

# 中交集团老挝国别可持续发展报告 [2013-2023]

**CCCG Sustainability Report in Laos (2013-2023)** 







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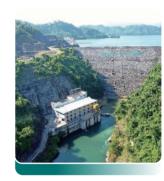


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# **多 领导致辞**Leadership Speech

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#### 中交集团领导致辞

#### Speech by CCCG's Leaders

2023年是"一带一路"倡议提出十周年,老挝是最早支持"一带一路"倡议并同中国签署共建合作文件的国家之一。十年来,中老携手高质量共建"一带一路",中老命运共同体蓬勃发展,成为互联互通、互利共赢的典范。

中国交通建设集团有限公司作为全球领先的特大型基础设施综合服务商,积极参与中老共建"一带一路",在老挝打造精品工程、履行社会责任,持续推动共享成果、共建繁荣、共创未来。

**我们坚持共享成果。**我们通过建设水电工程项目,增强了老挝的清洁电能供应;在开展企业业务的同时,积极融入当地建设, 在维护防洪安全、完善基础设施等方面贡献力量,共享发展成果。

**我们坚持共建繁荣**。我们通过工程的建设,带动当地特色产业的发展,提高居民收入;我们不断强化属地化经营,有效促进了本土就业,为当地培养了人才,携手共建繁荣。

**我们坚持共创未来。**我们把助力当地教育发展作为重要议题,通过改善学校设施,捐赠图书和学习用品,为孩子们提供良好的教育环境;我们通过积极开展文化交流活动,促进中老民心相通,共创美好未来。

中国和老挝山同脉、水同源,是前途相关、命运与共的好兄弟、好伙伴。当前,两国已开启构建中老命运共同体的历史新征程,其中,深化中老电力合作战略伙伴关系、加快推进中老电力互联互通是重要内容。中交集团将持续扎根老挝市场,为高质量共建"一带一路"、深入构建中老命运共同体贡献新的力量。

The year 2023 marks the 10th anniversary of the Belt and Road Initiative (BRI). Laos is one of the earliest countries that have endorsed the Belt and Road Initiative and signed Belt and Road cooperation documents with China. Over the past ten years, China and Laos have joined hands to promote high-quality Belt and Road cooperation and build a thriving China-Laos community with a shared future, setting a prime example of connectivity and mutual benefit.

As a leading global comprehensive service provider of ultra-large infrastructure, China Communications Construction Group Company Limited (CCCG) takes an active part in China-Laos Belt and Road cooperation by building high-quality projects and fulfilling its social responsibilities in Laos, and continuously promotes the sharing of achievements for common prosperity and a shared future.

**We insist on achievement sharing.** Through the construction of hydropower projects, we have enhanced clean electricity supply in Laos. While doing business in Laos, we actively integrate ourselves into local development, contribute to maintaining flood control safety and upgrading infrastructure, and share the fruits of development.

**We insist on common prosperity.** Through the construction of projects, we drive the development of local specialty industries and increase the income of residents. We constantly strengthen localized operation to boost local employment and foster local talents, contributing to a common endeavor to pursue prosperity.

**We insist on creating a better future.** We focus on supporting local education, and provide a good educational environment for children by improving school facilities and donating books and supplies. We actively carry out cultural exchanges for closer people-to-people ties between China and Laos to jointly create a better future.

Connected by the same mountains and rivers, China and Laos are good brothers and partners that share a common destiny and future. At present, the two countries have embarked on a new historical journey to build a China-Laos community with a shared future, of which it is important to deepen the China-Laos strategic partnership in the electricity sector and accelerate interconnection of power grids between China and Laos. CCCG will gain a firm foothold in the Lao market and make new contributions to high-quality Belt and Road cooperation and further building a China-Laos community with a shared future.

## 中水电领导致辞

#### Speech by CWE's Leaders ⊢

中国水利电力对外有限公司作为中国水利水电行业最早"走出去"的企业之一,进入老挝市场已有二十多年。公司在老挝积极响应"一带一路"倡议,贯彻落实中交集团相关部署要求,始终持续深耕主业、贡献清洁电能,创造了多项"第一",成为助力老挝打造"东南亚蓄电池"的中坚力量;通过带动当地经济社会发展,促进中老民心相通,成为中国企业参与高质量共建"一带一路"的典型范例。

**我们着力保障工程安全。**工程安全是打造高质量工程的基础。我们秉持精益生产的管理理念,打造精品工程、放心工程,并 联合本土力量,创新防洪机制,牢牢筑起维护民众生命财产安全的堤坝。

**我们着力守护生态平衡。**绿水青山就是金山银山。我们坚持"生态优先、绿色发展"的理念,为老挝提供清洁电能,有效促进了当地低碳减排;我们联动多方力量,有效守护了流域生态平衡。

**我们着力增进民生福祉。**我们通过工程建设,带动当地特色产业升级,促进本土就业,助力教育发展,完善基础设施;我们积极融入社区,与当地社会共享发展成果,为增进民生福祉作出重要贡献。

**我们着力促进民心融通。**我们联动当地政府、媒体、居民力量,深入推进属地化经营,持续推动文化融合,促进中老民心相通,成为构建中老命运共同体的重要力量。

立足共建"一带一路"高质量发展的新征程,我们将在中交集团的领导和部署下,更好地扎根老挝市场,持续深耕主业,为助力深化中老电力合作战略伙伴关系、加快推进中老电力互联互通贡献出更大力量。



▲ 老挝南累克水电站 Nam Leuk Hydropower Station

China International Water & Electric Corp. (CWE), one of the first Chinese enterprises in the hydropower sector that respond to the "Going Out" strategy, has got into the Lao market for more than 20 years. In Laos, CWE actively responds to the Belt and Road Initiative, implements CCCG's deployment requirements, and always continues to deepen its main business and provide clean electricity. CWE has created many "firsts" in the field, becoming a vital force for building Laos into the "Battery of Southeast Asia". CWE drives the local economic and social development and promotes people-to-people exchanges between China and Laos, setting a typical model for Chinese enterprises which have participated in high-quality Belt and Road cooperation.

We strive to ensure construction safety. Construction safety is the foundation for building high-quality projects. Adhering to the management philosophy of lean production, we build excellent and quality-assured projects, and unite local forces to bring forth new flood control mechanisms and build solid dams that help protect people's lives and property.

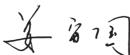
**We strive to protect ecological balance.** Green mountains are gold mountains and silver mountains. Adhering to the philosophy of "prioritizing ecological conservation and boosting green development", we supply clean electricity to Laos, contributing to local low-carbon development and carbon emissions reduction. We mobilize multiple forces to effectively protect watershed ecosystem balance.

We strive to improve people's livelihood and wellbeing. Through the construction of projects, we drive the upgrading of local specialty industries to boost local employment, promote the educational development, and improve infrastructure. We actively integrate ourselves into the communities, and share the fruits of development with the local society, making important contributions to improving people's livelihood and wellbeing.

**We strive for closer people-to-people ties.** We mobilize the local government, media outlets and residents to further promote localized operation, cultural integration, and people-to-people exchanges between China and Laos, becoming an important force for building a China-Laos community with a shared future.

Based on the new journey toward high-quality BRI development, and under CCCG's leadership and deployment, we will establish a firmer foothold in the Lao market, continue to deepen our main business, and make greater contributions to deepening China-Laos strategic partnerships in the electricity sector and accelerating interconnection of power grids between China and Laos.





姜守国中国水利电力对外有限公司董事长 JIANG Shouguo, Chairman of China International Water & Electric Corp.



万启洲

万启洲中国水利电力对外有限公司董事、总经理WAN Qizhou, General Manager of China International Water & Electric Corp.





#### 公司介绍 Profile I

#### 中国交通建设集团有限公司

中国交通建设集团有限公司(品牌名称"中国交建",以下简称"中交集团")是全球领先的特大型基础设施综合服务商,主要从事交通基础设施的投资建设运营、装备制造、城市综合开发等,为客户提供投资融资、咨询规划、设计建造、管理运营一揽子解决方案和综合一体化服务。一百多年来,通过几代员工的持续努力,中交集团建设了一大批代表世界、代表时代最高水平的交通基础设施,形成了全球领先的技术体系。中交集团坚守"交融天下、建者无疆"的企业精神,努力打造具有全球竞争力的"科技型、管理型、质量型"世界一流企业,全面成为"让出资人放心、客户满意、相关利益方信任、经营者安心、员工幸福、社会赞誉"的受人尊敬的企业。

#### CCCG

China Communications Construction Group Company Limited (Brand Name: "China Communications Construction"; hereinafter referred to as "CCCG") is a leading global comprehensive service provider of ultra-large infrastructure, mainly engaged in the investment, construction and operation of transportation infrastructure, equipment manufacturing, urban comprehensive development, etc. It aims to provide customers with investment financing, consulting planning, design and construction, management and operation package solutions and integrated services. For more than 100 years, through the continuous efforts of several generations, CCCG has built a large number of transportation infrastructures on behalf of the highest level of the times and formed a global leading technical system. With the enterprise spirit of "blending with the world and building without borders", CCCG will take effort to build a world-class enterprise with global competitiveness in technology, management and quality and become a respectable company "making the investors and operators reassured and the customers satisfied, the relevant stakeholders trust us, the employees happy, and CCCG a widely acclaimed company".



世界最大的港口设计建设公司
The world's largest port design and construction company

世界最大的公路与桥梁设计建设公司 The world's largest highway and bridge design and building company

中交集团之"最" CCCG's Glory 世界最大的集装箱起重机制造公司
The world's largest container crane
manufacturing company

世界最大的海上石油钻井平台设计公司 The world's largest offshore oil drilling platform design company

世界最大的疏浚公司
The world's largest dredging company

中国最大的高速公路投资商 China's largest expressway investor

亚洲最大的国际工程承包公司
Asia's largest international project contracting company

#### 中水电

中交集团旗下中国水利电力对外有限公司(简称"中水电""公司"或"我们")是中国水利水电行业最早参与国际经济合作的国有企业。中水电致力于为全球客户提供绿地开发、工程承包等高质量服务,积极践行"一带一路"倡议,在水利水电、基础设施、资产运营、环保水务等领域建成了一大批所在国的标志性工程,荣获"中国建设工程鲁班奖""老挝国家级劳动奖章"等重要奖项,并亮相所在国货币。

#### CWE

China International Water & Electric Corp. (hereinafter referred to as "CWE", "the Company" or "We"), a subsidiary of China Communications Construction Group Company Limited, is the first state-owned enterprise of China's hydropower industry to take part in international economic cooperation initiatives. CWE is committed to providing global customers with high-quality services such as greenfield development and project contracting. To actively practice the Belt and Road Initiative, CWE has completed a large number of landmark projects in the fields of hydropower, infrastructure, assets operation, environmental protection and water affairs in their respective host countries, which were granted prestigious awards such as "China Construction Engineering Luban Prize" and "National Labor Medal of Laos" and depicted on the host country's currency.



