

2015 年

全国水利发展统计公报

2015 Statistic Bulletin
on China Water Activities

中华人民共和国水利部 编

Ministry of Water Resources, People's Republic of China



中国水利水电出版社
www.waterpub.com.cn

· 北京 ·

图书在版编目 (C I P) 数据

2015年全国水利发展统计公报 = 2015 Statistic
Bulletin on China Water Activities / 中华人民共和国
水利部编. -- 北京 : 中国水利水电出版社, 2016.11
ISBN 978-7-5170-4772-8

. 2.. . 中... . 水利建设 - 经济发展 -
中国 - 2015 . F426.9

中国版本图书馆CIP数据核字 (2016)第 235124号

书 名	2015 年全国水利发展统计公报 2015 Statistic Bulletin on China Water Activities 2015 NIAN QUANGUO SHUILI FAZHAN TONGJI GONGBAO
作 者	中华人民共和国水利部 编 Ministry of Water Resources, People's Republic of China
出版发行	中国水利水电出版社 (北京市海淀区玉渊潭南路 1 号 D 座 100038) 网址: www. waterpub. com. cn E - mail: sales@ waterpub. com. cn
经 售	电话: (010) 68367658 (营销中心) 北京科水图书销售中心 (零售) 电话: (010) 88383994、63202643、68545874 全国各地新华书店和相关出版物销售网点
排 版	中国水利水电出版社微机排版中心
印 刷	北京博图彩色印刷有限公司
规 格	210mm×297mm 16 开本 3.5 印张 48 千字
版 次	2016 年 11 月第 1 版 2016 年 11 月第 1 次印刷
印 数	0001—1000 册
定 价	28.00 元

凡购买我社图书, 如有缺页、倒页、脱页的, 本社营销中心负责调换
版权所有·侵权必究

目 录

1	水利固定资产投资	1
2	重点水利建设	4
3	主要水利工程施工	7
4	水资源利用与保护	12
5	防洪抗旱	14
6	水利改革与管理	16
7	水利行业状况	22

Contents

I.	Investment in Fixed Assets	26
II.	Key Water Projects Construction	29
III.	Key Water Structures	33
IV.	Water Resources Utilization and Protection	38
V.	Flood Control and Drought Relief	39
VI.	Water Management and Reform	41
VII.	Current Status of Water Sector	49



2015年是实施“十二五”规划的收官之年，也是治水兴水任务极为艰巨、水利改革取得显著成效的一年。在党中央、国务院的坚强领导下，广大水利干部职工开拓进取、攻坚克难、真抓实干，治水兴水亮点纷呈、成果丰硕，为实现全国粮食产量“十二连增”提供了有力支撑，为拉动经济增长、促进转型升级、惠及民生福祉作出了重要贡献。

1

水利固定资产投资

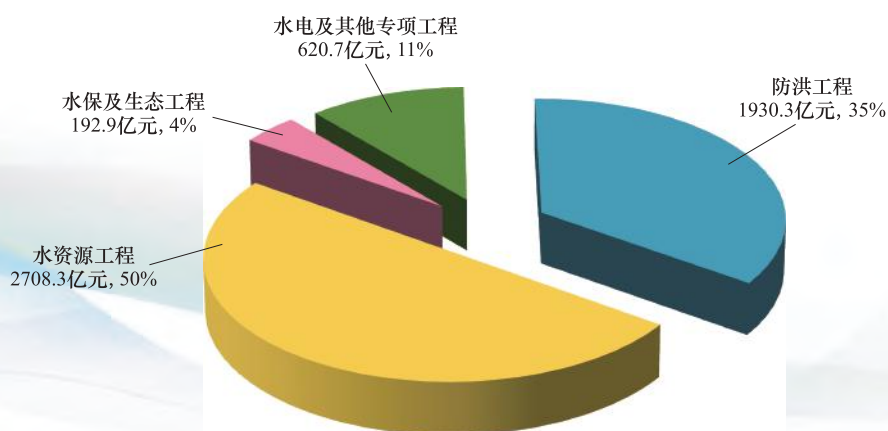
2015年，全年水利建设完成投资5452.2亿元，较上年增加1369.1亿元，增加33.5%。其中：建筑工程完成投资4150.8亿元，较上年增加34.5%；安装工程完成投资228.8亿元，较上年增加23.7%；机电设备及工器具购置完成投资198.7亿元，较上年减少3.6%；其他完成投资（包括移民征地补偿等）873.9亿元，较上年增加44.3%。

	2009年 /亿元	2010年 /亿元	2011年 /亿元	2012年 /亿元	2013年 /亿元	2014年 /亿元	2015年 /亿元	比上年 增加比例 /%
全年完成	1894.0	2319.9	3086.0	3964.2	3757.6	4083.1	5452.2	33.5
建筑工程	1297.2	1524.9	2103.2	2736.5	2782.8	3086.4	4150.8	34.5
安装工程	113.4	109.6	121.7	237.8	173.6	185.0	228.8	23.7
设备及各类工器具购置	125.0	124.5	115.2	178.1	161.1	206.1	198.7	-3.6
其他（包括移民征地补偿等）	358.4	560.9	745.9	811.8	640.2	605.6	873.9	44.3

在全年完成投资中，防洪工程建设完成投资1930.3亿元，水资源工程建设完成投资2708.3亿元，水土保持及生态工程完成投资192.9亿元，水电、机构能力建设等专项工程完成投资620.7亿元。七大江河

流域完成投资 4425.0 亿元，东南诸河、西北诸河以及西南诸河等其他流域完成投资 1027.2 亿元。东部、中部、西部、东北地区完成投资分别为 2104.7 亿元、913.2 亿元、1882.7 亿元和 551.6 亿元，占全部完成投资的比例分别为 38.6%、16.7%、34.6% 和 10.1%。

