamkarmon, Phnom Peuh, Cambodia, Phone: (855)23 216 670

MESSAGE





የአዲስ አበባ ውሃና ፍሳሽ ባለስልጣን Addis Abeba Water & Sewerage Authority



የውሃና ሳኒቴሽን መሰረት ልማት ማስፋፊያ ዲቪገርን Water and sanitation Infrastructure Development Division

> 中で、<u>57.1690/16</u>/2 No. 中7 <u>21 /06 /24</u> Date

WAPCOS Limited Addis Ababa

Ref.: Your Letter Ref. No WAP/INFS-I/Ethiopia/2024 phase II dated 19/6/24

Subject: - GREETINGS MESSAGE

Addis Ababa Water and Sewage Authority (AAWSA), Ethiopia extend our sincerest congratulations and best wishes to WAPCOS Limited, India on achieving the remarkable milestone of 55 years in Consultancy Service operation being celebrated on June 26, 2024.

We are deeply appreciative of WAPCOS's contribution to the continued technical expertise in consultancy Service for drinking Water Supply study and design works, especially Identification of Potential Surface Water Resources, Feasibility Study and Detail Design Works for Addis Ababa City, Ethiopia.

Once again, congratulations on your 55th Annual Day and wish continued success in the years to come. Any

With Regards

Aseyoum Told Manager

ጥራታችን የንውሀ ውሃ አቅርቦትና የተሟላ የሳኒቶቹን አባልግሎት በልጣት ማረጋገጥ ነው። ፓ/ሃ.ቀዋ.በ.Box 1438/1110 ስልክ ቀጥር/Tel.No.+251-011-557 80 37/+251-011-557 95 24 / +251-011-557-7042





Level 4, Fiji Development Bank Buildin 380 Victoria Parade, Suva, Fi Telephone: 679-310011: www.fijiroads.or

17 June 2024

MESSAGE TO WAPCOS ON THEIR 55TH ANNUAL DAY

On behalf of everyone at the Fiji Roads Authority, I extend my congratulations and best wishes to WAPCOS Limited, New Delhi, under the aegis of Ministry of Jal Shakti, Govt. of India on their 55th Annual Day being observed on 26th June 2024.

On this significant occasion, I am writing this letter to appreciate the quality of service provided by your company. We sincerely appreciate your efficient and reliable consultancy service, the level of detail and accountability you have demonstrated on each of the project with us.

WAPCOS has been associated with the development of Road and Bridge projects since 2017. The contribution of WAPCOS on various completed and ongoing projects is significant and highly appreciable. The WAPCOS is our key partner in development of Fiji and making positive impact through its services in professional manner.

I take this opportunity to reiterate that WAPCOS's association with Fiji Roads Authority of Fiji will continue for years to come. I convey my good wishes to WAPCOS on this on the auspicious occasion of their Annual Day and wish them greater success in the future.

Mr. Atunaisa Nayago EXECUTIVE CHAIRMAN





Letter of Commendation

On behalf of the Water Authority of Fiji, I extend my congratulations and best wishes to WAPCOS Limited, New Delhi, under the aegis of Ministry of Jal Shakti, Govt. of India on their 55th Annual Day being observed on 26th June 2024.

WAPCOS has been associated with the development of Water and Wastewater projects since December 2015 and is a well-known entity in Fiji Islands through its stellar works. Various assignments successfully undertaken by WAPCOS speak volumes about the company's strength, professionalism and global character.

I hope the positive relationship continues for years to come. I convey my good wishes to WAPCOS on this on the auspicious occasion of their Annual Day and wish them greater success in the future.

Sincerely,



Dr. Amit Chanan
Chief Executive Officer



Wainivula Road, Nasinu, Republic of Fiji • G.P.O Box 1272, Suva, Republic of Fiji
Telephone: (679) 3346777 • Email: contact@waf.com.fj • Website: www.waterauthority.com.fj





GREATER ACCRA SUSTAINABLE SANITATION AND LIVELIHOODS IMPROVEMENT PROJECT

P. O. BOX MB 201, MINISTRIES, ACCRA 69 RING ROAD WEST. OPP. AWUDOME CEMETERY

Kindly quote this number and date on all correspondence

My Ref. No.: GASSLIP/AFDBWAPCOS/01/2024.

Your Ref. No :

Date: 24TH JUNE, 2024

$\frac{\text{CONGRATULATORY MESSAGE TO WAPCOS LIMITED ON THEIR 55}\text{th}}{\text{ANNIVERSARY}}$

The Greater Accra Sustainable Sanitation and Livelihoods Improvement Project (GASSLIP), operating under the Ministry of Sanitation and Water Resources in Ghana, extends warm congratulations to WAPCOS Limited on its remarkable achievement of 55 years in operation, a great milestone which will be celebrated on June 26, 2024.

- 2. WAPCOS Limited is currently providing consultancy services for the Engineering Design, Cost Review, and Construction Supervision of the Densification of Sewerage Networks (Project GASSLIP/S/007). This critical assignment is being implemented in the heart of Accra, Ghana's capital city. The services delivered by WAPCOS Limited demonstrate professionalism and efficiency.
- We kindly request that you convey our gratitude to the WAPCOS Engineers and Experts
 under your capable leadership. Once again, congratulations to WAPCOS Limited, and we wish you
 continued success in the years ahead.

STEPHEN E. D. ACKON PROJECT COORDINATOR

MR RAJNI KANT AGRAWA CHAIRMAN-CUM-MANAGING DIRECTOR WAPCOS LIMITED NEW DELHI, INDIA



Email: gasslipmswr@gmail.com TEL: 0302 234 944/ 0302 22 8791



AFRICAN DEVELOPMENT BANK GROUP

MESSAGE





19th June, 2024

GREETINGS MESSAGE

PT INDRA KARYA (PERSERO), Jakarta, Indonesia extend our sincerest congratulations and best wishes to WAPCOS Limited, India on achieving the remarkable milestone of 55 years in operation being celebrated on June 26, 2024.

We deeply appreciate of WAPCOS's contribution to the continued technical expertise in fields of roads, irrigation, flood control and water resources project in Indonesia and abroad. We look forward to working in new projects in Indonesia together with WAPCOS Limited, India.

Once again, congratulations on WAPCOS' 55th Annual Day and wish continued success in the years to come.



Ir. Yuli Astuti, ST., MT

General Manager

LAO PEOPLE'S DEMOCRATIC REPUBLIC



Lan People's Democratic Republic Peace Independence Democracy Unity Prosperity

Ministry Of Agriculture and Forestry Department of Irrigation ---- 1 9 0 9 Ref. no./DOI Vientiane Capital, Date 2.1...JUN. 2024

Dear Mr. R. K. Agrawal, CMD WAPCOS LTD

Subject: Congratulations and best wishes to WAPCOS 55th Annual Day

On behalf of the Department of Irrigation, Ministry of Agriculture & Forestry, Government of Lao PDR, 1 extend our sincerest congratulations and best wishes to WAPCOS Limited, India on achieving the remarkable milestone of 55 years in operation celebrated on June 26, 2024.

We are deeply appreciative of WAPCOS's contribution to the development of Irrigation Sector. WAPCOS expertise and dedication have been instrumental in realizing several key projects that have significantly contributed to Laos development.

The strong partnership with WAPCOS' exemplifies successful international cooperation for mutual benefit by working together to achieve our shared goals for a secure and prosperous energy future.

WAPCOS has been associated with the development of Irrigation projects in Lao PDR for over a decade. The contribution of WAPCOS, on various completed and ongoing projects is noteworthy and deserve special mention.

Hook forward to WAPCOS' continued support in successful commissioning of Nam Xang Storage Dam and Solar Water pump project later this year. This milestone achievement will significantly enhance Lao PDR Irrigation sector.

Once again, congratulations on WAPCOS* 55th Annual Day and wish continued success in years to come.

Best Regards.

Dr. Khamphachanh VONGSANA

Director General
Department of Irrigation
Ministry Of Agriculture and Forestry
Government of Lao PDR

MESSAGE





WAPCOS LIMITED

MAPUTO

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r Reference Your Communication Our Reference Our Communication 24:06/2024

SUBJECT: WAPCOS's 55th ANNIVERSARY

Dear Sirs.

On the joyous occasion of WAPCOS's 55th Annual Day, I extend my warmest congratulations to the entire team. This significant milestone is a testament to your relentless dedication, exceptional skills, and unwavering commitment to delivering outstanding services.

WAPCOS has been a partner in crucial projects carried out by the ANE. Some of the notable projects include:

- Consultancy Services for Design Review and Supervision of the Multinational Nacala Road, Nampula-Cuamba Road Project, Lot B: Ribaue-Malema (km 131- km 234) upgrading.
- Consultancy Services for Feasibility study, Environmental and Social Impact Assessment, Detailed Architectural and Engineering Design, Preparation of Bidding Documents and Supervision of Construction of One Stop Border Post (OSBP) at the Mandimba Border Post on the Mozambique/Malawi Border crossing.

While the former project has been successfully completed, the latter is still on going.

The commitment to quality and proactive approach exhibited by WAPCOS has been pivotal to the success of our projects. The professionalism and expertise demonstrated by the WAPCOS team are praiseworthy.

The proficiency, strategic acumen, and meticulous attention to detail displayed by WAPCOS have been notable and made a substantial impact on our achievements.

As WAPCOS celebrates its 55th anniversary, I wish you continued success and look forward to further strengthening our collaboration.

Yours faithfully,

Miguel Coand /Deputy General Director

Av. de Moçambique nº 1225 Caixa Postal 1405 , Telefone nº 870797791- Maputo : Moçambique





WAPCOS Limited 6-c, Institutional Area, Sector- I 8, Gurgaon- I 22015 (Haryana), E-mail: mozambique@wapcos.co.in

N/Ref: 998/FIPAG/LIGEA/DSAM/079/24

Maputo, 24 de Junho de 2024

Subject: 55th Annual Anniversary, congratulations.

On behalf of Fundo de Investimento e Património do Abastecimento de Água (FIPAG), I am delighted to extend our heartfelt congratulations to WAPCOS Limited on the momentous occasion of your 55th Annual Anniversary.

Over the years, WAPCOS Limited has been an invaluable partner in helping FIPAG fulfill our vision and achieve our strategic objectives. Your unwavering commitment, technical expertise, and exceptional service delivery have played a crucial role in the successful implementation of several key projects that have had a transformative impact on Mozambique's water supply

We would like to highlight the remarkable contributions of WAPCOS Limited in the following

- 1. Design Check and Supervision of Works for the Rehabilitation and Expansion of Cuamba City Water Supply System.

 2. Consultancy Services for Design Check and Supervision of Rehabilitation & Construction
- of Transmission Mains, Tete, Mozambique.

 3. Water Services and Institutional Support Project (P0104566); Design Check and Supervision of Nacala (FIPAG/WASIS/CON-21A/10), Mozambique.
- Consultancy Services for "Water Services and Institutional Support Project (P0104566);
 Design Check and Supervision for New Transmission Mains (Emergency Works) Nacala (FIPAG/WASIS/CON-21A/12), Mozambique.

WAPCOS Limited has consistently demonstrated a high level of professionalism, dedication, and technical proficiency. Your contributions have not only supported FIPAG in meeting our immediate goals but have also laid a strong foundation for sustainable development and longterm success in the water sector in Mozambique.

The timely and efficient execution of emergency projects has been pivotal in addressing urgent water supply needs, showcasing WAPCOS Limited's ability to deliver under challenging

As you celebrate this significant milestone, we want to express our deep appreciation for your partnership and unwavering support. We look forward to continuing our collaborative efforts to achieve greater heights and create a lasting impact on the communities we serve.

Av. Filipe Samuel Magaia, Nº 1291
P.O. Box 917; Maputo - Moçambique
Tels: 4º550 21308 840 / 21315 529 / 21318 815
Cell: 63 302 5430 / 62 302 5910
Fax (4º250 2130888)
Famil: fipageffpa; co.mz.
www.fipag.co.mz.



MESSAGE

Once again, congratulations on your 55th anniversary, and we wish WAPCOS Limited continued success and prosperity in the years to come.







BOARD OF DIRECTORS

MESSAGE

It is my great pleasure and privilege to extend my heartfelt congratulations to WAPCOS on the occasion of its 55th Annual Day. Since 2013, WAPCOS has been a pivotal partner in Mozambique's journey towards enhancing power transmission, distribution, and solar energy projects. The projects funded by esteemed international organizations such as the World Bank, African Development Bank (AfDB), Swedish International Development Cooperation Agency (SIDA), European Investment Bank, and Norway Bank, have significantly benefited from WAPCOS technical acumen and innovative solutions. I would also like to forward the testament of WAPCOS dedication, expertise, and excellence in the fields of water, power, and infrastructure development in the form of Commemorative Book.

WAPCOS contributions have not only bolstered Mozambique's infrastructure, but have also played a crucial role in uplifting the socio-economic status of our communities. The implementation of these projects has resulted in increased access to reliable electricity, fostering growth, and improving the quality of life for countless Mozambicans.

The power transmission and distribution initiatives led by WAPCOS have enhanced the electrification through *PROENERGIA* Project for the entire Mozambique. These efforts have been instrumental in addressing the energy needs of both urban and rural populations, thereby supporting the nation's sustainable development goals.

In the realm of Solar Energy, WAPCOS has been at the forefront of promoting renewable energy solutions. The Solar Projects have not only contributed to reducing our carbon footprint, but have also ensured a sustainable and resilient

Page 1 of (2)

378, Filipe Samuel Magaia Avenue • P.O. BOX 2447 • Maputo • Mozambique Tel. (+258) 21 353 600 • Fax. (+258) 21 491 048 • www.edm.co.mz Lightning the Transformation of Mozambique



MESSAGE

energy future for Mozambique. This aligns with our commitment to environmental stewardship and combating climate change.

The collaboration between EDM and WAPCOS has been marked by a shared vision of progress and a commitment to excellence. WAPCOS team of dedicated professionals has demonstrated exemplary professionalism, technical prowess, and a deep understanding of the local context, which has been pivotal in the successful execution of these Projects.

As WAPCOS celebrates this significant milestone, we at EDM reaffirm our gratitude and appreciation for their invaluable contributions. We look forward to continuing our partnership and working together on future projects that will further the development and prosperity of Mozambique.

Congratulations once again to *Mr. R K Agrawal*, CMD, WAPCOS and entire WAPCOS family on their 55th Annual Day. May you continue to reach greater heights and achieve even more remarkable successes in the years to come.

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ELECTRICIDADE DE MOÇAMSIQUE

Joaquim Ou-chim

Executive Board Member



378, Filipe Samuel Magaia Avenue * P.O. BOX 2447 * Maputo * Mozambique Tel. (+258) 21 353 600 * Fax. (+258) 21 491 048 * www.edm.co.mz Lightning the Transformation of Mozambique







ELECTRIFICATION AND PROJECTS DIRECTORATE

Your Excellency

WAPCOS Limited 1st Floor, Av.Valdmir Lenine, 1100 Maputo

Our ref: 736/DEP/0.71.5/2024 N. pags: 1+1 Our Ref:

21-06-2024

Contact: Carla Guamb

carla guambefiedm.co.r Tel: +258 21353626

Subject: PROENERGIA

Congratulations On Your 55th Foundation Day

It is my great pleasure and privilege to extend heartfelt congratulations to WAPCOS on the occasion of its 55th Foundation Day. Since 2013, WAPCOS has been a pivotal partner in Mozambique's journey towards enhancing power transmission, distribution, and solar energy projects. The projects funded by esteemed international organizations such as the World Bank, African Development Bank (AfDB), Swedish International Development Cooperation Agency (SIDA), European Investment Bank, and Norway Bank, have significantly benefited from WAPCOS' technical acumen and innovative solutions. I would also like to forward the testament of WAPCOS' dedication, expertise, and excellence in the fields of water, power, and infrastructure development in the form of Commemorative Book.

WAPCOS' contributions have not only bolstered Mozambique's infrastructure but have also played a crucial role in uplifting the socio-economic status of our communities. The

página 1(2)

Av. Agostinho Neto No. 70 • Maputo • Moçambique Tel. (+258) 21490 636 • Fax. (+258) 21491 048 • www.edm.co.mz

50



MESSAGE

implementation of these projects has resulted in increased access to reliable electricity, fostering growth, and improving the quality of life for countless Mozambicans.

The power transmission and distribution initiatives led by WAPCOS have enhanced the electrification through PROENERGIA project for the entire Mozambique. These efforts have been instrumental in addressing the energy needs of both urban and rural populations, thereby supporting the nation's sustainable development goals.

In the realm of solar energy, WAPCOS has been at the forefront of promoting renewable energy solutions. The solar projects have not only contributed to reducing our carbon footprint but have also ensured a sustainable and resilient energy future for Mozambique. This aligns with our commitment to environmental stewardship and combating climate change.

The collaboration between EDM and WAPCOS has been marked by a shared vision of progress and a commitment to excellence. WAPCOS' team of dedicated professionals has demonstrated exemplary professionalism, technical prowess, and a deep understanding of the local context, which has been pivotal in the successful execution of these projects.

As WAPCOS celebrates this significant milestone, we at EDM reaffirm our gratitude and appreciation for their invaluable contributions. We look forward to continuing our partnership and working together on future projects that will further the development and prosperity of Mozambique.

Congratulations once again to Mr. R K Agrawal, CMD, WAPCOS and entire WAPCOS family on their 55th Foundation Day. May you continue to reach greater heights and achieve even more remarkable successes in the years to come.

Your sincerely,



oágina 2(2)

Av. Agostinho Neto No. 70 • Maputo • Moçambique
Tel. (+258) 21490 636 • Fax. (+258) 21491 048 • www.edm.co.mz
Tuminando a Transformação de Moçambique

29





Nepal Electricity Authority

Darbarmarg, Kathmar Phone: 4153078 Fax: 4153036

(Nepal Goysoment Undertaking)

Transmission Directorate

High Voltage Grid Sevelopment Department

Ref No : 2080/081: 61

MESSAGE

On the occasion of your 55th Annual Day, we extend our warmest congratulations to WAPCOS Limited. The initiative to publish a coffee table book titled "WAPCOS @ 55 and Beyond: Lasting Impacts - Creating Values" on this occasion is commendable. This book will encapsulate the inspiring journey and notable achievements of the WAPCOS fraternity.

For over five decades, WAPCOS Limited has been more than just a business partner; you have been a trusted ally in our journey. Your unwavering commitment to quality, integrity, and forward-thinking has played a pivotal role in our own success and growth.

As we reflect on our partnership, we are reminded of the countless projects that have flourished under your guidance. The professionalism, expertise, and dedication of your team have made every collaboration a seamless and rewarding experience.

The past 55 years have been marked by remarkable achievements and significant milestones. As we celebrate this annual day, we also look forward with great anticipation to what the future holds. Your vision for innovation and growth ensures that WAPCOS Limited will continue to set new benchmarks and lead the way in the industry.

Here's to 55 years of excellence and to many more years of shared success and innovation. Congratulations once again on this remarkable milestone.

With sincere appreciation,

(Thark Bahadur Thapa)
Director
Nepal Electricity Authority

MESSAGE





REPUBLIC OF RWANDA RWANDA AGRICULTURE AND ANIMAL RESOURCES DEVELOPMENT BOARD (RAB) Office of the Director General HUYE-RWANDA



On,...25..../...../2024 Ref:N°01.11/.06.84/./024/TN/HQ

Mr. R K Agrawal WAPCOS Ltd <u>INDIA</u>

Dear Sir,

RE: Message for WAPCOS' 55th Anniversary

I am delighted to extend my warmest greetings to you and the Esteemed Members of WAPCOS, as you celebrate 55th anniversary of your institution.

On this occasion, I am reminded of the role that WAPCOS plays in implementation of the Export Targeted Modern Irrigated Agricultural Projects (ETI) under the support of the Government of India. ETI project beneficiaries will be greatly benefitted through this project, since it will boost agricultural production by decreasing reliance on rain-fed agriculture through modern irrigation technologies, shift from subsistence farming to commercial agriculture targeting exports, and contribute into socio-economic development and capacity building of Rwandan counterparts.

Kindly accept our best wishes to WAPCOS, and I look forward to your successes in endeavors ahead.

Yours sincerely.

(mh)

Dr. Telesphore NDABAMENYE Director General

Cc

WAPCOS Country Representative/KIGALI

P.O. BOX: 5016 KIGALI

Website: www.rab.gov.rw



TAJIKISTAN



ЧУМХУРИИ ТОЧИКИСТОН

МАКОМОТИ ИЧРОИЯИ ХОКИМИЯТИ ДАВЛАТИИ ШАХРИ ДУШАНБЕ КОРХОНАИ ВОХИДИ ДАВЛАТИИ «ОБУ КОРЕЗИ ДУШАНБЕ»

734042, ш.Душанбе, к.Айнй, 14 «а» тел:(99237) 222-20-30; 222-20-18; 44-601-00-55; obidushanbe@gmail.com

№ <u>9/7-19</u> аз «<u>1/</u>» <u>06</u> соли 2024 Ба № ____ аз «_ » соли 2024

GREETINGS MESSAGE

State Unitary Enterprise, Dushanbevodokanal (DVK), Dushanbe, Republic of Tajikistan extends its sincerest congratulations and best wishes to WAPCOS Limited, India on achieving the remarkable milestone of 55 years in operation being celebrated on June 26, 2024.

We deeply appreciate WAPCOS's contribution to the continued technical expertise in enhancing the capacity improving the reliability of the water supply and wastewater systems for the population of Dushanbe, Republic of Tajikistan.

Once again, congratulations on the 55th Annual Day of your company. May this journey of success and learning continue for many more years to come.

Lucianian F. A. Rahmonzoda

MESSAGE





Agence Togolaise d'Electrification Rurale et des Energies Renouvelables

Siège social : 503, Rue de la Binah, Tokoin Gbonvié à 50m de la Clinique ATBEF | Site web :www.at2er.tgNIF :1001380283

N°: /AT2ER/DG/2024

Lomé, June 24, 2024

Recommendation letter

On the behalf of AT2ER, it is with great joy that I extend my heartfelt congratulations to WAPCOS on the momentous occasion of its 55th Foundation Day. Since 2013, WAPCOS has been a good partner to Togo, playing a pivotal role in some of our nation's power transmission, distribution, and solar projects. I would like to extend my sincere gratitude to Mr. R.K. Agrawal, Chairman and Managing Director of WAPCOS.

Your contributions to our power transmission and distribution networks have ensured that electricity reaches many areas, improving the quality of life for thousands of Togolese citizens.

On this auspicious occasion, I would like to express my gratitude to the entire WAPCOS team for their commitment and good services. Your collaboration has been important in helping us achieve our energy goals.

As you celebrate WAPCOS's 55 years of excellence, we look forward to continuing our fruitful partnership and building upon the solid foundation we have established together.

The Director General,

The state of the s

Dr. Tchapo A. SINGO

Adresse : 14 BP : 128 Lomé-Togo | Contact : +228 22 21 21 44 | secretariat@at2er.tg | Fax : +228 22 21 21 65





REVOLUTIONARY GOVERMENT OF ZANZIBAR

MINISTRY OF WATER, ENERGY AND MINERALS

Phone: 024 2232695 Fax: 024 2235516 Email: info@majismz.go. 25 Barabara ya Julius Nyerere P.O. BOX 1569 70477 Mjini Magharibi Zanzibar-Tanzania Date: 24th June, 2024

Our Reference

Mr. R. K. Agrawal, Chairman-cum-Managing Director, WAPCOS Limited, 5th Floor, Kailash Builidng, K G Marg, New Delhi, India

RE: APPRECIATION

On behalf of the Ministry of Water, Energy and Minerals, Revolutionary Government of Zanzibar, it is a pleasure to offer my facilitations and compliments to WAPCOS Limited, New Delhi, under the aegis of Ministry of Jal Shakti, Govt. of India on this happy occasion of their 55th Annual Day being observed on 26th June 2024.

WAPCOS has been working on different projects in the field of Power Transmission Lines, Substations and Distribution Projects in Zanzibar funded by the World Bank. The services provided by WAPCOS have been commendable and have resulted into reaching advanced stages for different project components.

I avail myself of this opportunity to ingeminate that the association of WAPCOS with Zanzibar will continue for years in near & far future for mutual benefits. I express my admiration to WAPCOS on the auspicious occasion of their 55th Annual Day and wish them achievement of their ambitions in the future prospects.

(INDIE

Joseph J. Kilangi
PRINCIPAL SECRETARY,
MINISTRY OF WATER, ENERGY AND MINERALS,
ZANZIBAR.

MESSAGE



All correspondence should addressed to "The Secretary"
Telephone: 791761/9,
Website: www.energy.gov.zw
Email: energy@energy.gov.zw



Ministry of Energy & Power Development John Boyne House 2nd floor Cnr. Inez Terrace and Speke Av Private Bag 7758, Causeway Harare, Zimbabwe

Reference:

20 June 2024

The Chief Engineer WAPCOS Limited

Attention: Eng. S. Gupta

RE: APPRECIATION LETTER FROM THE MINISTRY OF ENERGY AND POWER DEVELOPMENT

On behalf of Government of Zimbabwe, I earnestly extend my warm regards to the Government of India for being a supportive hand in the holistic development of our nation. I would like to thank WAPCOS Limited, New Delhi, under the aegis of Ministry of Jai Shakti, Government of India for being a quintessential partner in the development of our nation. I would like to congratulate WAPCOS on their 55th Annual Day being observed on 26th June 2024.

WAPCOS has been associated with Power sector projects since last three decades. The contribution of WAPCOS on various completed and ongoing projects is noteworthy and deserves special mention.

The WAPCOS contribution has a significant positive impact on the lives and livelihood of the people of Zimbabwe.

I take this opportunity to reiterate that WAPCOS's association with Zimbabwe will continue for years to come. I convey my good wishes to WAPCOS on this auspicious occasion of their Annual Day and wish them greater success in the future ID POWER

Eng. B. Munyaradzi

P. BAG 7758, CAUSEWAY

2 U JUN 2024

Eng. B Munyaradzi

ACTING SECRETARY FOR ENERGY AND POWER DEVELOPMENT

Hon. Minister of Energy and Power Development
 Hon. Deputy Minister of Energy and Power Development

PDD//bs

Towards Energy Reliability





Head Office

12th Floor, Megawatt House 44 Samora Machel Avenue P.O. Box MP 274 Mount Pleasant

HARARE
Telephone: +263-242-250407/8/9
+263-242-794826/7
Fax: +263-242-705193

+263-242-705193 www.zpc.co.zw

EM/em/180624

18 June 2024

Chairman cum Managing Director WAPCOS Limited 5th Floor Kailash Building 26, K.G.Marg New Delhi INDIA

Dear Sir

RE: UPGRADATION OF DEKA PUMPING STATION AND RIVER WATER INTAKE SYSTEM, ZIMBABWE: CONTRACT ZPC 111/2013 – APPRECIATION LETTER TO WAPCOS

WAPCOS has been providing "Project Management Consultancy Services" for the Upgradation of the Deka Pumping Station and River Water Intake System Project.

Zimbabwe Power Company and WAPCOS Limited signed an Addendum-01 of 2018 to the existing Contract No. ZPC 111/2013. The main EPC works commenced on 01st October 2021. WAPCOS completed the design review of the project and successfully supervised the installation and testing of the 42 km 960 mm diameter underground pipeline along with the cathodic protection system and valves from the Deka high lift pumping station to the water reservoirs situated at Hwange Power Station.