▲ 老挝南立 1-2 水电站发电厂房 Power House of Nam Lik 1-2 Hydropower Station

#### 全球业务覆盖 Global Presence

在亚洲、非洲、欧洲、美洲**80** 多个国家和地区建设了**800**多个 优质项目 Built more than 800 high-quality projects in more than 80 countries and regions in Asia, Africa, Europe and America

常驻机构 Permanent Establishment

41个国家 和地区 41 countries and regions

#### 国家水利水电工程施工总承包一级资质

First-Grade General Contractor for Water Works and Hydropower Project

#### 进出口贸易权

Import and Export Trading Right

#### 中国对外承包工程商会 AAA 企业信用等级

AAA Credit Enterprise by China International Contractors Association

#### 通过质量管理、环境管理、职业健康安全管理三标体系认证

Certificates of Management Systems of Quality, Environment and Occupational Health and Safety

#### 中国香港最高级别认可公共工程承建商牌照

Approved Contractor for Public Works in Hong Kong

#### 自贸区南沙片区香港工程及相关咨询企业资质备案证书

Record-Filing Certificate for Qualifications of Hong Kong Engineering and Related Consulting Enterprises in Nansha Free Trade Zone

#### 深圳前海香港工程建设领域专业机构执业备案证书

Certificate of Practice Filing for Hong Kong Engineering and Construction Institutions in the Qianhai Shenzhen-Hong Kong Modern Service Industry Cooperation Zone

### 公司的行业地位 Industry Status

公司资质

**Qualifications** 

连续 **34** 年 For 34 consecutive years 荣登 ENR 全球最大 **250** 家国际工程承包公司榜单 Ranked among ENR's Top 250 International Contractors

连续 **26** 年 For 26 consecutive years 荣登 ENR 全球最大 **225** 家国际工程设计公司榜单 Ranked among ENR's Top 225 International Design Firms

#### 中水电在老挝的业务

#### **CWE's Business in Laos I**

中水电自 1996 年进入老挝,是最早进入老挝市场的中资企业之一。二十多年来,公司高度聚焦主业,深耕工程承包和电力 行业投资领域,采取工程承包、买方信贷、卖方信贷和投资等模式,在老挝建设了5个水电站和4个输变电线路工程项目, 其中多个项目获得国家级奖项。目前,中水电在老挝以 BOOT 方式投资运营的南立 1-2 水电站、南椰 2 水电站和南公 1 水电 站, 总投资 7.44 亿美元, 总装机 44 万千瓦, 分布在老挝北部、中部和南部, 为服务老挝"东南亚蓄电池"发展计划提供了 坚实保障,更为老挝能源稳定、经济社会发展贡献着"中国力量"。老挝 13 号公路南段升级改造与维护工程第 3 标段是中 水电在老挝的在建工程,是集设计、施工和较长期限维护管理为一体的公路项目,项目建成后将有力改善老挝交通大动脉 13 号公路的交通运输条件,促进沿线地区资源开发和经济社会发展。

中水电在老挝致力于属地化经营,积极履行社会责任,参与项目所在地社区共建活动,深入了解当地居民的诉求与期望,在 基础设施建设、社会公益、社区帮扶、环境保护和教育发展等多个方面主动承担责任,为当地带来切实的经济、社会和环境 效益;同时充分尊重当地传统文化和风俗习惯,以开放的心态与当地政府和社会公众沟通交流,组织丰富多样的活动促进中 老文化融通,有力推动了"中老命运共同体"进一步落地生根。

CWE has been in Laos since 1996 and is one of the first Chinese-funded enterprises that entered the Lao market. Over the past two decades, CWE has focused on its main business and has been deeply involved in project contracting and power sector investment. By means of project contracting, buyer's credit, seller's credit and investment, CWE built five hydropower stations and four power transmission and transformation line projects in Laos, many of which won national awards. At present, CWE has invested in and



▲ 中水电老挝分公司办公地 CWE Lao Branch

operated the Nam Lik 1-2, Nam Ngiep 2 and Nam Kong 1 Hydropower Stations in Laos in BOOT mode, with a total investment of 744 million US dollars and a total installed capacity of 440MW, which are distributed in the northern, central and southern parts of Laos, providing a solid quarantee for serving Laos' "Battery of Southeast Asia" development program, and contributing China's strength to Laos' energy stability and economic and social development. Lao NR13S Improvement and Maintenance Section 3 is under construction by CWE in Laos. It is a fusion of design, construction and long-term maintenance management. After the project is completed, it will effectively improve the transportation conditions of the National Road 13, Laos' traffic artery, and promote the exploitation of resources and the economic and social development along the route.

In Laos, CWE is committed to localized operation, actively fulfills its social responsibilities, participates in building local communities to gain a deep understanding of locals' appeals and expectations, and takes the initiative to assume responsibilities for infrastructure construction, social welfare, community assistance, environmental protection and educational development, bringing tangible economic, social and environmental benefits to local communities. Meanwhile, CWE fully respects the local traditional culture and customs, communicates with the local government and the public with an open mind, and organizes a variety of activities to boost China-Laos cultural integration, so as to advance the building of a "China-Laos Community with a Shared Future".



#### 公司在老挝创造多个"第一" CWE has created many "firsts" in Laos

中资企业走出国门成功



## 中水电参与中老共建"一带一路"

#### **CWE Participates in China-Laos Belt and Road cooperation**

在"一带一路"倡议框架下,中水电坚持共商、共建、共享的原则和开放、绿色、廉洁的理念,发挥在工程承包和电力行业投资领域的主业优势,助力"中老命运共同体"建设。

2013年以来,中水电通过建设一系列精品工程,向老挝提供清洁电能,增强了老挝电网供电的稳定性和可靠性,促进了当地绿色发展,为深化中老电力合作作出了突出贡献。

中水电在老挝坚持属地化经营,将发展成果回报给当地社会,积极带动当地产业发展、教育发展、基础设施完善,极大促进了老挝的经济社会发展,推动了中老文化交流与民心相通。

2017年11月3日,在对老挝人民民主共和国进行国事访问之际,习近平主席在老挝《人民报》《巴特寮报》《万象时报》发表题为《携手打造中老具有战略意义的命运共同体》的署名文章,高度肯定中水电承建的南累克水电站,指出该项目"为老挝经济建设和社会发展发挥了重要作用"。

立足新起点,中水电作为高质量共建"一带一路"和助力建设中老命运共同体的重要力量,将持续深耕老挝市场,携手老挝各方,作出新的贡献。

Adhering to the principles of extensive consultation, joint contribution and shared benefits as well as the concept of openness, greenness and integrity, CWE leverages its core advantages in project contracting and power sector investment to contribute to the building of a "China-Laos Community with a Shared Future" within the framework of the Belt and Road Initiative.

Since 2013, CWE has built a series of high-quality projects to supply clean electricity to Laos, which has enhanced Laos' power supply stability and reliability, promoted the local green development, and made outstanding contributions to deepening power cooperation between China and Laos.

CWE insists on localized operations in Laos, returns the fruits of development to local communities, and actively drives the development of local industries, education, and infrastructure. This greatly promotes Laos' economic and social development, as well as cultural and people-to-people exchanges between China and Laos.

On November 3, 2017, on the occasion of his state visit to the Lao People's Democratic Republic, President Xi Jinping published a signed article entitled "China and Laos: Working Together for a Community of Shared Future with Strategic Significance" on Lao media the Pasaxon, the Pathet Lao and the Vientiane Times. He highly praised the Nam Leuk Hydropower Station undertaken by CWE, and pointed out that the project "has played an important role in Laos' economic and social development".

Standing at a new starting point, CWE, as an important force for high-quality Belt and Road cooperation and building of a China-Laos community with a shared future, will continue to deeply explore the Lao market and make new contributions together with all parties in Laos.

#### 公司在老挝发展历程

#### Company Development History in Laos

#### 中水电在老挝的发展历程

**Development History of CWE in Laos** 

#### 1996年12月-2000年1月

December 1996 - January 2000

南累克水电站(承包)

Nam Leuk Hydropower Station (Contracting)



#### 2002年1月-2005年1月

January 2002 - January 2005

南梦3水电站(EPC) Nam Mang 3 Hydropower Station(EPC)



#### 2003年7月-2006年7月

July 2003 - July 2006

南梦3水电站附属线路工程(EPC)

the auxiliary line project for Nam Mang 3 Hydropower Station (EPC)

#### 2006年12月

December 2006

公司成立老挝经理部

CWE established the Management Department in Laos



#### 2007年9月-2010年8月

September 2007 - August 2010

南立1-2水电站(BOOT) Nam Lik 1-2 Hydropower Station(BOOT)

项目特许经营期 25 年。项目的建成增强了万象和中部电网供电的稳定性和可靠性,为其他中资企业在老挝投资建设水电站起到了标杆和示范作用。荣获国家优质投资项目奖和老挝国家级劳动奖章。

The concession period for this project is 25 years. After the completion, the project has enhanced the stability and reliability of power grids in Vientiane and Central Laos, and has played a benchmarking and exemplary role for other Chinese enterprises to invest in the construction of hydropower stations in Laos. The project was awarded the National High-quality Investment Project Award of China and the National Labor Medal of Laos.



▲ 南立 1-2 水电站外景 An Exterior View of Nam Lik 1-2 Hydropower Station





▲ 老挝南立 1-2 水电站荣获"国家优质投资项目奖"

Nam Lik 1-2 Hydropower Station was awarded the National High-quality Investment Project Award by the Investment Association of China

#### 2009年4月-2012年11月

April 2009 - November 2012

230kV 输变电项目(欣赫 - 纳塞通)(EPC) 230kV Power Transmission and Transformation Line and Substation Project (Hinherb-Nasaythong)(EPC)

南立 1-2 水电站的送出线路工程。成功解决了南立 1-2 水电站电力送出问题。

The outgoing transmission line project for Nam Lik 1-2 Hydropower Station successfully delivers electricity from Nam Lik 1-2 Hydropower Station.



#### 2011年10月-2015年10月

October 2011-October 2015

南椰 2 水电站(BOOT) Nam Ngiep 2 Hydropower Station(BOOT)

项目特许经营期 25 年。项目的建成改变了川圹省一直以来电力供应不足、用电高峰期需进口电力的局面,为老挝北部电网的能源稳定供给作出重要贡献,荣获老挝国家级二级劳动奖章。

The concession period for this project is 25 years. After completion, the project has changed the fact that Xiengkhouang had been short of power supply and dependent on imported electricity during consumption peaks, making substantial contributions to a stable power supply in northern Laos. The project was awarded the Second-class National Labor Medal of Laos.



▲ 老挝政府授予南椰 2 水电站国家级二级 "劳动奖章" 荣誉称号 Nam Ngiep 2 Hydropower Station was awarded the National Labor Medal by the Laotian government

#### 2012年12月-2015年9月

December 2012 - September 2015

塔棉 - 塔博克 230kV 输变电项目 (EPC)

TaVieng-Tabok 230kV Power Transmission and Transformation Project (EPC)

作为主干电网将老挝北部与中部电网连接起来,解决了老挝北部电站电力外送万象、泰国等电力负荷中心的难题,为老挝电力工业持续发展、国家经济和社会发展、各民族发展及人民生活水平的提高作出了重要贡献。

As a main grid, the project connects the northern and central power grids of Laos, enabling power transmission from power stations in northern Laos to Vientiane, Thailand and other power load centers, and makes important contributions to the sustainable development of Laos' power industry, the national economic and social development, the development of all ethnic groups, and the improvement of people's living standards.

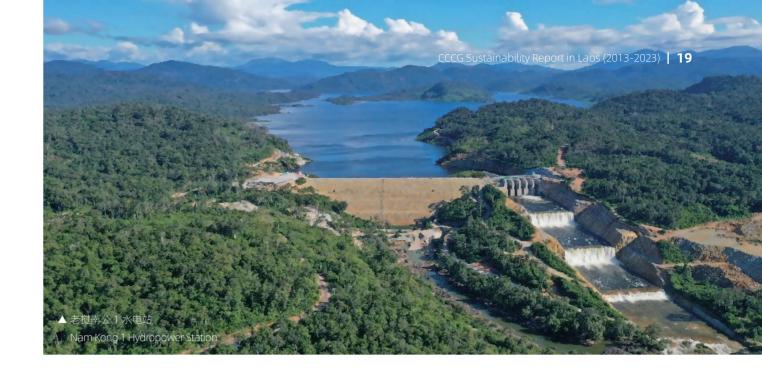


#### 2017年10月

October 2017

老挝分公司成立 Establishment of CWE Lao Branch





#### 2017年10月-2021年10月

October 2017 - October 2021

南公1水电站(BOOT)

Nam Kong 1 Hydropower Station (BOOT)

项目特许经营期 25 年。项目的建成有效推动解决了老挝南部电网旱季缺电问题,促进了当地就业,带动了经济发展,对老挝能源经济可持续发展具有重要意义,被老挝政府列为向柬埔寨售电的骨干电站。

项目建设以来,多次获得奖项。先后获得云南省优质工程奖一等奖、首届全国水利行业 BIM 应用大赛金奖、云南省优质工程设计奖一等奖、云南省优质工程勘察奖一等奖、爆破协会科技进步奖二等奖,获评"海外安全发展优秀项目",并入选"中外水电国际合作优秀案例"。

The concession period for this project is 25 years. After the completion, the project has effectively solved power shortage during dry season in southern Laos, and promoted local employment and economic development. It is of great significance to the sustainable development of Laos' energy economy, and is listed by the Laotian government as a key power station to sell electricity to Cambodia.