2015年分用途完成投资情况



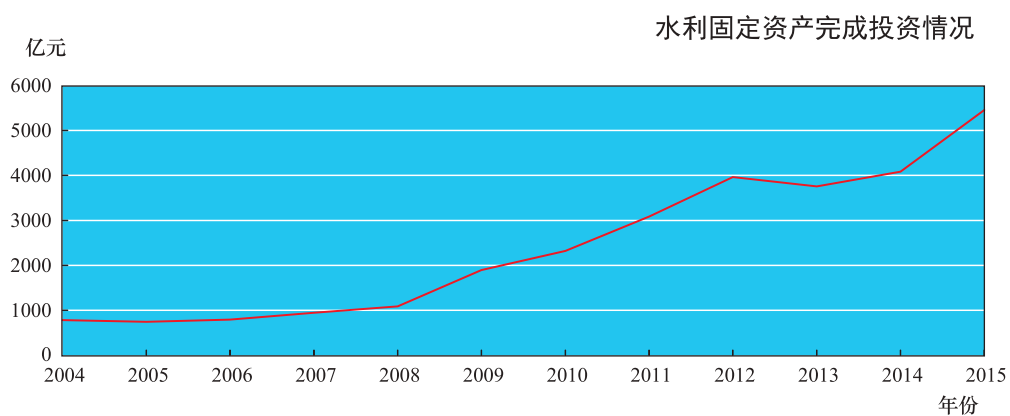
在全年完成投资中，中央项目完成投资 109.1 亿元，地方项目完成投资 5343.1 亿元。大中型项目完成投资 860.0 亿元，小型及其他项目完成投资 4592.2 亿元。各类新建工程完成投资 4007.7 亿元，扩建、改建等项目完成投资 1444.5 亿元。

全年水利建设新增固定资产 4373.5 亿元。截至 2015 年年底，在建

项目累计完成投资 14590.7 亿元，投资完成率为 64.6%；累计新增固定资产 8980.0 亿元，固定资产形成率为 61.5%，比上年增加 2.7 个百分点。

当年施工的水利建设项目 25184 个，在建项目投资总规模 22580.7 亿元，较上年增加 15.7%。其中：有中央投资的水利建设项目 21437 个，较上年增加 42.1%；在建投资规模 15119.5 亿元，较上年增加 41.2%。新开工项目 16702 个，较上年增加 23.6%，新增投资规模 5389.0 亿元，比上年增加 26.0%。

全年水利建设完成土方、石方和混凝土方分别为 37.6 亿立方米、6.0 亿立方米、0.8 亿立方米。截至 2015 年年底，在建项目计划实物工程量完成率分别为：土方 77.8%、石方 78.4%、混凝土方 62.3%。



2

重点水利建设

江河湖泊治理。全年在建江河治理工程 5730 处，其中：堤防建设 600 处，大江大河及重要支流治理 803 处，中小河流治理 4029 处，行蓄洪区安全建设及其他项目 298 处。截至 2015 年年底，在建项目累计完成投资 3281.4 亿元，投资完成率 54.5%。全年实施河道整治长度 17250 公里，当年完成 11424 公里。

水库及枢纽工程建设。全年在建枢纽工程 296 座，截至 2015 年年底，在建项目累计完成投资 1635.9 亿元，项目投资完成率 55.6%。全年在建病险水库除险加固工程 2622 座，截至 2015 年年底，累计完成投资 239.5 亿元，项目投资完成率 77.0%。当年在建小型病险水库除险加固工程 2413 处。

水资源配置工程建设。全年水资源配置工程在建投资规模 4634.3 亿元，累计完成投资 3429.6 亿元，项目投资完成率 74.0%。南水北调东、中线一期工程在建规模 2619.5 亿元，累计完成投资 2590.0 亿元，

全年完成投资 46.8 亿元。

2015 年水资源配置工程建设进展顺利。安徽淮水北调工程主体基本完工；贵州黔中水利枢纽工程下闸蓄水，夹岩水利枢纽及黔西北调水工程“三通一平”一期工程全部完工；陕西引汉济渭三河口水利枢纽工程实现截流，黄金峡水利枢纽工程开工建设；青海引大济湟调水总干渠隧洞工程全线贯通并试通水成功；甘肃引洮供水一期工程全线正式通水试运行；甘肃引洮供水二期、湖北鄂北水资源配置、海南南渡江引水和河北引黄入冀补淀等工程相继开工建设。

农村水利建设。全年农村饮水安全工程在建投资规模 1063.9 亿元，累计完成投资 893.8 亿元。全年解决 6709 万农村居民和农村学校师生的饮水安全问题。截至 2015 年年底，农村集中式供水受益人口比例 82.4%。当年中央安排预算内投资 191.4 亿元（含已列入重大水利工程 168.3 亿元），主要用于 151 处大型灌区续建配套与节水改造、10 处新建大型灌区建设、10 个省（自治区、直辖市）大型灌排泵站更新改造、30 个省（自治区、直辖市）规模化节水灌溉增效示范和 12 个省（自治区、直辖市）及兵团牧区水利项目建设等；安排中央财政资金 317.9 亿元用于小型农田水利建设。全年新增有效灌溉面积 1798 千公顷，新增节水灌溉面积 2725 千公顷。安排实施水利血防工程 2.0 亿元。

农村水电建设。全年全国农村水电站建设完成投资 244.0 亿元，新

增水电站 360 座，新增发电设备容量 241 万千瓦。全国农村水电配套电网建设共完成投资 64 亿元，新增 110 千伏及以上变电站容量 295 万千伏安；新增 35（63）千伏变电站容量 177 万千伏安；配电变压器容量 455 万千伏安。新投产 10 千伏及以上高压线路 1.7 万公里，低压线路 3 万公里。

水土流失治理。全年水土保持及生态工程在建规模 366.0 亿元，累计完成投资 277.8 亿元。全国新增水土流失综合治理面积 5.4 万平方公里，其中：国家水土保持重点工程新增水土流失治理面积 1.6 万平方公里。全年新增封育保护面积 1.9 万平方公里。实施 1934 条小流域水土流失综合治理，兴建黄土高原淤地坝 236 座。全年新修基本农田 590 千公顷（其中：新增梯田 483 千公顷，坝地 13 千公顷），新栽种水保林面积 1408 千公顷，新增种草面积 323 千公顷。