We appreciate the contribution and continuous involvement of your experts during the execution and Defects Liability Period (DLP) of the project. Currently, physical work completion is 98% and the DLP of the pipeline was completed on 31 May 2024.

Yours faithfully,

N. MATARUTSE MANAGING DIRECTOR (A)

cc. Projects and Technical Director (A)

NUMBERS SPEAK FOR THEMSELVES





66

The motivational messages from our leaders who are our constant inspiration and testimonials from our clients who are our strength truly exemplify our impactful journey of 55 years and reflective of greater successes which the future holds for WAPCOS. I am sure this Book is not only informative but interesting too.

FOREWORD

On 26th June 2024, WAPCOS completed glorious 55 years of engineering excellence, professionalism, and quality at par with international standards. WAPCOS has made lasting positive impacts in the lives of people across the world through its services to numerous developmental projects in India and spread over 75 countries abroad. We provide customized solutions from concept to commissioning to our clients. Our range of services covers each stage of the project cycle and inter-alia including Surveys and Investigations, Detailed Project Reports, Tender Engineering, Detailed Engineering Designs, Project Management Consultancy, etc., and Engineering Procurement and Construction services. Recently, WAPCOS has been ranked 1st amongst Global Consulting Firms in the Water and other Infrastructure Sector category by the Asian Development Bank (ADB) reflecting our leadership position in the Global arena and trust being reposed especially by premiere International institutes in our capabilities. We at WAPCOS derive immense pride to be part of this truly inspiring journey.

As our nation is marching ahead with the vision of our Honourable Prime Minister for Viksit Bharat by 2047, we in WAPCOS are committed and resolute to make significant contributions and lasting impact through our services to the nation under the able leadership of our Honourable Minister of Jal Shakti, Government of India. In a fast-changing world, business opportunities are not the same as they were in the past and emerge in unconventional manners, places, and forms. We in WAPCOS through our large global networks, in-house capabilities, and engineering expertise are poised to take our company to the next level.

This Coffee Table Book "WAPCOS @ 55 and beyond: Lasting Impacts - Creating Values" is a compilation of our stellar contributions to various developmental projects and are lucid reflection as to how we continue to deliver projects and create values to our clients in their respective countries who continue to repose trust in our abilities.

We are deeply touched as we continue to receive wishes from our clients across countries around the world on this momentous occasion.

I am sure that this book will give greater insight into our brand and professional respect which we earn from our clients.

R. K. AGRAWAL

Chairman-cum-Managing Director WAPCOS

BOARD OF DIRECTORS



Sh. R.K. AgrawalChairman-cum-Managing Director



Sh. Pankaj Kapoor
Director (Finance)



Sh. Anand Mohan

Government Nominee Director
Joint Secretary (RD&PP)

DoWR, RD&GR. Ministry of Jal Shakti



Shri Abhishek Singh
Government Nominee Director
Joint Secretary (ED)
Ministry of External Affairs



Sh. Anupam Mishra

Director
(Commercial & HRD)



Sh. Anil Kumar Trigunayat

Independent Director



Sh. Jasbir Singh Thakur

Independent Director



Sh. Lakhan Lal Sahu

Independent Director



Sh. Partha Sarathi Ghosh

Independent Director

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WAPCOS @55 & beyond....

WAPCOS is a technology-driven "MINI RATNA-I" Public Sector Enterprise under the aegis of Ministry of Jal Shakti. Specializing in Consultancy & Engineering Procurement & Construction (EPC), WAPCOS boasts a robust presence both domestically and internationally in the fields of Water Resources, Power and Infrastructure. The Company's extensive and diverse portfolio of projects underscores its significant impact.

WAPCOS provides consultancy services for developmental projects across the nation and plays a leading role in flagship development programs of Government of India. These include the Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Namami Gange, Smart City, Pradhan Mantri Awas Yojana (PMAY), Revamped Distribution Sector Scheme (RDSS), Integrated Power Development Schemes (IPDS), Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), and Pradhan Mantri Gram Sadak Yojana (PMGSY) among others.

With its rich and diverse experience and expertise in its operational areas, WAPCOS is well-positioned to transcend boundaries and explore new sectors while continuing to undertake projects of any scale, region, and complexity.

INCEPTION OF WAPCOS 26th JUNE, 1969

The genesis of WAPCOS dates back to a visit to Afghanistan by the then Hon'ble Minister of Irrigation and Power, Dr. K.L. Rao. During this visit, the Minister toured the fields, and the Government of Afghanistan, recognizing the expertise and technical knowledge India had developed in the fields of irrigation and power, requested India's assistance in planning and implementing small hydro-power projects. This highlighted the need for an independent consultancy organization capable of pooling and sharing the specialized expertise and technical know-how of India's government organizations with other developing countries. Consequently, WAPCOS was incorporated on June 26th, 1969, under the Companies Act of 1956, and placed under the administrative control of the Ministry of Water Resources.



WAPCOS - CORE COMPETENCIES

Sectors of Operations





Water Resources

Power

Infrastructure

Fields of Specialization



Water Supply & Sanitation



Transportation



Ports, Harbours & Inland Waterways



Power





Heritage & Tourism

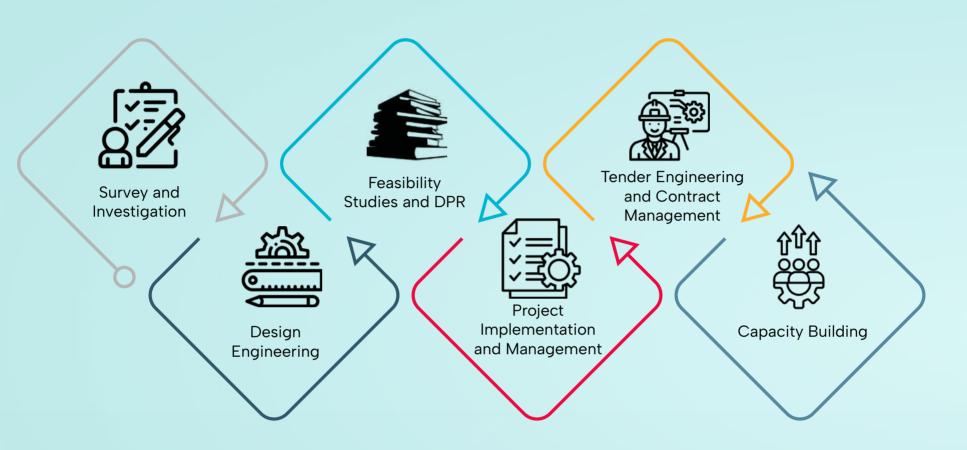


Environment and Climate Change



Township and Buildings

SPECTRUM OF SERVICES





GLOBAL FOOTPRINTS (75+ COUNTRIES)

AFRICA

- 1. Algeria
- 2. Angola
- 3. Benin
- 4. Botswana
- 5. Burkina Faso
- 6. Burundi
- 7. Cameroon
- 8. Central African Republic
- 9. Chad
- 10. DR Congo

- 11. Eritrea
- 12. Eswatini
- 13. Ethiopia
- 14. Gambia
- 15. Ghana
- 16. Guinea
- 17. Kenya
- 18. Lesotho
- 19. Liberia
- 20. Madagascar
- 21. Malawi

- 22. Mali
 - 23. Mauritius
 - 24. Mozambique
 - 25. Namibia
 - 26. Niger
 - 27. Nigeria
 - 28. Republic of Congo
 - 29. Rwanda
 - 30. Senegal
 - 31. Sierra Leone

- 32. South Africa
- 33. South Sudan
- 34. Sudan
- 35. Tanzania
- 36. Togo
- 37. Uganda
- 38. Zambia
- 39. Zimbabwe

ASIA

- 1. Afghanistan
- 2. Armenia
- 3. Bangladesh
- 4. Bhutan
- 5. Cambodia
- 6. Georgia
- 7. India
- 8. Indonesia

- 9. Iran
- 10. Iraq
- 11. Laos PDR
- 12. Malaysia
- 13. Maldives
- 14. Mongolia
- 15. Myanmar16. Nepal

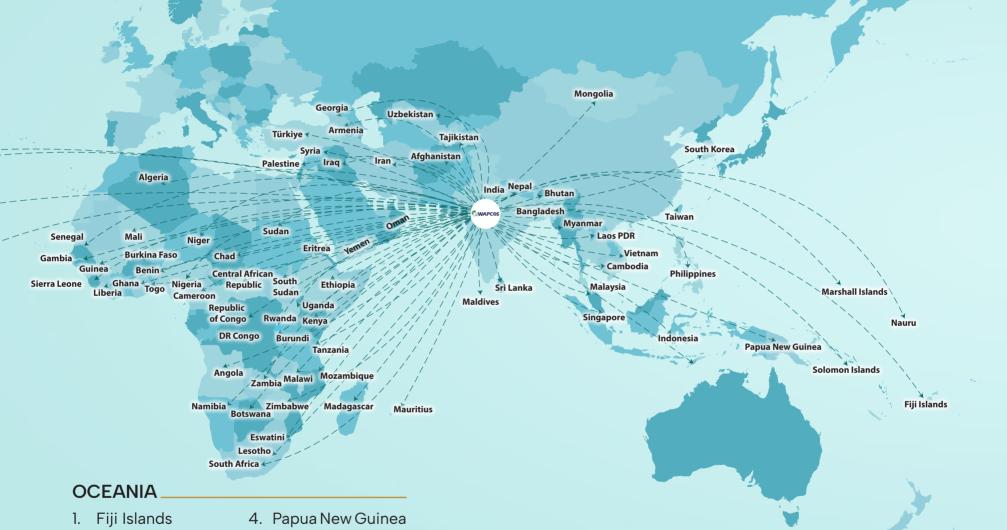
- .
 - 18. Palestine

17. Oman

- 19. Philippines
- 20. Singapore
- 21. South Korea
- 22. Sri Lanka
- 23. Syria
- 24. Taiwan

- 25. Tajikistan
- 26. Timor-Leste
- 27. Türkiye
- 28. Uzbekistan
- 29. Vietnam
- 30. Yemen





2. Marshall Islands

LATIN AMERICA AND CARIBBEAN

3. Nauru

1. Belize

2. Cuba

5. Solomon Islands

3. Nicaragua

4. Suriname

ASSOCIATED WITH INTERNATIONAL & MULTILATERAL FUNDING **ORGANISATIONS**



World Bank



ADB

Asian Development Bank

French

Development

Agency



Asian Infrastructure Investment Bank



European Investment Bank



New Development Bank



European Bank for Reconstruction and Development



EXIM Bank of India



African Development Bank



KFW

German

Development

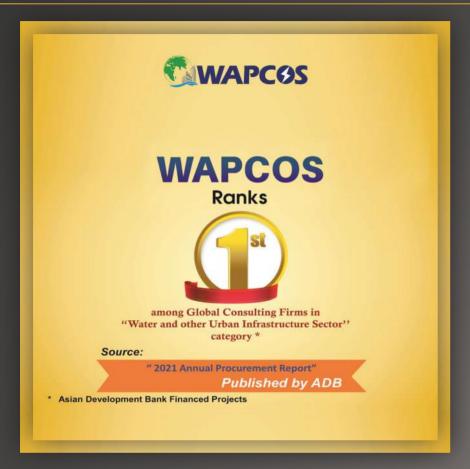
Bank

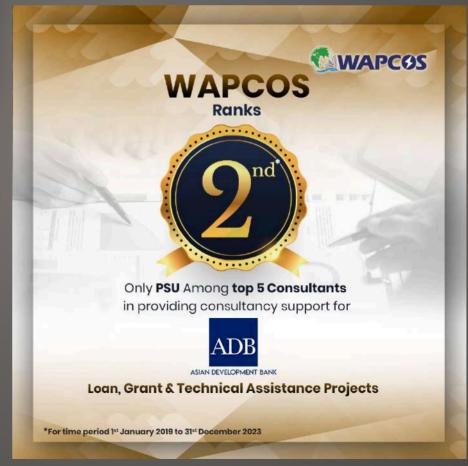
Japan International Cooperation Agency



Millennium Challenge Corporation

GLOBAL RECOGNITION







Foreign PROJECTS



AFGHANISTAN

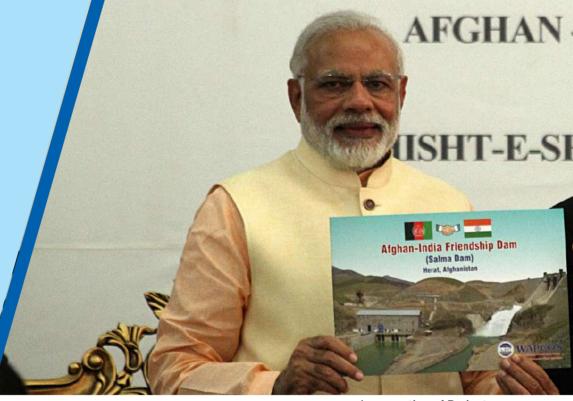
CLIENT



MINISTRY OF EXTERNAL AFFAIRS GOVT. OF INDIA

AFGHAN - INDIA FRIENDSHIP DAM (AIFD) PROJECT

(FORMERLY KNOWN AS **SALMA DAM)**



Inauguration of Project



PROJECT COST US\$ 214 MILLION



OBJECTIVES

- Hydro Power Generation 186.13 GWh
- irrigation Stabilizing facilities 35,000 Ha.
- Development of additional irrigation facilities - 40,000 Ha.
- Allied benefits fisheries, tourism & Ground water recharge

SALIENT FEATURES

- Dam Height 104.30 m, Length 550 m
- Reservoir Gross capacity 633 million cum
- Power House 42 MW
- Transmission line 110 kV (157 km long)

USP:

Construction of 104.3 m high Dam under challenging, Topography, Geology and Hostile Conditions

WAPCOS ROLE

Construction (Deposit Works)

Dam - Downstream View



REPORT PREPARATION



TENDER ENGINEERING



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING



CLIENT



CASA 1000 -500 kV HVDC TRANSMISSION LINE

(Funded by World Bank)



Route Map of CASA-1000



PROJECT COST
US\$ 255 MILLION



OBJECTIVES

 To facilitate the transfer of surplus summer power (approximately 1.0 GW) from Kyrgyzstan and Tajikistan to Pakistan via Afghanistan.

USP

- Clean Smart Power
- Step towards creating the Central Asia-South Asia Regional Electricity Market (CASAREM) Transmission Lines

WAPCOS ROLE

Owner's Engineer

Support to PIU

Project Management

• Cle



Transmission Tower Erection



Pulling of Conductor

SALIENT FEATURES

- CASA-1000 is the Power Transmission Project - transmits electricity at high voltages between:
 - » Kyrgyzstan and Tajikistan
 - » Tajikistan to Afghanistan
 - » Afghanistan to Pakistan
- Afghanistan covers Approx. 575 Kms of Transmission Lines



REPORTING & RECORDS



FACTORY
ACCEPTANCE TEST &
MATERIAL INSPECTION





REAL-TIME PROJECT MONITORING



AFGHANISTAN



MINISTRY OF **EXTERNAL AFFAIRS**

LALANDER SHAHTOOT DAM



Hydraulic Model Studies for Spillway (Irrigation Research Institute, Roorkee)



PROJECT COST US\$ 373 MILLION



OBJECTIVES

- Supply drinking water to Kabul City
- Revamp of existing canal system for irrigation

SALIENT FEATURES

- 95 m high Earth & Rock fill Dam
- 82 m wide Spillway
- 300 MLD WTP (can be expanded upto 350 MLD)
- 1.6 m dia and 7.3 km long Conveyance Pipe
- Irrigation of about 1800 ha area



Topographical Survey

WAPCOS ROLE

Detailed Project Report (DPR)







DPR PREPARATION



BANGLADESH

CLIENT



POWER GRID COMPANY OF BANGLADESH **400 kV SUBSTATIONS UNDER SOUTHWEST TRANSMISSION GRID EXPANSION PROJECT** (Funded by ADB)



WAPCOS Expert visit at Rahanpur 400/132 kV GIS Substation



PROJECT COST US\$ 100 MILLION



OBJECTIVES

Improvementintheoperationalperformance of the power sector and to contribute to the Government of Bangladesh's target to achieve electricity for all

USP

ADB Funded Transmission Line Project at 400 kV Level in Bangladesh

SALIENT FEATURES

- 400/230 kV GIS Substation at Bogura
- 2 x 750 MVA Transformers, 125 MVAR reactor and 400/132 kV GIS Substation at Rahanpur
- 2 x 520 MVA Transformers, 125 MVAR Reactor

1000

Power System Study

WAPCOS ROLE

Design Review & Construction Supervision

SERVICES RENDERED



POWER SYSTEM STUDIES





REVIEW OF DESIGN DOCUMENTS & DRAWINGS



ENVIRONMENTAL STUDIES



CLIENT



BANGLADESH INLAND WATER TRANSPORT AUTHORITY

FAIRWAY OF INDO-BANGLADESH INLAND WATER TRANSIT & TRADE PROTOCOL ROUTE

(Funded by Government of India and Government of Bangladesh)



Dredging in Progress



PROJECT COST US\$ 28.15 MILLION



OBJECTIVES

- To Supervise Maintenance of dredging in Indo-Bangladesh Inland Water Protocol route
- To make Indo-Bangladesh Protocol route Navigable

SALIENT FEATURES

- · Ashuganj to Zakiganj Stretch Length 295 km
- Sirajganj to Daikhowa Stretch Length 175 km
- Targeted depth in both the stretches 2.5 m
- Annual Maintenance Dredging
 - Stretch 1 4.5 Lakh Cubic Meters
 - Stretch 2 10.8 Lakh Cubic Meters



Dredging in Progress

WAPCOS ROLE

Supervision for Dredging

SERVICES RENDERED





REAL-TIME PROJECT MONITORING



BELIZE





115 kV TRANSMISSION LINE

(FUNDED BY WORLD BANK)



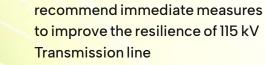


PROJECT COST US\$ 246,500





Heavy Vegetation Area



To develop a complete rehabilitation program and pilot project of 115 kV Transmission line

To conduct engineering study and

Mitigating the risks associated with the potential for failure of transmission line during hurricanes, bush fires and damaged from rotting and termites

SALIENT FEATURES

- Conduct a detailed foot over survey of 115 kV Transmission line from West-Lake to Maskall substation (337 structure, 54 km length)
- Based on the detailed survey, design review, recommendation for its rehabilitation and resilience, measures
- Based on the approved recommendations, prepare a bidding documents i.e. generic goods and works tender documents, as per World Bank standard
- Preparation of Report using Big Data Analysis

WAPCOS ROLE

Feasibility Report



Inundated wooden pole



TENDER



FOOT OVER SURVEY OF LINE



CHHUKHA, BHUTAN

CLIENT



DRUK GREEN
POWER
CORPORATION
LIMITED (DGPC)

TALA HYDRO ELECTRIC PROJECT (1020 MW)



Dam Complex





OBJECTIVES

Peak Hydropower Generation

SALIENT FEATURES

- Design energy: 4,865 MU
- 23 km Long HRT, 6.8 m dia Modified Horse Shoe
- Concrete Gravity Dam 128.7 m long and 92 m high
- Underground Power House, 206m (L) x 20.4 m (W) x 44.5 m (H)
- 6 Units of 170 MW each

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WAPCOS ROLE

Concept to Commissioning

SERVICES RENDERED

Largest completed Hydropower Project in Bhutan

and is in Operation since year 2006



SURVEY & GEOTECHNICAL INVESTIGATIONS



DPR REPORT PREPARATION



TENDER ENGINEERING



DETAIL DESIGN ENGINEERING



CONSTRUCTION MONITORING



REAL-TIME PROJECT MONITORING



Machine Hall



WANGDUE PHODRANG, BHUTAN

CLIENT



PUNATSANGCHHU-I HYDROELECTRIC PROJECT AUTHORITY

PUNATSANGCHHU-I HYDROELECTRIC PROJECT (1200 MW) (Funded by Government of India)





PROJECT COST US\$ 1,172 MILLION



OBJECTIVES

Peak Hydropower Generation

SALIENT FEATURES

- 8.948 km Long HRT, 10 m dia
- Concrete Gravity Dam 225 m long and 91 m high
- Underground Power House 236.9 m (L) x 22.9 m (W) x 53 m (H)
- 6 Units of 200 MW each francis Turbine

USP:

- One of the Largest Hydropower Projects in Bhutan under construction
- **Innovative Design Engineering** Solutions provided for 130 m high Concrete Gravity Dam and Underground Powerhouse Complex



Machine Hall

WAPCOS ROLE

Concept to Commissioning

SERVICES RENDERED



SURVEY & GEOTECHNICAL INVESTIGATIONS



DPR REPORT PREPARATION



TENDER ENGINEERING



DETAIL DESIGN ENGINEERING



CONSTRUCTION MONITORING



REAL-TIME PROJECT MONITORING



BHUTAN

CLIENT



PUNATSANGCHHU
- II HYDROPOWER
PROJECT
AUTHORITY

PUNATSANGCHHU-II
HYDROELECTRIC
PROJECT
(1020 MW)
(Funded by Government of India)



Hon'ble Prime Minister of Bhutan Lyonpo Shering Tobgay, inaugurated the initial Reservoir Filling of Dam



PROJECT COST US\$ 1,122 MILLION





Project Site Visit

OBJECTIVES

Peak Hydropower Generation

SALIENT FEATURES

- Design energy: 4,244.75 MU
- 8.514 km Long HRT, 11 m dia
- Concrete Gravity Dam 225 m long and 91 m high
- Underground Power House 240m (L) x 23.5 m (W) x 51 m (H)
- 6 Units of 170 MW each

USP:

- Innovative Design engineering solution provided in adverse geological setup for UG Power house complex
- 100T Cables Anchors in RCC retaining walls
- Filling of ~50 m high Underground Cavity with M5 grade flowable concrete

WAPCOS ROLE

Concept to Commissioning



SURVEY & GEOTECHNICAL INVESTIGATIONS



DPR REPORT PREPARATION



TENDER ENGINEERING



DETAIL DESIGN ENGINEERING



CONSTRUCTION MONITORING



REAL-TIME PROJECT MONITORING





CLIENT



DEPARTMENT OF ENERGY (DOE), ROYAL GOVT. OF BHUTAN KURI-GONGRI HYDROELECTRIC PROJECT (2800 MW)

(Funded by Government of India)





PROJECT COST
US\$ 2,517 MILLION



OBJECTIVES

Peak Hydropower Generation

SALIENT FEATURES

- Rockfill Dam (286 m height)
- Surface Power House (Size) 400 m (L) x 70 m (W)
- HRT (04 No., Dia. 10 m, Avg. Length 1.5 km each)
- Power Generation 2800 MW

USP:

- Design engineering in most challenging Geology of fragile dolomitic setup with solution cavities.
- Exhaustive field investigation in Most Difficult and in accessible Terrains
- One of the Largest Storage Type Projects in Bhutan



Core-Drilling at Dam Axis

WAPCOS ROLE

DPR Consultant

SERVICES RENDERED





TOPOGRAPHICAL SURVEY AND GEO-TECHNICAL INVESTIGATIONS MICROEARTHQUAKE STUDY



BHUTAN

CLIENT



NATIONAL HOUSING DEVELOPMENT CORPORATION LIMITED (NHDCL) (FUNDED BY ADB)

GREEN AND RESILIENT AFFORDABLE HOUSING SECTOR PROJECT (GRAHSP)

(Funded by ADB)



Traditional Buildings in Bhutan



PROJECT COST US\$ 37 MILLION



OBJECTIVES

- The GRAHSP project will deliver 1018 no. of adequate, affordable, and resilient housing units in selected settlements of 6 Dzongkhag in Bhutan.
- Climate and disaster-resilient affordable housing units and public facilities for low-income individuals constructed

SALIENT FEATURES

- Construction of 1018 no. of Housing Units
- **EDGE Certification**
- Design of Green and Resilient Structure
- Climate- and disaster-resilient structure

USP:

GRAHSP is one of the Largest Housing project in Bhutan funded by ADB

Location of 15 no. of Subproject sites in 06 Dzongkhag In Bhutan

WAPCOS ROLE

- **Project Implementation Assistance Consultant** (PIAC)
- Construction Supervision
- Review of Design and tender engineering
- Social and Environmental Study
- Assist in EDGE Building Certification
- Feasibility Study for all 15 no. of subprojects

SERVICES RENDERED



SURVEY & GEOTECHNICAL INVESTIGATIONS



FEASIBILITY REPORT



TENDER ENGINEERING



DETAIL DESIGN ENGINEERING



CONSTRUCTION MONITORING



BURUNDI



KABU-16 **HYDROELECTRIC PROJECT** (20 MW) (Funded by Government of India)

and Government of Burundi)







OBJECTIVES

- · Provide better quality life to people of Burundi
- Contribute in meeting the requirement of Power for industrial expansion in country

SALIENT FEATURES

Concrete dam – 110 m long

- Desilting Basins 2 Nos. 100 m long each
- HRT 2.95 m dia.
- Modified horse shoe shaped 2.375 Km
- Surge Shaft 5m diameter
- Penstock 2 m diameter 935 m long
- Power house 2 units of 10 MW each
- 110 kV LILO Transmission line

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



DESIGN REVIEW



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING



Power House complex



CAMBODIA





MINISTRY OF WATER **RESOURCES AND METEOROLOGY** (MOWRAM)

STUNG TASAL WATER RESOURCES DEVELOPMENT PROJECT (Funded by EXIM Bank



Downstream view of spillway





of India)

PROJECT COST US\$ 19 MILLION



OBJECTIVES

 To provide Irrigation in downstream area of Aoral District, Kampong Province Cambodia

SALIENT FEATURES

- Concrete faced Rockfill Dam
 - Height 21 m | Length 720 m
- Spillway
 - Length 45 m
 - Gross Level Storage 147 MCM
 - Culturable Command Area 10,000 Ha

Bird's eye view - Stung Tasal Dam

WAPCOS ROLE

Construction (Deposit Works)



PREPARATION



ENGINEERING





PMC SERVICES



Project Site Visit



CAMBODIA





MINISTRY OF WATER **RESOURCES AND METEOROLOGY** (MOWRAM)

STUNG SVA HAB WATER RESOURCES DEVELOPMENT PROJECT

(Funded by EXIM Bank of India)





PROJECT COST US\$ 37 MILLION



OBJECTIVES

- To store the surface water for the development of the command area.
- To protect the Agricultural and Rural areas from excessive floods
- To Create water storage capacity for Irrigation use

SALIENT FEATURES

- · Construction of Concrete Face Rockfill Dam with 150 MCM storage capacity
- Supplementary hydropower generation of 550 kW

WAPCOS ROLE

- **Detailed Project** Report
- Project Management Consultancy

SERVICES RENDERED



DPR PREPARATION



TENDER ENGINEERING



PMC SERVICES



Topographical Survey Works







MINISTRY OF WATER RESOURCES AND METEOROLOGY (MOWRAM) CLIMATE ADAPTIVE IRRIGATION AND SUSTAINABLE AGRICULTURE FOR RESILIENCE (CAISAR)

(Funded by AIIB)



Lum Hach Main Canal



PROJECT COST US\$ 200 MILLION



OBJECTIVES

- Rehabilitation of existing irrigation canals
- Application of climate smart irrigation systems

SALIENT FEATURES

No.	Irrigation Scheme	Gross Area (Ha)	Province
1	Ou Ta Paong Tanai	13,270	Pursat
2	Lum Hach	16,664	Kampong Chhnang
3	Krang Ponley	9,105	Kampong Chhnang, Kampong Speu, Kandal
	Total	39,039	
	Primary Canals		140 Km

Ou Ta Paong Tanai Canal

WAPCOS ROLE

Feasibility Study





CAMBODIA

CLIENT



MEA GOVERNMENT OF INDIA

SUPPLY AND INSTALLATION OF HAND PUMPS FOR AUGMENTATION OF RURAL WATER SUPPLY

(Funded by Grant in Aid by Government of India)



Community using Hand Pumps in Army disability Area in Banteay Meanchey Province



PROJECT COST
US\$ 10.41 MILLION



OBJECTIVES

Increase in Population Coverage with Safe
Drinking Water Supply

SALIENT FEATURES

- Tboung Khmum Province 1190 Hand Pumps
- Banteay Meanchey Province- 310 Hand Pumps
- Increase in Safe Drinking Water Supply: 27% to 40% by installing 1500 hand pumps
- The population benefitted are located in 433 villages, spread out in an area of 11929.51 km² covering two provinces of the Royal Government of Cambodia. The total population benefitted is 3,75,000.