Since the construction, the project has received several awards, including the First Prize for High-Quality Engineering of Yunnan Province, the Gold Medal in the first National Competition for BIM Application in the Water Conservancy Industry, the First Prize for High-Quality Engineering Design of Yunnan Province, the First Prize for High-Quality Engineering Survey of Yunnan Province, and the Second Prize for Science and Technology Progress by China Society of Explosives and Blasting. In addition, it was awarded the "Excellent Overseas Safety Development Project" and selected as an "Excellent Case of International Cooperation on Hydropower between China and Foreign Countries".

#### 2017年12月

December 2017

老挝 500kV 输变电项目(川圹一纳塞通段)(EPC) 500kV Power Transmission and Transformation Project (Xiengkhouang-Nasaythong)(EPC)

#### 2021年9月

September 2021

开工建设 老挝 13 号公路南段升级改造与维护工程(第 3 标段)项目(OPBRC)

Commencement of Lao NR13S Improvement and Maintenance Section 3 (OPBRC)

#### 中交一公局在老挝业务情况

#### **CFHEC's Business in Laos**

中交一公局集团有限公司是中交集团的核心企业,是行业领先的集咨询规划、投资融资、设计建造、管理运营为一体的大型基础设施综合服务商。中交一公局集团海外事业部于 2021 年 5 月设立老挝办事处,并随即派员进驻老挝国别市场,从事市场调研和营销活动。

China First Highway Engineering Co., Ltd. (CFHEC) is the core company of China Communications Construction Group Company Limited, and is an industry-leading large-scale infrastructure service provider integrating consulting and planning, investment and financing, design and construction, management and operation. In May 2021, its Overseas Business Department set up an office in Laos and then sent staff to Laos to engage in market research and marketing activities.

#### ▼ 老挝塔銮寺风景图 That Luang Temple



#### 中国路桥在老挝业务情况

#### CRBC's Business in Laos

中国路桥工程有限责任公司是中交集团的国际业务平台公司。目前,中国路桥在世界各地近 60 个国家和地区设立分(子)公司和办事处,形成了高效快捷的全球市场网络。中国路桥于 1996 年首次进入老挝市场,至 2003 年期间先后实施完成老挝占巴塞省道路改造工程 ADB7A 项目、川圹省道路改造工程 ADB8 项目合同 2 及合同 4 共计 3 个项目。于 2011 年 8 月在老挝首都万象市成立办事处,2012 年至 2017 年期间实施完成乌多姆塞省北本湄公河大桥项目。

China Road and Bridge Corporation (CRBC) is an overseas business platform of China Communications Construction Group Company Limited. With branches (subsidiaries) and offices in nearly 60 countries and regions, CRBC has established an efficient and rapid global market network. CRBC entered Laos for the first time in 1996. By 2003, CRBC had completed a total of three projects, namely, Champasack Road Improvement Project ADB7A, and Xiengkhouang Road Improvement Project ADB8 Contract 2 and Contract 4. In August 2011, CRBC registered an office in Vientiane, the capital of Laos. From 2012 to 2017, it completed the Pakbeng Mekong River Bridge project in Oudomxay Province.



▲ 中国路桥在老挝的项目 Projects of CRBC in Laos

# 22 | 中交集团老挝国 ◎ 责任管理 **Responsibility Management** 责任理念 Responsibility Concept | 中交集团秉承"让世界更畅通、让城市更宜居、让生活更美好"的企业愿景,将履行社会责任纳入公司发展战略,不断促进 经济效益与社会效益的平衡发展,推动实现公司与社会、环境及各利益主体之间的全面协调可持续发展。 Adhering to the corporate vision of "make the world more smooth, make the city more livable, make the life more colorful", CCCG. incorporates corporate social responsibility (CSR) into its development strategy to achieve comprehensive, coordinated and sustainable

development between the company and the society, the environment and all stakeholders by balancing economic and social benefits.

△ 老挝南椰 2 水电站

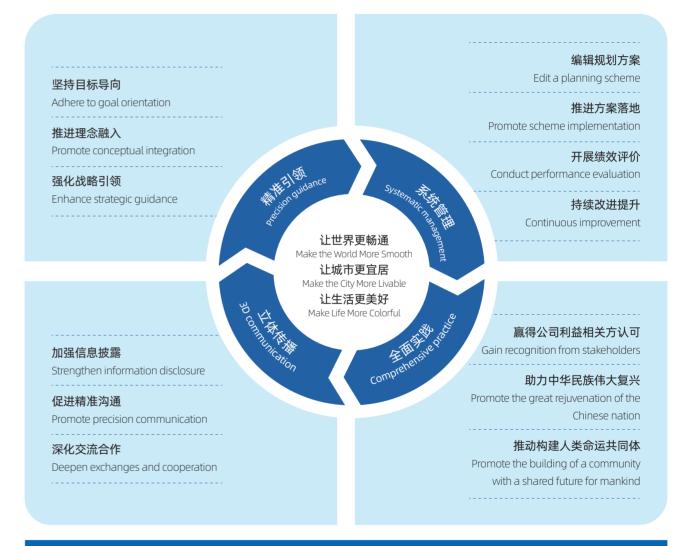
Nam Ngiep 2 Hydropower Station

#### 管理模式

#### Management Mode I

中交集团依托自身责任管理模型体系,对老挝项目的可持续发展行动进行统一管理。

Based on its own responsibility management model, CCCG carries out unified management of sustainable development initiatives for projects in Laos.



# 中交集团责任管理模型 CCCG's Responsibility Management Model



## 利益相关方沟通

#### Communication with Stakeholders |-

中交集团注重与内外部利益相关方的多元化沟通与反馈,准确了解各利益相关方期望和诉求,及时高效地作出回应。

CCCG focuses on diversified communication and feedback with internal and external stakeholders to understand exactly and respond promptly and efficiently to their expectations and appeals.

利益相关方 Stakeholders	期望和诉求 Expectations & Appeals	回应及成效 Response and Effect
政府 Government	守法合规 Compliance with laws and regulations 依法纳税 Tax payment according to law 促进就业 Promotion of employment	诚信经营 Good faith management 按时缴税 Punctual tax payment 属地招聘 Localized recruitment
员工 Employees	职业保障 Job security 职业发展 Career development 人文关怀 Humanistic care	签订合同 Signing of contract 性别平等 Gender Equality 提供培训 Provide training 组织活动 Organize activities

利益相关方 Stakeholders	期望和诉求 Expectations & Appeals	回应及成效 Response and Effect
环境 Environment	环境保护 Environmental protection 生态恢复 Ecological restoration 物种保护 Species protection 节能减排 Energy conservation and emission reduction	流域发展计划 Basin development plan 水质检测 Water quality testing 废弃物管理 Waste management 恢复生物多样性 Restore biodiversity 促进碳减排 Promote carbon emission reduction
供应商 Suppliers	公平竞争 Fair competition 信息透明 Information transparency	透明采购 Transparent procurement 优先本地采购 Local preference
社区 Communities	社区参与 Community involvement 带动当地经济发展 Drive local economic development 公益慈善 Public charity 安全保障 Safety and security guarantee	积极与社区沟通 Actively communicate with communities 志愿活动 Voluntary activity 灾区捐赠 Disaster relief donation 安全大坝 Safe dam 可靠电力 Reliable electricity
社会媒体 Social media	良好关系 Good relationship 信息公开 Information disclosure	加强沟通 Better communication 主动披露 Proactive disclosure
合作伙伴 Cooperation partners	公平运营 Fair operation 促进水电市场开发 Promote hydropower market development	平等互利 Equality and mutual benefit 和谐共赢 All-win harmony 参加行业活动 Attend industry events 分享水电技术 Share hydropower technologies



#### 打造放心工程

#### **Build Quality-assured Projects H**

公司牢固树立安全第一、质量至上观念,将质量管理覆盖到工程建设的全过程和参与工程建设的全体建设者,使每一座水库 大坝成为当地人民的放心工程。

同时,公司成立了水工枢纽管理部门,通过智能化自动测量仪器,实现水电站设备、运行压力等远程监控、故障诊断和维护管理,

提高运营效率和可靠性,并在老挝率先开展大坝定检 工作,起到标杆示范作用。

The concept that "Safety Comes First and Quality is Our Top Priority" is firmly established, and the quality management is extended to the whole project construction process and all builders involved in project construction, so that all reservoir dams reassure local people.

At the same time, a hydraulic hub management department was set up to realize remote monitoring, fault diagnosis and maintenance management of hydropower station equipment and operating pressure with intelligent automatic measuring instruments, in order to improve operational efficiency and reliability. It aims to play a benchmarking and exemplary role by carrying out periodic dam safety inspections in Laos.

中水电安全管理"四精"理念 Four Essential Components of CWE Safety Management System



中水电工程质量管理体系 CWE Project Quality Management System



#### 全方位管理 All-round management

抓重点治源头,强化工程建设质量管理工 作,构建质量管理体系、考核体系、监督 体系等多层级、全方位的管理体系,对机 组、大坝等各方面质量进行管理

CWE shall focus on the key points and tackle the problem at its source; strengthen construction quality management; build a multi-level and all-round management system including quality management system, performance evaluation system and supervision system to manage the quality of units and dams in all respects.



#### 全过程管控 Whole process control

强化质量监督考核,定期开展质量检查, 加强风险防控, 做好安全定期检查和除险 加固,将高质量标准贯穿到前期、建设、 竣工、运行过程中的每一个环节

CWE shall strengthen quality supervision and assessment, perform quality inspections at regular intervals, strengthen risk prevention and control, carry out regular safety inspections and reinforcement, and implement high-quality standards throughout preliminary work, construction, completion and operation.



#### 全员工培训 All-staff training

通过日常质量培训、组织"质量月"活 动等方式,提升全员质量意识和能力, 建设质量管理文化

CWE shall provide routine quality training sessions or organize "Quality Month" activities to enhance all employees' quality awareness and competence and to build a quality management culture.



## 南立 1-2 水电站:老挝水电站安全运营标杆

#### Nam Lik 1-2 Hydropower Station: A Benchmark for Safe Operation of Hydropower Stations in Laos

截至2023年10月31日, 电站连续安全运行4,840天, 累计向老挝电网输送电能66亿千瓦时, 自运行以来零事故、零伤亡。 电站与中国国家能源局大坝安全监察中心合作,成为老挝首个规范开展大坝安全定期检查和管理评价的电站,为建立境 外大坝安全定期检查机制积累了宝贵经验。同时,电站推动老挝能矿部与中国国家能源局大坝安全监察中心建立了密切 联系,促进其交流合作。电站的安全管理、流域管理机制获得了老挝政府官员、同行业企业的高度认可。老挝能矿部能 源工业与安全管理司工业安全管理处处长莱尔·拼玛森(Mr.Lair PHIMMASAN)说,希望电站持续做好大坝安全管理工作, 加强安全生产管理,做好电站运行行业的企业标杆。

As of October 31, 2023, Nam Lik 1-2 Hydropower Station has been running safely for 4,840 consecutive days, and delivered 6.6 billion kWh of electricity to the Lao power grid, with zero accidents and zero casualties since its operation. In cooperation with the Large Dam Safety Supervision Center (LDSSC) of the National Energy Administration of China, it has become the first hydropower station in Laos that conducts dam safety inspections and management assessments regularly, from which valuable experience can be gained for establishment of a regular dam safety inspection mechanism overseas. Thanks to the hydropower station, the Ministry of Energy and Mines of Laos has also established close contacts with LDSSC to facilitate exchanges and cooperation. The hydropower station safety management and watershed management mechanism have been highly recognized by Laotian government officials and enterprises in the same fields. Mr. Lair PHIMMASAN, director of the Industrial Safety Management Division of the Department of Energy Industry and Safety Management under the Ministry of Energy and Mines of Laos, said that he hoped that the hydropower station would continue to perform dam safety management and strengthen work safety management, so as to set a model for enterprises in the hydropower station operation sector.