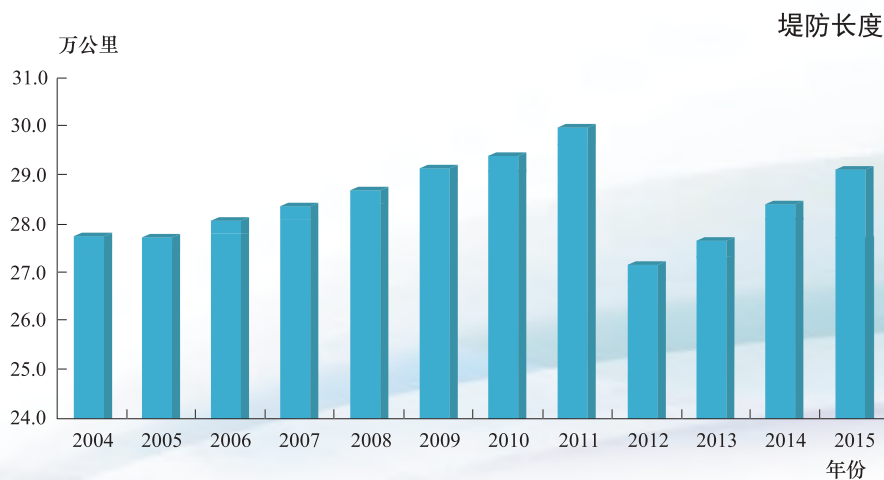
行业能力建设。全年水利行业能力建设完成投资 33.3 亿元。其中：防汛通信设施投资 9.4 亿元，水文建设投资 9.9 亿元，科研教育设施投资 1.3 亿元，水利前期投资 9.4 亿元，其他投资 3.3 亿元。



3

主要水利工程施工

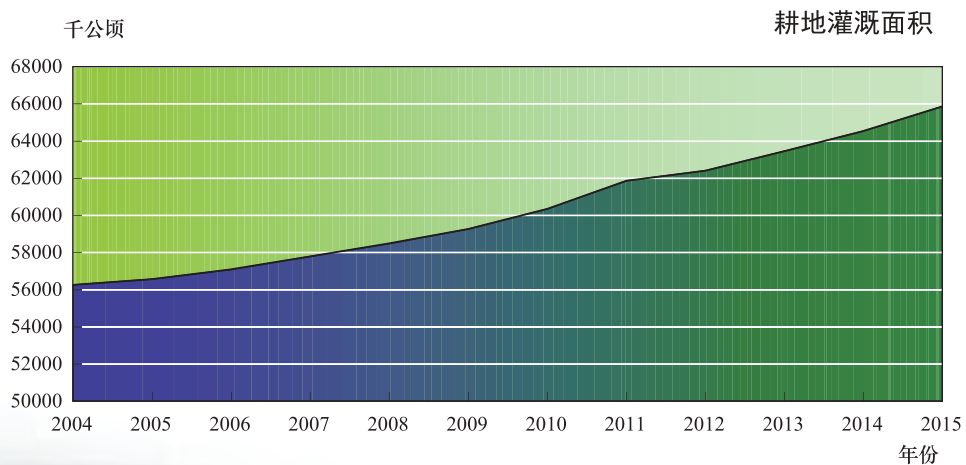
堤防和水闸。全国已建成五级及以上江河堤防 29.14 万公里^①，累计达标堤防 19.65 万公里，堤防达标率为 67.4%；其中 1 级、2 级达标堤防长度为 3.12 万公里，达标率为 78.2%。全国已建成江河堤防保护人口 5.86 亿人，保护耕地 4.08 万公顷。全国已建成流量为 5 立方米每秒及以上的水闸 103964 座，其中大型水闸 888 座；按水闸类型分，其中：分洪闸 10817 座，排（退）水闸 18800 座，挡潮闸 5364 座，引水闸 14296 座，节制闸 54687 座。



① 2011 年以前各年堤防长度含部分地区五级以下江河堤防。

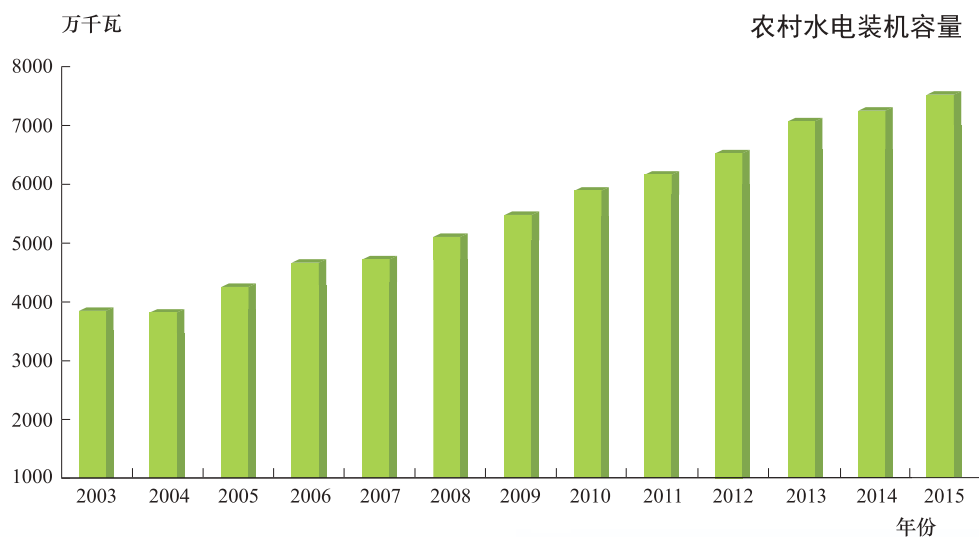
水库和枢纽。全国已建成各类水库 97988 座，水库总库容 8581 亿立方米。其中：大型水库 707 座，总库容 6812 亿立方米，占全部总库容的 79.4%；中型水库 3844 座，总库容 1068 亿立方米，占全部总库容的 12.4%。全国大中型水库大坝安全达标率为 93.3%。