Drilling operation at Site, Thoung Khmum Province

WAPCOS ROLE

Construction (Deposit Works)



REPORT PREPARATION



CONSTRUCTION SUPERVISION



TENDER ENGINEERING



REAL-TIME PROJECT MONITORING



CAMBODIA

CLIENT



TRANSMISSION LINE BETWEEN STUNG TRENG AND KRATIE

(Funded by EXIM Bank of India)



Stringing at Tower Location with OPGW and Conductor



PROJECT COST US\$ 27 MILLION



OBJECTIVES

- Transportation of Large Quantum of Power between Stung Treng and Kratie
- To Increase Power Grid Reliability
- To export surplus Hydro power to neighbour countries in future

SALIENT FEATURES

- 230 kV Double Circuit Transmission Line: 115 km
- Twin ACSR 'Bittern' Conductor with Stringing of Single Circuit
- · No. of Towers: 352 Nos.
- 230/22 kV Substation at Kratie

WAPCOS Team Along With Officials From EDC And Exim Bank

WAPCOS ROLE

Project Implementation Consultant





DPR

TENDER ENGINEERING





REAL-TIME PROJECT MONITORING



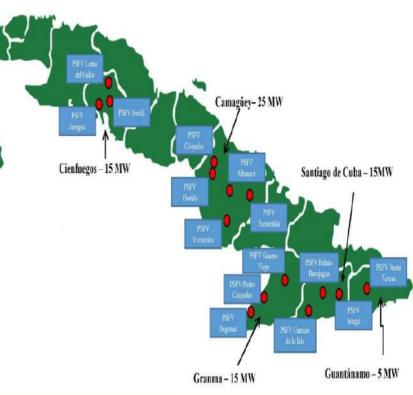
CLIENT



EMPRESA
IMPORTADORA
- EXPORTARA
DE OBJETIVOS
ELECTROENERGETICOS

75 MW SOLAR PHOTOVOLTAIC PARKS

(Funded by EXIM Bank of India)



Geographical Location of Identified Sites



PROJECT COST US\$ 102 MILLION



OBJECTIVES

- Environmental Improvement
- Socio Economic Improvement
- Development of irrigation facilities to improves the agricultural development

SALIENT FEATURES

- 75 MW Solar Parks: 15 nos. (5 MW each)
- 34.5 kV Transmission Line: 8.5 km
- 13.8 kV Transmission Line: 3.8 km
- Optical Fiber cable: 80 km
- Augmentation of existing transmission line: 16.6 km



Kick-off Meeting



Piedrecitas Site Interconnection Point

WAPCOS ROLE

Detailed Project Report

SERVICES RENDERED



DETAILED PROJECT REPORT

DR CONGO



MINISTRY
OF WATER
RESOURCES AND
ELECTRICITY
(MHRE)

TRANSMISSION LINE, ASSOCIATED SUBSTATION AND DISTRIBUTION LINE PROJECT

(Funded by EXIM Bank of India)



33/66 kV 10 MVA PK600 Substation



PROJECT COST US\$ 37 MILLION



OBJECTIVES

To evacuate the power from Kakobola HEP and electrify the important cities like Kikwit, Idiofa, Gungu and other nearby villages

SALIENT FEATURES

- 66 kV Transmission Line: 116 km
- 33 kV Distribution Line: 172 km
- 66/33 kV Substations: 4 nos.
- Single phase meter connection: 9500 nos.
- Three phase connection: 500 nos.

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



DPR



TENDER ENGINEERING



DESIGN REVIEW



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING

66 kV Transmission Line From Pk600 To Kikwit



CLIENT



FARM MECHANIZATION

(Funded under Government of India's Line of Credit)



Tractors presented to His Majesty, King of Eswatini



PROJECT COST US\$ 38 MILLION



OBJECTIVES

 Increasing maize productivity from 2 tonnes per hectare to more than 4 tonnes per hectare through Farm Mechanization

SALIENT FEATURES

- Supply of 100 nos. Indian make Tractors
- Supply of Farm implements alongwith spare parts
- Setting up of Soil Testing Laboratories
- Establishment of Vermi-compost units



Pre-shipment inspections in India

WAPCOS ROLE

Project Management Consultancy







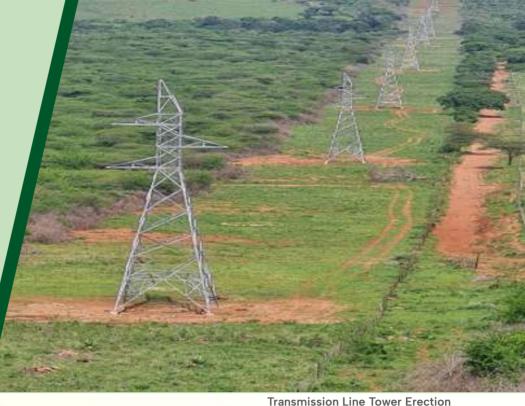




ESWATINI ELECTRICITY COMPANY (EEC)

NETWORK REINFORCEMENT **AND ACCESS** PROJECT (NRAP)

(Funded by World Bank)





PROJECT COST US\$ 28 MILLION



OBJECTIVES

- To improve the voltage regulations and reduce transmission & distribution system interruptions in Eswatini Grid
- Increase the number of households provided with electricity.
- Cater to the need of Increased commercial, industrial and residential electricity demand in the Shiselweni region

SALIENT FEATURES

- 132 kV Transmission line: 90 km
- 66 kV Transmission line Rehabilitation work (wooden to steel pole): 500 m
- 132/11 kV Substations: 3 nos
- Nos. of Towers: 349 (Towers) and 4 (Monopoles)
- Bay extension in existing 132/11 kV Substation: 1 no



132/11 kV Hluthi Substation

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



DETAILED DESIGN



TENDER ENGINEERING





REAL-TIME PROJECT MONITORING

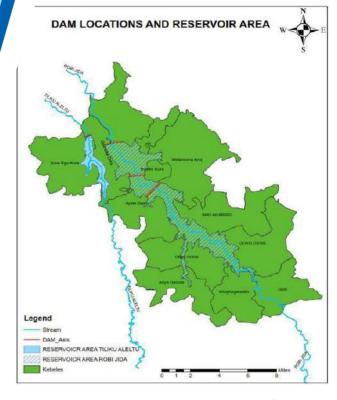






AAWSA ADDIS ABABA WATER AND SEWERAGE AUTHORITY

JIDA DAM FOR WATER SUPPLY TO ADDIS ABABA



Jida Dam Site



OBJECTIVES

- Identification of Surface Water Resources for Future Water Supply of Addis Ababa
- Construction of dam for water storage and Water Treatment Plant for supply of treated water to nearby population

SALIENT FEATURES

- Length of Raw Water Transmission Main :
 3.5 km
- Length of Clear Water Transmission Main:
 85 km (2 Nos. each of 1.2 m dia)
- Earth & Rock fill Dam : 1932 m length, 58m height
- Output: 600,000 m³/ day of clean potable water for Addis Ababa City
- Benefitted population 4 Million



Jida Dam Site



Reservoir Area

WAPCOS ROLE

- Peasibility and
 Detailed Project
 Reports
- Tendering for Construction



FEASIBILITY STUDY



DETAILED DESIGN



TENDER ENGINEERING

ETHIOPIA

CLIENT



ADDIS ABABA CITY ROADS AUTHORITY (AACRA) STRATEGIC
ENVIRONMENTAL AND
SOCIAL ASSESSMENT
(SESA) FOR DRAINAGE
MASTER PLAN
PREPARATION
FOR ADDIS ABABA CITY
(Funded by World Bank)



Stakeholder Consultations in Addis Ababa



OBJECTIVES

- Establish baseline environmental, social and gender features in project area
- Assess existing policy, legal and institutional framework
- Identify and evaluate environmental and social risks of Drainage Master Plan
- Identify and evaluate existing and potential positive as well as negative environmental social / economic and climatic impacts
- Measures to mitigate environmental and socio-economic risks and address gaps

SALIENT FEATURES

- Addis Ababa is spread over an urban area of 520 km², with a Hydrological Area of 1430 km²
- Development of a systematic drainage network in the city area to prevent flooding and silting of storm drainage structures of low-lying areas downstream of the city.



Discharge of untreated industrial effluents

WAPCOS ROLE

 Strategic Environmental and Social Assessment (SESA) Study





CLIENT



AUTHORITY (GPA)

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT, ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN AND RESETTLEMENT ACTION PLAN (Funded by AfDB and EIB)



Stakeholder Meeting with the Community Elders in Barra, The Gambia



PROJECT COST US\$ 129 MILLION



OBJECTIVES

- Identification and assessment of potential environmental and social impacts of the project activities during various stages of project development
- Identification of all potential environmental and social impacts as well as actions to mitigate negative impacts
- Identification of all potential climate change risks and impacts
- Recommendations of key climate change adaptation and mitigation measures
- Environmental and Social Management Plan (FSMP)

SALIENT FEATURES

- Relocation of the Banjul Ferry Terminal
- Construction of new Container Terminal
- Strengthening of existing jetty and its extension by 345 m length at Banjul Wharf to increase shipping and container handling capacity



Site Visits to Port of Banjul New Site for Administrative Building

WAPCOS ROLE

 Conduct of Environmental and Social Impact Assessment (ESIA) and Resettlement Action Plan (RAP) Study





FIJI

CLIENT



(WAF) WATER AUTHORITY

WATER SUPPLY AND WASTE WATER TREATMENT (MULTIPLE **PROJECTS**)



Welding of Pipeline



PROJECT COST US\$ 40 MILLION



OBJECTIVES

- Desludging of various Wastewater Treatment
- Laying of Water Supply Pipelines in various locations
- Supply of Clean Water to the consumers
- Ensuring the wastewater plants are running efficiently to fulfill the Department of Environment guidelines

SALIENT FEATURES

- Project Duration: 36 Month
- Water Supply & Sewerage Coverage in 3 Major Parts in Fiji (12 projects)
- Laying of pipeline ranging from 150 dia to 914 dia in various type of materials like MPVC, DI, HDPE, MSCL.
- Includes Pump station and Mini Dam construction
- Service connection to households



Site Inspection with WAF Officials

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



REPORT PREPARATION



CONSTRUCTION **SUPERVISION**



PROCESSING PAYMENTS



REAL-TIME PROJECT MONITORING



PACIFIC HARBOUR, FIJI

CLIENT

water authorityof fiii



WATER AUTHORITY OF FIJI CONDITION
ASSESSMENT OF
PACIFIC HARBOUR
WASTEWATER
RETICULATION
SYSTEM



Inspection at Pump Station



OBJECTIVES

- Undertake conditional assessment of existing wastewater infrastructure
- Recommend refurbishment, replacement/ upgrade works which are required to optimize the Pacific Harbour Wastewater Reticulation System.

SALIENT FEATURES

- Catchment Area 425 Hectares
- No. of Catchment 10 Nos.
- No. of Pumpstations 13 Nos.
- Total Length of Gravity Main 36.2 Km
- Total Length of Force Main 2.96 Km
- Total Number of Manholes 574 Nos.





Inspection of Sewer Manholes

WAPCOS ROLE

Inspection & Condition Assessment

SERVICES RENDERED



SITE INVESTIGATION



TOR & COST ESTIMATES



CONDITION ASSESSMENT



ASSESSMENT



CONDITION ASSESSMENT REPORT







FIJI ROADS **AUTHORITY**

QUEEN ELIZABETH Fiji Roads Authority DRIVE ROAD **UPGRADE PROJECT**



Laying of Membrane seal



PROJECT COST US\$ 3 MILLION



OBJECTIVES

- Provide better road infrastructure & boost tourism
- Upgradation to reduce traffic load on arterial road with time saving and can be a tourism booster

SALIENT FEATURES

- · Upgrading including double laning length 4.5 km
- · Major Bridges 01 nos.
- Undergrounding of all utilities services
- Landscaping & Beautification
- 2 major roundabouts & 1 mini roundabout
- 9.0 km of Bicycle Lane

Line Marking of Bicycle Lane

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



PROJECT MANAGEMENT



VETTING OF DESIGN & DRAWINGS



ASSISTANCE DURING CONSTRUCTION



REAL-TIME PROJECT MONITORING



CLIENT



VOLTA RIVER AUTHORITY AKOSOMBO AND
KPONG DAM SAFETY
MONITORING SYSTEM /
INSTRUMENTATION

(Funded by Volta River Authority)





PROJECT COST US\$ 3.8 MILLION



OBJECTIVES

- Review of Kpong and Akosombo dams
- Rehabilitation of the Kpong and Akosombo dams

SALIENT FEATURES

 Surge, flush and pump testing of all pressure relief wells.

- Laying of perforated pipes in the d/s of rock fill dam.
- Construction of approach road, V-notch, climbing stairs, laying of rip rap in the u/s side of dam.
- Restoring of piezometer house and installation of piezometers
- Construction of culverts



Kpong Dam

WAPCOS ROLE

Construction



Excavation of trenches and laying of PVC pipes in d/s of Kpong Dam

SERVICES RENDERED



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING







MINISTRY OF FOOD & AGRICULTURE, **REPUBLIC OF GHANA**

TONO IRRIGATION PROJECT AND RECONSTRUCTION **OF SPILLWAY CHANNEL**

(Funded by World Bank)



Visit of the H.E President of Ghana



PROJECT COST US\$ 29 MILLION



OBJECTIVES

- Rehabilitation of dilapidated state of the Project infrastructure for efficient use of irrigation
- Reconstruction of damaged Spillway Channel
- Desilting and Widening of Tono river to improve the drainage capacity of river for minimizing the floods

SALIENT FEATURES

- GCA: 3860 ha and NCA: 2490 ha
- 2,500 farmers will get benefits from the project and can improve their agricultural production
- Canal Rehabilitation (39 km) and Automation for minimizing hydraulic losses to allow more precise irrigation.
- By implementing solar pumps for upland farms, consumption of traditional power source is minimized and operational cost reduced.



Canal- Before Rehabilitation



Canal- After Rehabilitation

WAPCOS ROLE

Project Management Consultancy



DESIGN REVIEW



CONSTRUCTION **SUPERVISION**



REAL-TIME PROJECT MONITORING



CLIENT



MPWH GOVERNMENT OF INDONESIA

ROADS AND BRIDGES REHABILITATION AND CONSTRUCTION

(Funded by Asian Development Bank)



Condition Survey of Existing Bridge in Jambi Province



PROJECT COST US\$ 615 MILLION



OBJECTIVES

- To solve the Congestion and Connectivity issues in the Sumatara Region/Sulawesi Region
- To improve the intra & inter province connectivity by improving existing/ new bridges and Flyover
- The project is spread in different parts of archipelago of Indonesia

SALIENT FEATURES

- Total Length of Existing Bridges: 4.86 km
- Total Length of Existing Roads: 210 km
- · Total Length of New Bridges: 3.77 km
- Total Length of New Roads: 585 km



Survey of the road section in East Kalimantan Province

WAPCOS ROLE

Feasibility and Detailed Project Reports

SERVICES RENDERED



FEASIBILITY STUDY AND DETAILED REPORT PREPARATION







LAO PDR

CLIENT



MINISTRY OF AGRICULTURE AND FORESTRY, DEPARTMENT OF IRRIGATION

DEVELOPMENT OF IRRIGATION SCHEMES IN CHAMPASSAK PROVINCE

(Funded by EXIM Bank of India)



Water pumped from Mekong river



PROJECT COST US\$ 17.34 MILLION



OBJECTIVES

 Rehabilitation and restoration of irrigation schemes for providing irrigation during lean/dry period based on lifting of water from Mekong

SALIENT FEATURES

- 6 large Irrigation schemes in Champassak Province
 - Command area developed 2676 Ha
 - Canal length created 65.6 km
- Installation of 10 Large Pump Sets
- Conversion of 34 nos. Diesel Driven Pump Sets to Electric Driven Pump Sets in 17 sites
- Improvement of three existing Pump Service Centre in Pakse, Vientiane and Savanakhet

Concrete lined canals

WAPCOS ROLE

Construction (Deposit Works)





CONSTRUCTION SUPERVISION



LAO PDR

CLIENT



DEPARTMENT
OF IRRIGATION,
MINISTRY OF
AGRICULTURE &
FORESTRY, GOVT.
OF LAO PDR

NAM XANG STORAGE DAM

(Funded by EXIM Bank of India)



Dam Excavation Work



PROJECT COST US\$ 14.76 MILLION



OBJECTIVES

- To increase water storage to improve agriculture production
- To increase crop production in the agricultural areas.
- To foster economic and social development

SALIENT FEATURES

- Nam Xang Storage Dam in Kenthao district, Xayaboury Province
- Gross storage of Dam- 7.09 MCM
- Dam Axis length including spillway- 228 m
- Dam height- 24.55 m
- Command area- 1050 Ha
- HDPE Pipe canal for 41 km (for Diameters less than 1m)

2024.05.08 15-46

Site Visit by Assembly Member Govt. of Lao PDR, Provincial & District Authorities, Department of Irrigation

WAPCOS ROLE

Project Management Consultancy (PMC)



PREPARATION OF DPR



TENDER

TENDER ENGINEERING



REAL-TIME PROJECT
MONITORING



LAO PDR

CLIENT



DEPARTMENT
OF IRRIGATION,
MINISTRY OF
AGRICULTURE &
FORESTRY, GOVT.
OF LAO PDR

SOLAR WATER PUMPING SYSTEM & PICO HYDROPOWER

(Funded by EXIM Bank of India)



Solar project Site visit



PROJECT COST US\$ 5.73 MILLION



OBJECTIVES

- To provide regular Water Supply for Irrigation purpose in 3 provinces of Lao PDR.
- To increase crop production in the agricultural areas.
- To foster economic and social development.

SALIENT FEATURES

- Solar Water Pumping System (71 Nos)
- Submersible pump set- 7.5 kW/2P
- Flow rate (Q)- 27 m³/hr & Head (H)-50 m
- Solar PV panels- 400 W with maximum input power- 14,400 W
- Overhead/ Storage Tank of capacity of 30 m³
- Pico Hydropower (4 Nos)- Maximum power generation of 2 kW

Biff Unitaries Plus Industrial Bases in associate a lase in associ

Solar project Tender opening (Committee chaired by Dy. Minister, MAF, Lao PDR)

WAPCOS ROLE

Project Management Consultancy (PMC)



Preparation of DPR



TENDER

TENDER ENGINEERING



REAL-TIME PROJECT MONITORING



MONROVIA, LIBERIA

CLIENT



LIBERIA ELECTRICITY CORPORATION (LEC)

22 kV DISTRIBUTION **LINES AND** DISTRIBUTION **NETWORK UP GRADATION**

(Funded by KfW)





PROJECT COST US\$ 17 MILLION



OBJECTIVES

- Electrification of un-electrified gap and Expanding the Electricity network in the capital city of Liberia
- Procurement support services for Fast Track Procurement of 15,000 Prepaid Energy Meters.
- The Project will benefit almost 100,000 people directly or indirectly.

SALIENT FEATURES

- Construction of 33 kV and 22 kV distribution lines – 40 km
- Construction of LV (22/0.4kV) substations - 120 PMSS
- Construction of LV (0.4 kV) lines 340 km
- Consumer connections 24,200 Nos



Installation Of Customer Ready Board With Pre-Paid Meters

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



PREPARATION





CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING



UPPER CALDWELL, LIBERIA





HEALTH

NEW REDEMPTION HOSPITAL

(Funded by World Bank)



New Redemption Hospital View



PROJECT COST US\$ 13.60 MILLION



OBJECTIVES

· The objective of the assignment is to construct Hospital Building that provides secondary level health care services that includes pediatric and maternity services

SALIENT FEATURES

- · Project Area: 9200 Sq.m.
- It is a 155 bed hospital, which includes pediatric and maternity services.

Construction Supervision

- The solar chimneys also ensure patient comfort through cooling the wards with fresh air from the microclimate created by our planted courtyards and the adjacent wetland.
- The Hospital is the largest provider of secondary level services in the Country, Liberia.
- One of the prestigious project of World Bank funding in Liberia.

WAPCOS ROLE

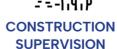


Project Site Visit



REPORT PREPARATION







REAL-TIME PROJECT MONITORING







NATIONAL FISHERIES & AQUACULTURE AUTHORITY

KLAY HATCHERY, BOMI COUNTY

(Funded by World Bank)



Arial View of Hatchery



PROJECT COST US\$ 2.5 MILLION



OBJECTIVES

- Improving management and governance of fisheries
- Improving handling of fish and fish products
- Support to Aquaculture

SALIENT FEATURES

- Production of annually at least 10 million good quality fingerlings
- Fish Species Tilapia (70%), Catfish (20%) and Heterotis (10%)
- Feed Mill
- Aquatic Quarantine Facility (AQF)
- Center of Excellence for Hatchery

EXCELLEN DE SE CENTRE DE SE CEN

Center of Excellence for Hatchery

WAPCOS ROLE

Design & Tendering

SERVICES RENDERED



SURVEY & INVESTIGATIONS



REPORT PREPARATION





REPUBLIC OF MALDIVES

CLIENT



MINISTRY OF NATIONAL PLANNING, **HOUSING & INFRASTRUCTURE**

KULHUDHUFFUSHI HARBOUR EXPANSION PROJECT

(Funded by ADB)



Project Site Visit





OBJECTIVES

 Improved interisland connectivity in the northern region of Maldives

WAPCOS

Management Consultant

ROLE Project

SALIENT FEATURES

- Breakwater 638 m
- Revetment 481 m
- Quay Wall 473 m
- Separation Wall 158 m

- Timber Jetty 7 Nos. x 9 m each
- Fish Market Building 31.8 m x 12.1 m
- Ferry Terminal Building 33.75 m x 26 m
- Floating Platform 148 m x 2.46 m

First Public Harbour with Floating Platform



Ferry Terminal Building



Site Visit



DESIGN ENGINEERING



TENDER

ENGINEERING



REAL-TIME PROJECT MONITORING



🚺 NORTH ARI ATOLL UKULHAS, **MALDIVES**

CLIENT



MINISTRY OF **ENVIRONMENT AND ENERGY** REPUBLIC OF **MALDIVES**

ROOF WATER HARVESTING BASED WATER SUPPLY SCHEME

(Funded by World Bank)



Layout of the Project Area North Ari Atol Ukulhas





OBJECTIVES

 Improve the potable water supply to the inhabitants of Island on account of water stressed conditions during dry season

SALIENT FEATURES

- Catchment roofs of public building : 4474.05 sq. m
- Conveyance pipes (Dia from 63-180mm): 1130 m (HDPE)

- Intermediate Collection Chamber (3 Nos): Capacity 9.3 m³, 4.5 m³ and 19.1 m³
- · Pumping Mains: 3 Nos
- Storage tank: 35 m x 14 m x 2.56 m
- Bore well water source: 170 m³
- RO Water Treatment Plant (2 Nos) : 30 KLD Each
- Distribution Network (Dia 63 and 90 mm): 4503 m (HDPE)

Project Site Visit

WAPCOS ROLE

Project Management Consultant



DESIGN ENGINEERING



TENDER

ENGINEERING



REAL-TIME PROJECT MONITORING



MARSHALL ISLANDS

CLIENT



GOVERNMENT OF

STRUCTURAL ANALYSIS
OF NDMO BUILDINGS

(Funded by World Bank)

DESIGN AND



Front View of Proposed Building



PROJECT COST US\$ 7 MILLION



OBJECTIVES

- To perform Structural Analysis of Existing NDMO (National Disaster Management Office) Building (Anne's Palace)
- Preparation of Detailed Design and Bidding Documents for a New NDMO Warehouse and Office Accommodation

SALIENT FEATURES

- Total Ground Area: 1245 m²
- G + 2 Floors
- Climate Resilience Design
- Building Design as per IBC -2021
- Tender documents
- One of the prestigious project of World Bank funding in Liberia.



Existing NDMO Building

WAPCOS ROLE

- Detailed Project Reports
- Tendering for Construction

SERVICES RENDERED



DETAILED REPORT PREPARATION AND TENDER DOCUMENTS





MAURITIUS



TECHNICAL ASSISTANCE FOR SMALL HYDRO PROJECT DEVELOPMENT



WAPCOS team with Indian Ambassador in Mauritius





OBJECTIVES

- Revival of Brownfield Mini Hydro Project
- Project is part of Energy Target in Energy Mix Targets of the Country
- To help Climate Change Mitigation

SALIENT FEATURES

- Repair and Rehabilitation of Britannia Lake Small Hydro Project
- Design Flood 34.50 Cumec
- Design Discharge 1.110 Cumec
- Penstock of 600 mm diameter & 457.0 m Long
- Power house 2 units of 130 kW each



Project Site Visit

WAPCOS ROLE
Pre-Feasibility Report

SERVICES RENDERED



REPORT PREPARATION



MONGOLIA





MINISTRY OF **EDUCATION AND** SCIENCE OF MONGOLIA

ATAL BIHARI VAJPAYEE CENTRE FOR EXCELLENCE IN IT & COMMUNICATION AND OUTSOURCING

(Funded by EXIM Bank of India)



Hon'ble Prime Minister of Mongolia and Hon'ble Prime Minister of India during foundation stone laying ceremony



PROJECT COST US\$ 20 MILLION





OBJECTIVES

- To Establish a Global Standard IT & 24x7 **BPO Centre**
- To conduct Capacity Building through trainings for Students and Teachers in IT Sector

SALIENT FEATURES

- Construction of B+G+8 Building
- Capacity of the Centre 1,100 Persons
- BPO Work Stations 650+
- Training for Students & Trainers, Online Courses, Internship Opportunities

USP: First BPO Center of Mongolia

WAPCOS ROLE

Project Management Consultancy



DPR REVIEW







MONITORING OF TRAINING PROGRAMS

Project Site Visit

Construction Progress - Erection of Steel Structure







INFRASTRUCTURE FACILITIES IN SHARKHAD & TOLGOIT

(Funded by ADB)



Construction Progress - Flood Protection Channel Tolgoit Sub Center





USP:

Integrated Infrastructure Project in **Extreme Cold Weather Condition**

OBJECTIVES

· To benefit the majority of the residents in Sharkhad and Tolgoit by development of New Infrastructure Facilities

SALIENT FEATURES

- Road Network: Sharkhad (8.1 km), Tolgoit (3.27 km)
- Flood Protection Channels: Sharkhad (2.1 km), Tolgoit (4.88 km)
- Storm Drainage: Sharkhad (14 km)

- Water Supply Network: Sharkhad (8.1 km), Tolgoit (5.61 km)
- Sewerage Network: Sharkhad (4.3 km), Tolgoit (4.74 km)
- District Heating Network: Sharkhad (6.5 km), Tolgoit (3.93 km) Telecommunication Network: Sharkhad (Fiber optic cable 10 km), Tolgoit (fiber optic cable 7.14 km)
- Sharkhad Power Supply Network: (Transmission lines 4.47 km), Tolgoit (Transmission lines 90 km)



ADB Mission Visit



Construction Progress - Water Supply Pipeline Tolgoit Sub Center

WAPCOS ROLE

Project Management Consultant





SUPERVISION



MOZAMBIQUE

CLIENT



ELECTRICIDADE DE MOZAMBIQUE (EDM)

MOZAMBIQUE ENERGY FOR ALL PROJECT (PRO-ENERGIA)

(Funded by World Bank)



Conductor Stringing



PROJECT COST US\$ 59 MILLION



OBJECTIVES

- To provide energy access to household connections and electrify the rural areas of Mozambique.
- Deliver broadband access to under served areas.