▲ 专家团队在南立 1-2 水电站做安全检查

The expert team is doing a safety inspection at Nam Lik 1-2 Hydropower Station



▲ 南立 1-2 水电站中控室属地运维员工

Local operation & maintenance staff at the central control room of Nam Lik 1-2 Hydropower Station

## "大坝医生"每天给大坝做"体检"

故事 Story

#### "Dam Doctor" Conducts Dam Safety Inspection Every Day

杨耀作为南立 1-2 水电站枢纽管理技术员, 也是电站有名的"大坝医生"。他负责大坝的安全和日常管理, 每天与大坝 朝夕相处,通过自动测量仪器进行精准监测,实时对监测的压力、位移变形等数据进行审核诊断,确保将大坝各类安全 隐患扼杀在萌芽状态。

YANG Yao is a hub management technician at Nam Lik 1-2 Hydropower Station and also a famous "dam doctor", who is responsible for the safety and daily management of the dam. Every day, he conducts accurate monitoring through automatic measuring instruments and then audits and diagnoses pressure, displacement and deformation measurements in real time to ensure that all dam safety hazards are nipped in the bud.





▲ "大坝医生"杨耀与同事为大坝做"体检"

"Dam Doctor" YANG Yao is doing a dam safety inspection together with his colleagues



## □ 质量月"比武"活动

故事 Story

#### **Quality Month Contest**

2023年9月,根据中交集团"践行质量强国战略,建设世界一流企业"的主题要求,中水电全面部署开展各项"质量月"活动。南立1-2 水电站开展质量"比武"活动,展现员工个人专业知识和能力,激励员工查缺补漏,不断提高自身的质量管理水平。

活动以电站实际工作为背景,分电气组、机械组、运行组三个部分进行。最终,活动决出各组冠军各一人,并发放奖杯以示鼓励。通过 "比武"活动,各班组成员进一步体会到了"质量"的含义及分量,更深刻地认识到了"质量"的重要性。

In September 2023, according to CCCG's theme of "practicing the strategy to make China strong on quality and building itself into a world-class enterprise", CWE launched various "Quality Month" activities in an all-round way. At Nam Lik 1-2 Hydropower Station, quality contests were carried out to show employees' personal professional knowledge and ability, and motivate employees to check for deficiencies and make up for omissions, so as to improve their quality management level continuously.

The activity includes three parts: electrical, mechanical, and operation in the context of the actual work at the Hydropower Station. In the end, three team winners were decided and presented with a trophy as a token of encouragement. Furthermore, the team members learnt from the contest about the meaning and weight of "quality" and had a stronger sense of the importance of "quality".



▲ 南立 1-2 水电站"比武"获奖者 Contest Winners at Nam Lik 1-2 Hydropower Station

#### 创新防洪机制

#### Innovative Flood Control Mechanism H

为保证电站泄洪安全,公司积极落实企业防汛责任,充分调研防洪工作的管理现状和难点,主动协调当地政府部门、企业、 村庄等召开多次专题会议,探索建立了"政企联动、企企联动、企民联动"的流域应急联动机制。

为保证流域应急管理联运机制有效运作,公司每年都在汛前联合当地政府组织下游村庄、企业召开年度防汛联络会议,组织 成立年度防汛小组,并走进附近村庄,向村民宣传防汛知识、讲解救援技能和逃生路线,开展应急救援、逃生演练。

In order to ensure safety of flood discharge at hydropower station, CWE has actively implemented its flood control responsibility, fully investigated the current situation and difficulties of management of flood-mitigation efforts, held several special meetings actively in coordination with local government departments, enterprises and villages, and established an integrated watershed emergency response mechanism characterized by "government-enterprise linkage, enterprise-enterprise linkage and enterprise-people linkage".

In order to ensure the effective operation of the integrated watershed emergency response mechanism, CWE organizes an annual flood control liaison meeting and an annual flood control team with downstream villages and enterprises in conjunction with the local government every year before the flood season, and goes into nearby villages to publicize flood control knowledge, explain rescue skills and escape routes, and carry out emergency rescue and escape drills.

提升防洪意识

Raise awareness of flood control

加强汛期防洪安全意识培训,扎实开展防汛防灾和安全生产工作,做好水电站防洪度汛工作 Intensify flood control safety awareness training, carry out flood control, disaster prevention and work safety in a down-to-earth manner, and provide flood protection for hydropower stations.

加强应急能力

Strengthen emergency capacity

坚持问题导向,完善防洪应急预案,加强针对性演练,强化大坝应急能力和灾害防范能力建设

Adhere to the problem orientation, improve the flood emergency response plan, strengthen targeted drills, and enhance dam emergency response and preparedness capacity against natural disasters.

预控重大风险

Pre-control major risks

全面排查治理各类隐患,加强监测预报预警,严格执行调度指令,科学有序实施洪水调度。同时, 强化大坝安全监督, 做好大坝定期检查和除险加固工作

Investigate thoroughly and manage all kinds of hazards, improve monitoring, forecasting and early warning, strictly execute dispatching instructions, and implement flood regulation in a scientific and orderly manner. At the same time, strengthen dam safety supervision and carry out regular dam safety inspection and reinforcement.



#### 应急疏散宣传演练

故事 Storv

#### Propaganda and Emergency Evacuation Drill

2023年7月28日,南公1水电站联合普翁县政府在电站下游原塞村组织开展防洪避灾知识宣传和应急疏散演练,普翁 具政府、具环境局及下游村庄等八个单位共五十余人参加。

活动一开始,电站社会环境部属地员工陈伟龙(Mr.Sithiphone)向现场人员介绍了电站水库管理调度的相关信息,并对 应急疏散知识进行宣传。县环境局、公共卫生局向村民讲解了自然灾害防治和防溺水急救知识。 电站在参加活动的原塞村、 翁拉肯村、南公村安装了用于灾害宣传的扩音喇叭、功放机、话筒等设备。

随后,下游村民在电站的组织下,开展防洪应急疏散演练,包括洪水预警、人员疏散、老弱病残孕转移等。结束后,电 站又邀请村民到大坝参观。

此次宣传演练加深了社区民众对电站防洪度汛工作的了解,提高了村民应对灾情的应急逃生能力,有利于企地联合共同 安全平稳地度过汛期。

On July 28, 2023, Nam Kong 1 Hydropower Station, together with Phouvong District Government, propagandized knowledge about flood control and evacuation and organized an emergency evacuation drill in Viengxay Village, downstream of the dam, with more than 50 participants from eight organizations including Phouvong District Government, Phouvong District Environment Office and downstream villages.

At the beginning of the activity, Mr. Sithiphone, an employee of the local social environment department, introduced the information about reservoir management and scheduling to the on-site personnel, and propagandized knowledge about emergency evacuation. The Phouvong District Environment Office and Public Health Office explained knowledge about natural disaster prevention, drowning prevention and first aid skills to the villagers. At the dam, loudspeakers, amplifiers, microphones and other equipment were installed for disaster prevention propaganda in Viengxay, Vonglakhone and Nam Kong villages.

Subsequently, villagers living downstream of the dam were organized to conduct a flood evacuation drill, including flood warning, personnel evacuation, and transfer of the elderly, the infirm, the sick, the disabled and the pregnant. After that, the villagers were invited to visit the dam.

This propagandistic drill has deepened the community's understanding of hydropower dams' role in flood control, and improved the villagers' ability to respond to and escape from disasters, so that enterprises and localities can stay safe during flooding season through joint efforts.



▲ 应急疏散演练活动现场 Emergency Evacuation Drill Event



▲ 为下游村庄提供防洪物资 Provide Flood Protection Products to Downstream Villages



#### 生产清洁电能

#### Produce Clean Electricity |

公司坚持绿色发展的理念,将绿色、安全、环保融入到清洁电能稳定供给中,在老挝投资运营南立 1-2 水电站、南椰 2 水电 站和南公1水电站,总装机量达44万千瓦,为服务老挝"东南亚蓄电池"发展计划提供了坚实保障。

Adhering to the concept of green development, CWE integrates greenness, safety and environmental protection into stable supply of clean electricity. CWE has invested in and operated the Nam Lik 1-2, Nam Ngiep 2 and Nam Kong 1 Hydropower Stations in Laos, with a total installed capacity of 440MW, providing a solid guarantee for serving Laos' "Battery of Southeast Asia" development program.

提供清洁能源	实现减排
Provide Clean Energy	Cut Emissions
累计发电量超 <b>110</b> 亿千瓦时  Total power generation exceeds <b>11</b> billion kWh	相当于节约标准煤超 <b>330</b> 万吨,减排二氧化碳超 <b>900</b> 万吨 Equal to a coal consumption reduction of more than <b>3.3</b> million tons of standard coal and an emission reduction of <b>9</b> million tons of carbon dioxide

电力保供贡献 Power Supply Guarantee			
南立 1-2 水电站 Nam Lik 1-2 Hydropower Station	增强万象和中部电网供电稳定性和可靠性 Enhance the stability and reliability of power grids in Vientiane and Central Laos		
南椰 2 水电站 Nam Ngiep 2 Hydropower Station	保障老挝北部电网能源稳定供给 Ensure stable power supply in northern Laos		
南公 1 水电站 Nam Kong 1 Hydropower Station	解决老挝南部电网旱季缺电问题 Solve power shortage during dry season in southern Laos		



## 南立 1-2 水电站: 增强万象和中部电网供电稳定性和可靠性

## Nam Lik 1-2 Hydropower Station: Enhances the Stability and Reliability of Power Grids in Vientiane and Central Laos

南立 1-2 水电站位于老挝西北部万象省,是老挝电网内为数不多 的具备多年调节能力的支柱型电站,电站投产发电有效增强了老 挝万象和中部电网供电的稳定性和可靠性。

Nam Lik 1-2 Hydropower Station, located in the province of Vientiane, northwest of Laos, is one of the few pillar-type power stations in the Lao power grid with multi-year regulation performance. It has started to generate electricity, which effectively enhances the stability and reliability of power grids in Vientiane and Central Laos.







▲ 老挝政府授予南立 1-2 水电站国家级 "劳动奖章" 荣誉称号 Nam Lik 1-2 Hydropower Station was awarded the National Labor Medal by the Laotian government 38 | 中交集团老挝国别可持续发展报告 (2013-2023) CCCG Sustainability Report in Laos (2013-2023) | **39** 



## 南椰 2 水电站: 保障老挝北部电网能源稳定供给

#### Nam Ngiep 2 Hydropower Station: Ensures Stable Power Supply in Northern Laos

南椰 2 水电站位于老挝川圹省查尔平原的东南部,是长隧洞 引水工程,其引水隧洞和引支流隧洞总长约20公里。项目改 变了川圹省一直以来电力供应不足、用电高峰期需进口电力的 局面,为北部电网的能源稳定供给作出重要贡献。

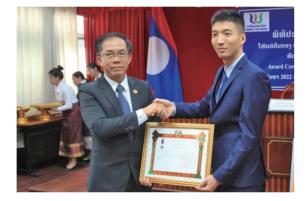
Nam Ngiep 2 Hydropower Station, located in the southeast part of the Plain of Jars, Xiengkhouang Province, is a long-tunnel water diversion project that comprises a diversion tunnel and a headrace tributary tunnel with a total length of about 20 kilometers. The project has changed the fact that Xiengkhouang had been short of power supply and dependent on imported electricity during consumption peaks, making substantial contributions to a stable power supply in northern Laos.

