

誓愿之臣

吧主



The Panama canal, shown here, may soon have a Nicaraguan rival. Photo: Scott Ableman

这是巴拿马运河, 也许不久就会有一条尼加拉瓜运河了。

(0**)**

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By the end of this year, if a Chinese entrepreneur gets his way, digging will begin on a wat erway that would stretch roughly 180 miles across Nicaragua to unite the Atlantic and Paci fic oceans. Giant container ships capable of carrying consumer electronics by the millions (or T-shirts by the billions) could begin making the passage by 2019, according to the mos t optimistic projections.

如果一名中国企业家的意图得以实现,在今年年底之前,水道挖掘工程就会动工,它将穿过 尼加拉瓜,绵延大约180英里连接起大西洋和太平洋,按最乐观的预测,到2019年,可装运 数以百万计的家用电子产品(或数以十亿计的T恤衫)的巨型货柜船就能开始使用这条航路 了。

A canal across Nicaragua has been a dream of kings and entrepreneurs for centuries. Lik e the ill-fated schemes that preceded it, the newest incarnation has its share of interesting characters, rumors, and controversy. As word of the plan spreads, scientists and other ex perts are asking questions and finding potentially serious flaws. And they warn that the ma

ssive undertaking could become an environmental disaster with dubious financial benefits.

数个世纪以来,一条横穿尼加拉瓜的运河一直是王者和企业家们的梦想,如同之前的命运多好的计划一样,这个项目最新的复活之身里也有一些有趣的角色,流言,以及争论,按该计划中传出的说法,科学家和其它专家团队正在咨询问题并找出可能的严重隐患,他们警告,这个财务效益不确定的庞大项目可能会变成一场环境灾难。

The Nicaraguan government sees the project as a desperately needed economic boost to the country, the poorest in the Western Hemisphere except for Haiti. In June, it awarded ex clusive rights to build a canal to a newly created Chinese company, the Hong Kong Nicara gua Development Group. The company is led by Wang Jing, a 41-year old telecom executi ve. Wang Jing is little-known beyond China, and perhaps even within it, but in an interview with the Financial Times last year he called himself a "very ordinary Chinese citizen" who li ves with his mother, younger brother, and daughter in Beijing.

At the same time, Wang Jing's bio on HKND's website says he is "board chairman of more than 20 enterprises which operate businesses in 35 countries." (Right, totally ordinary.)

尼中拉瓜政府视此项目为该国急需的经济推动力,该国是除海地之外的西半球最贫穷的国家。在6月份,它将运河建设的专营权授予了一家新成立的中国公司--香港尼加拉瓜发展集团(HKND),公司的领导人是王靖是一名41岁的电信业者,他在中国之外鲜为人知,可能甚至在中国之内也是,但在去年接受金融时报采访时,他自称为一个"非常普通的中国公民",生活在北京,与母亲,弟弟,女儿住在一起。

然而,王靖在HKND网站上的个人简介说他是"在35个国家开展业务的20多个企业的董事长" (是的,完全很普通)。





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The proposed canal would pass through Lake Nicaragua. Photo: Zach Klein/Flickr 规划中的运河会穿过尼加拉瓜湖

Under the agreement, HKND would raise the \$40 billion needed to build the canal and would have the right to operate and manage it for up to 100 years before turning it over to Nic aragua. In the meantime, Nicaragua would have a controlling interest in the canal and receive income from it.

But there are many lingering questions. How HKND-apparently the only company to submit a bid-managed to land the deal, isn't clear, leaving many Nicaraguans frustrated by their government's lack of transparency. "Normally when you have a major infrastructure project you have to place bids, that is the law," says Jorge Huete-Pérez, a biologist and president of Nicaraguan Academy of Sciences. "Here they overlooked the law and chose this company that has no experience building infrastructure."