SALIENT FEATURES

- 33 kV Lines: 1,788 km
- 0.4 kV Lines: 3,599 km
- 33/0.4 kV, 75 kVA distribution transformers: 3,669 nos.
- Service connection to households 0.3 Million

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



MONTHLY REPORT PREPARATION



REAL-TIME PROJECT MONITORING





Transformer Installation



SOFALA, MOZAMBIQUE

CLIENT



NATIONAL ROAD AUTHORITY REPUBLIC OF **MOZAMBIQUE**

TICA-BUZI-NOVA **SOFALA ROAD PROJECT**

(Funded by EXIM Bank of India)



Prime layer on the cement stabilized base





OBJECTIVES

- To achieve a strategic and harmonious intermodal integration by leveraging the various economic opportunities hibernated along the road
- Connect National road to future planned Sofala Port

SALIENT FEATURES

- Length of Road: 134 km (Tica to Nova Sofala: 118 km & To Buzi Town: 16 km)
- Cross-drainage structures: 460
- Major Bridge: 690 m



Buzi Bridge at km 64+980 (MJB)

WAPCOS ROLE

Project Management Consultant

SERVICES RENDERED



PREPARATION





ENGINEERING



REAL-TIME PROJECT MONITORING



MYANMAR

CLIENT



REPUBLIC OF THE UNION OF **MYANMAR**

DEVELOPMENT OF IRRIGATION SCHEMES

(Funded by EXIM Bank of India)



Existing Canal Structures in RMC of Yenwe Irrigation Scheme











Interaction with Local Farmers Phyu Township of Bago Region

OBJECTIVES

- To improve the Agriculture Mechanization and Irrigated Area under the Existing Irrigation Systems
- **SALIENT FEATURES**
- Procurement of Farm Machinery and **Implements**
 - 90 HP Tractors 650 Nos.
 - 70 HP Tractors 750 Nos.

- Implementation of two ongoing Irrigation Scheme:
 - Yenwe 499 km
 - Kunn Chaung 195 km
- Command area for Agricultural mechanization: 1,01,600 Acres
- Irrigated Area by Yenwe Irrigation System: 62,000 Acres
- Irrigated area by Kunn Chaung weir and irrigation system: 35,000 Acres

WAPCOS ROLE

Project Management Consultancy



PREPARATION



TENDER ENGINEERING



PRE & POST SHIPMENT INSPECTION



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING







MINISTRY OF CONSTRUCTION REPUBLIC OF THE UNION OF **MYANMAR**

MYITKYINA-PUTAO ROAD IN KACHIN STATE

(Funded by Ministry of **External Affairs**)



Project Site - Road Condition





OBJECTIVES

Review existing alignments and proposing a new all-weather road from Myitkyina to Putao

SALIENT FEATURES

- Road Length: 62.000 km
- · Configuration: 2 lane
- Minor Bridges: 1
- Culverts: 207 (Rehabilitation-6 nos; New-201 nos)





Project Location

WAPCOS ROLE

Feasibility Report and **Detailed Project Report**

SERVICES RENDERED



DESIGN ENGINEERING



PREPARATION



CLIENT `



RAGHUGANGA **HYDRO POWER** LTD.

RAHUGHAT HYDROELECTRIC PROJECT (40 MW)

(Funded by EXIM Bank of India)



Adit-II to HRT Junction



PROJECT COST US\$ 60 MILLION



OBJECTIVES

- Harness hydropower potential of the country for the benefit of the people at large by optimally utilizing the untapped resources
- Strengthening the power security of Nepal - Annual Energy to be Generated is 247.89 MU

SALIENT FEATURES

Barrage (Length, Height) - (Concrete Weir) 31 m, 25 m

- Head Race Tunnel (Dia., Length) 3.3 m, 6,270 m
- Power House (Size) -Surface, 57.75 m (L) x 24.35 m (W) x 12.5 m

USP

- Key project by Indian Assistance (EXIM Bank) in Nepal.
- Execution in remote area with challenging Topographical and Geological setup



Excavation & Support of Surge Shaft

WAPCOS ROLE

- Detail Design and Tender Engineering
- Project Management & Construction Supervision

SERVICES RENDERED



REVIEW OF DETAILED PROJECT REPORT



CONSULTANCY



TENDER ENGINEERING



CONSTRUCTION **SUPERVISION**



CLIENT



TANAHU HYDROPOWER LIMITED (THL) LOWER SETI HYDROPOWER PROJECT (126 MW)

(Funded by ADB)





PROJECT COST US\$ 250 MILLION



OBJECTIVES

Peak power Generation

SALIENT FEATURES

- 32 m high barrage structure
- 6.5 km long head race tunnel
- 126 MW of Peak Power

USP

The project is a D/s cascade project of Upper Seti H.E.P. enhancing its viability



Tunnel Construction at Upper Seti HPP

WAPCOS ROLE

Detail Design and Tender Engineering

SERVICES RENDERED







DETAILED ENGINEERING DESIGN



CLIENT



MIILENIUM **CHALLENGE** ACCOUNT - NEPAL

TRANSMISSION LINES AND **SUBSTATIONS** (Funded by Milenium Challenge



PROJECT COST US\$ 465 MILLION



Corporation)

OBJECTIVES

Construction of New Transmission Lines and associated Substations in Nepal

SALIENT FEATURES

- 400 kV D/C Transmission Line from Lapsiphedi-Ratmate-New Hetauda (117 km)
- 400 kV D/C Transmission Line from Ratmate-New Damauli (90 km)
- 400 kV D/C Transmission Line from New Damauli - New Butwal (90 km)

- - 400 kV D/C Transmission Line from New Butwal to India Nepal Border (18 km)
 - 400/220 kV Sub-Station at New Butwal.
 - 400/220 kV Sub-Station at New Damauli.
 - 400/220 kV Sub-Station at Ratmate

USP

1st Electricity project in Nepal funded by MCC, USA



Survey Works of Transmission Line

WAPCOS ROLE

- Design
- Project **implementation** as Engineer as per FIDIC
- Construction Supervision

SERVICES RENDERED









MONITORING





INDIA & NEPAL





PANCHESHWAR DEVELOPMENT AUTHORITY

PANCHESHWAR MULTIPURPOSE PROJECT (5040 MW)

(Funded by Government of India and Government of Nepal)



Exploratory Drifting at Power House



PROJECT COST US\$ 5,025 MILLION



OBJECTIVES

- Peak Power Generation and Irrigation and Flood Control
- 5040 MW Peak Power and 10055 MU Energy
- 4.29 Lac Ha Irrigation

USP

- Bi-National Project between India and Nepal
- 2nd Tallest Rockfill dam Proposed in the world
- Largest Hydropower Project Proposed in India and Nepal

SALIENT FEATURES

- Main Rockfill Dam (311 m Height)
- Re-regulating Concrete Dam (95m height)
- Pancheshwar Power House (UG)- 2 nos. (4800 MW)
- Rupaligad Power House (UG) 2 nos. (240 MW)

WAPCOS ROLE

Detailed Project Report





Pancheshwar Dam Axis (D/s View)



CLIENT

नेपाल विद्युत प्राधिकरण Nepal Electricity Authority

NEPAL ELECTRICITY AUTHORITY (NEA), NEPAL

ESIA STUDY OF THREE PRIORITY TRANSMISSION LINE PROJECTS

- I. ARUN HUB-INARUWA TRANSMISSION LINE AND **SUBSTATIONS**
- II. ARUN HUB-DUDHKOSHI-TINGLA TRANSMISSION **LINES AND SUBSTATIONS**
- III. INARUWA-ANARMANI TRANSMISSION LINE AND **SUBSTATIONS**

(Funded by World Bank)





PROJECT COST US\$ 280 MILLION



OBJECTIVES

- Establish appropriate study area along transmission routes
- Description of environment of the potentially affected/study area
- Assessment of impacts due to Project Alternatives.
- Increase reliability of electricity supply in Koshi Province
- Facilitate in the power trade with India and Bangladesh

SALIENT FEATURES

- Transmission Line-I: 400 kV Arun Hub-Inaruwa (95 km) and substations to evacuate electricity generated from Arun River Corridor and Solu River Corridor.
- Transmission Line -2: 400 kV Arun Hub-Tingla-Dudhkoshi (110 km) and substations to evacuate electricity generated from Arun River Corridor and Solu River Corridor.
- Transmission Line -3: 400 kV Inaruwa-Anarmani (89.612 km) and substation to connect Inaruwa substation to New Anarmani substation



Forest Survey at Ramdhuni Forest

WAPCOS ROLE

Strategic Environmental and Social Assessment (SESA) Study





NICARAGUA

CLIENT



EMPRESA NACIONAL DE TRANSMISIÓN ELÉCTRICA (ENATREL) TRANSMISSION LINES
AND SUBSTATION AT LA
ESPERANZA AND
LA GATEADA

(Funded by EXIM Bank of India)



138 kV SUBSTATION AT La ESPERENZA



PROJECT COST US\$ 24 MILLION



OBJECTIVES

 To Upgrade the existing 69 kV Transmission Line System to 138 kV to supply Electricity to Multiple villages in the El Rama District.

SALIENT FEATURES

- 138 kV Single Circuit Transmission: 59 km
- 138 kV Double Circuit Transmission: 9 km
- 138 kV Substations: 3 Nos (La Esperenza & La Gateada II and Expansion at La Gateada I)



138 KV Single Circuit
Transmission Line Tower
Erection



138 Kv Single Circuit Transmission Line Stringing Completed

WAPCOS ROLE

Construction Supervision

SERVICES RENDERED





REAL-TIME PROJECT MONITORING



CLIENT



AGENCE NIGERIENNE DE PROMOTION DE L'ELECTRIFICATION **EN MILIEU RURAL**

RURAL **ELECTRIFICATION OF 50 VILLAGES THROUGH SOLAR PHOTOVOLTAIC SYSTEM**

(Funded by EXIM Bank of India)





PROJECT COST US\$ 10 MILLION



OBJECTIVES

- Expand access to sustainable electricity
- To install solar photovoltaic systems to meet the domestic and community energy needs in isolated villages

SALIENT FEATURES

Rural Electrification of 50 Villages through Solar PV system, covering:

- 4950 Households
- 54 Schools and Madrasa
- 37 Integrated Health Centers
- 14 Water Pump Systems
- 50 Mosques
- 10 no. Mini Grids of 50 kWp each
- 15 kWp Solar power plant at Govt. CNES facility



Project Management Consultancy



TENDER ENGINEERING



Standalone Solar Pump System At Yagalalan Village







RWANDA AGRICULTURE AND **ANIMAL RESOURCES DEVELOPMENT BOARD**

EXPORT TARGETED MODERN IRRIGATED AGRICULTURAL PROJECTS

(Funded by EXIM Bank of India)





PROJECT COST US\$ 120 MILLION



OBJECTIVES

- Transformation from subsistence-oriented agriculture to export-oriented agriculture.
- Capacity Building of Farmers

SALIENT FEATURES

- State-of-the-Art Mechanized Irrigation System for 6782 Ha using Center Pivots, Hose Reels, Sprinklers and Pipe Flow Systems
- Watershed Development
- Establishment of a State-of-the-Art Centre of Excellence in Farm Mechanization, one-of-akind in the Sub-Saharan African Region



Head Works

WAPCOS ROLE

Project Management Consultancy



PREPARATION









CLIENT



RWANDA ENERGY GROUP (REG) 15 MW PEAT TO POWER PROJECT



Power plant - Construction Site





OBJECTIVES

Setting up 15 MW Peat-to-Power Thermal Power Plant in Rwanda

USP:

THE PROJECT IS FIRST PEAT-TO-POWER PROJECT IN THE WHOLE AFRICAN CONTINENT

SALIENT FEATURES

- Circulating Fluidized Bed Combustion (CFBC) Boiler
- Turbine: 15 MW, condensing type
- Generator: 15 MW, 3000 RPM, 11 kV, Efficiency: 97%
- Transformer: 20 MVA



Power plant- commissioned

WAPCOS ROLE

Construction supervision

SERVICES RENDERED



REPORT PREPARATION



CONSTRUCTION
SUPERVISION



SURINAME





N.V. ENERGIE BEDRIJVEN (EBS)

UPGRADATION OF TRANSMISSION NETWORK INFRASTRUCTURE

(FUNDED BY EXIM BANK OF INDIA)



Substation



PROJECT COST US\$ 27.5 MILLION



OBJECTIVES

- Improve reliability and quality of supply of the Power Transmission and distribution system in the Region
- Socio-Economic, Industrial and Agricultural Development



 Construction of 43 km 110 kV Double circuit lines, 24 km 33 kV and 50 km 12 kV Single Circuit lines, and Upgradation and construction of 5 Substations



Soil Investigation works



Survey works

WAPCOS ROLE

Project Management Consultant







SURINAME





(EBS),

TRANSMISSION LINE
(OHL) IN PARAMARIBO
AND 33kV OVERHEAD
TRANSMISSION LINE
(OHL) IN THE NICKERIE
DISTRICT, SURINAME



Survey works



PROJECT COST US\$ 150,000



OBJECTIVES

Improved Access to Energy in the Region

Atlantic Ocean Nieuw Nieuw Nieuw Nickerie 70 mi Nickerie 70 mi Nickerie River Suriname Albina Apura Saramacca Brokopondo River Coppename River Bloomenstein River Coppename River River Coeroeni River River

WAPCOS ROLE

Tender Engineering

SALIENT FEATURES

- 26 km 110 kV Overhead Transmission Lines, 15 km 33 kV distribution lines
- Conducting Route Alignment Survey and Soil Investigations
- Ground Profile and Tower Spotting using PLS-CADD software
- Preparation of Tender Documents
- Assistance to client in bid evaluation and award of contract to EPC contractor





TAJIKISTAN



STATE INSTITUTION "PROJECT MANAGEMENT UNIT OF THE **FERGHANA VALLEY WATER RESOURCES MANAGEMENT** PROJECT" (PMU FVWRMP)

DEVELOPMENT OF THE LAND RECLAMATION **AND IRRIGATION SECTOR STRATEGY**

(FUNDED BY WORLD BANK)

Kolkhozabad, Vilojati Xatlon, Tajikistan Unnamed Road, Kolkhozabad, Tajikistan Lat 37.558627° Long 68.544278° 07/06/24 10:30 AM GMT +05:00

Energy Audit of the Pumps





Site Visits - Assessment of the Pumping Stations Throughout the Country



Meetings with the various Stakeholders at World Bank Office, Dushanbe

OBJECTIVES

Conduct a thorough assessment of electricity usage and technical audit of pumping stations

Google

- Conduct a detailed review of Tajikistan's land reclamation and irrigation sector
- Define strategic irrigation sector goals for economic growth, climate change, food security
- Develop a concept for land reclamation and irrigation sector development

WAPCOS ROLE

Development of National Strategy Document

SALIENT FEATURES

- Sector Energy Audit
- Draft Concept for the Development of the Irrigation and Land Reclamation Complex arrangements
- Overview of Tariffs and Subsidies for Irrigation Services with Recommendations on Tariff modes
- **Draft National Strategy**

SERVICES RENDERED



REPORT



GPS Map Camera



DEVELOPMENT OF NATIONAL STRATEGY DOCUMENT







SUE "DVK"
STATE UNITARY
ENTERPRISE (SUE),
DUSHANBEVODOKANAL

DUSHANBE WASTEWATER MASTER PLAN AND INTEGRATED URBAN WATER RESILIENCE PLAN

(Funded by World Bank)



Assessment of Physical inventory System



PROJECT COST US\$ 32 MILLION



OBJECTIVES

- Ensuring the development of water supply and sewerage systems, in accordance with the General Plan of Dushanbe.
- Improving the quality of drinking water supply.
- Forecasting the availability of water and the preparation of waste water plan in future.

SALIENT FEATURES

- Capacity of WWTP: 750,000 m³/day
- · Water Demand Assessment 2040
- Waste Water Plan as per city Master Plan 2040
- Climate Resilient Integrated Urban Water Plan of 6 hydraulic zones
- · Preparation of investment proposals

Present Inventory System

WAPCOS ROLE

Project Management Consultancy



Assessment of Physical inventory System

SERVICES RENDERED



WASTE WATER MASTER PLAN



INTEGRATED URBAN WATER RESILIENCE PLAN



TANZANIA

CLIENT



MINISTRY OF WATER. UNITED REPUBLIC OF TANZANIA

LAKE VICTORIA **PIPELINE TO** TABORA, IGUNGA **AND NZEGA TOWNS**

(Funded by EXIM Bank of India)







OBJECTIVES

- · Provide clean drinking water to over 1.5 million residents of Tabora, Igunga, and Nzega towns.
- Increase per capita water availability, ensure sustainable revenue generation for water authorities, and
- Improve public health by reducing waterborne diseases.

SALIENT FEATURES

- Transmission Mains (DN 1000 mm to DN 100 mm): 365.65 km (MS Pipe)
- · Distribution pipelines (DN 600 mm to 75 mm): 1,182 km (DI & uPVC)
- Ground Level Service Reservoirs (100 cum to 9000 cum): 16 Nos
- Elevated Service Reservoirs (80 cum to 1000 cum): 13 Nos
- 4 storied office building, staff houses, operator buildings and other axillary structures

WAPCOS ROLE

Project Management Consultancy









DLP

4 - storied office building for Kashwasa at Shiniyanga



CLIENT



MINISTRY OF WATER, UNITED REPUBLIC OF TANZANIA

WATER SUPPLY SCHEMES TO 24 TOWNS

(Funded by EXIM Bank of India)



Package-1-WTP-51 MLD-Construction work in progress





OBJECTIVES

- Ensure access to clean, safe drinking water for over 4.5 million residents of Tanzania
- Promote sustainable water management, infrastructure development, and public health through improved water quality and sanitation measures

SALIENT FEATURES

- Construction of 17 no's, sizes varying from 5.5 MLD to 52 MLD
- Construction of 17no's of WTPs sizes varying from 5 MLD to 51 MLD
- Drilling of borewells: 52 number
- Transmission pipeline: 2,046 kms
- Construction of 48no.s' of GSR/ESR capacity ranging from 200 cum to 5000 cum
- · Distribution pipeline: 1000 km

Project Site Visit

WAPCOS ROLE

Project Management Consultant



PR







DLP



TOGO

CLIENT



COMMUNAUTÉ **ELECTRIQUE DU** BENIN (CEB)

161 kV **TRANSMISSION LINE AND ASSOCIATED SUBSTATIONS** (Funded by EXIM Bank





PROJECT COST US\$ 52 MILLION



of India)

OBJECTIVES

- To Upgrade Transmission Line Network in northern Togo by construction of New Transmission Lines and associated Substations
- Development of industries i.e. Cement and **Phosphate Mining**
- Increase in employment opportunities and irrigation facilities

SALIENT FEATURES

- 161 kV Transmission -Line linking Togo/ Benin Border: 310 km
- Number of Towers: 982
- New 161/20 kV Substations: 3 nos

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



PREPARATION







REAL-TIME PROJECT MONITORING



161 kV Kara Mango **Transmission Line**

WAPCOS, DGA CEET, DC MME, DGA CEB, Minister Of Energies, Commander In Chief Visit To Mandouri Substation



CLIENT



NIGDE MUNICIPALITY, REPUBLIC OF TÜRKIYE

NIGDE SEWERAGE AND STORMWATER NETWORK

(Funded by World Bank)



Proposed Location for Storm Water Network



OBJECTIVES

- Design review, preparation of bidding documents (technical specifications, bill of quantities, etc.)
- Technical Assistance during the Bidding Process
- Supervision for the construction works of Nigde Sewerage and Stormwater Network Connection.

SALIENT FEATURES

- Sewerage Network: 11km (400mm 1000 mm dia of corrugated pipe)
- Man-holes: 538 Pcs
- Parcel connections for sewerage network: 3070 Nos.
- Storm Water Network : 31 km (400 mm 1000 mm dia of concrete pipes)
- Man-holes: 681 pcs and Storm water gratings: 280 Nos.

Existing Situation

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



TENDER ENGINEERING





DETAILED DESIGN



REAL-TIME PROJECT MONITORING



UGANDA

CLIENT



MINISTRY OF WATER AND ENVIRONMENT REPUBLIC OF UGANDA

KABUYANDA IRRIGATION SCHEME AND ASSOCIATED INFRASTRUCTURE FACILITIES

(Funded by World Bank)





PROJECT COST US\$ 40 MILLION



OBJECTIVES

 To enhance Irrigation and Drainage Services

SALIENT FEATURES

- · Earthen Dam: 33m high
- Gravity system with Pipelines, Sprinkler, Drip and Flexible Hose System
- MS pipes 9.3km (for 1300 mm diameter and above)
- DI Pipes 40km (for 300 mm to 900 mm diameter)
- HDPE Pipes -50.4 km (for Diameters less than 300 mm)
- Irrigation Area: 3,300 Hectares

Site Visit along with World Bank Officials

WAPCOS ROLE

Construction Supervision





REAL-TIME PROJECT MONITORING



UGANDA

CLIENT



MAAIF MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY **AND FISHERIES**

ASWA AND AYILA IRRIGATION SCHEMES IN NWOYA AND AMURU DISTRICTS

(Funded by World Bank)



Project Area



PROJECT COST US\$ 20 MILLION



OBJECTIVES

 To develop the irrigation schemes which are technically feasible, financially viable, and environmentally sustainable.

SALIENT FEATURES

- Total Irrigation Area: 525 hectares i.e. 360 hectares (Aswa Scheme) and 165 hectares (Ayila scheme)
- Type of Irrigation Schemes: Surface Irrigation (Conveyance Pipeline)
- Irrigation Conveyance Pipeline:
 - Pipeline Length: 25.2 Km (Aswa) and 16.3 Km (Ayila)
 - Pipe Material: Ductile Iron (DI) and HDPE
 - Pipe diameter: Varying from 900 mm to 160 mm
- · Proposed Crops: Rice, Maize, Groundnuts and Vegetables

Site Visit along with Client

WAPCOS ROLE

- Feasibility and **Detailed Project** Reports
- Tendering for Construction



REPORT PREPARATION



TENDER ENGINEERING



UGANDA

CLIENT



CLIENT - RURAL ELECTRIFICATION AGENCY, MEMD

RURAL ELECTRIFICATION: 1392 km OF MV LINES & 1482 km OF LV NETWORK

(Funded by French Development Agency (AFD))



Inspection of Pole Erection



PROJECT COST US\$ 48 MILLION



OBJECTIVES

 Providing electricity to Rural parts of Uganda

USP

Largest Rural Electrification Project in Uganda funded by AFD

SALIENT FEATURES

- Grid-Extensions in the North Western, Rwenzori, Western, Mid-Western, South and South Western electricity Distribution Service Territories.
- The Works shall comprise Five (5) Construction Lots with 1392 km of Medium Voltage distribution overhead lines, and 1482 km of LV reticulations and installation 760nos. of 33/0.415 kV distribution transformers



Material Quality Verification

WAPCOS ROLE

Project Management Consultancy



MANAGEMENT



CONSTRUCTION SUPERVISION



DESIGN ENGINEERING



REAL-TIME PROJECT MONITORING



UZBEKISTAN

CLIENT



ASIAN DEVELOPMENT BANK SUSTAINABLE
DEVELOPMENT
OF HYDROPOWER
PROJECTS
(Funded by ADB)



WAPCOS officials visiting project site





OBJECTIVES

- Capacity development for mini/micro HPPs development.
- Setting up of Hydro-electric Power Plants will help in providing access to electricity to nearby villages and towns

SALIENT FEATURES

- Feasibility studies 3 nos. HEPS's
- Feasibility studies 3 nos. HEPS's for Modernization and renovation
- Studies of Transmission & Distribution Line Network.
- Financial and Economic viability study



WAPCOS officials visiting project site

WAPCOS ROLE

Associated with Preparation of Electro Mechanical aspects, Hydro Mechanical aspects and Economic Analysis under the Feasibility Reports.



TECHNICAL ASSISTANCE



ZIMBABWE

CLIENT



ZIMBABWE POWER COMPANY REPOWERING
OF HWANGE
THERMAL POWER
STATION
(Funded by EXIM Bank of India)



HWANGE POWER STATION





OBJECTIVES

- Increase the average load from 300 MW to 700 MW
- Attain the availability of 85% or more
- Extend the Life of Power Station for about 20 years
- Improve the reliability and plant load factor
- Reduction in auxiliary power consumption

SALIENT FEATURES

- Hwange Thermal Power Station 4X120 MW (Stage-I) and 2x220 MW (Stage-II)
- Biggest Thermal Power Plant in the country and caters to 40% of the power demand
- Proposed to renovate the plant to extend its life by another 20 years

VISIT TO PROPOSED PUMP HOUSE SITE

WAPCOS ROLE

Project Management Consultancy









ZIMBABWE





ZIMBABWE POWER **COMPANY**

DEKA PUMPING STATION AND RIVER WATER INTAKE SYSTEM (Funded by EXIM Bank



LAYING OF PIPELINE



PROJECT COST US\$ 48 MILLION



of India)

OBJECTIVES

- Reliable Source of water to Power Station
- Reliability of water supply to Hwange Township
- Prevent any catastrophic failure of water supply system
- Providing portable/ drinking water for rural community (villages) with increased availability

SALIENT FEATURES

- Source of water for Power Station : Zambezi River
- Length of Mild Steel Pipe 42 Km
- Water from intake -3500 m³/hr

PROJECT SITE VISIT



PIPELINE CROSSING THE RIVER BED

WAPCOS ROLE

Project Management Consultancy



ENGINEERING



CONSTRUCTION SUPERVISION



Indian PROJECTS Water Resources







Narmada Nigam Limited

SARDAR SAROVAR **NARMADA NIGAM** LTD.

SARDAR SAROVAR DAM



Hon'ble Prime Minister Shri Narendra Modi ji dedicated Sardar Sarovar Dam to the Nation



OBJECTIVES

- · Refurbishing, restoring and installation of radial gates and other appurtenant parts to bring main dam to full performance
- Irrigation & Flood Protection
- Increased crop production
- Drinking Water Supply Augmentation
- Hydropower
- Tourism

SALIENT FEATURES

- · Concrete Dam 1.2 km Long
- Height 163 m
- Radial Gates 30 nos. (18 m x 18 m)
- Storage (Designed) 5,860 MCM



Dam View

WAPCOS ROLE

Third Party Inspection



Installation of Radial Gates





GUJARAT

CLIENT



SARDAR SAROVAR **NARMADA NIGAM** LIMITED (SSNNL)

DISTRIBUTION NETWORK SYSTEM IN CHAKS, SARDAR SAROVAR PROJECT

Underground Pipe Line Network (UGPL)



Alignment Survey



PROJECT COST ₹7,300 CR.