老挝国家级二级"劳动奖章"颁奖现场 Awarding Scene of the Second-class National Labor Medal of Laos 18 万千瓦 180MW

7.23 亿千瓦时 723 million kWh

装机容量 Installed capacity

平均发电量 Average power generation





▲ 老挝南椰 2 水电站发电厂房 Power House of Nam Ngiep 2 Hydropower Station



## 南公 1 水电站:解决老挝南部电网旱季缺电问题

#### Nam Kong 1 Hydropower Station: Solve Power Shortage during **Dry Season in Southern Laos**

南公1水电站坐落在老挝、柬埔寨和越南三国交界区域的南公河上,建成后解决了老挝南部电网旱季缺电的问题,被老挝政府列为向 柬埔寨售电的骨干电站,为服务老挝"东南亚蓄电池"发展计划提供了坚实保障。

Nam Kong 1 Hydropower Station is located on the Nam Kong River in the tri-border area of Laos, Cambodia and Vietnam. After completion, it solves power shortage during dry season in southern Laos, and is listed by the Laotian government as a key power station to sell electricity to Cambodia, which provides a solid guarantee for serving Laos' "Battery of Southeast Asia" development program.

16 万千瓦 装机容量 160MW Installed Capacity 6.33 亿千瓦时 平均发电量 633 million kWh Average power generation



▲ 老挝南公1水电站三级消力池 Nam Kong 1 Hydropower Station Third-Stage Energy Dissipation Pool

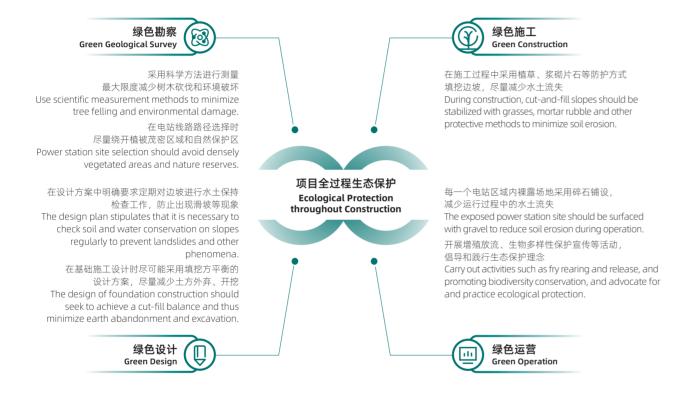
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#### 守护流域生态

#### Protect Watershed Ecosystem |

我们高度关注工程保护与自然养护的协调统一,采取多种有效措施积极保护陆生和水生生态,尽可能减少工程施工对动植物 的影响。

We attach great importance to the harmony between engineering protection and nature conservation, and take various effective measures to actively protect terrestrial and aquatic ecosystems and minimize the impact of construction on animals and plants.



#### 水质检测

Water quality testing

## 定期自主监测

每年在汛期前后对库区水质进行采 样,并交由专业机构进行水质检测, 防范水质安全风险

Every year, the water of the reservoir area is sampled before and after the flood season, and the water samples are delivered to a professional institution for analysis to prevent water quality risks.

#### 配合政府检查

严格遵守老挝环境保护相关法律法规, 积极配合老挝国家和项目所在省、县政 府开展水质检查

Carry out water quality inspection in strict accordance with Laos' laws and regulations concerning environmental protection and in active cooperation with Laos and the government of the province or district where the project is located.

## 汛期水质检测

每年汛前及汛后不同时段对库区、大坝 下游、引支流坝、尾水、尾水上游、尾 水下游6处进行水质检测

The water quality of six sites, including reservoir area, downstream of dam, diversion and tributary dam, tailrace, upstream and downstream of tailrace, is tested at different times before and after the flood season every year.



## 南椰 2 水电站的生态放流阀

#### **Ecological Discharge Valves at Nam Ngiep 2 Hydropower Station**

为保障电站库区及下游流域生态平衡,南椰2水电站对泄洪洞工作门进行技改并安装两台生态放流阀,在旱季时可以 向下游放每秒1立方米的生态流,用来缓解农田经济作物干旱现状,促进河流水生物生长,保护当地江河生态廊道。

In order to ensure the ecological balance of the reservoir area and its downstream region, spillway gates were technically improved and two ecological discharge valves were installed at Nam Ngiep 2 Hydropower Station, which can discharge 1 cubic meter of ecological flow per second downstream in the dry season to alleviate the effects of drought on cash crops, promote the growth of aquatic organisms in rivers, and protect the local river ecological corridor.



▲ 南立 1-2 水电站库区生态 Ecology of Nam Lik 1-2 Hydropower Station Reservoir Area

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## 大坝的"水医生"

#### A "Water Doctor" at the Dam

"加强水质监测,保护河水清澈,不仅能保护水生物多样性,还能让我的家乡更美丽。"南公1水电站属地员工、社会环境部员工陈 伟龙(Mr.Sithiphone)说。他像"水医生"一样,每天都会对水质进行监测和保护,努力为水生物多样性保护和江河廊道生态平衡作 出贡献。

"Strengthening water quality monitoring and keeping rivers clean will not only protect aquatic biodiversity, but also make my hometown more beautiful," said Mr. Sithiphone, an employee of the local social environment department at Nam Kong 1 Hydropower Station. Like a "water doctor", he monitors and protects the water quality every day, striving to contribute to the conservation of aquatic biodiversity and the ecological balance of river corridors.



▲ 属地员工在提取水样进行水质监测

A local employee is taking water samples to monitor the water quality.

### 实施环保行动

#### Implement Environmental Actions |

公司通过企地合作,携手当地民众严格落实森林恢复计划,持续开展植树放鱼等活动,用实际行动让山更绿、水更清、环境 更优美。

Through enterprise-locality cooperation, CWE works with the local people to strictly implement forest restoration plans and continuously carry out activities such as planting trees and releasing fish. It aims to take practical act

#### 公司过去十年在老挝的环保作为

CWE's Environmental Actions in Laos in the Past Ten Years

**25,000** 棵 25,000 trees

530,000尾

530,000 fish

在电站营地、坝址、荒芜地带植绿

Plant trees in power station camps, damsite areas, and barren places 在流域、库区开展鱼苗增殖放流

Carry out fry rearing and release in river basins and reservoir areas





#### 植树放鱼 保护生态

案例 Case

#### Planting Trees and Releasing Fish for Ecological Conservation

每年的7月13日是老挝野生动植物保护日,中水电联合当地政府部门、学校和村民在南椰2水电站、南立1-2水电站流域开展植树增绿、放鱼护水活动。

7月13日,帕赛县政府办公室、农林局、警察局、部队、周边学校和电站人员约130人参加2023年植树放鱼活动。活动仪式上,帕赛县长奔玛·苏亚翁(Mr.Bounma Souyavong)对电站履行企业社会责任、守护当地生态环境的做法给予了高度评价。县农林局长彭撒麦·彭卡王(Mr.Phonsamai Phuangkhamvang)为南椰2水电站颁发证书,表彰2019-2022年间电站为当地生态环境保护做出的贡献。

仪式过后,人们分组成群、分工合作,挖坑、扶苗、填土、踩实……经过一阵热火朝天的忙碌,将花枝木、龙眼果树、芒果树等 1,000 棵树苗栽种到帕赛县旅游规划绿化区域。随后,人们前往电站流域南森河纳寇村(Nakho)河段,将草鱼、鲫鱼等 30,200 尾鱼苗放流。

To celebrate the Lao National Day for Wildlife and Aquatic Animal Conservation on July 13 every year, CWE, together with local government departments, schools and villagers, carries out activities such as planting trees to expand green spaces and releasing fish to protect water in basins where Nam Ngiep 2 and Nam Lik 1-2 dams are located.

About 130 people from the Government Office, Agriculture and Forestry Office, Police Station, the army, surrounding schools of Phaxay District as well as workers at the hydropower stations participated in planting trees and releasing fish on July 13, 2023. At the ceremony, Mr. Bounma Souyavong, Governor of Phaxay District, spoke highly of the hydropower station's practice of fulfilling its corporate social responsibility and protecting the local ecological environment. Mr. Phonsamai Phuangkhamvang, Director of Agriculture and Forestry Office of Phaxay District, issued a certificate to Nam Ngiep 2 Hydropower Station in recognition of its contribution to local ecological environment protection from 2019 to 2022.

After the ceremony, people were divided into groups and worked in cooperation with a due division of labor such as digging holes, putting lodged plants upright, filling in dip with soil, and treading down soil... After hectic work, 1,000 saplings including tulipwood, longan and mango trees were planted in the green area under tourism planning of Phaxay District. Subsequently, people went to the Nakho section of the Nam Suong River on which the hydropower station is located to release 30,200 fry such as grass carp (Ctenopharyngodon idella), common carp (Cyprinus carpio) and crucian carp (Carassius auratus).



▲ 帕赛县农林局为南椰 2 水电站颁发证书
Phaxay District Agriculture and Forestry
Office issues a certificate to Nam Ngiep 2
Hydropower Station



▲ 南椰 2 水电站种植基地 A Plantation Base at Nam Ngiep 2 Hydropower station

"先解开袋子,灌入少量河水,让小鱼儿适应一会儿,再贴近水面,缓缓倒入水中……" 7月 15日上午,在南立 1-2 水电站举办的放鱼活动中,老挝孟丰县副县长塔维萨·翁萨王(Mr.Thavisack Vongsavang)向众人示范操作要领,他说这样做可以提高鱼苗成活率。当天,孟丰县政府部门、帕贡学校、电站周边村民和公司员工代表 70余人参加活动。一会儿工夫,在欢呼声中,人们纷纷将罗非鱼、草鱼等 60,000 尾鱼苗被放流到了电站坝址左岸库区。

随后,人们前往南立 1-2 水电站种植基地,将 200 棵树苗种在了荒芜地带,其余 1,640 棵树苗被村民"领养",栽种到其他规划区域。帕贡学校学生巴尼赛亚莎(Ms. Pany Xayasan)说:"我已经多次参加电站组织的植树放鱼活动了,我觉得活动特别有意义,希望大家一起行动起来,为建设美丽家乡出一份力。"

"First, unpack your bag, fill it with a small amount of river water for small fish to adapt to the environment, then get close to the water surface and slowly pour small fish into water..." In the fish release activity held at Nam Lik 1-2 Hydropower Station on the morning of July 15, Mr. Thavisack Vongsavang, Vice Governor of Meuang Feuang (Feuang District), demonstrated essential points of operation, saying that this can increase fry survival rate. On the same day, more than 70 representatives from Feuang district government departments, Lycee Park Ngua, villagers around the hydropower Station, and CWE's employees participated in the activity. In a few minutes, people released 60,000 fry such as tilapia and grass carp to the reservoir area on the left bank of the dam site amid cheers.

Subsequently, people went to a plantation base at Nam Lik 1-2 Hydropower Station and planted 200 saplings in barren places, while the remaining 1,640 saplings were "adopted" by villagers and planted in other planned areas. Ms. Pany Xayasan, a student from the Lycee Park Ngua, said: "I have participated in planting trees and releasing fish organized by the hydropower station many times. I think it is particularly meaningful. Let's act together and contribute to building a beautiful hometown."



▲ 放流鱼苗现场 Fry Release Scene



▲ 植树现场 Tree Planting Scene



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### 带动经济发展

#### **Drive Economic Development** |

公司通过水电站建设,有效带动了周边农业、旅游、渔业等产业发展,促进了居民增收,同时积极协助当地破解基础设施建 设难题, 促进社会经济发展。

CWE has built several hydropower stations, which has effectively driven the development of agriculture, tourism, fisheries and other supporting industries and increased residents' income. Also, CWE actively assists local authorities in solving challenges facing the infrastructure construction and promoting the social and economic development.