按照协议,HKND将筹集运河建设所需的400亿美元资金,并有权在将运河移交给尼加拉瓜之前经营和管理100年,在此期间,尼加拉瓜将拥有运河的控股权并从中得到收益。

但是还有些挥之不去的问题,HKND--显然它是唯一的投标公司--是如何拿到这笔生意的,这不清楚,这种政府透明度上的缺失令许多尼加拉瓜人沮丧,"通常,在做一个大型基础设施项目时,招标是必须的,这是法律规定,"尼加拉瓜科学院主席,生物学家约格.韦特.佩雷斯说,"可现在他们忽视了法律,选择了这家没有基础设施建设经验的公司。"

Exactly where the money to build the canal will come from is another mystery, as is the rol e, if any, the Chinese government will play. Wang Jing has denied that the government is i nvolved in the project, as have government officials. But some analysts suspect otherwise.

The Nicaraguan government sees a huge opportunity in the project. Officials claim the can al will double the national economy, triple employment, and lift more than 400,000 people out of poverty by 2018.

So far the research that led to those numbers has not been made public, says Huete-Pére z. Nor has any assessment of the environmental impacts of the project.

没错,建设运河的钱来自哪里是另一个谜题,按照常见的剧情,不出所料话,中国政府会是一个角色。王靖否认政府及公务人员有涉足这个项目,不过一些分析师怀疑并非如此。 尼加拉瓜政府从这个项目中看到了巨大的机遇,政府官员声称运河将令国民经济增长一倍,就业增加三倍,至2018年会使40多万人脱贫。

韦特说, 迄今为止得出这些数据的研究(资料)尚未公诸于众, 也没有任何该项目的环境影响评价。



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HKND has contracted a global consulting firm, Environmental Resources Management, to conduct an environmental review, which is ongoing. "HKND Group is committed to explore this area with great care and to adhere to international standards of environmental respon sibility as it proceeds," the company says on its website.

But Huete-Pérez and other scientists aren't content to take the word of a company hired by the company that wants to build the canal. In a commentary published last week in Nature, Huete-Pérez and Axel Meyer, an evolutionary biologist at the University of Konstanz in Germany, argued for an independent review headed by international experts.

HKND签约了一家跨国顾问公司——环境资源管理公司——去进行环境评估,项目还在持续,这家公司在其网站中说:"HKND集团以非常谨慎的态度并一向以贯彻国际环保标准为已任致力于该地区的开拓。"

这家顾问公司受雇于希望修建运河的公司,韦特.佩雷斯和其他的科学家对他们的说法并不满意,在自然杂志上周的一篇评论文章中,韦特.佩雷斯和德国康斯坦茨大学的进化生物学家阿克塞尔.迈耶主张由国际专家率领进行独立的评估。



The proposed canal would pass through or near nature reserves and areas inhabited by i

ndigenous groups. Map courtesy of Nature

计划中的运河将穿过或接近自然保护区及原住民居住区。

At Huete-Pérez's request, Thomas Lovejoy, an eminent conservation biologist at George Mason University, has agreed to lead this effort. "I would like to see a really proper scientific review of what the impacts are likely to be and what the alternatives are," Lovejoy told WI RED.

在韦特.佩雷斯的请求下,美国乔治梅森大学的著名生物保护学家托玛斯.拉夫乔伊已同意领导这项工作,拉夫乔伊告诉连线杂志,"我想对(运河)可能存在什么影响和有什么替代选项做一个真正科学而全面的评估。"

The environmental impacts could be considerable.

环境影响可能是相当大的。

A final route for the canal has not yet been announced, but the proposed routes pass thro ugh Lake Nicaragua, which covers about six times the area of Los Angeles and is Central America's largest lake.

The lake is a major source of drinking water and irrigation, and home to rare freshwater sh arks and other fish of commercial and scientific value, Huete-Pérez and Meyer say. The fo rest around it is home to hower monkeys, tapirs, jaguars, and countless tropical birds—not to mention several groups of indigenous people (some of whom have challenged the proje ct in court, so far to no avail).