农业灌溉。全国设计灌溉面积大于 2000 亩及以上的灌区共 22573 处，耕地灌溉面积 36341 千公顷。其中：50 万亩以上灌区 176 处，耕地灌溉面积 12024 千公顷；30 万~50 万亩大型灌区 280 处，耕地灌溉面积 5663 千公顷。截至 2015 年年底，全国灌溉面积 72061 千公顷，耕地灌溉面积 65873 千公顷，占全国耕地面积的 48.7%。全国节水灌溉工程面积 31060 千公顷，其中：喷灌、微灌面积 9012 千公顷，低压管灌面积 8912 千公顷。

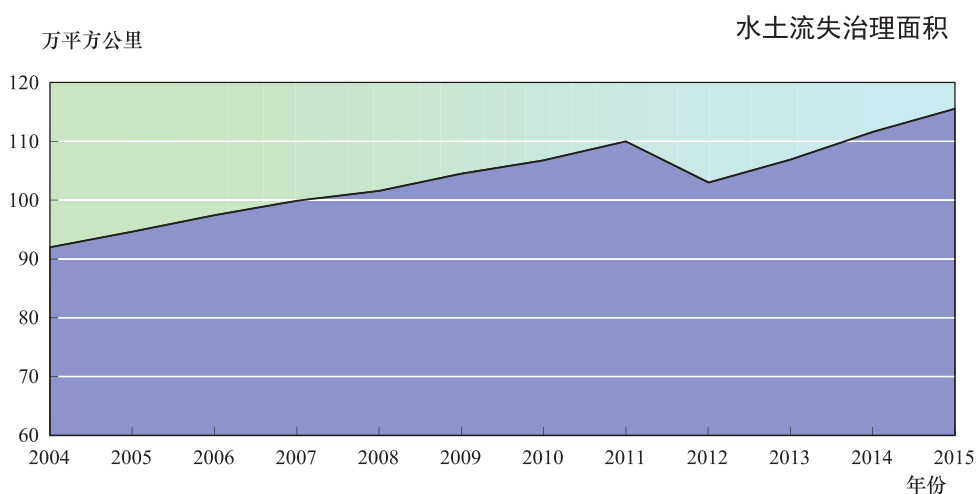


机电井和泵站。截至2015年年底，全国已累计建成日取水大于等于20立方米的供水机电井或内径大于200毫米的灌溉机电井共483.2万眼。全国已建成各类装机流量1立方米每秒或装机功率50千瓦以上的泵站91795处，其中：大型泵站368处，中型泵站4178处，小型泵站87249处。

农村水电。截至2015年年底，全国共建成农村水电站47340座，装机容量7583万千瓦，占全口径水电装机容量的23.8%。全国农村水电年发电量2351亿千瓦时，占全口径水电发电量的21.1%。



水土保持工程。截至2015年年底，全国水土流失综合治理面积达115.58万平方公里，累计封禁治理保有面积达80万平方公里，建成生态清洁型小流域640条。在18个国家级重点治理区、16个国家级重点预防保护区和1个生产建设项目集中区开展了水土流失动态监测，完成抽样监测面积约58.61万平方公里，对不同土壤侵蚀类型区的65条典型小流域和91个典型监测点实施了定位观测。



水文和信息化。截至2015年年底，全国共有各类水文测站99575处，其中：国家基本水文站3151处，专用水文站2555处，水位站11180处，雨量站49403处，蒸发站14处，墒情站1856处，水质站14560处，地下水监测站16800处，实验站56处。全国共有向县级以上防汛指挥部门报送水文信息的各类水文测站45863处，发布预报的各类水文测站1247处。已建成水环境监测（分）中心311个，水质监测基本覆盖了全国主要江河湖库，水生态监测逐步开展。

2015年省级以上水利部门配置各类服务器4567套，其中：内网服务器1311套、外网服务器3256套；配备各类联网计算机（PC）84503台，其中：内网17827台、外网66676台。省级以上水利部门已配备的各类在线存储设备存储能力达到5545750.87GB。目前，全国已配置水利卫星小站426个，其他卫星设施1535套，便携式卫星小站47套，无线宽带接入终端1921个，集群通信终端1222个。省级以上水利部门可接受信息的各类水利信息采集点140482处，其中自动采集点110622处。



4

水资源利用与保护

2015年全国水资源总量27962.6亿立方米，比多年平均偏多0.9%；全国平均降水量660.8毫米，比多年平均偏多2.8%，较上年增加3.7%。截至2015年年底，全国624座大型水库年末蓄水总量3587.2亿立方米，比年初增加14.4亿立方米；3378座中型水库年末蓄水量为450.1亿立方米，比年初增加41.6亿立方米。全年全国总供水量6103.2亿立方米，其中：地表水源占81.4%，地下水源占17.5%，其他水源占1.1%。全国总用水量6103.2亿立方米，其中：生活用水793.5亿立方米（其中城镇生活占77%），占总用水量的13.0%；工业用水1334.8亿立方米，占总用水量的21.9%；农业用水3852.2亿立方米，占总用水量的63.1%；人工生态环境补水122.7亿立方米，占总用水量的2.0%。与上年比较，用水量增加8.3亿立方米，其中：生活用水增加26.9亿立方米，工业用水减少21.3亿立方米，农业用水减少16.8亿立方米，人工生态环境补水增加19.5亿立方米。全国人均用水量为445立方米。万元GDP用水量90立方米（当年价），按可比价计算比2010年下降30%；万元工业增加值用水量58.3立方米（当年