OBJECTIVES

- Provide Last Milestone Connectivity where Open Channel Network not feasible/ economical or optimized
- Saving of Precious Land and Faster execution
- Land fragmentation can be avoided
- To integrate Field Channels with Sub-Minors and less expenditure on O & M.

After

- Prevent seepage losses and evaporation
- Assured water supply to the Tail-enders

SALIENT FEATURES

- UGPL Irrigation Network serving 16.5 Lakhs Ha Area
- Distributaries: 123 Km
- Minors: 2,144 km
- Sub-Minor: 48,065 km

WAPCOS ROLE

Detailed Project Report & Tendering



DPR





Backfilling







WATER RESOURCES DEPARTMENT (GOVT. OF RAJASTHAN)

EASTERN RAJASTHAN CANAL PROJECT





PROJECT COST ₹37,247 CR.



OBJECTIVES

- Inter & Intra-linking of rivers of Chambal basin (Kunu, Kul, Parvati, Kalisindh, Banas, Mej)
- Transfer water from surplus areas to the deficit areas in 13 nos districts of Rajasthan

SALIENT FEATURES

- Barrages 6 nos.
- Conveyor System 1,269 km

- Water Availability (in MCM)
- 75% Dependability 1744
- 50% Dependability 3921
- Estimated Water Demand/Requirement (MCM)
 - Drinking Water 1724
 - Industrial Demand 286
 - Irrigation Demand 1500
 - Total (MCM) 3510
- Irrigation Benefits
 - New command area 2.02 lakh hectare
 - Stabilization 0.8 lakh hectare

SARDA DAM PROPOSED PR

Project Area Map

WAPCOS ROLE

Detailed Project Report





REPORT PREPARATION



GEOTECHNICAL INVESTIGATION







RWS&S DEPARTMENT GOVERNMENT OF TELANGANA

MISSION BHAGIRATHA

(Telangana Water Grid **Project)**



Water Treatment Plant



PROJECT COST ₹45,000 CR.



OBJECTIVES

- To ensure safe and sustainable piped drinking water supply from surface water sources
- Minimise the use of groundwater and optimize the use of surface water

SALIENT FEATURES

- No. of Segment 26
- Intake Structures 69 nos.
- Total Pipeline Network 1.697 lakh Km.
- Overhead Reservoirs 549
- Ground reservoirs 550
- Village Reservoirs 35,573
- Water Treatment Plants 113 nos.
- Power Requirements 235 MW
- Tap Connection Entire Telangana
- Population benefitted 2.72 crore



Intake Well



Pipe laying

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



REVIEW OF DPRS





POLAVARAM, ANDHRA PRADESH

CLIENT



POLAVARAM PROJECT AUTHORITY (PPA) GOVERNMENT OF INDIA

POLAVARAM IRRIGATION PROJECT

(Multi Purpose Project)





PROJECT COST ₹55,548 CR.







Upstream & Downstream Cofferdams



Spillway

OBJECTIVES

- Irrigation, River Water Diversion, Water Supply & Power Generation
- Irrigation 7.2 lakh of Gross Cultivable Area
- Supply of domestic drinking water to a population of 28.50 lakh in 611 villages
- Water Supply (industries and drinking water to Vizag) - 23.44 TMC
- Water Diversion (Godavari to Krishna) 80
- Stabilization of 10.13 lakh acres of Godavari delta and 13 lakh acres of Krishna delta
- Power Generation 960 MW (12 x 80 MW)

SALIENT FEATURES

- Main Dams 2.50 km Long (ECRF & Concrete)
- Concrete Spillway 1.18 km long with 48 Nos. Radial gate (16m x 20 m)
- Left Main Canal 182 km long
- Right Main Canal 179 km long

WAPCOS ROLE

Project Management & Coordination Consultancy (including Quality Control)



POURING 32,100 CUBIC METERS OF CONCRETE **NON-STOP IN 24 HOURS**

SERVICES RENDERED



REPORT PREPARATION



QUALITY CONTROL



REAL-TIME PROJECT MONITORING (THROUGH MIS AND MOBILE APP)



ODISHA



WATER RESOURCES DEPARTMENT, GOVT. OF ODISHA

RENGALI IRRIGATION PROJECT LBC-II





PROJECT COST ₹2,255 CR.



OBJECTIVES

- To increase agriculture production by constructing irrigation systems
- Establishing Water users associations and promoting livelihood support activity
- Improve the living standard of farmers and socio-economic development

SALIENT FEATURES

- RD 71.313 km -141.00 km
- CCA 72967 ha
- Branch canals 5 nos.
- Distributaries of main canal 5 nos. of distributaries off taking from main canal
- Minors & sub-minors off taking from main canal - 16 nos. of minors & sub-minors
- Lift canal provision 3 nos.
- Direct outlets Ayacut 4,484 ha



Construction of Cross Drain of Branch Canal



Site Inspection by CE, QC&R & Director, Research & QC, DoWR

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



PROJECT MANAGEMENT



CONSTRUCTION SUPERVISION



REVIEW OF DESIGN DOCUMENTS & DRAWINGS



IRRIGATION CANAL SYSTEM



BHARUCH, GUJARAT





NARMADA, WATER RESOURCES, WATER SUPPLY AND KALPASAR DEPARTMENT

BHADBHUT BARRAGE PROJECT



Left Bank of Narmada River



PROJECT COST ₹4167 CR.



OBJECTIVES

- Creation of 599 Million Cubic Meter fresh water reservoir.
- Water supply for drinking, agriculture and industrial purposes.
- Prevent salinity ingress an to improve ground water quality of Bharuch on u/s of barrage.
- Prevent erosion of cultivable land and give protection to the villages against flood by constructing about 20 km long flood protection embankments on both the banks of river.
- Saving in travel time and fuel due to reduction in the distance of about 37 km between Dahej & Hazira-Surat by six-lane bridge over barrage.

SALIENT FEATURES

- Barrage of 1.6 km with 90 Gates
- Approach Road Cum Four Lane Highway
- Fisherman Navigation Channel
- Fish Pass
- Flood Protection Embankments



One of It's kind project in India in terms of its large magnitude and innovative design in Gulf of Khambhhat

WAPCOS ROLE

- Tender
 Engineering
- Design Review & Designer's Surveillance



REPORT PREPARATION



TENDER ENGINEERING



DESIGN SURVEILLANCE



DESIGN REVIEW

Right Bank of Narmada River



BIHAR & JHARKHAND

CLIENT

CENTRAL WATER COMMISSION, GOVT. OF INDIA, WATER RESOURCE DEPARTMENT, **GOVT. OF BIHAR &** WATER RESOURCE DEPARTMENT, GOVT. OF JHARKHAND

EXECUTION/ COMPLETION OF BALANCE WORKS OF NORTH KOEL RESERVOIR PROJECT



RMC, Bihar-Lining work in progress



PROJECT COST ₹1,200 CR.





RMC, Jharkhand-Lining work in progress

OBJECTIVES

- Irrigation Benefits to Palamu & Garhwa districts in Jharkhand (18500 ha)
- Irrigation benefit to Aurangabad & Gaya districts in Bihar (93021 Ha)

SALIENT FEATURES

- Dam 67.86 m high Gates to be Installed
- Barrage: 96 Km downstream of the Dam at Mohammadganj - Embankment works

- Canal's:
 - Left Main Canal (LMC) 11.89 Km, exclusively in Jharkhand - Earthwork & Concrete Lining
 - Right Main Canal (RMC) 109.09 Km (31.40 Km in Jharkhand and 77.69 Km in Bihar) - Earthwork & Concrete Lining
- Annual Irrigation: Total = 1,14,021 ha, (1,11,11)521 ha (RMC) and 2,500 ha (LMC)

WAPCOS ROLE

Construction (Deposit)



Project Site Visit



PREPARATION



ENGINEERING







SURAT, GUJARAT



SURAT MUNICIPAL CORPORATION

REMODELLING AND RESTRUCTURING OF KOYLI CREEK INCLUDING VEHICLE TRACK



Excavation of Diaphragm Wall



PROJECT COST ₹454 CR.



OBJECTIVES

- Protect the flooding on the banks
- Provide transportation/connectivity nearby roads for 4.90 km.
- Improving carrying capacity of creek for effective storm water disposal considering the climate change
- Provide the new road over the creek for improving traffic solution and urban mobility to fulfill the Smart City requirement

SALIENT FEATURES

- Total Remodelling Work to be carried out for 4.90 km
- RCC Diaphragm wall, RCC retaining wall, R.C.C Beam (precast girder), Slab structures on various stretches of creek



Koyli Creek (Before & After)

WAPCOS ROLE

Project Management Consultancy





SURVEY & INVESTIGATIONS



FEASIBILITY & DPR



TENDER ENGINEERING



DESIGN REVIEW



CONSTRUCTION **SUPERVISION**



GUJARAT

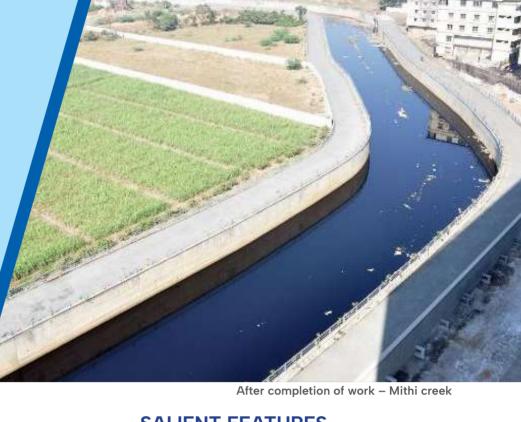




SURAT MUNICIPAL CORPORATION

ENHANCING WATER QUALITY OF MINDHOLA RIVER FOR **PROTECTION OF MARINE ECOSYSTEM OF MITHI CREEK**

(Under National River Conservation Plan (NRCP))





PROJECT COST ₹180 CR.



OBJECTIVES

- Enhanced water quality and to protect the flooding on the banks
- Water quality improved
- Bank protection work
- Increase carrying capacity of flood

SALIENT FEATURES

- 6 m wide vehicular road on both side of creek -
- 6 m height Cantilever retaining wall on both side of creek - 13 km
- 4 nos. of sluice regulator structure
- 1 no of box type culvert

Existing condition before remodeling

WAPCOS ROLE

Project Management Consultancy



SURVEY & INVESTIGATIONS



FEASIBILITY & DPR



TENDER ENGINEERING



DESIGN REVIEW



CONSTRUCTION **SUPERVISION**



DANG, GUJARAT



GUJARAT WATER SUPPLY & SEWERAGE BOARD

RAIN WATER HARVESTING PROJECT



JAMANIAMAL CHECK DAM



PROJECT COST ₹282 CR.



OBJECTIVES

- To improve the livelihood of villagers
- Monitor the changes occurred in the project area, document the changes and suggest corrective measures for improving the productivity of the watershed ecosystem

SALIENT FEATURES

- Total 36 nos. of Check Dams for Water Supply Scheme
- Total Project Catchment area 990 sq. km
- Benefitted 3 Nos. of talukas
- Villages Covered: 244
- Benefitted Population: 2.71 lakh

POLASMAL CHECK DAM

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



DPR



TENDER ENGINEERING



CONSTRUCTION SUPERVISION



TAMIL NADU

CLIENT



WATER RESOURCES **DEPARTMENT GOVERNMENT OF TAMIL NADU**

GRAND ANICUT CANAL PROJECT-RESTORATION

(Funded by Asian Infrastructure Investment Bank (AIIB))



Grand Anicut



PROJECT COST ₹3190 CR.





Aerial View



Construction of New Aqueduct

OBJECTIVES

- Restoration of the Existing system
- Improvement of the water carrying capacity and the conveyance efficiency
- Strengthen the embankments and Rectification of structural damages
- · Modernisation of the Grand Anciut canal system
- Facilitate to enhance the social status of the **Farmers**

SALIENT FEATURES

- · Length of Main canal: 148 Km
- No of branch canals: 327 Nos
- · Length of Branch Canals: 1232 Km.
- · Head Regulators: 2304 nos
- Canal drops: 679 nos
- Aqueducts: 2 nos
- Tanks: 694 nos
- · System Irrigation Area: 96,000 Ha

WAPCOS ROLE

- **Detailed Project** Report
- Project Management Consultancy



PREPARATION



SUPERVISION



ENGINEERING



REAL-TIME PROJECT MONITORING



KARNATAKA





KRISHNA BHAGYA JALA NIGAM LTD. **GOVERNMENT OF KARNATAKA**

REMODELLING OF NARAYANPUR LEFT BANK CANAL AND ITS NETWORK



Discharge Measurement in canal reaches



PROJECT COST ₹4,103 CR.



OBJECTIVES

- To improve the water use efficiency by about 25% through extension, renovation & modernization of the Narayanpur Left Bank Canal system.
- Adopt best irrigation practices to conserve water, minimizing wastage and ensuring its more equitable distribution

WAPCOS ROLE

Detailed Project Report



Narayanpur Dam



Silted Canal reach

SALIENT FEATURES

- NLBC Main canal capacity: 10,000 cusecs
- Command area benefitted: 4.5 Lakh Ha.
- Renovation and modernisation of canal system:
 - Length of NLBC Main Canal: 77.5 km
 - Length of Branch Canals: 241.5 km
 - Length of distributaries: 1,079 km
 - Length of laterals: 2,079 km

SERVICES RENDERED



DPR PREPARATION





26 STATES IN INDIA

CLIENT



MINISTRY OF **ENVIRONMENT &** FOREST, GOVT OF INDIA

PILOT LIDAR SURVEY IN A WATERSHED FOREST AREA OF 26 STATES/ UTs



LiDAR Survey



PROJECT COST ₹1,263 CR.

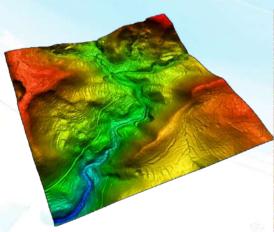


OBJECTIVES

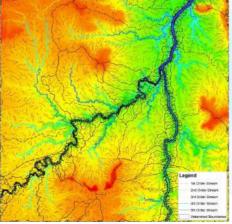
- Locations and structures for Feasible micro soil and water conservation
- Augment water and fodder in jungles areas
- Watershed management

SALIENT FEATURES

- Selection of representative pilot area based on parameters as rainfall, open forest, conducive to watershed interventions.
- · LiDAR survey for pilot area in 26 states for an area 10,000 Ha in each state.
- Generation of 3-D(three dimensional) DEM (Digital Elevation Model), imagery and layers
- Recommendation of different types of Soil & Water conservation structures



Processed Data - 3 D Model of the sample area



Streams and Watershed polygons on DEM

WAPCOS ROLE

Detailed Project Report



LIDAR SURVEY



REPORT PREPARATION



KURNOOL AND CUDDAPAH DISTRICTS IN ANDHRA PRADESH



RESOURCES DEPARTMENT GOVT OF A.P.

KURNOOL-CUDDAPAH CANAL MODERNIZATION PROJECT

(Funded by JBIC)





PROJECT COST ₹1,107 CR.



OBJECTIVES

- To restore the KC Canal System from the deteriorated condition and to modernize & bring back to its normal irrigation potential.
- To improve the water carrying capacity and the conveyance efficiency of the canal system.
- Strengthen the embankments, Rectification of structural damages.

SALIENT FEATURES

- Length of Canal 305.60 km
- Stabilization of KC Canal ayacut (i.e., 2,65,628 Acres)
- Discharge at offtake 3,850 Cusecs
- Construction of new barrage and balancing reservoir
- Lining work of main canal and distribution system.
- Nos. of villages benefitted 259

Andhra Pradesh Mahbubnaga Againath Assart Againath Ag

WAPCOS ROLE

- Project Management Consultancy
- Training to Department Engineers

SERVICES RENDERED



CONSTRUCTION SUPERVISION



ROUTE SURVEY



CAPACITY BUILDING



REPORT PREPARATION



TAMIL NADU

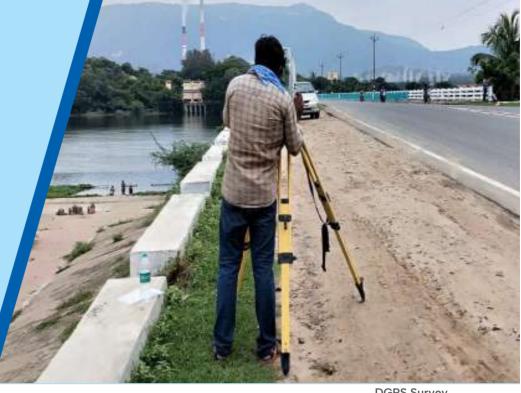




WATER **RESOURCES DEPARTMENT** (GOVT. OF TAMIL NADU)

NADANTHAAI VAAZHI **CAUVERY PROJECT**

(Pollution Abatement and **Conservation of Cauvery River)**



DGPS Survey







OBJECTIVES

 Effective Abatement pollution, of conservation, and rejuvenation of Cauvery River and its 5 tributaries to have the clean Cauvery

WAPCOS ROLE

Detailed Project Report

SALIENT FEATURES

- Interception & Diversion network
- STPs (at 89 locations ranging from 0.5 MLD to 16 MLD)
- River Surface Cleaning, River Front Development (Ghats, Crematoria, etc.)
- Online Monitoring system SCADA
- Solid Waste Management
- River Museum
- Diversity Afforestation & Development of Green Pockets, Wild Life Care Centre

River Ghats



Drone Survey

River Front Development







DRONE SURVEY





63 SUB BASINS IN TAMIL NADU

CLIENT



WATER RESOURCES
DEPARTMENT
(GOVT. OF TAMIL
NADU)

TAMIL NADU IRRIGATED
AGRICULTURE
MODERNIZATION
AND WATER-BODIES
RESTORATION AND
MANAGEMENT PROJECT
(TN-IAMWARM)

(Funded by World Bank)



Lining of Thandarai Anicut Left Main Canal



PROJECT COST ₹2,547 CR.



OBJECTIVES

Improve irrigation service delivery and productivity of irrigated agriculture with effective integrated water resources management in the selected 63 Sub-Basins.

SALIENT FEATURES

- Tank System Modernization in 63 sub basins (tanks, Check Dams, Artificial Recharge wells, Anicuts, Field Channels)
- Modernization of larger canal & drainage systems.
- 2433 Nos. of Tanks
- 261 Nos. of Check Dams, Artificial Recharge wells and Anicuts
- 3726 Km supply Channels
- Benefitted area: 6.17 Lakh Ha



Training Programme for PWD Engineers

WAPCOS ROLE

Construction Supervision



CONSTRUCTION SUPERVISION



CAPACITY BUILDING



QC MOBILE LAB



REPORT PREPARATION



QUALITY MANAGEMENT THROUGH SOFTWARE DEVELOPED BY WAPCOS





25 DISTRICTS, UTTAR PRADESH

CLIENT



UTTAR PRADESH BHUMI SUDHAR NIGAM

UP SODIC LAND RECLAMATION III PROJECT (UPSLR-IIIP)

Sodic Land Prior to reclamation



PROJECT COST ₹2,025 CR.



OBJECTIVES

- Identification of various stakeholders
- Assessment of potential impacts of the projects

WAPCOS ROLE

Monitoring & Evaluation

SALIENT FEATURES

- Total number of beneficiaries: 2,40,000
- of beneficiaries were small and marginal farmers
- On-Farm Development and Land treatment
- Improvement of the Drainage Network

SERVICES RENDERED



Sodic Land Prior to reclamation

Paddy crop after reclamation



Indian PROJECTS Power



DONDAICHA, MAHARASHTRA





MAHAGENCO

250 MW ULTRA MEGA SOLAR POWER PARK



Proposed Solar Park Site



PROJECT COST ₹166 CR.



OBJECTIVES

 Facilitate solar project developers to set up projects in a plug & play model to meet Renewable Generation target

WAPCOS ROLE

Detailed Project Report and Tendering

SALIENT FEATURES

- Capacity Utilization Factor 25.91%
- Developer can easily access infrastructure facility without any hindrances
- Competitive tariff bidding @ Rs 2.51 Per Kwh

USP:

- State will be able to meet RPO Obligations
- Reliable, clean energy source and pollution free



UAV Survey (Unmanned Aerial Vehicle)



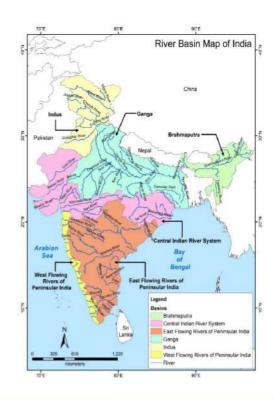








BASIN WISE REASSESSMENT OF HYDROELECTRIC POTENTIAL IN INDIA



River Basin Map of India



OBJECTIVES

Review of Hydroelectric Potential in all 6 River basins of country as per:

- New guidelines on environmental aspects
- Utilizing the latest hydrological data during last 25 years
- Identify the new probable sites, if any

SALIENT FEATURES

- Indus Basin,
- · Ganga Basin,
- Brahmaputra Basin,
- · Central Indian River System,
- · West flowing Rivers of Peninsular India,
- · East flowing Rivers of Peninsular India.

USP

This study is of vital importance as it enables Govt. of India, to effectively carryout long term planning of deverlopment of Hydropower and Pumped Storage Projects.

WAPCOS ROLE

Power Potential Assessment Report





WEST BENGAL

CLIENT



WEST BENGAL

STATE ELECTRICITY
DISTRIBUTION
COMPANY LTD.
(WBSEDCL)

PURULIA PUMPED STORAGE PROJECT (900 MW)

(Funded by JICA)



Lower Dam



PROJECT COST ₹2,476 CR.



OBJECTIVES

- Peak Power Generation and Grid Level Green Energy Storage
- 900MW Peak Power Generation for 6 Hours Daily
- To provide ancillary services to the GRID
- Black start facility

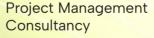
SALIENT FEATURES

- Upper Dam Rock fill Dam 71.2 m (H)
- Lower Dam Rock fill Dam 95 m (H)
- Underground Power House Complex (157 m (L) x 24.5 m(W) x 48 m)(H)
- 4 units of 225 MW each

USP

Largest Pumped Storage Project in Successful operational in India since 2007

WAPCOS ROLE





PFR & DPR



DETAIL DESIGN ENGINEERING



TENDER

TENDER ENGINEERING



Upper Dam

Under ground Power House



PURULIA, WEST BENGAL

CLIENT



WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LTD. (WBSEDCL)

TURGA PUMPED STORAGE PROJECT (1000 MW)

(Funded by JICA)



View of Lower Dam



PROJECT COST ₹4,235 CR.



USP

- One of the Mega Pumped Storage Projects under execution
- 5000 MWh Water Battery

OBJECTIVES

- Peak Power Generation and Grid Level Green Energy Storage
- 1000MW Peak Power Generation for 5 hr.
- To provide ancillary services to the GRID
- Black start facility

WAPCOS ROLE

Project Management Consultancy

SALIENT FEATURES

- Upper Dam- Rockfill with Central Impervious Core - 65 m (H)
- Lower Dam Concrete 75m (H)
- Power House (UG): 242.5 m (L) x 25m
 (W) x 53.6m (H)
- 4 units of 250 MW



PFR & DPR





DETAIL DESIGN

DETAIL DESIGN ENGINEERING



View of spillway of Existing Irrigation Dam



TAMIL NADU

CLIENT



TAMIL NADU **GENERATION AND** DISTRIBUTION CORPORATION (TANGEDCO)

KUNDAH PUMPED STORAGE HYDRO POWER PROJECT (500 MW)



TRT Gate Shaft



PROJECT COST ₹1,831 CR.



OBJECTIVES

- Peak Power Generation and Grid Level Green Energy Storage
- 500 MW Peak Power Generation for 6 hr. daily
- To provide ancillary services to the GRID
- Black start facility

SALIENT FEATURES

- Pumped Storage project with fixed speed machines
- Size of Power House: 156 m (L) x 22 m (W) x 48.2 m(H)
- 1 No. Head Race Tunnel: 1245 m, 8.5 Dia
- 4 units of 125 MW each

USP

- Project is important for integration of renewable energy sources
- 3000 MWh Water Battery



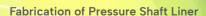
- Review Consultancy and Tender Engineering
- **Construction Supervision**







DETAIL DESIGN ENGINEERING





SAMBALPUR, ODISHA



ODISHA HYDRO POWER CORPORATION LIMITED

HIRAKUD & CHIPLIMA HYDROELECTRIC PROJECTS (R&M)



Renovated Power House Building -Hirakud







OBJECTIVES

- Renovation & Modernization
- Increase in Generation
- Life extension of units
- Enhance Unit availability & reduce outages
- Minimize Maintenance cost

SALIENT FEATURES

Hirakud

- Type Turbine -Kaplan
- Unit capacity increased from 2×37.5 MW to 2 x 43.6 MW after R&M

- Utilization of Mahanadi river's water from Hirakud Reservoir
- Rated /Design Head -31.6 m
- Power generated at 11 kV and stepped up to 132 kV.

Chiplima

- Type of Turbine –Kaplan
- Designed Head- 21.80m (Unit-3)
- Non- consumptive utilization water Hirakud Dam
- Power generated at 11 kV and stepped up to 132 kV.



Capacity Building -Chiplima



Rehabilitation Works- Chiplima

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



DESIGN REVIEW



CONSTRUCTION SUPERVISION



UT OF LADAKH

CLIENT



JAMMU & KASHMIR POWER **DEVELOPMENT** CORPORATION (JKPDC)

9 MW DAH & 9 MW HANU (Small Hydro Projects)



Head works Dah SHP



PROJECT COST ₹170 CR.



OBJECTIVES

- Power Generation
- Irrigation Use
- Socio-Economic Development in remote area of Ladakh

SALIENT FEATURES

- Un-gated Crest Weir having 1.5m top width
- 3 nos. Pelton Turbines for each SHP

Power House Dah SHP

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



MANAGEMENT





VETTING OF DESIGN & DRAWINGS



REAL-TIME PROJECT MONITORING



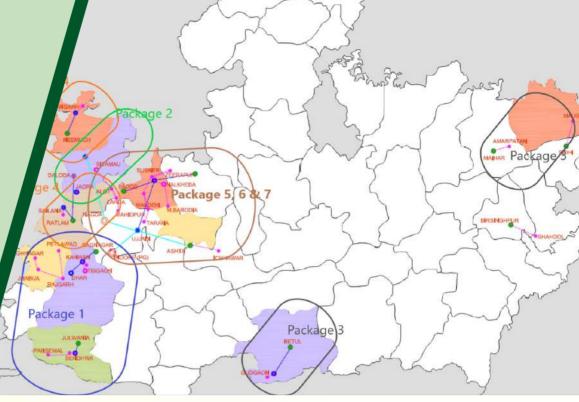
MADHYA PRADESH

CLIENT



MADHYA PRADESH POWER TRANSMISSION COMPANY LTD.

GREEN ENERGY CORRIDORS, INTRA STATE TRANSMISSION SYSTEMS



Package wise Location (400/220/132 kV TL&SS)



PROJECT COST ₹1,306 CR.