运河的最终线路尚未公布,但计划中的线路穿过尼加拉瓜湖,这个湖的面积大约是洛杉矶市的六倍,是中美洲的第一大湖。

这个湖是饮用水和灌溉的主要水源,也是稀有的淡水鲨和其它一些具有经济价值和科研价值 的鱼类的生息地,韦特.佩雷斯和迈耶说,它周围的森林是吼猴,貘和不计其数的热带鸟类的 栖息地,更不必说(还有)数个原住民群落了(他们中的一些已在法庭上挑战了此项目,目前 为止无济于事)。

Meyer, who's done field work in Nicaragua for 30 years, says the area is a natural laborato ry for evolutionary biology. Just as Darwin's finches evolved into different species as they adapted to the unique environment of individual islands, so it goes with fish as they've col onized the region's network of crater lakes. "These crater lakes are like islands in a sea of land from a fish's perspective," said Meyer, who has been characterizing genetic changes in the region's cichlid fish populations.

在尼加拉瓜从事了30年野外工作的迈耶说,这个地区是生物进化学研究的自然实验室,就如同达尔文所见到的雀科动物为适应孤立群岛上的独特环境而进化成了不同的物种一样,所以它是属于鱼类的,因为它们早已繁衍生息在这片火山湖星罗棋布的地区了,"以鱼类的角度来说,这些火山湖就象是陆地之海中的岛屿,"迈耶这样介绍,他一直在描绘生活在这个地区的



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Exactly what ill effects would result from the canal aren't clear, partly because the plan itse If is not clear. But here are a few scenarios.

Huete-Pérez and Meyer worry primarily about the dredging necessary to accommodate ma ssive container ships: The proposed canal is 90 feet deep; the lake averages just 50 feet. "The initial digging would create a huge sediment issue that would be bad for water quality in the lake and the wetlands around it," Meyer said.

严格来说,运河会造成什么负面影响还不清楚,部分原因是这个计划自身还不清晰。不过,这儿有几个场景(可以预料)。

韦特.佩雷斯和迈耶首先担心的是用来容纳巨型货柜船的疏浚工程: 计划中的运河深度为90英尺(30.5米为100英尺--译注),而这个湖的平均深度为50英尺,"挖掘一开始就将产生一个巨大的沉积物问题,这个问题对湖泊的水质和它周边的湿地是有害的。"迈耶说。

Pedro Alvarez, a civil and environmental engineer at Rice University raises another water-r elated concern. It may be necessary to dam the San Juan River, the main route for water fl owing out of the lake, to keep the water levels high enough for the canal's locks to work pr operly, Alvarez says. "If you do that you're going to change the hydrology of many lakes a nd rivers," he said. "Some may dry up."

美国莱斯大学的土木和环境工程师佩德罗.阿瓦雷兹提出了另一个与水有关的忧虑,工程可能必须在湖水外流的主要路径圣胡安河上筑坝,以保持水位在足够高度使运河的船闸正常运行,阿瓦雷兹说:"如果你这样做,就会改变许多河流和湖泊的水文状况,其中有些可能会干涸。"

Lovejoy sees other potential problems. He's especially worried about creating a conduit be tween the Pacific Ocean and Caribbean Sea. "It's creating the potential for an enormous i nvasive species problem," he said. That problem could include venomous Pacific sea snak es invading the Caribbean and a disruption of Caribbean fisheries from an influx of competing species, predators and disease.

拉夫乔伊则看到了其它的潜在问题,他尤其担心的是在太平洋和加勒比海之间修建的这个水道。"它会产生一个可怖的物种入侵的可能性,"他说。这个问题可能包括有毒的太平洋海蛇入侵加勒比海,还有竞争性物种,捕食物种和疫病的涌入对加勒比海渔业造成的破坏。



Lake Nicaragua. Photo: Axel Meyer

尼加拉瓜湖

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That hasn't happened in Panama because the canal route there is entirely freshwater, pre senting a formidable barrier for marine life. But in Nicaragua, the topography that separate s the Pacific and Caribbean is lower, permitting a canal route that's closer to sea level and potentially filled with saltwater for more of its length (this will depend on the details of the d esign, which have yet to be disclosed).