价), 按可比价计算比 2010 年下降 37%。

根据对全国 23.5 万公里河流水质评价结果, 水质符合和优于Ⅲ类水的河长占总评价河长的 74.2%。

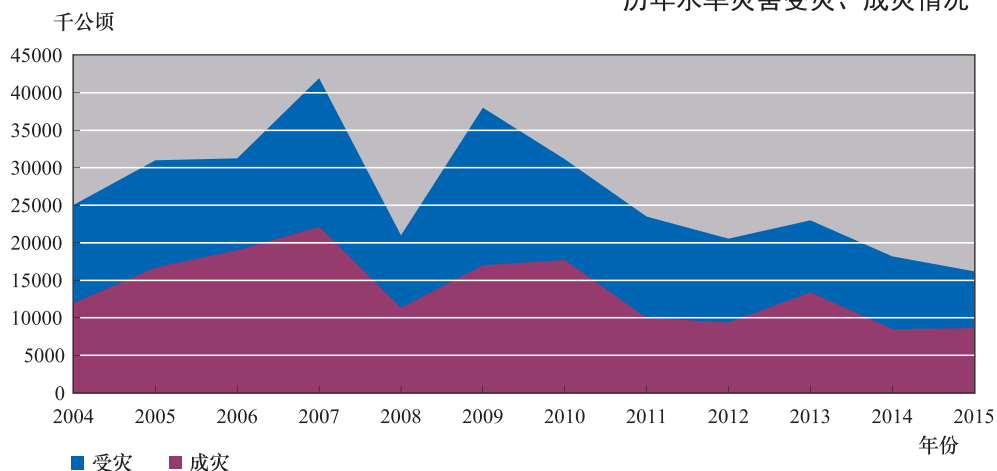


5

防洪抗旱

2015年，全国洪涝灾害总体偏轻。全国农作物受灾面积6132千公顷，成灾面积3054千公顷，受灾人口7600万人，因灾死亡319人，失踪81人，倒塌房屋15万间，县级以上城市受淹168座，直接经济损失1661亿元，其中：水利设施直接经济损失254亿元。江苏、浙江、安徽、福建、江西、湖北、湖南、四川、贵州、云南等省受灾较重。全国因山洪灾害造成人员死亡占全部死亡人数的71%，因台风造成经济损失占全国洪涝灾害直接经济损失的比例为41%。全国旱灾总体偏轻。内蒙古、河北、辽宁、山东等省（自治区）旱情比较严重。全国农田因旱受灾面积10067千公顷，成灾面积5577千公顷，直接经济损失579亿元。全国因旱累计有836万城乡人口、807万头大牲畜发生临时性饮水困难。

历年水旱灾害受灾、成灾情况



全年中央下拨特大防汛抗旱经费 29.1 亿元，其中：特大防汛经费 23.6 亿元、特大抗旱经费 5.5 亿元。2015 年防洪减淹耕地 1134 千公顷，避免城市受淹 77 座次，防洪减灾经济效益 422 亿元。解决了 691 万城乡居民和 653 万头大牲畜因旱临时饮水困难，全年完成抗旱浇地面积 16556 千公顷，抗旱挽回粮食损失 226 亿公斤。各地防汛抢险累计投入 344 万人次，出动舟船 1 万艘次、运输设备 15.3 万班次、机械设备 16.5 万班次，消耗物资价值 13.1 亿元，紧急组织转移群众 628 万人次，解救洪水围困群众 49 万人次；抗旱投入劳力 3005 万人次，开动机电井 310 万眼、泵站 3.6 万处、机动抗旱设备 1928 万台套，出动各类运水车 484 万辆次。



6

水利改革与管理

水利规划和前期工作。2015年，中央层面批复水利规划25项，其中国务院批复《全国水土保持规划》等2项、水利部批复《南运河综合治理规划》《青海省三江源区水资源综合规划》等23项。组织开展《全国水利发展“十三五”规划》及专项规划编制工作。编制完成《长江经济带岸线利用与保护规划》《长江经济带沿江取水口、排污口和应急水源布局规划》等。重点流域和主要支流综合规划编制加快推进。2015年，水利部报送国家发展改革委项目共63项，投资规模4025.58亿元。国家发展改革委批复项目64项，其中：项目建议书16项、可行性研究报告40项、核定概算7项、工程规划1项，总投资4742.33亿元。水利部批复初步设计36项，总投资2189.92亿元。

水利立法与水政管理。2015年水利部共计准予（含延续）水行政审批事项1155件，其中：水利基建项目初步设计文件审批36件，建设项目水资源论证报告书审批3件，非防洪建设项目洪水影响评价报告审批3件，生产建设项目水土保持方案审批258件，生产建设项目水土保持设施验收审批172件，水利工程启闭机使用许可证核发67件，国

家基本水文测站设立和调整审批 5 件，水利工程建设监理单位资质认定（含延续）483 件，水利工程质量检测单位资质认定（含延续）128 件。全国共立案查处水事违法案件 30188 件，已结案 27588 件，结案率 91.4%。全国共调处水事纠纷 3206 件，已解决 3079 件。2015 年共办结行政复议案件 19 件。

水务管理。全国组建水务局或由水利局承担水务管理职能的县级以上行政区共计 2684 个，占全国县级以上行政区总数的 83.2%。在组建的 1536 个水务局中，省级水务局（厅）4 个，副省级水务局 8 个，地级水务局 230 个，县级水务局 1294 个。水务系统共有自来水厂 2551 座，供水管道总长 47.6 万公里，自来水供水能力 17375 亿立方米每日，年供水总量 325.9 亿立方米。污水处理厂 4082 座，排水管道总长 39.5 万公里，污水处理能力 20245 万立方米每日，年污水处理总量 439.2 亿立方米。

建设与管理改革。继续深化国有水管单位体制改革，足额落实两项经费，推进政府采购水利工程管护服务，不断提高水利工程管理专业化、集约化、社会化。2015 年，全国 13115 个水管单位共落实两项经费 217 亿元，落实率 83%，其中：落实公益性人员基本支出 126 亿元，落实率 92%；落实公益性工程维修养护经费 91 亿元，落实率 74%。实行管养分离（包括内部管养分离）的水管单位 9402 个，占水管单位总数的 72%。全年新批准取得水利工程施工监理专业甲级资质单位 34 个，乙级资质单位 93 个，丙级资质单位 144 个；取得水土保持

工程施工监理专业甲级资质单位 13 个，乙级资质单位 30 个，丙级资质单位 40 个；取得机电及金属结构设备制造监理专业甲级资质单位 1 个，乙级资质单位 6 个；取得水利工程建设环境保护监理专业资质（不分级）单位 22 个。全年新增取得岩土工程类质量检测甲级资质单位 21 个，取得混凝土工程类质量检测甲级资质单位 18 个，取得金属结构类质量检测甲级资质单位 5 个，取得机械电气类质量检测甲级资质单位 3 个，取得量测类质量检测甲级资质单位 8 个。截至 2015 年年底，累计批准国家级水利风景区 719 个，其中：水库型 340 个，自然河湖型 147 个，城市河湖型 140 个，湿地型 39 个，灌区型 27 个，水土保持型 26 个。