OBJECTIVES

- Integration of Renewable Energy into Grid
- Increasing access to Renewable Energy
- Improves demand of Power Supply

SALIENT FEATURES

- Only for transmission of energy produced through Renewable Sources
- Transmission Line and Substation of 400 kV, 220 kV and 132 kV Voltage level.
- To meet RPO (renewable purchase obligation) requirement & surplus/shortage of power at different regions

USP:

- Optimal Utilization of Renewable Energy resources through Grid management.
- Contribute to achieve the target of 500 GW of installed electricity capacity from non-fossil fuels by year 2030

220/132 kV Kanwan Substation

WAPCOS ROLE

Construction Supervision

SERVICES RENDERED



REPORT PREPARATION



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING



VISAKHAPATNAM, ANDHRA PRADESH

CLIENT



EASTERN POWER DISTRIBUTION CORPORATION LIMITED (APEPDCL)

UNDERGROUND CABLE WORKS

(Funded by World Bank)



33/11kv Cable Laid In Precast Trench Inside Substation



PROJECT COST ₹ 754 CR.



OBJECTIVES

 Conversion of Existing Overhead Power Distribution Network to Underground Cable network up to consumer energy meter in Visakhapatnam City

USP

To Provide uninterrupted quality power supply to Consumers during Cyclones and natural disasters

SALIENT FEATURES

- 33 kV UG Cable network: 116 km
- 11 kV UG Cable HT network: 375 km
- 11/0.4 kV Distribution Transformers: 1046 nos
- 1000 kVA Compact Substations: 28 nos
- 11 kV Ring Main Units: 682 nos
- LT UG Cable network: 1290 km
- · Consumer connection with UG network: 1,62,888 nos



11/0.4 Kv Distribution Transformer With Lt Feeder Pillar Box

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



DESIGN REVIEW



TESTING & QUALITY CHECKS







UTTAR PRADESH & HARYANA (DHBVN)







DVVNI





KESCO







PROJECT COST ₹25,354 CR.



OBJECTIVES

- Reduction of AT&C losses to pan-India levels of 12-15%.
- Reduction of ACS-ARR gap to zero.
- Improvement in the quality, reliability and affordability of power supply to consumers through a financially sustainable and operationally efficient distribution sector

SALIENT FEATURES

- · Uttar Pradesh (MVVNL, KESCO and DVVNL)
- No. of Consumers 94,12,236
- LR Circuit KM 92000 ckt km (Approx)
- Cable laying 13878 Km
- DHBVN
- No. of Consumers: 4,12,924
- SCADA Control Centers 3 Nos.
- SCADA DMS Centers 3 Nos.
- RMUs- 252 Nos.

WAPCOS ROLE

- **DPR Preparation**
- **Bid Process** Management
- **Fund Flow** Management
- **Project Supervision** and Monitoring

SERVICES RENDERED



PREPARATION



BID PROCESS MANAGEMENT



FUND FLOW MANAGEMENT



PROJECT SUPERVISION AND MONITORING



👩 CHHATISGARH, NORTH-EAST STATES (ARUNACHAL AND NAGALAND)







POWER COMPANY OF NAGALAND. **ARUNACHAL PRADESH & CHHATTISGARH**

REVAMPED DISTRIBUTION SECTOR SCHEME



Pole Erection



PROJECT COST ₹9,174 CR.



OBJECTIVES

- Reduction of AT&C losses to pan-India levels of 12-15%.
- Reduction of ACS-ARR gap to zero.
- Improvement in the quality, reliability and affordability of power supply to consumers through a financially sustainable and operationally efficient distribution sector.

SALIENT FEATURES

- Chhattisgarh
 - No. of Consumers 61,55,865
 - LT and HT Lines 51417 ckt km (Approx)
 - Cable laying 33514 ckt Km

- Distribution Transformers 17619 no.
- Arunachal pradesh
 - No. of Consumers: 2,98,447
 - · Feeders- 686 No.
 - Distribution Transformers 10116 no.
- Nagaland
 - No. of Consumers: 3,17,210
 - 11kV Line- 1719 ckt km
 - Distribution Transformers 918 no.

SERVICES RENDERED

Cable laying: 7.5 km







FUND FLOW MANAGEMENT



PROJECT SUPERVISION AND MONITORING



- Bid Process Management
- Fund Flow Management
- **Project Supervision and** Monitoring



Pole Mounted Transformer installation



NORTHERN & WESTERN ODISHA





ODISHA POWER TRANSMISSION CORPORATION LIMITED

ODISHA DISTRIBUTION SYSTEM STRENGTHENING PROJECTS



3/11kV 2x5 MVA Bishnupur



PROJECT COST ₹3,843 CR.



OBJECTIVES

- PMC works for 241 Nos. of 33/11kV **Substations**
- Each substation has at least one Incoming 33 kV Line having maximum Length of 30 km
- 2 nos. of Outgoing 11 kV Lines each having maximum Line Length of 20 km

WAPCOS ROLE

Project Management Consultancy

SALIENT FEATURES

- Ultra-compact GIS Plug and Play Sub-Station in densely populated Area
- AIS Indoor Sub-Station in other Areas
- VCB with auto-re-closure duty
- Motorised Isolators
- Numeric Relays
- Multifunctional Digital Meters
- RTUs and SCADA compatibility
- Composite Polymer Insulators in coastal belt and industrial polluted Area

SERVICES RENDERED



DESIGN REVIEW



REAL-TIME PROJECT CONSTRUCTION **MONITORING**



SUPERVISION



MONTHLY REPORT **PREPARATION**



KHAVDA, GUJARAT

CLIENT



PFC, MINISTRY OF POWER

260 MW WIND POWER PROJECT





PROJECT COST ₹1,800 CR.



OBJECTIVES

 To achieve renewable energy generation targets through Wind Power projects supported by Financial assistance from PFC

SALIENT FEATURES

- Project capacity: 260 MW AC
- 33/400 KV Pooling Substation
- 5.7 km 400 kV Transmission line
- 70 KM 33 kV Feeder Lines
- 50 Nos. of 5.2 MW capacity Wind turbines

USP:

- 5.2 MW WTG is the largest capacity WTG being installed in India.
- Project is being implemented in India's largest Renewable Energy park in Khavda, Kachchh region , Gujarat



Construction Site - Main Control room

WAPCOS ROLE

Project Management Agency

SERVICES RENDERED



REPORT



CONSTRUCTION REPORTS





O&M REPORTS



DHAR, MADHYA PRADESH





PFC, MINISTRY OF POWER

326 MW **WIND POWER PROJECT**



2.70 MW Wind Turbine at Project Site



PROJECT COST ₹2,200 CR.



OBJECTIVES

 To achieve renewable energy generation targets through Wind Power projects supported by Financial assistance from PFC

WAPCOS ROLE

Project Management Agency

SALIENT FEATURES

- Project capacity: 326.70 MW
- 33/220 kV Pooling Substation
- 71 km 220 kV Transmission line
- 308 km 33 kV Feeder Lines
- 121 No. of 2.7 MW capacity Wind turbines



220 KV Pooling Substation in Dhar



2.70 MW Wind Turbine









KOPPAL, KARNATAKA

CLIENT



PFC, MINISTRY OF **POWER**

400.87 MW - 196.87 MW (SOLAR) & 204 MW (WIND) **HYBRID POWER PROJECT**



Tower Erection at site



PROJECT COST ₹3,400 CR.



OBJECTIVES

 To achieve renewable energy generation targets through Solar and Wind Hybrid Power projects supported by Financial assistance from PFC

SALIENT FEATURES

- Project capacity: 400.87 MW (196.87 MW) Solar & 204 MW Wind)
- 33/220 kV Substation
- 54.4 KM 220 kV Transmission Line

USP:

- Hybrid Project comprising of Solar and Wind Power Technology.
- Power evacuated will be utilized by consumer based on RTC mode (Round the Clock)



Foundation work of PSS and MCR

WAPCOS ROLE

Project Management Agency

SERVICES RENDERED



REPORT



CONSTRUCTION **REPORTS**



O&M REPORTS



KURNOOL, ANDHRA PRADESH





PFC, MINISTRY OF **POWER**

1500 MW **SOLAR POWER PROJECT**



Site visit (WAPCOS & Greenko Team)



PROJECT COST ₹7,500 CR.



OBJECTIVES

 To achieve renewable energy generation targets through Solar Power projects supported by Financial assistance from PFC

WAPCOS ROLE

Project Management Agency

SALIENT FEATURES

- Project capacity: 1500 MW AC/ 2100 MW DC
- 33/400 kV Pooling Substation
- 400 kV Double Circuit Transmission line
- Land area: 6,928 Acre

SERVICES RENDERED









REPORTS





Site for 700 MW Solar PV array at Pinnapuram



Indian PROJECTS Infrastructure

WATER SUPPLY & SANITATION



VALSAD, GUJARAT





GUJRAT WATER SUPPLY & SEWERAGE BOARD. **GOVT. OF GUJARAT**

ASTOL REGIONAL WATER SUPPLY SCHEME



Hon'ble Prime Minister, Shri Narendra Modi inaugurated dedicated Astol Regional Water Supply Project at Valsad District



PROJECT COST ₹586 CR.





Intake Well/Approach Bridge (PKG-I)



OBJECTIVES

- To provide drinking water for 174 Villages under Kaprada & Dharampur Talukas of Valsad District
- To improve the livelihood of villagers

WAPCOS ROLE

- **Detailed Project Report**
- Construction Supervision

SALIENT FEATURES

- Source: Madhuban Dam, Damanganga River
- · Total Length of rising mains: 81 km
- Total pipeline distribution network: 1195 km
- Max. Water Head is 566m and Maximum Design Pressure ranges from 40 to 45 kg/ cm²
- Population benefitted: 4.5 lakh (Tribal)



PREPARATION



TENDER ENGINEERING



PMC



Pendhradevi CLR Unit, PKG -3

AJMER & UDAIPUR, RAJASTHAN

CLIENT



PUBLIC HEALTH ENGINEERING DEPARTMENT. **GOVERNMENT OF RAJASTHAN**

JAL JEEVAN MISSION



Proposed Location for Storm Water Network



PROJECT COST ₹20,077 CR.





OBJECTIVES

- Inspection of Construction Material, Pipes, Valves, Pumps, Motors, etc.
- Pre-dispatch Inspection of Material & Equipment.
- Checking of Design & Drawings and Quality Assurance Plans.
- · Monitoring of Quality & Quantity of Works.
- Bill Verifications & Recommendation on the Payment.
- Monitor progress of works as per approver Work Plan.
- Suggest safety measures.

SALIENT FEATURES

- Aimer Region Major Project Schemes: 19 Nos. (in districts Ajmer, Bhilwara, Nagaur & Rajasmand). Cost of Works for Rs. 7,178 Cr.
- Aimer Region OTMP Schemes: 5 Nos. (in district Ajmer, Nagaur & Tonk). Cost of Works for Rs. 1,066 Cr.
- Udaipur Region Major Project Schemes:-07 Nos. (in district Banswara, Chittorgarh & Dungarpur). Cost of Works for Rs. 7,748 Cr.
- Udaipur Region OTMP Schemes:- 1180 Nos. (in district Banswara, Chittorgarh, Dungarpur, Rajasmand, Udaipur, Salumber & Partapgarh). Cost of Works for Rs. 4,084 Cr.

WAPCOS ROLE

Third Party Monitoring & Inspection Agency

SERVICES RENDERED



REPORT PREPARATION



REVIEW OF QAP & DESIGN DRAWINGS



REAL-TIME PROJECT MONITORING



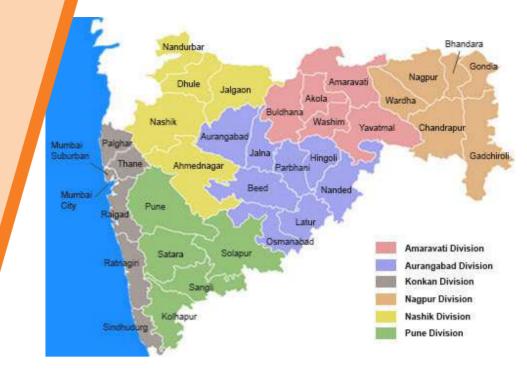


19 DISTRICTS, MAHARASHTRA



STATE WATER AND SANITATION MISSION, JJM

JAL JEEVAN MISSION



Layout Plan for Hospital campus



PROJECT COST ₹6,335 CR.



OBJECTIVES

To provide Functional Household Tap Connection (FHTC) to every rural household with service level at the rate of 55 litres per capita per day (lpcd)

WAPCOS ROLE

Project Management Consultancy

SALIENT FEATURES

- Supply of 55 litres of water per person per day to every rural household through Functional Household Tap Connections (FHTC) by 2024
- Focuses on integrated demand and supply-side management of water at the local level
- JJM looks to create a jan andolan for water, based on a community approach to water
- In-village water supply (PWS) infrastructure for tap water connection to every household Centre

SERVICES RENDERED



SURVEY & INVESTIGATIONS



DETAILED
PROJECT REPORT
PREPARATION



BID PROCESS MANAGEMENT



CONSTRUCTION SUPERVISION



DLP FOR



KASHMIR, J&K





DEPARTMENT (PHE), KASHMIR

JAL JEEVAN MISSION



Reinforcement Checking of Ground Surface Reservoir



PROJECT COST ₹2,100 CR.



OBJECTIVES

 To provide Functional Household Tap Connection (FHTC) to every Rural Household, Schools, Anganwadi Centers, Gram Panchayat buildings, Health Centers, Wellness Centers and Community Buildings.

WAPCOS ROLE

Third Party Monitoring & Inspection Agency

SALIENT FEATURES

- To provide FHTCs at minimum service level of 55 LPCD in 9 districts of Kashmir region.
- Total No. of Water Supply Schemes under JJM-1344
- Total No. of Works under JJM- 2153



Inspection of Over Head Tank



Inspection of pipe material

SERVICES RENDERED



REPORT PREPARATION



THIRD PARTY
INSPECTION AGENCY



17 ULBs, MADHYA PRADESH





UADD, BHOPAL (M.P) GOVERNMENT OF MADHYA PRADESH

WATER SUPPLY AND SANITATION (AMRUT)





PROJECT COST ₹3,281 CR.





Storm Water Drains

OBJECTIVES

- To provide access to reliable Water Supply and Sewerage connection;
- Fostering Greenery and maintaining well-kept Open Spaces, such as parks; and
- Mitigate pollution by encouraging non-motorized transportation like walking and cycling

WAPCOS ROLE

Project Management Consultancy

SALIENT FEATURES

- Project Implementation: 17 ULBs i.e. Indore, Pithampur, Burhanpur, Khandwa, Omkareshwar, Khargone, Bhopal, Sehore, Vidisha, Betul, Hoshangabad, Ujjain, Nagda, Dewas, Mandsaur, Neemuch, Ratlam.
- Number of Project- 134 (Water Supply-19 Nos; Sewerage- 12 Nos; Storm Water Drainage- 19 Nos; Green Spaces- 74 Nos)
- Sewerage Network- 1200 Km
- STP: 22 Nos (Total 410 MLD Ranging from 2 MLD to 92.5 MLD).
- Water Supply Network 2000 Km
- WTP: 2 Nos (50 MLD and 10 MLD.)
- · Storm water drain of total length 149.5 km.

Sewerage Treatment Plant

SERVICES RENDERED



REPORT PREPARATION



TENDER ENGINEERING



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING

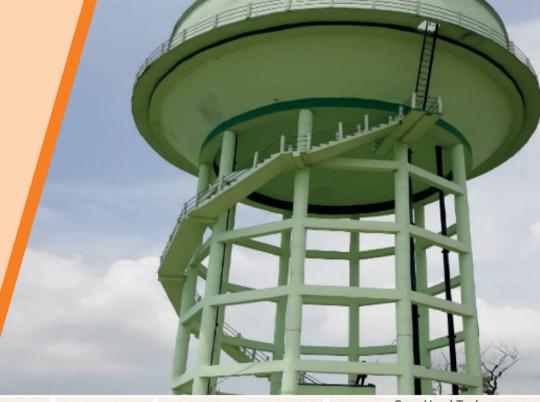






URBAN
DEVELOPMENT
& HOUSING
DEPARTMENT
(UD&HD)
GOVERNMENT OF
BIHAR

WATER SUPPLY AND SANITATION (AMRUT)



Over Head Tank



PROJECT COST



OBJECTIVES

- 24x7 piped water supply
- Increase the Green space & parks
- · Free from Storm water logging

WAPCOS ROLE

Project Management Consultancy

SALIENT FEATURES

- 27 nos. Towns
- 36 nos. water supply schemes (4251 km distribution line)
- 29 nos. Green space & parks
- 3 nos. Drainage projects (43.25 kms)
- Faecal Sludge and Septage Management scheme (15 kld)
- Rejuvenation of Water Bodies

SERVICES RENDERED



DESIGN REVIEW





CONSTRUCTION SUPERVISION

REAL-TIME PROJECT

MONITORING



Parks



KHAJOD, GUJARAT



SURAT MUNICIPAL CORPORATION

AUGMENTATION OF 55 MLD & 37.5 MLD **SEWAGE TREATMENT PLANT (AMRUT)**



Existing Clarifier



PROJECT COST



OBJECTIVES

- Divert the existing Sewerage Network of Khajod
- Improve carrying capacity of Existing Sewerage Network considering the climate change
- Provide the solution for pollution control and urban mobility to fulfill the Smart City requirement

SALIENT FEATURES

- Fulfillment of Smooth Drainage Network Requirement of the Surat City
- Provide the new Drainage Network for urban mobility

WAPCOS ROLE

Project Management Consultancy

Air Blower

SERVICES RENDERED



CONSTRUCTION **SUPERVISION**



REAL-TIME PROJECT MONITORING







GOA STATE URBAN DEVELOPMENT AGENCY

WATER SUPPLY AND SANITATION (AMRUT)



WATER SUPPLY SCHEME-Bicholim



PROJECT COST ₹175 CR.



OBJECTIVES

- Potable water to every household
- Rehabilitation of Sewerage Network for Sewage collection and it's treatment
- Green Space Development
- Water bodies rejuvenation
- Improvement of health by supplying potable water & treating waste water
- Developing healthy environment for children for playing

SALIENT FEATURES

- Various Projects under AMRUT 2.0 of Water supply, Water bodies Rejuvenation, Sewerage and Green Spaces
- Total 24 Nos of Projects (20 Water supply , 1 sewerage network and 1 Green Space and 2 Rejuvenation of Water bodies)

WAPCOS ROLE

Project Development & Management Consultant

REJUVENATION AND DEVELOPMENT OF STRETCH OF VALVANTI RIVER



650 KL OHR MAPUSA -Amrut.2.0



DPR



TENDER ENGINEERING



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING







GUJARAT WATER SUPPLY & SEWERAGE BOARD REGIONAL WATER SUPPLY SCHEME



Survey work



PROJECT COST

PKG 1 - ₹220 CR. & PKG 2 - ₹139 CR.



OBJECTIVES

- To provide drinking water for the interior villages lies into the dense forest region
- To improve the livelihood of villagers
- Availability of Drinking Water for the 279
 Villages lies under Ahwa, Subir & Waghai
 Talukas of Dang District (GJ)

WAPCOS ROLE

Project Management Consultancy



Pipe laying work started at Site

SALIENT FEATURES

- Benefitted 3 Nos. of talukas of District Dang.
- Villages Covered: 279
- Benefitted Population: 3.71 lakh



SURVEY & INVESTIGATIONS



FEASIBILITY & DPR



TENDER ENGINEERING



O&M



CONSTRUCTION SUPERVISION

SURAT, GUJARAT



TAPI SHUDDHIKARAN PROJECT



Kathor STP





OBJECTIVES

- To improve carrying capacity of Existing Sewerage Network considering the climate
- To divert & improve the existing Sewerage Network of Tapi River System
- To provide the solution for pollution control and urban mobility to fulfill the Smart City requirement
- Wastewater of towns and villages not located on the banks will be released into drains through interceptors and diversion technique

SALIENT FEATURES

- Fulfillment of Smooth Drainage Network Requirement of the Surat City
- To provide the new Drainage Network for urban mobility
- Improve the water quality of Tapi. It will be a benchmark project for other projects in the country

WAPCOS ROLE

Third Party Quality Assurance (TPQA)



Bharthana STP

SERVICES RENDERED



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING

MADHYA PRADESH

CLIENT



(M.P) GOVERNMENT OF MADHYA **PRADESH**

MADHYA PRADESH URBAN DEVELOPMENT PROJECT (MPUDP)

(Funded by World Bank)



Water Treatment Plant



PROJECT COST ₹1,126 CR.



OBJECTIVES

- · Enhance coverage of urban services and boost revenue
- Ensuring sustainable infrastructure management

SALIENT FEATURES

- No. of Water Supply Projects: 3
- · No. of Sewerage Projects: 14

- Total Capacity of WTPs: 86.50 MLD

Sewerage Treatment Plant

WAPCOS ROLE

Project Management Consultancy

- Total Capacity of STPs: 85.43 (SBR, MBBR, DEWATS, etc.)
- Total Water Supply network: 655.11 K.M. (110mm to 900mm - HDPE & DI)
- Total Sewer Network: 927.07 K.M. (DWC HDPE & NP3 RCC)
- No. of OHTs: 14 nos.
- No. of Pumping stations: 52 nos.
- No. of Anicuts (small dams): 3 no.s
- No. of Intake wells: 3no.
- House service connections to all households



REPORT PREPARATION



ENGINEERING





REAL-TIME PROJECT MONITORING



CLIENT



PHED (MANIPUR)
GOVERNMENT OF
MANIPUR

MANIPUR WATER SUPPLY PROJECT

(Funded by NDB)



Water Treatment Plant





OBJECTIVES

 To Improve the access to safe drinking water in Imphal city, 25 other towns, and 1,731 rural habitations

SALIENT FEATURES

- 25 water supply schemes with capacity of 46.94 MLD for other towns.(0.80 MLD to 5.94 MLD)
- 1,249 water supply schemes with capacity of 195.39 MLD for rural areas(0.20 MLD to 20.0 MLD)

- No of WTPs: 142 Nos (Capacity Ranging from 0.20 MLD to 20 MLD)
- Total Length of Transmission Mains: 428 Kms (Diameter Ranging from 25 mm to 200 mm)
- Total Length of Distribution Mains: 506 Kms (Diameter Ranging from 350 mm to 1000 mm)
- No: of Elevated Service Reservoirs :42 (Capacity Ranging from 0.10 to 0.45 million litres)
- No: of Ground Service Reservoirs: 625 (Capacity Ranging from 0.10 to 2.0 million litres)

Review Meeting by Hon'ble CM Sh. N.Biren Singh

WAPCOS ROLE

Project Management Consultant



Settling tank



TENDER ENGINEERING



DESIGN REVIEW



REAL-TIME PROJECT MONITORING

NEW DELHI, INDIA

CLIENT

MINISTRY OF **HOUSING AND URBAN AFFAIRS,** GOVT. OF INDIA

DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT (GIZ) GMBH

MANUALS ON STORM WATER DRAINAGE AND WATER SUPPLY



National Workshop Storm Water Manual







- Manual on CPHEEO Storm Water Drainage Systems
- Revision and Up-dation of CPHEEO Water Supply Manual (funded by the GIZ)

SALIENT FEATURES

Manual on Storm Water Drainage:

- Project Planning and Investigation
- Hydraulic and Structural Design of Drains
- Integration and Innovations practices
- Operation and Maintenance

- Capacity Building
- Public Awareness

Manual on Water Supply:

- Regulatory Frame Work
- Updation of the Design Standards
- Water Source Management
- **Treatment Process**
- Community Engagement and Technology **Innovations**
- Operation and Maintenance
- Institutional, Capacity Building, Public Awareness and Financial Management



Storm Water Manual





Water Supply Manual

USP

First Manual on Storm Water Drainage Systems in India

WAPCOS ROLE

- Standardization and Formulation of CPHEEO Storm Water Drainage Manual
- Revision and Updation of CPHEEO Water Supply Manual



PREPARATION







IRRIGATION & WATER RESOURCE DEPARTMENT, GOVT. OF HARYANA

MEWAT FEEDER PIPELINE PROJECT AND REMODELLING OF GURUGRAM WATER SUPPLY CHANNEL



Site Visit



PROJECT COST ₹1,989 CR. (gws) ₹1,161 CR. (MEWAT)



OBJECTIVES

Gurugram Water Supply Channel (GWS)

Supply water to the towns of Gurgaon and Bahadurgarh for drinking purposes, domestic, industrial, commercial use, public/semi-public buildings and open spaces (Irrigation) to meet the demand corresponding to the population demand of 2050.

Mewat Feeder Pipeline Project

provide an alternate assured source of fresh water to Mewat region

Mewat Feeder Pipeline Project

Pumps

mm dia.)

- Head Regulator –173.04 Cusec
- Sedimentation Tank with self-cleaning Scrapper

Pump House - 16 No. Submerged Centrifugal

MS Pipeline of 46 km length (3100 mm to 1500

- · Project Off takes from GWS channel at Badli, **Jhajjar**
- Pump House 12 No. Submerged Centrifugal Pumps
- MS Pipeline of 46.6 km length (2600 mm to 1900 mm dia.)
- Power House 3 MW

SALIENT FEATURES

Gurugram Water Supply Channel (GWS)

- Head Regulator 686 Cusec
- Sedimentation Tank with self-cleaning Scrapper
- Twin RCC Barrel upto 27 km 686 Cusec



Survey Along The Expressway

WAPCOS ROLE

- **Detailed Project Report**
- **EPC Tender Documents**
- Proof Checking of EPC Drawings





TRANSPORTATION



VARANASI, UTTAR PRADESH





VARANASI DEVELOPMENT AUTHORITY, GOVERNMENT OF UTTAR PRADESH

VARANASI URBAN ROPEWAY TRANSPORTATION PROJECT



Meeting with Hon'ble Chief Minister



PROJECT COST ₹410 CR.





OBJECTIVES

- To Improve mobility and Ease of Living Index
- To Promote Tourism and Earn Carbon Credits
- To Develop Multi Model Transport System
- To Decongest the Roads

SALIENT FEATURES

- Network Length: 3.65 Km
- No. of Stations : 5 (Including 1 Turning Station)
- Operating Days Per Year: 365 Days
- Operating Hours/ Day Hours: 16 Hrs
- No. of Towers: 30
- Height Range: 10 Meters 46 Meters

USP

- First Urban Ropeway Network of India
- Will be developed on World Class Golden Standard CEN

WAPCOS ROLE

- Detailed Feasibility Report
- Tender Engineering

3D View

SERVICES RENDERED



SURVEY & INVESTIGATIONS



TRAFFIC & ESIA STUDIES



DETAILED FEASIBILITY
REPORT



TENDER ENGINEERING



SHIMLA, HIMACHAL PRADESH





ROPEWAYS AND
RAPID TRANSPORT
SYSTEM
DEVELOPMENT
CORPORATION,
GOVERNMENT OF
HIMACHAL PRADESH

INNOVATIVE URBAN ROPEWAY PROJECT FOR SHIMLA CITY



Drone Surveys



PROJECT COST ₹1,550 CR.