这些问题没有发生在巴拿马运河是因为那条运河的水道完全是淡水,对海洋生物而言这是难以逾越的障碍,但在尼加拉瓜,分开太平洋和加勒比海的地势是较低的,这使得运河河道与海平面更接近,海水可能灌入河中会更长(这将取决于尚未公开的设计细节)。

Huete-Pérez points out another possible impact on marine life: The canal could create a m ajor shipping route in close proximity to Seaflower Marine Protected Area a UNESCO Worl d Heritage site off Nicaragua's Caribbean coast. This area encompasses one of the larges t coral reefs in the Americas and is home to scores of endangered marine species. An oil I eak or other accident in the region could be disastrous.

韦特.佩雷斯指出了对海洋生物有潜在影响的其它问题:这条运河可能建立的主要航线位于尼加拉瓜的加勒比海海岸外的海葵海洋生物保护区附近,此处是联合国教科文组织的世界遗产地,这个区域拥有美洲最大的珊瑚礁之一,是许多濒危海洋物种的生息地,任何一次石油泄漏或其它事故发生在此都会是灾难性的。

All the same, Meyer says he understands the need to balance economic and environment al factors. While he'd rather see Nicaragua follow the lead of Costa Rica and develop an e cotourism economy instead of the canal, he realizes there's a touch of hypocrisy in outsid ers from industrialized countries preaching environmental purity. "How can I as a gringo from Germany tell the Nicaraguans what to do? It's hard to tell them not to make the same mi stake we made centuries ago."

尽管如此,迈耶说,他明白需要权衡经济和环境两方面的因素,不过还是希望看到尼加拉瓜能效仿哥斯达黎加以发展生态旅游经济取代这条运河,他也意识到工业化国家的外来人宣讲环境纯洁让人感觉有点儿虚伪,"作为一个德国来的外国佬,我怎么能告诉尼加拉瓜应该怎么做?告诉他们不要犯多年前我们犯过的相同的错误,这太难了。"

But even the economic benefits aren't guaranteed. The Panama canal celebrates its 100t h birthday this year, and it's nearing the end of a \$5.25 billion expansion project. When th e new and improved canal opens early next year, it will allow ships with three times the car go capacity to pass through, and it will handle up to 16,000 ships a year, roughly a 15 to 2 0 percent increase, says Jean-Paul Rodrigue, an expert on transportation economics at H ofstra University. "It's going to take a while for this capacity to be absorbed, if it ever is," R odrigue says. "In the medium term, there will not be a need for another canal."

不过即使是经济效益也不是有保证的,今年马拿马运河在庆祝它的100岁生日,并接近完成一个52.5亿美元的扩建项目,明年早期新改进了的运河就会开放,届时,运载能力大三倍的货轮可以通过,每年的处理能力为16000艘船只,增长大约15-20%,美国霍夫斯特拉大学的运输经济学专家让.保罗.罗德里格说,"应该来说,这些能力需要一些时间去释放,但从中远期而言,并不需要另一条运河。"

Proponents of the Nicaragua canal have pointed out that even the new canal in Panama w on't accommodate the latest generation of mega container ships, the so-called Triple E class, which can carry up to a third more cargo. But Rodrigue notes that few ports in the Unit ed States, Caribbean islands, or Latin America are equipped to handle these massive ships. Some ports may be overhauled to accommodate these massive ships by the time a can all could be built in Nicaragua, and a few ports in the U.S. have already gotten started on this, but it's not clear how many will follow suit.

尼加拉瓜运河的支持者指出过,即使新的马拿马运河也不能容纳最新一代的巨型货柜船,也就是所谓的3E级货柜船,它能多运载三分之一的货物,但是罗德里格提醒,在美国,加勒比群岛,或拉美很少有港口具备处理这种巨轮的能力,在尼加拉瓜运河建成前一些港口可能被彻底翻修以适应这种巨轮,美国的几个港口已在开始进行这项工作,但尚不确定将有多少港口会跟进。

There's also no geographic advantage to a canal in Nicaragua, Rodrigue says. The few h undred miles shaved off major shipping routes between Asia and North America would be balanced out by longer transit times through a canal that's more than three times as long as its competitor in Panama.

All in all, Rodrigue says, "At this point in time, from a commercial standpoint, this project d oes not make sense."