农村水利改革。深化小型农田水利工程产权制度改革，推动全国 100 个县的农田水利设施产权制度改革和运行管护机制创新取得阶段性成果，部分农田水利工程实现“产权明晰、权责落实、经费保障、管用得当、持续发展”的目标。57 个试点县进一步健全完善了“以奖代补、先建后补”机制；61 个试点县健全了财政补助农田水利工程维修养护制度；71 个试点县新型农业经营主体自建自管、政府购买公共服务、农民用水合作组织管理等多元化建管模式创新涌现；17 个试点县工程产权进一步明晰，产权抵押取得突破。全国已有近 800 万处小型农田水利工程完成产权制度改革。大型灌区管理单位公益性人员基本支出和公益性工程维修养护经费落实率分别达到 69% 和 48%。全国共恢复或新设乡镇（流域）水利站 29351 个。全国发展农民用水合作组织 8.34 万个，管理灌溉面积 2.94 亿亩，占全国耕地灌溉面积的 29.7%。

水土保持管理。全国共审批生产建设项目水土保持方案 2.9 万个，涉及防治责任范围 3117 平方公里；全年完成生产建设项目的水土保持设施验收 0.59 万个。2015 年，全国有 6 个省（自治区、直辖市）出台了水土保持法实施办法（条例），8 个省（自治区、直辖市）制定了省级水土保持补偿费征收使用管理办法（标准）。截至 2015 年年底，全国累计有 27 个省（自治区、直辖市）出台了水土保持法实施办法（条例），17 个省（自治区、直辖市）制定了省级水土保持补偿费征收使用管理办法（标准）。

水价改革。采取管理创新、价格调整、财政奖补、工程配套等综合措施统筹推进农业水价综合改革，完成了全国 27 个省份（西藏、海南、浙江和上海除外）80 个县的试点任务，建成试点区面积 202 万亩，平均每县 2.5 万亩。通过改革促进了农业节水增效，试点区亩均节水约 100 立方米，灌溉周期平均缩短约 20%。

农村水电管理。全国 17 个省（自治区、直辖市）开展了水能资源使用权有偿出让，16 个省（自治区、直辖市）出台了水能资源管理的规范性文件，12 个省明确由水行政主管部门负责水能资源统一管理。全国 30 个省（自治区、直辖市）和新疆生产建设兵团全面落实农村水电安全生产“双主体”责任，并分解落实。

水利安全监督。2015 年，水利行业共发生生产安全事故 6 起，死

亡10人。开展各类水利安全生产大检查和专项整治工作，全年共排查治理隐患2.9万余项，整治违法违规行为5000余项。补充更新水利安全生产信息上报系统信息，已有60947家水利企事业单位、386949座水利工程、66193条安全隐患的基础信息填报入库，有53445家水利企事业单位坚持每月按时上报安全隐患月报表、安全事故月报表。有45家水利生产经营单位通过了首批水利安全生产标准化建设一级评审。考核水利水电工程施工企业主要负责人、项目负责人和专职安全生产管理人员4185人。全年共派出8个批次、265个稽察组，对1240个项目开展了稽察，以“一省一单”形式对突出问题项目印发稽察整改意见200份。通过项目稽察、专项稽察和专项大检查等多种方式，重点突出了对节水供水重大水利工程、枢纽水源、中型水库和江河治理等重点建设项目以及农村饮水安全、中小河流治理和小型病险水库除险加固等国务院有明确任务完成时限要求的项目的稽察，稽察范围覆盖了除西藏以外的所有省份。推动省级水行政主管部门开展自主稽察，共派出535个稽察组，稽察项目2096个。

水利移民。据不完全统计，2015年在建的大中型水库169座，开工建设集中安置点309个，新建集中安置住房195万平方米。搬迁人口10.08万人，其中：农村移民搬迁8.91万人，城集镇移民搬迁1.17万人。生产安置7.92万人，其中：农业生产安置4.44万人，逐年补偿0.5万人，货币补偿安置（自行安置）2.21万人，养老保障安置0.29万人，投亲靠友安置0.06万人，其他安置0.42万人。

水利科技。全年共安排3亿元资金用于水利科技项目，其中：组织立项国家科技支撑计划2项，水利公益性行业科研专项37项，“948”计划、国家农业科技成果转化资金专项、水利部科技成果重点推广计划等各类科技计划项目55项。水利科技项目成果获国家科技进步奖4项。截至2015年年底，水利系统共有国家级和部级重点实验室12个，工程技术研究中心15个。落实中央级科学事业单位修缮购置专项资金10890万元。水利行业现行有效标准达835项，在编水利技术标准160项，列入《水利技术标准体系表》拟编水利技术标准106项。

国际合作。成功举办或参与多双边国际交流活动70次，签署双边水利合作协议3份，组织召开双边政府固定交流机制会议7次。目前正在执行国际金融组织贷款项目2个，贷款金额2.8亿美元。利用世行贷款2亿美元开展淮河流域重点平原洼地治理项目，已完成世行评估。正在执行的政府间合作项目4个，获得立项的国家国际科技合作专项项目2个，专项资金540万元人民币；正在执行的国家国际科技合作专项项目9个，专项资金2101万元人民币。

7

水利行业状况

职工与工资。全国水利系统从业人员 97.4 万人，比上年减少 2.6%。其中：全国水利系统在岗职工 94.7 万人，比上年减少 2.5%。在岗职工中，部直属单位在岗职工 6.6 万人，比上年减少 1.6%，地方水利系统在岗职工 88.1 万人，比上年减少 2.6%。全国水利系统在岗职工工资总额为 529.4 亿元，全国水利系统在岗职工年平均工资 55870 元。

职工与工资情况

	2005年	2006年	2007年	2008年	2009年	2010年	2011年	2012年	2013年	2014年	2015年
在岗职工人数 /万人	110.5	109.2	106.8	105.6	103.7	106.6	102.5	103.4	100.5	97.1	94.7
其中：部直属单位 /万人	6.6	6.8	7.2	7.2	7.2	7.4	7.5	7.4	7.0	6.7	6.6
地方水利系统 /万人	103.9	102.3	99.6	98.4	96.5	96.3	95.0	96.0	93.5	90.4	88.1
在岗职工工资 /亿元	159.8	184.3	211.3	234.4	264.7	297.9	351.4	389.1	415.3	451.4	529.4
年平均工资 /(元/人)	13969	16776	19573	22143	25633	28816	34283	37692	41453	46569	55870