## │<del>¯</del>√ │电站促进旅游业、农业发展

#### The Hydropower Station Promotes the Development of Tourism and Agriculture

南立 1-2 水电站下游河段孟峰县是万象省备受游客关注的城市之一,因自然资源丰富、风景优美,一直吸引着国内外游客。 2023年1月至9月,孟丰县为发展旅游业,14个政府和私营部门投资超过130亿基普进行建设。自电站建成以来,下 游防洪能力得到有力保障,从根本上改观了雨季被洪水淹没的局面,村民住得更安心了,旅游业也得到了很好的发展。

电站的建设还带动了流域农业、水产养殖业的发展,促进了村民增收。电站所在的纳贤村,在电站建设前,当地居民主 要以种植大米为生。电站建成后,坝区鱼类数量增加,渔业发展得到促进,渔民收入增加了50%。

Feuang District, downstream of Nam Lik 1-2 Hydropower Station, is one of the cities in Vientiane Province that attracts tourists. Because of its rich natural resources and beautiful sceneries, Feuang District has been attracting domestic and foreign tourists. From January to September 2023, Feuang District drew 14 government and private-sector investments exceeding 13 billion kips into tourism. After completion, the hydropower station provides a powerful guarantee for downstream flood control capacity, which fundamentally avoids rainy-season flooding. It makes the villagers feel more secure, and also boosts tourism development.

The construction of the hydropower station has also promoted the development of agriculture and aquaculture in the basin, as well as the growth of villagers' income. In Naxaeng Village where the hydropower station is located, the local people lived mainly on rice cultivation before the construction. After the completion of the hydropower station, fish abundance in the dam area increases, contributing to the fishery development and a 50% increase in income from fishing.



▲ 南立 1-2 水电站下游景观 A Scenery Downstream of Nam Lik 1-2 Hydropower Station



▲ 渔民打渔场景 Fishing Scene

#### 培养本土人才

#### Cultivate Local Talents |-

公司遵循属地化经营的原则,不断扩大当地就业规模。当前,公司在老员工共计 237 人,其中老挝籍员工 170 人,属地化率 达 72%, 电站运行人员均为属地员工。

公司尊重人才、尊重劳动,承诺为员工提供平等的机会和强有力的权益保障,并鼓励员工树立终身学习的观念,为员工搭建 了多样性、多元化的职业发展和职业教育平台。

CWE follows the principle of localized operation and continuously expands the scale of local employment. At present, CWE has a total of 237 employees in Laos, including 170 Laotian employees, and the employee localization rate is up to 72%. All of power station operators are locals.

Committed to respecting talents and labor, CWE promises to provide employees with equal opportunities and strong quarantee of rights and interests, encourages employees to foster lifelong learning, and builds a diversified career development and vocational education platform for employees.







## 韩富明"十年"成长记

故事 Story

#### Mr. Chanthavidate Thammavong's "Ten Years" of Growth

"习近平主席提出'一带一路'倡议那年,我加入了中水电公司。"老挝籍员工韩富明(Mr.Chanthavidate Thammavong)说。他于 2013 年从上海大学企业管理学硕士毕业后加入公司,迄今已工作十年。期间,他工作勤恳,业绩突出。同时积极促进中老文化融合,带动中老方员工形成团结向上的合力。他通过自己的努力,从一名基层员工成长为中水电老挝分公司总经理助理,全面负责对外社会事务、属地经营和综合管理各项事务,成为优秀员工代表。

"公司给我提供了一个能让我充分发挥才学才能的大平台,我可以带着一帮老挝同事共同奋斗,不断追求卓越。"谈起过去十年的成长历程,韩富明感慨地说,"感谢'一带一路'倡议给了我实现梦想的舞台,下一个十年、二十年……我希望在中水电遇见更好的自己。"

"In the year when President Xi Jinping proposed the Belt and Road Initiative, I joined China International Water & Electric Corporation (CWE)," said Mr. Chanthavidate Thammavong, an employee from Laos. He joined CWE after graduating from Shanghai University with an MBA in 2013, and has been with the Company for ten years so far. During this period, he worked diligently and achieved outstanding results. Meanwhile, he actively promotes China-Laos cultural integration, and mobilizes Chinese and Lao employees to form a united and positive force. Through his own efforts, he has grown from a grass-roots employee to an assistant to the general manager of CWE Lao Branch, fully responsible for external social affairs, localized operation and comprehensive management, and has become an outstanding employee representative.

"CWE offers me a big platform that can give full play to my talents and abilities. I can lead a group of Lao colleagues to struggle together and constantly pursue excellence." Talking about growth in last decade, Mr. Chanthavidate Thammavong said: "I am grateful to the Belt and Road Initiative for giving me a chance to realize my dream. I hope to meet a better self at CWE in the next ten or twenty years..."



老挝分公司总经理助理老挝籍员工 韩富明

Mr.Chanthavidate Thammavong, assistant to the General Manager of CWE Lao Branch 公司还特别设立了"中老员工传帮带"等模式,系统传授业务知识,并选拔优秀老挝籍员工资助奖学金赴中国留学,助力其实现职业发展。

In addition, CWE has set up a mentoring model of "Chinese employees helping Lao employees" to impart business knowledge systematically, and provided funds for selected outstanding Lao employees to study in China so as to help them realize their career development.



#### 跨国"师徒情"

故事 Story

#### Transnational "Mentoring Relationship

"普萨瓦,干活麻溜,有冲劲,一定会有一番大作为。"任建伟看着徒弟普萨瓦,感慨地说。任建伟是南立 1-2 水电站的中国籍电气工程师,普萨瓦·鲲鹏(Mr.Phousavath khounphon)是他"传帮带"的老挝籍徒弟。

为了尽快提升普萨瓦的技术水平,任建伟经常给他开"补习课",现场讲解案例,手把手实操。如今,普萨瓦能独立处理各项设备故障,也从职场"小白"成长为电气班副班长,成为了一名业务突出、技术精湛的电气工程师。

工作中,他们是"黄金"搭档,生活中则是"俞伯牙和钟子期",他们经常一起聊人生、谈理想,畅想美好未来。普萨瓦激动地说:"感谢中国师傅培养、帮助我,传授我技能,帮助我实现人生价值。"

"Phousavath, you are quick and spirited at work, so you will definitely do great things," REN Jianwei looked at his apprentice Phousavath and said. REN Jianwei is an electrical engineer from China who works at Nam Lik 1-2 Hydropower Station, and Mr. Phousavath Khounphon is his Lao apprentice.

In order to improve Phousavath's skills as soon as possible, REN Jianwei often gave him "remedial classes" by explaining cases on the spot, and taught him how to do. Nowadays, Phousavath can handle various equipment failures independently, and has also grown from a "newbie" to vice leader of the electrical service team, becoming a technically competent electrical engineer with outstanding performance.

They are "golden" partners at work and bosom friends like "Yu Boya and Zhong Ziqi" in life. They often talk about life and ideals, and imagine a better future. Phousavath said passionately: "I am grateful to my Chinese mentor for bringing me up, helping me, and teaching me skills to help realize the value of my life."



▲ 任建伟(左一)给普萨瓦(左二)讲解技术
REN Jianwei (first from left) is explaining techniques to Phousavath (second from left).

郑阳是南公1水电站的电气检修班长,负责电气班的试验、检修、维护等工作,老挝籍员工诺艾(Mr.Noiy)作为电气班的副班长,是他最满意的徒弟之一。

从教会诺艾正确使用万用表,到验电、看图纸、消缺……二人建立了深厚的师徒情谊。在工作中,诺艾很能吃苦,也非常聪明,但也存在着一些不足;郑阳从不吝啬自己的表扬与批评。他语重心长地告诉徒弟:"安全第一、质量至上,只有保证安全了,才能去工作,只有保证质量了,设备才不会出问题,只有把技术学到手了,才是自己的真本事。"

在生活中他们经常一起吃饭、散步、聊天。诺艾说:"如果不是师傅的悉心教导,我不会学到这么多的知识,也不可能成为副班长,郑阳是我真正的老师,更是我的朋友。"

ZHENG Yang is leader of the electrical service team at Nam Kong 1 Hydropower Station, who is responsible for testing, overhaul and maintenance, etc. Mr. Noiy, a Laotian employee, is one of his most satisfied apprentices, who serves as vice leader of the electrical service team.

Since ZHENG Yang taught Noiy how to use a multimeter correctly, verify live parts, read drawings and remove defects... they have established a profound friendship between master and apprentice. At work, Noiy is hard-working and very smart, but he also has some shortcomings. ZHENG Yang is never stingy with praise and criticism. He told his apprentice earnestly: "Safety comes first and quality is our top priority. Only by ensuring workplace safety can you go to work; only by ensuring quality can there be no problems with the equipment. What you have learnt represent your real abilities."

In life, they often eat, walk and chat together. "Without his help, I wouldn't have learned so much knowledge, and couldn't have become the vice leader. ZHENG Yang is my real teacher and even my friend," said Noiy.



▲ 郑阳 (左一) 给诺艾 (右一) 做指导 ZHENG Yang (first from left) is teaching Noiy (first from right).



## "榜样"苏红

故事 Storv

#### Ms. Souksadaphone as a "Model"

"我在河海大学攻读硕士学位,学习水利水电工程专业……" 2023 年 8 月 18 日上午,南公 1 水电站会议室欢笑不断,一场员工留学生活分享会在这里举行。

活动分享人苏红 (Ms.Souksadaphone),于 2019年9月入职南公 1 水电站,在运行检修部工作。她工作认真、勤奋好学,凭着优秀的表现,于 2022年被公司推荐到河海大学带奖学金留学,攻读硕士学位。今年暑期期间,她主动申请到南公 1 水电站暑期实践锻炼。会上,苏红向大家分享了在中国留学期间的点滴生活:有宏伟的教学楼、整洁舒适的宿舍、中国美食以及丰富的课外活动。讲起在中国的留学生活和电站的工作,她脸上总是洋溢着笑容。

参会人员踊跃交流,向苏红询问在中国留学生活的各种问题。"苏红是我们的榜样,我们要努力工作,有机会也要到中国留学。"老挝籍员工占地(Mr.Chandy)忍不住说。南立 1-2 水电站员工柏木(Mr.bormoua)也说:"苏红在中国的生活很美好,学习环境很好,我很想到中国去旅游。"南公 1 电站公司副总经理兼站长朱旭说:"我们公司拥有广阔的发展舞台,愿为每一个努力的人创造成长成才的平台。"

"I got a master's degree in water resources and hydropower engineering at Hohai University..." On the morning of August 18, 2023, a meeting was held with employees to share their study-abroad stories amid laughter at the conference room of Nam Kong 1 Hydropower Station.

Ms. Souksadaphone, one of the participants, joined Nam Kong 1 Hydropower Station in September 2019 and has been working in the Operation and Maintenance Department. She is hard-working and studious. Due to her excellent performance, she was recommended by CWE to study for a master's degree at Hohai University with scholarships in 2022. During this summer vacation, she applied on her own initiative for summer practice at Nam Kong 1 Hydropower Station. At the meeting, Ms. Souksadaphone shared the details of her life of studying in China: there are magnificent teaching buildings, clean and comfortable dormitories, Chinese food, and abundant extracurricular activities. She always wears a smile on her face when she talks about studying in China and working at the hydropower station.

The participants exchanged ideas enthusiastically and asked Ms. Souksadaphone about her life in China. Mr. Chandy, a Laotian employee, couldn't help saying, "Ms. Souksadaphone is our role model. We should work hard and study in China if we get the chance." Mr. Bormoua, an employee at Nam Lik 1-2 Hydropower Station, also said: "Ms. Souksadaphone has a wonderful life in China, and there is a good learning environment. So, I'd like to travel to China." ZHU Xu, CWE Deputy General Manager and Head of Nam Kong 1 Hydropower Station, said: "Our company provides a huge arena for development and is willing to create a platform for hard workers to grow up."



▲ 留学生活分享会现场 A Meeting to Share My life in China



▲ 工作中的苏红 Ms. Souksadaphone at Work

**54** 中交集团老挝国别可持续发展报告(2013-2023) CCCG Sustainability Report in Laos (2013-2023) | 55

公司严格遵守法律规定,制定了对外有竞争力、对内公平的多元化福利政策。

CWE strictly abides by laws and regulations, and has formulated diversified welfare policies that are competitive externally and fair internally.