把运河建在尼加拉瓜也没有地理优势,罗德里格说,这条运河比其巴拿马的竞争对手长三倍多,船只在亚洲和北美之间的主要航路上省下来的几百英里会被在运河中更长的过渡期抵消

总而言之,罗德里格说,"在此情况下,从商业角度而言,这条运河没有意义。"



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he 1900 postage stamp credited with scuttling plans for a Nicaragua canal in the early 190 0s.

Image:WikiCommons

在1900年代早期的邮票中表现的尼加拉瓜运河的开凿计划。

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This isn't the first time a canal through Nicaragua has been proposed — far from it. The S panish looked into it in the 1500s. Napoleon III took up the cause three centuries later. An d in the early 1900s, the Americans almost did it. Advocates of a Nicaragua canal argued f or its advantages over the competing route in Panama, including the lowest passage anyw here between Alaska and Tierra del Fuego, a seemingly endless supply of freshwater, sur rounded by fertile land that was relatively free of disease (in Panama, malaria and other tr opical diseases contributed to a horrific death toll: at least 25,000 workers died during the canal's construction). In the spring of 1902, the plan seemed assured of approval by Cong ress.

这不是穿过尼加拉瓜的运河第一次被提议--远非如此。西班牙人在1500年代研究过此事,三个世纪后拿破仑三世也考虑过此事,在1900年代早期,美国人几乎就要动手去做了。尼加拉瓜运河的拥护者声称它对于巴拿马的优势在于有竞争力的航线,包括从阿拉斯加到火地岛之间的所有地点中最低的通道,看似无限的淡水供应,周围是肥沃的良田可以相对避免疫病(在巴拿马,疟疾和其它热带疾病造成了可怕的死亡数量:运河建造期间至少有25000名工人死亡),1902年春,这项计划看似很有把握得到国会的批准。

But it all came undone with a postage stamp, or so the story goes. Proponents of the Pan ama route had been making a big deal of Nicaragua's menacing volcanoes and earthquak e prone ground. French engineer Philippe-Jean Bunau-Varilla seized upon the fact that the Nicaraguans featured an erupting volcano on their own postage stamps. Shortly before the U.S. Senate was to vote on the canal plan, Bunau-Varilla managed to round up 90 copies of the stamp and sent one to every Senator. In a narrow vote, the Panama route was a pproved.

不过事情不象邮票中那么完美,或者说故事还在继续,巴拿马线路的支持者提出了一个重大问题,尼加拉瓜的火山和地震威胁,法国工程师菲力浦.珍.布让.瓦里拉抓住尼加拉瓜人在他们自己的邮票上描绘的火山正在喷发的事实,在美国参议院对运河计划进行表决的前夕,他设法收集了90份邮票,寄给参议员每人一份,在一个优势微弱的投票中,巴拿马线路被批准

The seismic risks may have been overblown for political purposes. But they're not negligible, and they probably represent the worst-case scenario, says Alvarez, the engineer from Rice University. "Releasing a dam could be a catastrophic event that I don't even want to think about," he said.

He's more concerned about less dramatic but higher probability risks, like the slow degrad ation of the environment, or — even more likely in his view — the prospect of work getting underway on the canal only to be abandoned when the going gets tough or the money run s out.

地震的风险可能因政治目的被过分渲染,但它们并不是微不足道的,它们描述的可能是最糟糕的情况下的情景,莱斯大学的工程师阿尔瓦兹说,"建造一个大坝将是一个灾难性事件,我都不愿相象它。"

他更担心那些不那么引人注目却有更高潜在风险的事,例如,环境的逐渐退化,或者--在他 看来更有可能的--运河工程在动工后遇到困难或资金耗尽时会被抛弃。

"I'm not very hopeful to be honest," said Alvarez, who was born in Nicaragua and is a mem ber of its academy of sciences. He says the issue has personal meaning for him.

"This hits a very deep nerve in me," he said. "I grew up swimming and fishing in this lake. I would like my grandchildren to experience some of that."

"老实说我不抱太大希望,"阿尔瓦兹说,他出生于尼加拉瓜,是该国科学院的成员,他说这件事对他有着个人意义。

"我感到这件事对我打击很深,"他说,"我是在这个湖里游泳钓鱼长大的,我很希望我的后代也有这样的经历。"