OBJECTIVES

- To Improve mobility and Ease of Living Index
- To Promote Tourism and Earn Carbon Credits
- To develop Multi Model Transport System
- To decongest the Roads

SALIENT FEATURES

- Network Length: 14 Km
- No. of Stations: 14
- Operating Days Per Year: 330 Days
- Operating Hours/ Day Hours: 16 Hrs
- No. of Towers: 170
- Height Range: 8m 60m
- Design Capacity: 3000 PPHPD

USP

- Will be Largest Urban Ropeway Network of India and Second Largest after La Paz, Bolivia
- Will be developed on World Class Golden Standard CEN

3d View

WAPCOS Role

Detailed Project Report

SERVICES RENDERED



SURVEY & INVESTIGATIONS



TRAFFIC & ESIA STUDIES



DETAILED PROJECT REPORT



MANDI, HIMACHAL PRADESH





DIRECTOR, **DEPARTMENT OF TOURISM AND CIVIL** AVIATION, GOVT. OF H.P.

DEVELOPMENT OF GREENFIELD AIRPORT AT NAGCHALA



Topographical & OLS survey by Aerial LiDAR



PROJECT COST ₹10,715 CR.





Joint Site Visit



- To enhance air connectivity of Himachal Pradesh
- Socio- Economic Development, Tourism Development
- Income and Employment Generation

SALIENT FEATURES

- Code 3C Runway to cater aircraft like A320
- Runway length 2100 m x 45 m (Phase 1) & 3150 m x 45 m (Phase 2)

WAPCOS ROLE

Detailed Project Report

SERVICES RENDERED



LIDAR SURVEY



IMPACT ASSESSMENT





DPR

Ground Control Survey



KANGRA, HIMACHAL PRADESH





DIRECTOR, DEPARTMENT OF **TOURISM AND CIVIL** AVIATION, GOVT. OF **EXPANSION OF GAGGAL AIRPORT AT KANGRA**



Joint Meeting with officials



PROJECT COST ₹4,249 CR.



OBJECTIVES

· To enhance Service Capacity of existing Airport

BENEFITS

- Socio- Economic Development, Tourism Development
- Income and Employment Generation
- Better Connectivity to Major Centers

SALIENT FEATURES

- Code 3C Runway to cater aircraft like A320, Boeing-737 etc.
- Proposed Runway length: 3010 m x 45 m

WAPCOS ROLE

Detailed Project Report

SERVICES RENDERED



LIDAR SURVEY



CAPEX **ANALYSIS**





TEFR



Soil and Ground Survey







RAILWAY TUNNELS FOR BARKAKANA-**RANCHI AND KODERMA-TILIAYA**

(New B.G. Rail Lines)





PROJECT COST



OBJECTIVES

 To design and construct tunnel in difficult topography where construction of Open Rail Line is not feasible.

WAPCOS ROLE

Construction Stage Design Engineering

SALIENT FEATURES

- 3 (Three) Tunnels Barkakana-Ranchi Section (Total Length - 1500 m)
- 4 (Four) Tunnels Koderma-Talaiya Section (Total Length - 1150 m)

USP

Project is of strategic importance as it provides, alternative coal connectivity in the reigon









Railway Tunnel



GUNA, MADHYA PRADESH





RAIL VIKAS NIGAM LIMITED

RAILWAY ELECTRIFICATION PROJECT



SUB-SECTIONING AND PARALLELING POST, PADARKHEDA



PROJECT COST ₹200 CR.



OBJECTIVES

- Electrification of existing Railway line of length 227 RKm
- Communication facilities at all TSS,SP, SSP, ADEE Office & residence, SSE(TR-D) office & residence and OHE-CUM-PSI Depot location.

WAPCOS ROLE

Project Management

SALIENT FEATURES

- Stations: 14 Nos
- Tower Wagon Shed: 01 No
- OHE Depot: 01 No
- Power Line Crossing: 10 Nos
- TSS: 3 Nos
- SP & SSP: 03 & 05 Nos

SECTION INSULATOR ADJUSTMENT AT GUNA -GWALIOR

SERVICES RENDERED



PROJECT MANAGEMENT



CONSTRUCTION SUPERVISION



VETTING OF DESIGN & DRAWINGS



REAL-TIME PROJECT MONITORING



GHAZIPUR, UTTAR PRADESH





RAIL VIKAS NIGAM LIMITED

RAIL CUM ROAD BRIDGE OVER RIVER GANGA



Rail cum Road Bridge



PROJECT COST ₹412 CR.



OBJECTIVES

- To be used as feeder route and help in reducing the traffic on Patna Ganga Bridge and Danapur Dildarnagar route
- Direct connectivity to Purvanchal and districts of Bihar

WAPCOS ROLE

Project Management

SALIENT FEATURES

- Type of Bridge: Rail cum Road Bridge
- · Length : 1,022 m from abutment to abutment
- 11 no. intermediate spans, 2 no. end spans
- 2 BG tracks at the lower deck and 3-lane road at the upperdeck
- Train Design Speed: 125 kmph (Goods) /160 kmph (Passenger)

Rail cum Road Bridge

SERVICES RENDERED



PROJECT MANAGEMENT



CONSTRUCTION **SUPERVISION**



VETTING OF DESIGN & DRAWINGS



REAL-TIME PROJECT MONITORING



UTTARAKHAND

CLIENT



UTTARAKHAND RURAL ROADS DEVELOPMENT AGENCY (URRDA)

CONSTRUCTION OF ROADS AND BRIDGES

(Under PMGSY)



State / National Quality Monitors visits



PROJECT COST ₹335 CR.



OBJECTIVES

- Providing All weather Roads to unconnected Rural Areas
- · Socio- Economic Development
- Income and Employment Generation

SALIENT FEATURES

 Total 41 Roads and 33 Bridges under Construction

WAPCOS ROLE

Project Implementation Unit (PIU)

Construction of Road work

SERVICES RENDERED



CONSTRUCTION SUPERVISION



BID PROCESS MANAGEMENT



REAL-TIME PROJECT MONITORING



CLIENT



MPRRDA

PRADHAN MANTRI GRAM SADAK YOJNA (PMGSY)



Inspection at Site



PROJECT COST ₹316.8 CR.



OBJECTIVES

The main objective of the Pradhan Mantri Gram Sadak Yojana is to strengthen the current rural road network by upgrading the existing roads.

SALIENT FEATURES

- The main scope of work of WAPCOS was Supervision and Quality Control.
- The project covered the villages of 9 (Nine) cities of Madhya Pradesh i.e. Harda, Umariya, Dewas, Vidisha, Guna, Ratlam, Gwalior, Rewa and Katni.

- Total road network length was 1598 kms. which include Bitumen roads, CC roads and Paver Block roads.
- More than 450 remote and isolated Villages are connected by paver roads.
- The roads constructed were ranging from single lane (width 3.5 meters) to double lane.
- It included construction of more than Approx.
 450 Nos. culverts and cross drainage works.

WAPCOS ROLE

Supervision & Quality Control Consultancy



Inspection at Site





ENVIRONMENT AND CLIMATE CHANGE



CLIENT



JAMMU & KASHMIR STATE POWER DEVELOPMENT CORPORATION LIMITED ENVIRONMENTAL
IMPACT ASSESSMENT
STUDY FOR UJH
MULTIPURPOSE
PROJECT





PROJECT COST ₹5,850 CR.



OBJECTIVES

- Assessment of the existing status of various aspects of environment
- Identification of potential impacts on various environmental components during construction and operation phases
- Environmental Management Plan (EMP) and monitoring plan
- Formulation of Resettlement and Rehabilitation(R&R) Plan

- Catchment Area Treatment (CAT) Plan and Local Area Development Plan
- Environmental Clearance for the Project

SALIENT FEATURES

- Construction of a 116.0 m high dam on river Ujh
- Installed Capacity 186 MW
- Annual energy 238.66 MU
- Command Area envisaged for irrigation is about 16,000 ha.

WAPCOS ROLE

Environmental Impact Assessment Study

SERVICES RENDERED



PREPARATION

Command Area







WATER RESOURCES DEPARTMENT, STATE GOVERNMENT OF CHHATTISGARH ENVIRONMENTAL
IMPACT
ASSESSMENT
STUDY FOR ARPA
BHAISAJHAR
BARRAGE PROJECT



Arpa river Submergence Zone



PROJECT COST ₹606.43 CR.



OBJECTIVES

- Description of baseline environmental status
- Assessment of impacts
- Environmental Management Plan (EMP) and Monitoring Plan
- Resettlement and Rehabilitation (R&R)
 Plan
- Catchment Area Treatment (CAT) Plan
- Obtain Environmental Clearance for the Project

SALIENT FEATURES

- Construction of a 147 m long and 12.35 m high barrage near village Bhaisajhar on river Arpa
- Gross storage capacity 22.168 Mm³ and live storage capacity 16.409 Mm³
- Length of Main Canal and Branch Canals is 56.6 km and 27.0 km respectively.
- Length of distributaries and minors is 303.3 km.
- Annual irrigation proposed is 25,000 ha.

WAPCOS ROLE

Environmental Impact Assessment Study



Fisheries in the Study Area







KOCHI METRO RAIL LIMITED (KMRL) ENVIRONMENTAL
IMPACT
ASSESSMENT STUDY
FOR KOCHI WATER
METRO PROJECT



Existing Condition of Aster Medicity Jetty



PROJECT COST ₹819 CR.





Route Map/ Index Mao

OBJECTIVES

- Description of baseline environmental status
- Assessment of impacts likely during various phases of project cycle.
- Environmental Management Plan (EMP) and Environmental Monitoring Programme
- Obtain Environmental Clearance for the Project

WAPCOS ROLE

Environmental Impact Assessment Study

SALIENT FEATURES

- Terminal buildings with waiting areas, unpaid areas, AFCs, etc.& other infrastructure covering Fifteen (15) identified routes connecting 45 terminals across 10 island communities across 78.2 km channel length
- Boatyard for maintenance of the boats
- Specially abled friendly terminals with passenger friendly operations



SALE OF SECOND S

Existing Condition of Kumbalam Jetty







MINISTRY OF ENVIRONMENT, **FORESTS AND** CLIMATE CHANGE, **GOVERNMENT OF INDIA**

CUMULATIVE IMPACT AND CARRYING CAPACITY STUDY FOR KAMENG SUB BASIN IN BRAHMPUTRA **RIVER VALLEY**





PROJECT COST ₹819 CR.



OBJECTIVES

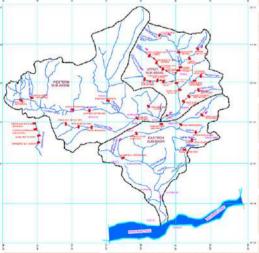
- Inventorization and analysis of the existing resource base
- Determination of regional ecological fragility/sensitivity
- Evaluation of impacts on various facets of environment due to existing and planned development of 44 hydroelectric projects in Kameng basin
- Formulation of guidelines to minimize adverse impacts due to development of hydroelectric projects in Kameng basin

SALIENT FEATURES

- Conduct Environmental and Social Assessment
- Assessment of downstream impacts in Brahmaputra basin in Assam.
- Assessment of impacts on Ecologically Sensitive Areas
- · Impacts on Aquatic Ecology including **Fisheries**
- Impacts on Rare, Endangered Threatened floral and faunal species
- Assessment of free flow stretch in cascade development of Hydroelectric projects

WAPCOS ROLE

Carrying Capacity Study



Basin Map



Kameng river flows through Pakke Tiger Reserve (LB) and Eaglenest WS (RB)



PREPARATION

PORTS, HARBOURS & INLAND WATERWAYS

GUJARAT





UPGRADATION
OF FISH LANDING
CENTRES (FLC)



Meeting at the site



PROJECT COST ₹675 CR.



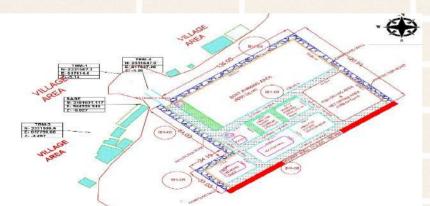
OBJECTIVES

- To provide good infrastructure facilities (Fish landing centre) to the fishermen
- To improve the Hygienic standards
- To improve the Marine fish exports

SALIENT FEATURES

- Fish Landing Jetty
- Auction hall
- Net Mending shed
- Roads
- Parking area
- · Fresh water facilities
- Electrical facilities

Sr.	FLC/FH	District	Sr.	FLC/FH	District
1	Rupen	Dwarka	15	Navlakhi	Morbi
2	Sikka	Jamnagar	16	Onjal	Navsari
3	Luni	Kutch	17	Simar	Gir-Somnath
4	Koteshwar	Kutch	18	Bet Dwarka	Dev Bhoomi Dwarka
5	Maroli	Maroli	19	Kotda	Gir-Somnath
6	Magod Dungri	Valsad	20	Mangrolbara	Junagadh
7	Shiyal Bet	Amreli	1		
8	Fansa	Valsad	21	Kosamba	Valsad
_			22	Umargam	Valsad
9	Kalai	Valsad	23	Danti	Valsad
10	Khatalvada	Valsad			12.00
11	Jakhau	Kutch	24	Krushnapura Navsari	
12	Mahuva	Bhavnagar	25	Rana Bhata	Navsari
13	Mandavi	Kutch	26	Vansi Borsi	Navsari
14	Nargol	Valsad	27	Rupen	Gir Somnath



WAPCOS ROLE

- Detailed Project
 Report
- Draft Tender Paper
- Project Management Consultancy

SERVICES RENDERED



DETAILED PROJECT REPORT



TENDER ENGINEERING



EIA & CRZ CLEARANCE



CONSTRUCTION SUPERVISION

Model Layout







FISH LANDING CENTRES (FLC)



Inauguration of Dholai FH



PROJECT COST ₹570 CR.



OBJECTIVES

- To provide good infrastructure facilities to the fishermen
- To improve the Hygienic standards
- To improve the Marine fish exports

SALIENT FEATURES

- Wharf Wall
- Auction hall
- Net Mending shed
- Roads
- Parking area
- Fresh water facilities
- Electrical facilities

Sr.	FLC/FH	District	
1	Salaya FLC	Jamnagar	
2	Sachana FLC	Jamnagar	
3	Navibandar FLC	Porbandar	
4	Bhadreshwar FLC	Kutch	
5	Miyani FLC	Porbandar	
6	Mangrol FH	Junagadh	
7	Madhwad FH	Girsomnath	
8	Dhamlej FLC	Gir-Somnath	
9	Hirakot FLC	Gir-Somnath	
10	Sartanpar FLC	Bhavnagar	
11	Navibandar FLC (Phase II)	Porbandar	
12	Dholai FH	Valsad	
13	Chorwad FLC	Junagadh	



Salaya MLD Upgradation

WAPCOS ROLE

- Detailed Project
 Report
- Draft Tender Paper
- Project
 Management
 Consultancy

SERVICES RENDERED



DETAILED PROJECT REPORT



TENDER ENGINEERING



EIA & CRZ CLEARANCE



CONSTRUCTION SUPERVISION







DEVELOPMENT OF NAVABANDAR FISHERY HARBOUR



Ongoing Construction of Navabandar



PROJECT COST ₹352 CR.



OBJECTIVES

- · To provide good infrastructure facilities to the fishermen
- To improve the Hygienic standards
- · To improve the Marine fish exports

SALIENT FEATURES

- Wharf Wall
- Pile Jetty
- Breakwater
- Roads
- Sloping Hard
- Beach Landing
- Dredging



Navabandar Fishery Harbour

WAPCOS ROLE

- **Detailed Project** Report
- Draft Tender Paper
- Project Management Consultancy

SERVICES RENDERED



PROJECT REPORT



TENDER ENGINEERING





CONSTRUCTION SUPERVISION



HALDIA, WEST BENGAL





SYAMA PRASAD MOOKERJEE PORT AUTHORITY MAINTENANCE
DREDGING IN HOOGHLY
ESTUARY IN THE
SHIPPING CHANNEL
OF SYAMA PRASAD
MOOKERJEE PORT



Dredging by Conventional method



PROJECT COST ₹1,300 CR.



OBJECTIVES

 Supervision of Maintenance dredging at Syama Prasad Mookerjee Port

WAPCOS ROLE

- Real Time Dredging Supervision
- Report Preparation

SALIENT FEATURES

- Evolution of dredging methodology
- Reduction in annual maintenance dredging of Navigation channel
- Improvement in navigational depth
- Around 30% increase in cargo handled



Dredging by Rain bowing method

SERVICES RENDERED



REPORT PREPARATION









कोचिन पत्तन प्राधिकरण Cochin Port Authority

> COCHIN PORT AUTHORITY

MONITORING THE MAINTENANCE DREDGING AT COCHIN PORT



Dredging in progress



PROJECT COST ₹435 CR.



OBJECTIVES

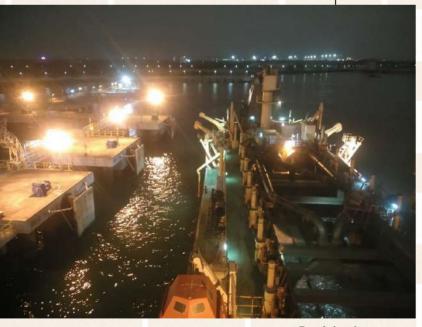
 Supervision of Maintenance dredging at Cochin Port

WAPCOS ROLE

- Real Time Dredging Supervision
- Report Preparation

SALIENT FEATURES

- Minimum Dredging to be achieved each month of 20 Lakh cum.
- Dredging to ensure sufficient depth in the channel and basin for safe navigation



Dredging in progress

SERVICES RENDERED



REPORT PREPARATION



GUJARAT





GOVERNMENT
SURVEY AGENCY
FOR DREDGING AT
DEENDAYAL PORT



Dredging Survey in progress



PROJECT COST ₹310 CR.



OBJECTIVES

- To Supervise the bathymetry survey of maintenance dredging at Deendayal Port
- To ensure sufficient depth in the navigational channel for safe navigation

WAPCOS ROLE

Supervision of Pre-dredge & Post dredge Surveys

SALIENT FEATURES

- Reduction in annual maintenance dredging of Navigation channel
- Improvement in navigational depth



Dredging at Deendayal Port







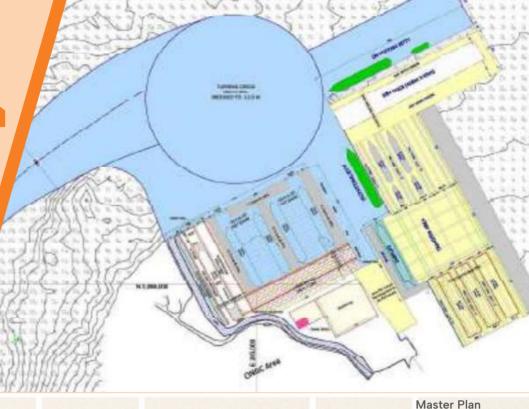
RAIGAD DISTRICT, MAHARASHTRA





MAZAGON DOCK SHIPBUILDERS LIMITED (MDL)

SHIP BUILDING AND SHIP REPAIR FACILITY AT NHAVA YARD





PROJECT COST ₹1,893 CR.



OBJECTIVES

- A ship-lift and transfer facility
- A wet basin
- Reclamation of area to the north side of the ship-lift
- Ancillary facilities for ship repair yards

SALIENT FEATURES

- Area of development 40 acres.
- Ship-lift and transfer facility 210 m x 60 m x 18 m
- Reclamation of area for repairing 18000 T Capacity
- wet basin 1 no
- Parking basin
- · Modular workshop, ancillary facilities for ship repair yards



Location map

WAPCOS ROLE

- Field data collection, Survey & Investigation
- Preparation of Detailed **Project Report**
- EIA clearance

SERVICES RENDERED



INVESTIGATIONS



REPORT PREPARATION









KRISHAK BHARATI COOPERATIVE LIMITED

EXPANSION OF KRIBHCO JETTY AT HAZIRA



KRIBHCO Existing Jetty



PROJECT COST ₹230 CR.



OBJECTIVES

- Study the Future Potential of Cargo
- Expansion of the Existing KRIBHCO Jetty to cater the anticipated increase in traffic

WAPCOS ROLE

Detailed Project Report

SALIENT FEATURES

- Design Vessel 2000 DWT
- Existing Berth Length-147 m
- Berths Proposed 2 No.
- Proposed Cargo Berth Length 240 m
- Berths Capacity- 8.3 MMT
- Area for storage of Cargo- 11 Ha



Existing Jetty Operations in Progress

SERVICES RENDERED



INVESTIGATIONS



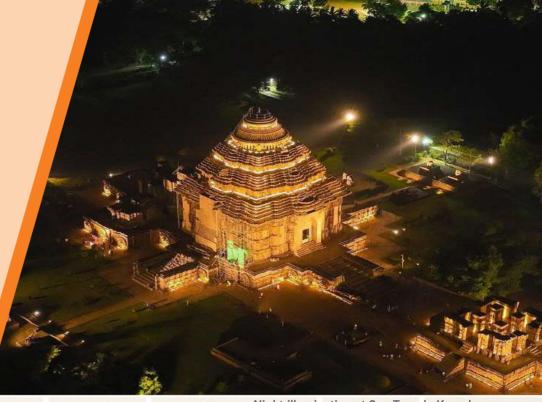
HERITAGE & TOURISM

PAN INDIA





ARCHAEOLOGICAL SURVEY OF INDIA(ASI), MINISTRY OF CULTURE, GOVERNMENT OF INDIA PUBLIC AMENITIES AND VARIOUS DEVELOPMENT WORKS FOR CENTRALLY PROTECTED MONUMENTS UNDER ASI



Night illumination at Sun Temple Konark



PROJECT COST ₹392 CR.





Public Amenities at Dakhini Sarai, Jalandhar



Night illumination at Aga Khan Palace, Pune

OBJECTIVES

To provide World Class Tourist amenities e.g. Ticket, Cloak room, Cafeteria, Publication shops, Toilets & Drinking Water Kiosks. Other development work includes Boundary wall, parking, landscaping and illumination works etc.

WAPCOS ROLE

Construction (Deposit Works)

SALIENT FEATURES

- A total of 345 nos. monuments were identified for development works & public amenities construction in 14 States across India
- These sites were located in 17 Circles of ASI.
- Local Stones matching with Monuments were used for construction of amenities e.g. Granite, Laterite, Sand stone, Dhangadara and Basalt



PREPARATION



CONSTRUCTION SUPERVISION



TENDER ENGINEERING



REAL-TIME PROJECT MONITORING



Public Amenities at Sun Temple Konark







CHHATTISGARH **TOURISM BOARD** (CTB)

DEVELOPMENT OF VARIOUS TOURIST PLACES UNDER RAM VANGAMAN PATH



Tourist Information Center



PROJECT COST ₹43 CR.



OBJECTIVES

 To develop a religious and cultural circuit centered around the legendary journey of Lord Ram through the forests of Chhattisgarh

WAPCOS ROLE

Construction (Deposit)

SALIENT FEATURES

- · Development of Lord Rama statue, Deep Stambh & Entrance gate
- Temple Up gradation including development of approach
- Development of Tourist Information Center, Viewing Deck
- Development of Ghats & Walkway, Parking, Boundary Wall & Public Toilet
- CCTV, LED Branding, City Face-lifting and Electrification
- Internal Plumbing, External Plumbing & landscaping
- Development of Fountain, Pump and Electrical Room at Chandkhuri site for Water, Light and Laser Show





Deep Stambh

REPORT PREPARATION







157 WAPCOS

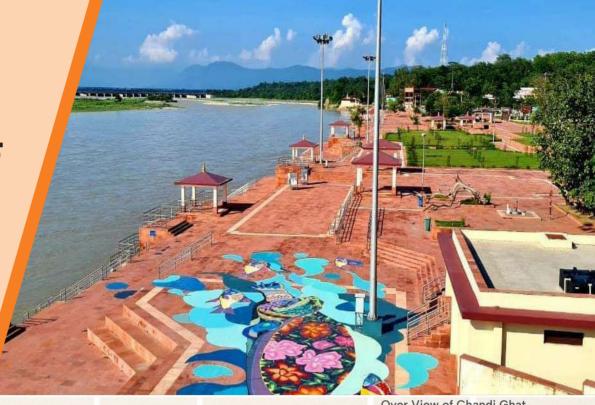


HARIDWAR, UTTARAKHAND



STATE PROGRAM **MANAGEMENT** GROUP (SPMG), **UTTARAKHAND**

DEVELOPMENT OF CHANDI GHAT



Over View of Chandi Ghat



PROJECT COST



OBJECTIVES

- Ghat Revitalization Plan (GRP) to restore historic significance of the Ghats and River Ganga
- Better Infrastructure for pilgrims

WAPCOS ROLE

Construction (Deposit Works)

SALIENT FEATURES

- Bathing Ghat- Construction of Bathing Ghat of 627 m length, Water Spouts, Chhatria, Solar Light and Poles, Changing rooms, Pergola, Steps, Retaining wall, Toe wall, Signages, Platforms, Interpretation Center, Overhead tank, Gates
- Crematoria Construction of 127 m long Ghat, aCrematoria Platforms, Water Spouts, Toilets, Trash bins, Steps, Toe wall, Planters, Improved Wooden Crematoria, Guard Room, STP of 25 kld etc.



Prayer Hall

SERVICES RENDERED





ENGINEERING



CONSTRUCTION & O&M

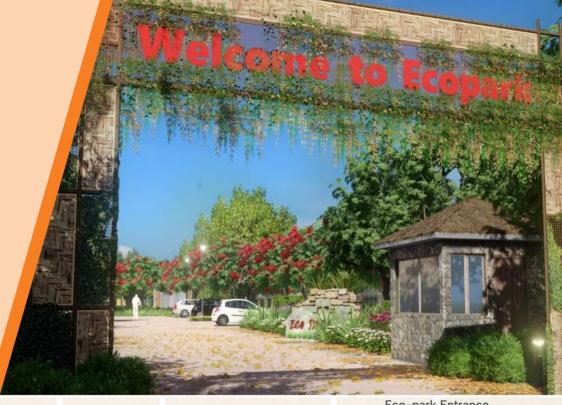






CENTRAL COALFIELDS LIMITED, MINISTRY OF COAL, **GOVERNMENT OF** INDIA

DEVELOPMENT OF ECO-PARKS



Eco-park Entrance



PROJECT COST



OBJECTIVES

- Reclamation of degraded land/Coal dumps or Surface of Overburden underground mine areas by developing Eco-parks
- To promote sustainable, responsible and inclusive tourism
- Create Employment Opportunities

SALIENT FEATURES

Development of Self sustainable Eco-Parks at 09 different locations in the Sate of Jharkhand.

- Total Area 108 Ha
- **Project Components:**
- Gardens (Botanical,/Butterfly Garden/ Maze Garden/ Flowering Garden/ Cactus Garden)
- Water Bodies, Ticket Booths, Arrival booths, Soverniour shops, Parking, Cafeterias, Gazebos, Nursery, Green Houses, OAT's etc.
- Provisions of Rainwater harvesting,
- Bio-Compost/ Vermi-compost
- Installation of solar panel.

WAPCOS ROLE

- **Detailed Project Report**
- Construction (Deposit Works)

SERVICES RENDERED



Interior view of Eco-park



SURVEY & INVESTIGATIONS



DPR



CONSTRUCTION & 0&M



CHUMOUKEDIMA AND NIULAND, NAGALAND







DEPARTMENT OF TOURISM GOVERNMENT OF NAGALAND MINISTRY OF TOURISM **GOVERNMENT OF INDIA**

SWADESH DARSHAN 2.0 IN NAGALAND



Conceptual Plan and Layout



PROJECT COST ₹140 CR.



OBJECTIVES

 To develop sustainable and responsible destinations following a tourist & destination-centric approach.