#### 多元化员工福利

Diversified Employee Benefits





▲ 公司为老挝籍员工举行退休仪式活动 CWE held a retirement ceremony for Lao employees



## 组织体检 守护健康

#### **Organize Medical Examinations to Protect Workers' Health**

"医生告诉我,我的身体各项指标很正常,"老挝分公司员工美苏达 (Mrs. Maysouda)参加完公司体检之后,高兴地说,"公司有温度、 有情怀, 让我们感受到了爱与呵护。"

"The doctor told me that my physical indicators are normal," Mrs. Maysouda, an employee at CWE Lao Branch, said happily after taking a medical examination organized by the Company. "CWE shows warmth and sympathy. It makes us feel loved and cared."

为关爱员工身体健康,公司每年都会组织属地员工进行内科、外科、血常规、尿常规、心电图、肝功等多项检查,指导员工选择文明、 健康的生活方式,预防职业病,增强全员健康意识。

In order to care for employees' health, CWE organizes local employees to undergo examinations including internal medicine, surgery, blood routine, routine urianalysis, electrocardiogram, and liver function every year, and guides employees to choose a civilized and healthy lifestyle, prevent occupational diseases and enhance their health awareness.



■ 公司为属地员工进行健康体检 CWE organizes health checkups for

## 助力教育建设 ————

#### Support Educational Construction ⊢

公司长期通过援建学校、捐赠图书和教学用品等,解决当地学校面临的痛点问题,协助项目所在地学校改造升级,为当地提 高教育质量提供积极助力,扶持孩子们走向美好未来。

For a long time, CWE has solved the pain points facing local schools by building schools and donating books and educational supplies. CWE also assists with the transformation and upgrading of local schools, and provides positive help for improving the quality of local education in order to support children to move towards a better future.

故事 Storv



## 孩子们的"考普宅"

#### "Khop Chai" from Children

"考普宅(老挝语:谢谢)……"在帕贡学校图书室移交仪式上,学生们高兴地向南立 1-2 水电站表达谢意。

2022年9月,公司将援建的图书室移交给学校使用,并联合外文局向学校捐赠了包括世界童话、少儿科普、老挝民间故事、传统文化、当地课堂辅助教材等在内的 2,000 余册图书及电脑、书架等教学用品。校长卜安康(Mr.Bounkham)说:"这是我们周边地区的首个图书室,现在学校条件越来越好,学校成为县上的重点学校,很多远一点村子的孩子也来我们学校读书。"

自南立 1-2 水电站建设之初,公司就持续对学校开展援建,陆续新建了多功能球场、图书室,维修教室、操场、学校大门、通行道路等硬件设施。目前,帕贡学校已成为附近教学条件最好的全年级学校,覆盖了周边 8 个村庄的学生。

"Khob Chai (thank you in Lao)..." At the Lycee Park Ngua library handover ceremony, the students happily expressed their gratitude to Nam Lik 1-2 Hydropower Station.

In September 2022, CWE handed over the China-aided library to the school, and donated more than 2,000 books including world fairy tales, popular science for kids, Lao folktales, traditional culture and local classroom aids, as well as computers, bookshelves and other educational supplies to the school in conjunction with China Foreign Languages Publishing Administration. Mr. Bounkham, principal of the Lycee Park Ngua, said: "This is the first library in our neighborhood. Now the school is getting better and better, and it has become a key school in the district. Many children from remote villages also come to our school."

Since the beginning of the construction of Nam Lik 1-2 Hydropower Station, CWE has provided assistance to the school by building a multi-purpose court and a library and maintaining hardware facilities such as classrooms, playgrounds, school gates and roads. At present, Lycee Park Ngua is the best-equipped school around, which provides all grade levels of education and can accommodate students from eight surrounding villages.



▲ 帕贡学校的澜湄书屋
Lancang-Mekong Book House at the
Lycee Park Ngua



▲ 老挝帕贡学校新旧面貌对比 Old and New Looks of the Lycee Park Ngua in Laos



#### 参与社区共建

#### Participate in Community Building |

我们坚持积极参与社区共建,将发展成果回馈社会,致力于让当地居民能够持续受益、改善生活,促进项目所在地社区不断发展。

We insist on actively participating in community building, and give back the fruits of development to the society, striving to continuously benefit locals and improve their lives and to promote the continuous development of local communities.



### "路更平坦了"

故事 Story

"The Road Gets More Smooth"

南公 1 水电站所在地距离阿速坡省城虽然只有约 55 公里,但由于道路不畅,长期以来,当地居民去趟省城单程需要 2 小时。对此,项目部对该段道路及沿线的木桥进行修缮升级改造,将路程缩短至 40 分钟,极大地改善了当地居民的出行条件,增进了周边村镇与其他镇市的交流。当地村民 Mr.khamvon(康翁)说:"道路更平坦了,节省了出行时间,让我们的出行更便利了。"

Nam Kong 1 Hydropower Station is only about 55 kilometers away from the capital of Attapeu Province. However, for a long time, it took 2 hours for locals to go to the provincial capital because of poor road conditions. In this regard, the project department repaired and upgraded the road section and the wooden bridges along it, which shortens the journey to 40 minutes. This has greatly improved local mobility, and enhanced the exchanges between surrounding villages and towns and other towns and cities.

Mr. Khamvon, a local villager, said: "The road gets more smooth. It saves the travel time and makes it easier to travel."





▲ 南公 1 水电站项目沿线道路、桥梁 The Road and Bridge along Nam Kong 1 Hydropower Station

在项目建设过程中,牵涉到搬迁的问题,公司秉持"搬得出、稳得住和逐步能致富"的移民开发理念,认真开展移民调查、 制定移民规划、落实移民工作,并趁机推动乡村发展、做好乡村建设。

The project involves relocation. Adhering to the development concept of "ensuring smooth relocation and resettlement and that those involved have the means to better themselves", CWE earnestly carries out resettlement investigation, formulates resettlement plans, and implements the resettlement work. The Company also takes the opportunity to promote rural development and improve rural infrastructure.



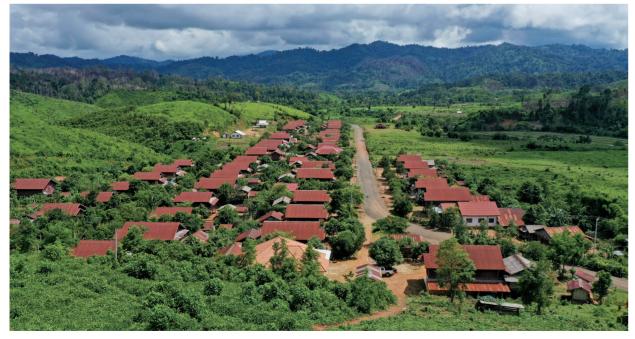
#### 建设移民新村

故事 Story

#### Resettlement Village Building

老挝南椰 2 水电站项目 2011 年 10 月开工,根据建设规划,库区村民需要从地处偏远、无法通电的村落迁出。南椰 2 水 电站尊重当地风俗,在当地开展调研,最终在距离县城较近的地域建设移民村,项目库区移民 66 户 407 人,于 2013 年 全部搬迁安置至移民新村。

为了让移民搬得出、稳得住、能致富, 电站为移民建造了标准的传统风格住房、学校、幼儿园、村委会、村卫生室、公交站、 菜市场等公共设施,并安装了供水到户的自来水供水系统。为扶持移民村农业发展,电站还购置2台拖拉机和4台抽水机,



▲ 移民村全貌 A Panorama of the Resettlement Village

免费为村民供应种子、化肥,联合老挝国立大学与村民共同开展养蚕、种植紫胶树、养牛等实验项目,为当地带来切实 的经济、社会和环境效益,赢得了老挝政府和社会各界的广泛好评。

同时,电站还为新村修建了移民学校,对移民村小学的校舍、院落等进行了升级改造,增添了学校基础设施,提升了办 学条件,努力让学生们有个舒适、良好的学习和成长环境。

2018年移民村被当地政府评为先进农村。

In Laos, the Nam Ngiep 2 Hydropower Station started in October 2011. According to the construction plan, villagers in the reservoir area had to relocate from remote villages without access to electricity. To ensure that the construction of Nam Ngiep 2 Hydropower Station respects local customs, CWE conducted local surveys, and finally built a resettlement village near the county seat. In 2013, 407 people from 66 households in the reservoir area were all relocated to the new village.

In order to ensure smooth relocation and resettlement and that those involved have the means to better themselves, the hydropower station built standard traditional houses, schools, kindergartens, village committees, village clinics, bus stations, vegetable markets and other public facilities for immigrants, and installed a tap water supply system that supplies water to homes. In order to support the agricultural development of the resettlement village, the hydropower station also purchased two tractors and four pumps, provided seeds and fertilizers to the villagers free of charge, and carried out pilot projects such as sericulture, lac tree planting and cattle raising with the villagers in cooperation with the National University of Laos, which has brought tangible economic, social and environmental benefits to the local area and won wide acclaim from the Laotian government and all walks of life.

Meanwhile, the hydropower station also built schools in the resettlement village, upgraded primary school buildings and courtyards, and improved school infrastructure and educational conditions, striving to create a comfortable and good environment for students to learn and grow.

In 2018, the resettlement village was awarded the title of "Advanced Village" by the local government.



▲ 移民村的新房 New Houses in the Resettlement Village



▲ 移民村小学新貌 New Look of Primary School in the Resettlement Village



▲ 移民村被评为"先进农村" The resettlement village is awarded the title of "Advanced Village".



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#### 促进全面融合

#### Promote Full Integration 1-

公司在管理中,通过中老员工同吃同住的方式,将文化融合贯穿到公司日常。中老员工在共同就餐时,可以互相品尝中老美食、 边吃边交流。公司还对老挝籍厨师进行培训,使其可以做出中餐特色菜,既推动了文化传播、增进了彼此了解,又丰富了员 工就餐选择。

同时,公司还组织员工联动社区和当地协会组织,共同举办节日庆祝、体育比赛、文化课堂、业务交流等活动,并积极与银行、 电力资源等老挝社会各界保持互动交流,来增进公司与员工的情感联结,建设和谐社区关系,以及加强与当地社会的交流深度。

In management, CWE penetrates the cultural integration into its day-to-day operations as Chinese and Lao employees live and eat under the same roof. When Chinese and Lao employees eat together, they can taste Chinese and Lao food and communicate with each other. CWE has also trained Laotian chefs to cook classic Chinese food, which promotes cultural communication, enhances mutual understanding, and also enriches employees' dining options.

Meanwhile, CWE organizes employees to hold festivals, sports events, cultural classes, business exchanges and other activities jointly with communities and local associations, and actively maintains interactions with all sectors of Laos including banks and electric power resources, so as to enhance emotional connection between the Company and employees, build harmony with communities, and deepen exchanges with the local society.



▲ 老挝分公司属地员工过中秋节 Local employees of CWE Lao Branch celebrate the Mid-Autumn Festival.



## 员工的文化融合日常

#### **Daily Cultural Integration among Employees**

"老挝筒裙不只是美,还有优雅",老挝分公司中方员工丁冉(图 左一)说,"我喜欢老挝的民族服饰。"老挝筒裙文化发扬至今 离不开老挝人民对文化的传承与重视,在老挝,几乎每一个女性 都有一套筒裙。

"The Lao traditional tubular skirt called "Sinh" is not only beautiful, but also elegant," said DING Ran (first from left), a Chinese employee at CWE Lao Branch. "I like the national dress of Laos." The development of the Lao Sinh culture is inseparable from the Lao people's attention to cultural inheritance. In Laos, almost every woman has a traditional sinh.



▲ 中老方同事共度端午节 Chinese and Lao colleagues celebrate the Dragon Boat Festival together.



▲ 老挝地区电站公司联合举办庆老挝佛历新年"中老一家亲,欢度

CWE Lao HPPs jointly celebrated the Lao Buddhist New Year under the theme of "China and Laos are members of one family and celebrate the Water-Splashing Festival".