水利建设。全国共有水利水电工程施工总承包特级资质企业 15 家，水利水电工程施工总承包一级资质企业 215 家，一级注册建造师水利水电工程专业资格 17538 人。

全国水利发展主要指标 (2010—2015 年)

指标名称	单位	2010 年	2011 年	2012 年	2013 年	2014 年	2015 年
1. 灌溉面积	千公顷	66352	67743	67780	69481	70652	72061
2. 耕地灌溉面积	千公顷	60348	61682	62491	63473	64540	65873
其中：本年新增	千公顷	1722	2130	2151	1552	1648	1798
3. 节水灌溉面积	千公顷	27314	29179	31217	27109	29019	31060
4. 万亩以上灌区	处	5795	5824	7756	7709	7709	7773
其中：30 万亩以上	处	349	348	456	456	456	456
万亩以上灌区耕地灌溉面积	千公顷	29415	29748	30087	30216	30256	32302
其中：30 万亩以上	千公顷	15658	15786	11260	11252	11251	17686
5. 当年解决农村饮水安全人口	万人	6717	6398	7294	6343	6600	6709
6. 除涝面积	千公顷	21692	21722	21857	21943	22369	22713
7. 水土流失治理面积	万平方公里	106.8	109.7	103.0	106.9	111.6	115.5
8. 水库	座	87873	88605	97543	97721	97735	97988
其中：大型水库	座	552	567	683	687	697	707
中型水库	座	3269	3346	3758	3774	3799	3844
水库总库容	亿立方米	7162	7201	8255	8298	8394	8581
其中：大型水库	亿立方米	5594	5602	6493	6529	6617	6812
中型水库	亿立方米	930	954	1064	1070	1075	1068
9. 全年水利工程总供水量	亿立方米	6022	6107	6142	6183	6095	6103

续表

指标名称	单位	2010年	2011年	2012年	2013年	2014年	2015年
10. 堤防长度	万公里	29.4	30.0	27.2	27.7	28.4	29.1
保护耕地	千公顷	46831	45418	42597	42573	42794	40844
堤防保护人口	万人	59853	59697	56566	57138	58584	58608
11. 水闸总计	座	43300	44306	97256	98192	98686	103964
其中：大型水闸	座	567	599	862	870	875	888
12. 年末全国水电装机容量	万千瓦	21157	23007	24881	28026	30183	31937
全年发电量	亿千瓦时	6813	6507	8657	9304	10661	11143
13. 农村水电装机容量	万千瓦	5924.0	6212.3	6568.6	7118.6	7322.1	7583.0
全年发电量	亿千瓦时	2044	1757	2173	2233	2281	2351
14. 当年完成水利建设投资	亿元	2319.9	3086.0	3964.2	3757.6	4083.1	5452.2
按投资来源分：							
(1) 预算内拨款	亿元	918.1	898.8	1291.5	1136.8	1282.1	1549.7
(2) 预算内专项	亿元	94.8	29.2	25.4	12.7	2.4	14.2
(3) 财政专项	亿元	—	564.8	1004.2	937.5	1159.3	1892.1
(4) 水利建设基金	亿元	215.2	79.6	120.0	108.1	132.4	142.1
(5) 重大水利工程建设基金	亿元	—	437.8	434.9	425.0	136.8	80.4
(6) 土地出让收益	亿元	—	12.1	25.8	30.6	87.1	85.1
(7) 水资源费	亿元	—	18.2	21.5	38.5	57.5	67.7
(8) 国内贷款	亿元	337.4	270.3	265.6	172.7	299.6	338.6
(9) 利用外资	亿元	1.3	4.4	4.1	8.6	4.3	7.6
(10) 自筹资金	亿元	316.2	406.8	350.4	360.7	339.9	573.1
(11) 企业和私人投资	亿元	48.0	74.9	113.4	160.7	89.9	187.9
(12) 债券	亿元	2.5	3.9	5.2	1.7	1.7	0.4

续表

指标名称	单位	2010年	2011年	2012年	2013年	2014年	2015年
(13) 其他投资	亿元	386.5	285.1	302.4	364.0	490.1	513.3
按投资用途分:							
(1) 防洪工程	亿元	684.6	1018.3	1426.0	1335.8	1522.6	1930.3
(2) 水资源工程	亿元	1070.5	1284.1	1911.6	1733.1	1852.2	2708.3
(3) 水土保持及生态建设	亿元	85.9	95.4	118.1	102.9	141.3	192.9
(4) 水电工程	亿元	105.4	109.0	117.2	164.4	216.9	152.1
(5) 行业能力建设	亿元	19.6	40.2	59.6	52.5	40.9	29.2
(6) 前期工作	亿元	24.9	42.0	40.7	40.7	65.1	101.9
(7) 其他	亿元	329.1	496.9	291.1	328.2	244.2	337.5

- 说明: 1. 本报不包括香港特别行政区、澳门特别行政区以及台湾省的数据。
 2. 节水灌溉面积 2013 年数据与第一次全国水利普查数据进行了衔接, 其他水利发展主要指标 2012 年统计数据已与第一次全国水利普查数据进行了衔接。其中, 堤防长度与水利普查成果衔接后, 进一步明确为 5 级及以上堤防。
 3. 2011 年及以前万亩以上灌区处数及灌溉面积按有效灌溉面积达到万亩进行统计, 2012 年按设计灌溉面积达到万亩以上进行统计。对 2015 年 30 万亩以上灌区耕地灌溉面积进行了更正。
 4. 农村水电的统计口径为单站装机容量 5 万千瓦及以下的水电站及其配套电网。其中, 年末全国水电装机容量和全国水电全年发电量数据来源于中电联发布的 2015 年电力工业统计快报。

2015 STATISTIC BULLETIN ON CHINA WATER ACTIVITIES

Ministry of Water Resources, P. R. China

The year of 2015 is a crucial ending for the implementation of 12th Five-Year Plan and also a year that we had made achievements in water reform although we faced great challenges in water management and arduous tasks in making beneficial use of water. Under the strong leadership of the Party Central Committee and the State Council, we advanced with pioneering spirit to overcome difficulties and conducted solid work. Great achievements had been obtained in water governance and management that provided a backbone for “12 continuous increases” of grain yield and made contribution to stimulate economic growth, promote transformation and upgrading and improve people's well-being and livelihood in China.