WAPCOS ROLE

Project Management Consultancy

SALIENT FEATURES

- Redevelopment of Midway Resort as a Tribal Retreat, Chumoukedima
- Adventure Tourism at Jacob Village, Chumoukedima
- · Chumoukedima Viewpoint, Chumoukedima
- Wellness Tourism at Akito Village, Niuland
- · Waterfront Adventure Park at Hozukhe village, Niuland

Existing RCC Structure G-

Conceptual Plan and Layout



PREPARATION







MARKETING







RIVER CRUISE/FERRY
SERVICES BETWEEN
GOKUL BARRAGE
AND VRINDAVAN ON
RIVER YAMUNA (NW110)
IN MATHURA DISTRICT



Vishram Ghat



PROJECT COST ₹46 CR.



OBJECTIVES

- Study the Passenger/Tourist Potential in the region
- To develop River Cruise tourism/ferry services on River Yamuna (NW110) in Mathura District from Gokul Barrage to Vrindavan of approx. 22 Km

WAPCOS ROLE

Detailed Project Report

SALIENT FEATURES

- Phase I -Vishram Ghat to Jugal Kishore Ghat (approx. 14 km Length)
- Phase-II- Vishram Ghat to Gokul Barrage (approx. 8 km Length)
- Floating Terminals/ Jetties Proposed :
 11 Nos. (Ph. I 8 Nos. & Ph. II 3 Nos.)
- Jetty Dimensions (20 m x 6.0 m x 1.0 m)
- Proposed Cross Ferry at 3 locations



Proposed Jetty

SERVICES RENDERED



SURVEY & INVESTIGATIONS



PREPARATION OF DPR



MADHYA PRADESH & GUJARAT





DEVELOPMENT OF CRUISE TOURISM FROM BARWANI POINT TO STATUE OF UNITY IN RIVER NARMADA



Rajghat, Barwani



PROJECT COST ₹23 CR.



OBJECTIVES

- Study the Passenger/Tourist Potential in the region
- To develop River Cruise tourism/ferry services on River Narmada from Barwani, Madhya Pradesh to Statue of Unity, Gujarat of approx. 135 Km

WAPCOS ROLE

Feasibility Report

SALIENT FEATURES

- Floating Terminals/ Jetties Proposed : 4 No. (2 Nos Major Terminal & 2 No. Minor Terminals)
- Jetty Dimensions:
 - » Steel Pontoon- (30 m x 9.0 m x 1.4 m)
 - » HDPE Jetty (50 m x 4.5 m x 0.8 m)



U/s of Sardar Sarovar Dam

SERVICES RENDERED



SURVEY & INVESTIGATIONS



FEASIBILITY REPORT







INLAND WATERWAY AUTHORITY OF INDIA (IWAI), MINISTRY OF SHIPPING, GOVT. OF INDIA

DEVELOPMENT OF RIVER CRUISE TOURISM IN INDIA







OBJECTIVES

 Develop River Cruise services on National Waterways

WAPCOS ROLE

- Traffic Survey
- Preparation of Detailed road map & Action plan

SALIENT FEATURES

- Current assessment and Infrastructure Gap assessment and Market demand analysis
- Avenues for Infrastructure Creation



TOWNSHIP & BUILDINGS









KOHIMA SMART CITY DEVELOPMENT LTD., AIZWAL SMART CITY LTD.

SMART CITY PROJECTS



3D view - Redevelopment of Old Secretariat, Kohima





OBJECTIVES

 Overall implementation of smart city mission

WAPCOS ROLE

- Design Engineering
- Construction Supervision



DESIGN ENGINEERING







3D view Smart Multi Level Car Parking, Aizawl



Upgradation of Local Ground, Kohima



GHAZIABAD, UTTAR PRADESH

CLIENT



MINISTRY OF AYUSH GOVERNMENT OF INDIA

NATIONAL INSTITUTE OF UNANI MEDICINE (NIUM)



Innaugration by Hon'ble Prime Minister of India



PROJECT COST ₹340 CR.



OBJECTIVES

- Establish State-of-art tertiary care hospital
- Promote the growth & development of Unani Medicine
- Healthcare Facility and Post-graduate courses in Unani Medicine

SALIENT FEATURES

- 200 Bedded Unani Hospital (B+G+4)
- Built-up Area 57,500 sqm.
- OPD Capacity 1000+ Patient
- Academic Building (B+G+4) and Library
- · Auditorium 200 pax.
- · Hostels 2 Nos.
- Residential Buildings 54 Units
- Latest Medical Equipment & Furniture



Hospital Complex



Hospital Building

WAPCOS ROLE

Construction (Deposit Works)



SURVEY & INVESTIGATIONS



REPORT PREPARATION



ENGINEERING



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING







REGISTRAR GENERAL OF INDIA MINISTRY OF HOME AFFAIRS, GOVERNMENT **OF INDIA**

MULTI STORIED OFFICE BUILDING FOR OFFICE OF THE **REGISTRAR GENERAL OF INDIA**



Inauguration of Project by Hon'ble Union Minster of Home Affairs



PROJECT COST









OBJECTIVES

Setup Multi Storied Office buildings with modern infrastructures and IT facilities to prepare data on population figures and implementation of the Birth and Death Registration in the country.

WAPCOS ROLE

Construction (Deposit Works)

SALIENT FEATURES

- Built up area: 10,540 sqm
- 3 Basements + Stilt + 7 floors
- · Fire Fighting, Road and Horticulture
- Terrace Garden , Rain Water Harvesting
- Centralized AC, Solar Power Panels
- Supply and Installation of Furniture
- Data Networking, Audio Visual System
- Interior Designing works
- GRIHA 3 Star Green Building



PREPARATION



CONSTRUCTION SUPERVISION



TENDER ENGINEERING



PROJECT MONITORING

Multi Storied Office Building for Office of the Registrar General of India



PREM NAGAR, BHIWANI, HARYANA





CBLU, **GOVERNMENT OF HARYANA**

NEW CAMPUS AT CHAUDHARY BANSI LAL UNIVERSITY (CBLU)





PROJECT COST





Teaching Blocks



Internal View

OBJECTIVES

To Develop New Campus equipped with Construction (Deposit Works) Modern Infrastructure and Facilities

SALIENT FEATURES

- Project Area 132 acres
- Built-up Area 34,000 sqm.
- · Academic Blocks 3 nos.
- · Student facilitation center
- Girls & boys Hostel
- Faculty & Non-teaching accomodation
- Guest House 70 rooms
- Infrastructure Works: Roads, Water supply, sewerage & storm water network, external electrical works etc.



Teaching Blocks

WAPCOS ROLE













KANNUR, KERALA

CLIENT



DEPT. OF **HEALTH & FAMILY** WELFARE, GOVT. **OF KERALA**

MALABAR CANCER CENTRE

(Funded by KIIFB)



Site View



PROJECT COST ₹562 CR.



OBJECTIVES

- · To deliver patient-friendly quality healthcare services in govt hospitals
- To add specialty and super specialty facilities in District and Taluk Hospitals
- To provide state of the art facilities for cancer treatment in Malabar region

SALIENT FEATURES

- No. of floors-3B+G+9
- No. of beds- 370 Nos
- Total Area 51,295 sqm

WAPCOS ROLE

Construction (as Special Purpose Vehicle)

3D View -Building



REPORT PREPARATION



TENDER

ENGINEERING



REAL-TIME PROJECT MONITORING



RAJPIPLA, GUJARAT





PROJECT
IMPLEMENTATION
UNIT (PIU),
GANDHINAGAR

600 BEDDED HOSPITAL MEDICAL COLLEGE



Construction of GMERS Hospital Building





OBJECTIVES

 To establish State-of-art Medical University and Hospital with facilities for clinical research

SALIENT FEATURES

- Existing Hospital Building- 19460.27 G+3 (612 Beds +95 ICU), New Hospital Building - 31881.10, G+6
- College Building- 23012.86, G+4

- Teaching Staff 7230.49, G+7, Non Teaching Staff - 7230.49, G+7
- Nursing Staff 3227.33 G+7
- Dean Bungalows 497.79, G+1
- U.G. Boy's Hostel 8802.15, G+7, U.G.
 Girls Hostel 8802.15, G+7, P.G. Hostel 4224.03 G+7
- Services Block 2299.3 G+7
- Mortury 407.21 GF
- Maa Card Block 442.8 G. F.
- Public Toilet 127.7 G.F.



Layout Plan for Hospital campus

WAPCOS ROLE

Construction Supervision



Construction of Medical college Building









PROJECT
IMPLEMENTATION
UNIT (PIU),
GANDHINAGAR

480 BEDDED HOSPITAL MEDICAL COLLEGE



District Hospital Building, Porbandar



PROJECT COST ₹546 CR.



OBJECTIVES

 To establish State-of-art Medical University and Hospital with facilities for clinical research

SALIENT FEATURES

- Super specialty hospital (B+G+3)
- Medical College (G+3), Student Capacity 56 Rooms (total built up area 3,368 sq. mt.)
- Institute for Rehabilitation and Vocational Trainings

- Administrative block (G+3), Lecture & Examination Halls
- Boy's & Girls Hostels 2 nos. (G+3)
 Student Capacity-332 Nos for each.
 (Total built up area-17,647 Sq mt.)
- P.G Hostel (G+3)(Student Capacity 56 rooms & Total built up area 3,368 sq.mt)
- Faculty residency G+3 4 Tower & Total built up area 8,156 sq.mt from Class –1 to Class–3 (3 BHK)
- Central Library and Advanced Research Centre



Medical College Building

WAPCOS ROLE

Project Management Consultancy

SERVICES RENDERED



INVESTIGATIONS



TENDER ENGINEERING



MASTER PLANNING



PERIODIC SUPERVISION



REPORT PREPARATION



REAL-TIME PROJECT MONITORING







IIT (ISM) DHANBAD

INDIAN INSTITUTE OF TECHNOLOGY (INDIAN SCHOOL OF MINES)



3D View of Proposed Centenary Building (Auditorium and Lecture Hall)



PROJECT COST ₹750 CR.



OBJECTIVES

- To Develop Existing IIT (ISM) Dhanbad Main Campus of 209 Acres by Execute Various Works Pertaining to Construction of New Buildings, Renovation, Revamping, Interior Design Works, External Development Works, Maintenance and Other Allied Works
- To Develop New IIT (ISM) Dhanbad Nirsa Campus of 223 Acres as a "Smart-Intelligent Eco-Campus"

SALIENT FEATURES

- Project Area 432 acres
- Built-up Area 60,000 sqm.
- Centenary Building (Auditorium and Lecture Hall)
- · Auditorium Building Occupancy 1500 Nos.
- Lecture Hall Occupancy 2400 Nos.
- G+9 Storied EWS Hostel Building
- G+10 Storied Residence Building for 80 Units



Master Plan of Existing Main Campus

WAPCOS ROLE

Construction (Deposit Works)

SERVICES RENDERED



REPORT PREPARATION







REAL-TIME PROJECT
MONITORING



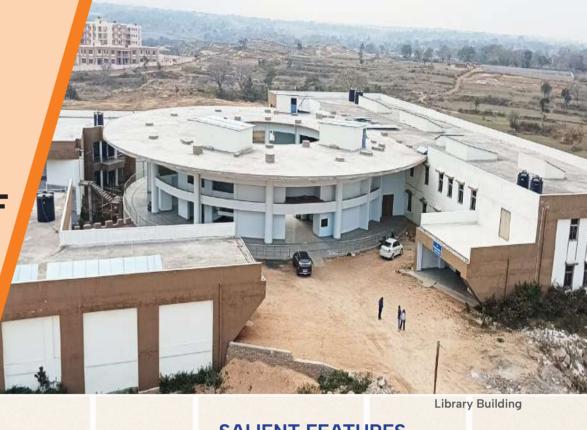
RANCHI, JHARKHAND





CENTRAL UNIVERSITY OF JHARKHAND

CENTRAL UNIVERSITY OF JHARKHAND





PROJECT COST ₹200CR.



OBJECTIVES

- · To set up state-of-the art Academic-cum-Residential Campus
- To provide various PG and UG courses and facilities

WAPCOS ROLE

Construction (Deposit Works)

SALIENT FEATURES

- Project Area 500 acres
- Academic Building-3 Nos.
- Administrative and School Type Building
- · Library and other Allied Works
- · PG & UG Hostel for Boys and Girls
- Roads, Boundary Walls, External **Development Works**
- Engineering Workshops and Laboratories



Aerial View of Internal Road, Hostel Buildings



Administrative Building

SERVICES RENDERED



REPORT PREPARATION



TENDER ENGINEERING



REAL-TIME PROJECT MONITORING

5 STATES





NATIONAL EDUCATION SOCIETY FOR TRIBAL STUDENTS (NESTS), MINISTRY OF TRIBAL AFFAIRS

EKLAVYA MODEL RESIDENTIAL SCHOOLS (EMRS) PAN INDIA



Location of States



PROJECT COST ₹1,442 CR.



OBJECTIVES

- Develop State-of-art educational infrastructure in Tribal areas
- Promote Quality Education in Tribal Areas Residential facilities

WAPCOS ROLE

Construction (Deposit Works)

SALIENT FEATURES

- · Across different states in India
- Site Area -10 to 15 Acre
- School Building
- Residential Buildings
- Boys & Girls Hostel
- Warden Residences
- Kitchen & Dinning Hall
- Sports Facilities

SERVICES RENDERED



SURVEY & INVESTIGATIONS



TENDER ENGINEERING



REPORT PREPARATION



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING



Bird Eye View Of Campus



KERALA

CLIENT



GENERAL EDUCATION DEPARTMENT. **GOVT. OF KERALA**

MODERNIZATION OF 50 SCHOOLS TO INTERNATIONAL STANDARDS

(Funded by KIIFB)





PROJECT COST



OBJECTIVES

· To upgrade the Government schools as International Standards (50 Schools)

WAPCOS ROLE

Construction (as Special Purpose Vehicle)

SALIENT FEATURES

- Built-up Area for all schools 69,500 Sqm.
- Academic Buildings
- Laboratory block
- Toilet blocks (Boys and Girls)
- Compound wall



GHSS - HS at Vazhakkad (G+2)



REPORT PREPARATION







REAL-TIME PROJECT MONITORING



RAJKOT, JUNAGADH & **BANASKANTHA, GUJARAT**





GUJARAT COUNCIL OF ELEMENTARY **EDUCATION**

CONSTRUCTION AND UPGRADATION OF SCHOOLS

(Under Samagra Shiksha Abhiyan)



Laxmipura Primary School, Dist. Banaskantha



PROJECT COST ₹130 CR.



OBJECTIVES

Supervision and quality checking of various ongoing sites of school building in total 14 talukas

WAPCOS ROLE

Construction Supervision

SALIENT FEATURES

District	Sites	Status
Junagadh	133	Completed
Rajkot	572	Completed
Banaskanth	994	90% (Under
а		Progress)

Completed School Building at Rajkot

SERVICES RENDERED



REAL-TIME PROJECT MONITORING



CONSTRUCTION **SUPERVISION**



HALOL, GUJARAT





GUJARAT NATURAL FARMING SCIENCE UNIVERSITY (GNFSU)

GUJARAT NATURAL FARMING SCIENCE UNIVERSITY



Stone laying ceremony of Gujarat Natural Farming Science University (GNFSU)





OBJECTIVES

- Construction Works for Gujarat Organic Agricultural University
- Building an entire University Campus, one of it's kind right from a barren land with all modern amenities

WAPCOS ROLE

Construction (Deposit Work)

SALIENT FEATURES

- Gujarat Natural Farming Science University (GNFSU) is India's first Organic Agricultural university, to be developed as a University Campus in Gujarat, Project Area: 23 Ha.
- Location: Jambudi Village, Taluka halol, Panchmahal District

GNFSU Master Plan



3D View of Boy's Hostel



Boys Hostel Construction work in Progress (GNFSU)



SURVEY AND INVESTIGATIONS



REPORT PREPARATION



TENDER ENGINEERING



CONSTRUCTION **SUPERVISION**



REAL-TIME PROJECT MONITORING



NAGARNAR, CHHATTISGARH





DELAY ANALYSIS FOR NMDC INTEGRATED STEEL PLANT



NMDC Integrated Steel Plant





OBJECTIVES

- To prepare the delay analysis report of 19 nos. contract packages for 3 MTPA NMDC Integrated Steel Plant

USP

packages

Auxiliary packages

As an independednt expert, represented client in ICC Arbitration and won the award in favour of about Rs. 650 Cr.

Preparation of Delay Analysis for 9 nos Major

Preparation of Delay Analysis for 10 nos

SALIENT FEATURES

 Otr 2, 2021
 Otr 3, 2021
 Otr 3, 2021
 Otr 4, 2021
 Otr 1, 2022
 Otr 2, 2022
 Otr 2, 2022
 Otr 3, 2022

 May
 Jun
 Jul
 Aug
 Sep
 Oct
 Nov
 Dec
 Jan
 Feb
 Mar
 Apr
 May
 Jun
 Jul
 Jul
 Jul
 Aug

Review and analysis of all correspondence, claims, delay events, Time of extensions, progress of work

Delay Analysis

WAPCOS ROLE

Delay Analysis Report

SERVICES RENDERED

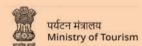


DELAY ANALYSIS REPORT PREPARATION



AIZAWL, MIZORAM

CLIENT



MINISTRY OF TOURISM, **GOVERNMENT OF** INDIA

CONVENTION **CENTRE & ASSOCIATED INFRASTRUCTURE**



3D View



PROJECT COST ₹40 CR.



OBJECTIVES

- To promote sustainable, responsible and inclusive tourism
- Sustainable Development
- Create Employment Opportunities

SALIENT FEATURES

- Total Plot Area 4000 Sqm
- Total Floor Area 3536 Sqm
- Auditorium 306 seats
- Multipurpose hall 600 Capacity
- Conference Room, Restaurants & Library -300 Capacity



Construction Site

WAPCOS ROLE

- **Detailed Project Report**
- Construction (Deposit Works)



SURVEY & INVESTIGATIONS



DPR



CONSTRUCTION & O&M



VADODARA, SURAT, GUJARAT





MUNICIPAL CORPORATION



AFFORDABLE HOUSING PROJECT

- EWS

(Under Pradhan Mantri Awas Yojana)



Inauguration of Sayajipura EWS Site by Hon'ble Prime Minister



PROJECT COST ₹813 CR.



OBJECTIVES

Slum rehabilitation PPP Scheme is to rehabilitate & redevelop slums at the same location in urban areas. Beneficiaries will get a Pucca house free of cost on PPP mode

SALIENT FEATURES

- Total 10,668 Dwelling Units (EWS I & II Category)
 - » Vadodara 9,134 units
 - » Surat 1,534 units
- Area of Dwelling Unit 30 sq.mt to 35 sq.mt

Sayajipura EWS (P+7)

WAPCOS ROLE

- Project Management Consultancy in Vadodara
- Construction Supervision in Surat



832 DUs at Pal, Surat



REPORT PREPARATION



TENDER ENGINEERING



CONSTRUCTION SUPERVISION



MEERUT, BAGPAT, JALAUN AND LALITPUR, UTTAR PRADESH





STATE URBAN DEVELOPMENT AGENCY (SUDA) GOVERNMENT OF UTTAR PRADESH

BENEFICIARY LED CONSTRUCTION UNDER PMAY(U)







PROJECT COST ₹6,000 CR.



OBJECTIVES

 Construct the affordable Houses for Economically Weaker Section (EWS) under PMAY-HFA(U) scheme

WAPCOS ROLE

- Design Engineering
- Construction Supervision

SALIENT FEATURES

- Construction of EWS houses under PMAY-HFA (U) - Beneficiary Led Construction (BLC)
- Meerut 22,646 Dwelling Units
- Bagpat 12,267 Dwelling Units
- Jalaun 21,363 Dwelling Units
- Lalitpur 21,074 Dwelling Units













VADODARA, GUJARAT



RESIDENTIAL BUILDINGS (URBAN)

(Under Pradhan Mantri Awas Yojana)



Houses Completed in North Zone



PROJECT COST ₹820 CR.



OBJECTIVES

Houses provided to the urban poor in 7 towns in Anand & Kheda districts and in Vadodara City

WAPCOS ROLE

Project Management Consultancy

SALIENT FEATURES

Name of scheme	PMAY-BLC	PMAY-AHP	PMAY-PPP
Cost per DUs (Rs in Lakhs)	Rs. 3.5 Lakhs	EWS-1: - Rs. 3.5 Lakhs EWS-2: Rs. 5.5 Lakhs	Rs. 5.5 Lakhs
Area in (sq.mt.)	30 Sq.Mt.	EWS-1=30 Sq.Mt. EWS-2=35 Sq.Mt	30 Sq.Mt.

Houses Completed in North Zone

SERVICES RENDERED



SLUM SURVEY &



TENDER ENGINEERING



CONSTRUCTION **SUPERVISION**



COMPUTERIZED DRAW & **HANDOVER SITES TO BENEFICIARIES**



AHMEDABAD, GUJARAT





AHMEDABAD MUNICIPAL CORPORATION

AFFORDABLE
HOUSING PROJECTS
- FOR EWS

(Under Pradhan Mantri Awas Yojana)



Shri Amit Shah, Union Home Affairs and Cooperation Minister of India inaugurated 672

Dwelling unit at Gota and Theltej EWS 7



PROJECT COST ₹234 CR.



OBJECTIVES

- Provide affordable housing to Economically Weaker Section (EWS) and Lower income group
- Housing to 3,183 EWS families under PMAY-Urban
- Carpet area (EWS) 28 sq.mt (1 BHK)
- Cost per DUs (EWS): Rs. 5 Lakh
- Carpet area (LIG) 49.50 sq.mt (2 BHK)
- Cost per DUs (LIG): Rs. 11 Lakh
- Provide all social & physical infrastructure

SALIENT FEATURES

- Total 3,075 (EWS) and 593 (LIG)
 Dwelling Units
- Residential Building

WAPCOS ROLE

Construction Supervision

Sr No	Package	Dwelling Units	Carpet Area (Sq.mtr)	Storey	Project cost (INR)	Status
1	EWS-7	672	18,816	G+7	34.68 Cr.	Completed
2	EWS-35	485	13,823	G+5	25.30 Cr.	Completed
3	EWS-17	406	12,180	G+7	19.50 Cr.	Ongoing
4	EWS-27	1,512	43,092	G+12	79.91 Cr.	Ongoing
	Total	3,075	87,911		159.39 Cr.	
1	LIG-10	593	29,354	G+11	80.00 Cr.	Ongoing
	G. Total	3,668	1,17,962		239.39 Cr.	



EWS 7 Residential Building (G+7) at Motera



CONSTRUCTION MONT SUPERVISION PRE





10 REGIONAL CENTERS OF SAI

CLIENT



SPORTS AUTHORITY OF INDIA (SAI), MINISTRY OF **YOUTH AFFAIRS** AND SPORTS. **GOVERNMENT OF INDIA**

SPORTS INFRASTRUCTURE CENTRES ACROSS INDIA



Athletic track, JLN Stadium, New Delhi



PROJECT COST



10 SAI CENTRES:

Patiala, Sonepat, Bhopal, Kolkata, Pune, Bangalore, Trivandrum, Imphal, Lucknow, Aurangabad

OBJECTIVES

- Promote international level sports
- Achieve excellence in sports

SALIENT FEATURES

- 300 bedded hostel at 10 no. Location of SAI Centres
- 100-150 bedded hostels at 6 no. location of SAI Centres

- Multipurpose hall at 4 nos location of SAI Centers
- Laying of Athletic track, Hockey & football turfs, basketball, badminton court, archery field at 6 nos. locations
- Swimming pool, yoga center, Gymnasium at 3 no. locations

WAPCOS ROLE

Construction (Deposit Works)

300 bedded Hostel, Aurangabad



Hockey Turf, SAI, NRC, Sonepat



PREPARATION



CONSTRUCTION **SUPERVISION**



TENDER ENGINEERING



REAL-TIME PROJECT MONITORING



PURI, ODISHA





SPORTS & YOUTH SERVICES GOVERNMENT OF ODISHA

SHRI JAGANNATH CRICKET STADIUM AND GYMNASTICS HIGH PERFORMANCE CENTRE



Cricket Stadium Area



PROJECT COST



OBJECTIVES

- Establishment & development of Sports Infrastructure for promotion of sports
- · Emerge as a Sports Hub

SALIENT FEATURES

- Cricket Stadium Area 10.6 acres
- Olympic size Swimming Pool

- Indoor Gymnastic Hall
- Fitness Room
- Yoga Room
- · Coach Room
- Pantry
- Players Dressing/Locker Room
- Administrative Office



Indoor Gymnastic Hall

WAPCOS ROLE

Construction (Deposit Works)

SERVICES RENDERED



PREPARATION







REAL-TIME PROJECT MONITORING



GANJAM, ODISHA





SPORTS & YOUTH SERVICES GOVERNMENT OF ODISHA

SPORTS COMPLEX



Weight Lifting Hall



PROJECT COST



OBJECTIVES

- · Establishment & development of Sports Infrastructure for promotion of sports
- Emerge as a Sports Hub

WAPCOS ROLE

Construction (Deposit Works)

SALIENT FEATURES

- Project Area 14.76 acres
- Cricket Ground
- Olympic size swimming pool
- Multipurpose Indoor Weight Lifting Hall
- Basket Ball Courts 2 Nos.
- Volley Ball Court 1 No.



Cricket Ground

SERVICES RENDERED



PREPARATION









CLIENT



GOA STATE URBAN DEVELOPMENT AGENCY

SWACHH BHARAT MISSION 2.0 PROJECT



Public Toilet



PROJECT COST ₹155 CR.



OBJECTIVES

- To eliminate open defecation, promote solid waste management, bring about behavioral changes regarding cleanliness and hygiene, and achieve a clean and visually aesthetic urban environment.
- Improve Public health
- Environment Impact
- Enhanced Quality of life
- Achieving Sustainable Development Goal

SALIENT FEATURES

 Toilet construction, Used water Management, Solid Waste Management, IEC and CB.

WAPCOS ROLE

Project Implementation Agency





DPR PREPARATION



TENDER ENGINEERING



CONSTRUCTION SUPERVISION



REAL-TIME PROJECT MONITORING

Material Recovery Facility

CONTRIBUTIONS IN GOVERNMENT OF INDIA'S

FLAGSHIP DEVELOPMENT PROGRAMS



TEAM Resilient. 189 WAPCOS

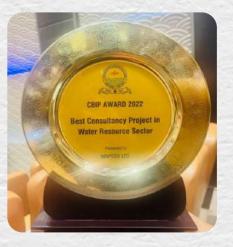
AWARDS AND ACCOLADES



SCOPE Award for
Excellence and Outstanding
Contribution to the Public
sector Management
Institutional Category



SCOPE Meritorious Award-Corporate Governance



Best Consultancy
Organization in Water
Resources Sector by
Central Board of Irrigation
and Power (CBIP)





Industry Excellence Award by Institution of Engineers (India)





Star Awards "Best Water Infrastructure"



First PSE Excellence Award" in "Corporate Governance" by Indian Chamber of Commerce



"Excellence in Export of Engineering Service" by Engineering Export Promotion Council (EEPC), India



"Golden Peacock
Business Excellence
Award" by Institute of
Directors (IOD)



Excellence in Engineering Consultancy Services by CEAI National Awards



Company of the Year





Brand WAPCOS soaring high since 1969



(A Government of India Undertaking) **Ministry of Jal Shakti**

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