▲ 南椰 2 水电站中老员工春节包饺子

Chinese and Lao employees at Nam Ngiep 2 Hydropower Station make dumplings for Chinese Spring Festival.

"今天食堂准备的有老挝烤排骨、中国的麻辣豆腐,还有炒青菜、牛油果汁……都是我爱吃的。"普赛一边和同事聊天, 一边分享愉悦的心情。公司在老挝每个单位,都注重中老饮食文化差异,配菜既有老挝菜也有中国菜,努力让大家吃出美味、 吃出营养、吃出健康。

"Today, the canteen serves Lao-style grilled ribs, Chinese spicy tofu, stir-fried vegetables and avocado juice... It's all I love to eat." Phouxay shared his joy while chatting with his colleagues. Every unit of CWE in Laos pays attention to the differences in food culture between China and Laos, and serves side dishes including both Lao and Chinese style, to get people to enjoy delicious, nutritious and healthy foods.



▲ 普赛(右一)在餐厅享用中老美食 Phouxay (first from right) enjoys Chinese and Lao food at the canteen.



▲ 老挝分公司属地员工与粽子合影 Local employees of CWE Lao Branch with zongzi



▲ 南椰 2 电站组织中老方员工举行拔河比赛 Nam Ngiep 2 Hydropower Station holds a tug of war between Chinese and Lao employees.



## 让 "中秋" 走进校园

故事 Story

#### **Introduce Mid-Autumn Festival Culture into Campus**

"我喜欢中国神话故事""我喜欢吃五仁月饼""我希望以后到南立电站工作……" 2022 年中秋节,南立 1-2 水电站员 工"老师"徐森(Mr.Sengsavang)来到帕贡学校,给孩子们带来了一堂中秋文化公开课,让在场师生了解了中秋赏月、 吃月饼、玩花灯、饮桂花酒等习俗。孩子们围在新"老师"身边,诉说自己的感受。

"I like Chinese myths", "I like eating five-kernel mooncakes" and "I'd like to work at Nam Lik HPP in the future..." On 2022 Mid-Autumn Festival, Mr. Sengsavang, an employee at Nam Lik 1-2 Hydropower Station, came to the Lycee Park Ngua and gave children an open lesson on Mid-Autumn Festival culture, allowing teachers and students present to learn about customs like moon gazing, feasting on mooncakes, playing with lanterns and drinking osmanthus wine during the Mid-Autumn Festival. The children gathered around the new "teacher" to share their feelings.



▲ 中秋文化公开课现场 Open Lesson on Mid-Autumn Festival Culture



▲ 学生们在心愿墙上写下自己的心愿 Students write their wishes on a wishing wall.

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#### 整合资源 加强沟通

#### **Integrating Resources and Strengthen Communication**

2022年7月,公司与中国电建、南网国际、北方国际、云南能投、东方电气、河北建投、中国电工、广水三局等在老13家发电企业,联合组建老挝中资发电企业协会,相互间对标对表、互动交流,加强与老挝政府、电力主管部门及社会相关方的沟通,提升资源整合、信息共享、电能营销方面的效率。

In July 2022, CWE and 13 power generation enterprises in Laos, such as Power Construction Corporation of China (PowerChina), China Southern Power Grid International Co., Ltd., Norinco International Cooperation Ltd., Yunnan Energy Investment Co., Ltd., Dongfang Electric Corporation., Hebei Construction & Investment Group Co., Ltd., China National Electric Engineering Corporation and Guangdong No.3 Water Conservancy & Hydro-Electric Engineering Board Co., Ltd., jointly established the Association of Chinese Power Generation Enterprises in Laos, which aims to reference and interact with each other, strengthen communication with the Laotian government, power authorities and social stakeholders, and improve the efficiency of resource integration, information sharing and electric power marketing.

#### 传播文明成果 -

#### Spread Achievements of Civilization

公司通过媒体渠道,将在老挝发生的典型故事广泛传播给中国公众,也通过老挝媒体报道中国故事,传播和共享"一带一路"文明成果,促进中老文化融合。

CWE widely disseminates typical stories from Laos to the Chinese people through media channels, and also reports on stories of China via Lao media to spread and share BRI successes and promote China-Laos cultural integration.



▲ 2022 年 7 月 13 日,老挝中资发电企业协会正式揭牌成立
On July 13, 2022, the Association of Chinese Power Generation Enterprises in Laos was officially established.



## 一人 在央视讲述"中老"故事

#### Telling Stories between China and Laos on CCTV

在"一带一路"倡议提出十周年之际,中水电在老挝的工程师走进央视专题片《"一带一路"上的中国工程师》,讲述自己在老挝的经历和见闻,让国人更多地了解老挝,并通过自己的视角,展现"一带一路"为老挝带来的实实在在的改变。南立 1-2 水电站亮相总台央视财经频道大型纪录片《共同的建造》第六集《绿色脉动》,展现了为当地提供清洁能源、确保汛期安全、推动旅游业发展、保护生态环境、培养属地人才、改善当地民生等做出的贡献,表达了始终坚持绿色可持续发展理念,助力老挝打造"东南亚蓄电池"、实现"水电富国"的愿景。

On the occasion of the 10th anniversary of the Belt and Road Initiative, CWE's engineers in Laos participated in CCTV's feature film titled Chinese Engineers Involved in BRI to tell what they saw and experienced in Laos, so that Chinese people can know more about Laos and show the real changes brought by the Belt and Road Initiative to Laos from their own perspectives.

Nam Lik 1-2 Hydropower Station appeared in Green Pulse, the sixth episode of Collaborative Construction, a full-length documentary broadcast on CCTV-2 (Finance Channel), demonstrating its contribution to providing clean energy, ensuring safety in flood season, promoting tourism development, protecting ecological environment, cultivating local talents and improving local people's livelihood, and expressing its vision for adhering to the concept of green sustainable development, building Laos into the "Battery of Southeast Asia" and realizing that "hydropower enriches the country".



▲ 工程师徐寒在专题片中讲述扎根老挝工作生活 13 年的经历和体会 In the feature film, Engineer XU Han tells about his 13 years of working and living in Laos.



▲ 《共同的建造》片中的南立 1-2 水电站 Nam Lik 1-2 Hydropower Station in Collaborative Construction

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## 老挝记者眼中的中水电

#### **CWE** in the Eyes of Lao Journalists

在"一带一路"倡议提出十周年之际,老挝记者对公司的老挝水电项目进行采访,并在《万象时报》发表报道《中国水 电项目助力老挝实现绿色发展》,将中水电的故事报道给老挝大众。报道指出,在"一带一路"倡议框架下,中国企业 积极参与老挝同中国共建"一带一路"合作,开展了一系列基础设施项目。其中,中交集团对老挝水电项目及其他领域 的投资一直保持增长态势。得益于此,老挝经济社会不断取得新发展。

报道还指出,中水电的项目已为其所在的老挝川圹、万象和阿速坡省创造了成百上千的就业岗位,为属地员工搭建了多 元化的职业发展和职业教育平台。在过去20年中,中交集团还在老挝各地修建和完善道路、桥梁、学校等设施,不断 为当地社会作出贡献。

On the occasion of the 10th anniversary of the Belt and Road Initiative, Lao journalists interviewed CWE about its hydropower station in Laos, and published a report titled China-aided Hydropower Station Enable Green Development in Laos on the Vientiane Times, spreading CWE's stories to the Lao people. The report notes that under the BRI framework, Chinese enterprises have actively participated in China-Laos Belt and Road cooperation by implementing a series of infrastructure projects. We see continued growth in CCCG's investments in hydropower station and other fields in Laos. This has promoted Laos' economic and social progress.

The report also says that CWE's projects have created hundreds of jobs at Xiengkhouang, Vientiane and Attapeu Province, and built a diversified career development and vocational education platform for the local employees. Over the past 20 years, CCCG has been actively involved in the construction and improvement of roads, bridges, schools, and other facilities throughout Laos, continually contributing to the local community.



▲ 老挝记者采访老挝南公1水电站项目负责人陈育权 Lao journalist interviews CHEN Yuquan, the Nam Kong 1 Hydropower Station Leader.



## |--| | 积极发布履责信息

#### **CSR Information Disclosure**

2023年10月27日,老挝中资发电企业协会发布《老挝中资发电企业社会责任报告(2023)》,这是老挝中资发电企 业协会成立以来发布的首份社会责任报告,展示了中水电等在老中资企业履行社会责任成果。其中包含中水电在老投资 运营南立 1-2、南椰 2、南公 1 等三座水电站,及电站在属地化经营、环境保护、参与社区共建、文化融合等方面的行动, 展示了中水电良好的企业形象。

On October 27, 2023, the Association of Chinese Power Generation Enterprises in Laos released the Report on Corporate Social Responsibility of Chinese Power Generation Enterprises in Laos (2023), which is the first CSR report released since its establishment that demonstrates the achievements of Chinese enterprises in Laos like CWE in fulfilling CSR. It includes Nam Lik 1-2, Nam Ngiep 2 and Nam Kong 1 hydropower stations funded and operated by CWE, as well as their performance in localized operation, environmental protection, participation in community building, and cultural integration, showing CWE's good corporate image.



▲ 报告发布会现场 Press Conference Scene



#### ■ 时间范围 Time Range

本报告时间跨度为 2013 年至 2023 年, 部分内容可能超出上述时间范围。

The reporting period is from 2013 to 2023. Some contents may go beyond the above period.

#### ■ 编制依据 Preparation Basis

联合国全球契约十项原则

Ten Principles of the United Nations Global Compact

联合国可持续发展目标

United Nations Sustainable Development Goals

全球可持续发展标准委员会 (GSSB)《GRI 可持续发展报告标准》

GRI Sustainability Reporting Standards by the Global Sustainability Standards Board (GSSB)

国际标准化组织《社会责任指南 (ISO26000: 2010)》

Guidance on Social Responsibility (ISO26000:2010) by the International Organization for Standardization

中国社会科学院《中国企业社会责任报告编写指南 (CASS-CSR4.0)》

Guidelines for Compiling Chinese Corporate Social Responsibility Reports (CASS-CSR4.0) by the Chinese Academy of Social Sciences

《中国企业社会责任报告指南(CASS-ESG 5.0)》

Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-ESG 5.0)

#### ■ 称谓说明 Notes on Appellation

为阅读方便,本报告中将"中国交通建设集团有限公司"简称为"中交集团",将"中国水利电力对外有限公司"简称为 "中水电""公司"或"我们"。

In this report, China Communications Construction Group Company Limited is referred to as "CCCG", and China International Water & Electric Corporation is referred to as "CWE", "the Company" or "We", for ease of reading.

#### ■ 报告范围 Reporting Scope

中交集团在老挝的经营与促进可持续发展相关事项。

This report covers matters related to CCCG's business operations and contribution to the sustainable development in Laos.

#### ■ 数据来源 Source

本报告使用数据均来自中交集团在老挝经营相关的正式文件与统计报告。

Data contained herein are derived from official documents and statistical reports concerning CCCG's business operations in Laos.

#### ■ 可靠性保证 Reliability Assurance

本报告的信息披露是真实可靠的,符合中交集团可持续发展战略,是对利益相关方重点关注议题的全面回应,也是对中交 集团在老挝运营的可持续发展绩效的客观反映。

The information disclosed in this report is true and reliable, in line with CCCG's sustainable development strategies, a comprehensive response to the main concerns of stakeholders, and also an objective reflection of CCCG's sustainability performance in business operations in Laos.

#### ■ 报告获取 Access to the Report

本报告有中英对照和中老对照两种版本,均以纸质版和网络版两种形式提供。

This report is available in two language versions: Chinese-English bilingual and Chinese-Lao bilingual, which are made available in print format and online.

电子版报告获取方式: https://www.cwe.cn/

The electronic version can be found via: https://www.cwe.cn/



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look forward to your feedback	and suggestions on the following	questions.	
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What shortcomings do yo	u find in this report?		
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■ 您对我们今后社会责任工作及报告有何意见和建议? What are your suggestions for our future CSR work and reports?

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