I. Investment in Fixed Assets

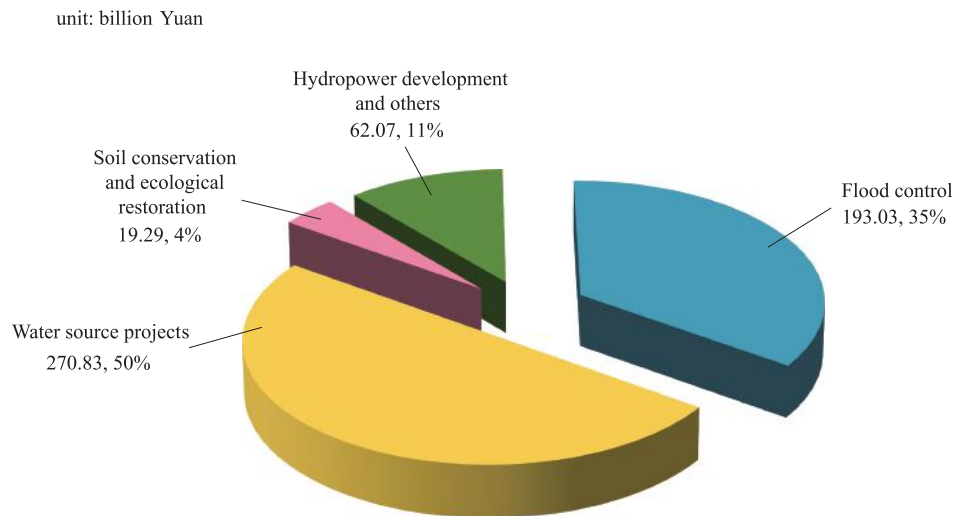
Completed investment for water project construction in 2015 amounted to 545.22 billion Yuan, with an increase of 136.91 billion Yuan or 33.5% comparing to the year before. In which, 415.08 billion Yuan put into construction projects with a 34.5% increase; 22.88 billion Yuan for installation with an increase of 23.7%; 19.87 billion Yuan for purchase of machinery, electric equipment and instruments, with a decrease of 3.6%; and 87.39 billion Yuan for other purposes (including compensation of resettlement and land acquisition), with an increase of 44.3%.

	2009 /billion Yuan	2010 /billion Yuan	2011 /billion Yuan	2012 /billion Yuan	2013 /billion Yuan	2014 /billion Yuan	2015 /billion Yuan	increase /%
Yearly Completed	189.40	231.99	308.60	396.42	375.76	408.31	545.22	33.5
Construction project	129.72	152.49	210.32	273.65	278.28	308.64	415.08	34.5
Installation project	11.34	10.96	12.17	23.78	17.36	18.50	22.88	23.7
Procurement of instruments and equipment	12.50	12.45	11.52	17.81	16.11	20.61	19.87	-3.6
Others (including compensation for resettlement and land expropriation)	35.84	56.09	74.59	81.18	64.02	60.56	87.39	44.3

In the total completed investment, 193.03 billion Yuan was allocated to the construction of flood control projects, 270.83 billion Yuan for the construction of water resources projects, 19.29 billion Yuan for soil and water conservation and ecological restoration, and 62.07 billion Yuan for special projects, such as hydropower development and capacity building.

The completed investment for seven major river basins reached 442.50 billion Yuan, of which 102.72 billion Yuan was invested in river basins in the southeast, southwest and northwest of China. Moreover, completed investments in eastern, middle, western and northeast regions were 210.47 billion Yuan, 91.32 billion Yuan, 188.27 billion Yuan and 55.16 billion Yuan respectively, accounting 38.6%, 16.7%, 34.6%, 10.1% of the total.

Completed Investment of Projects in 2015



Of this total completed investment, the Central Government contributed 10.91 billion Yuan, and local governments contributed 534.31 billion Yuan. Large and medium-sized projects completed investment of 86.00 billion Yuan; small-sized and other projects completed 459.22 billion Yuan; newly-constructed project completed 400.77 billion Yuan; and reconstruction and expansion completed 144.45 billion Yuan.

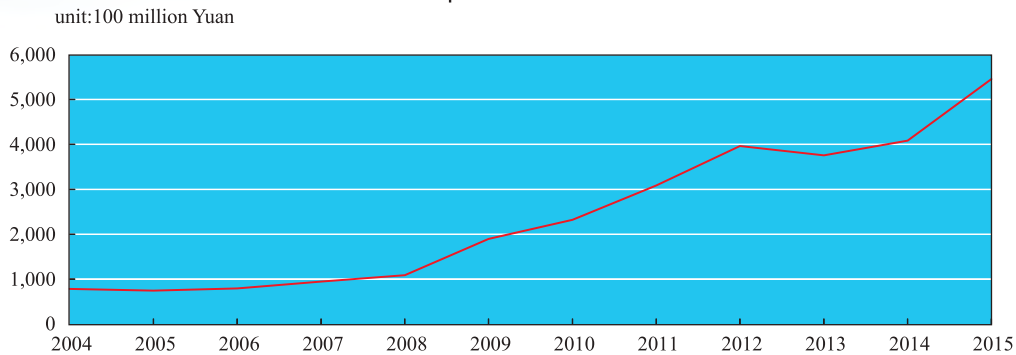
In 2015, the newly increased fixed assets of projects under-construction valued 437.35 billion Yuan. By the end of 2015, the accumulated investment in projects under construction was 1,459.07 billion Yuan, and the rate of completed investment reached 64.6%. The newly-added fixed assets totaled 898.00 billion Yuan and the rate of investment transferred into fixed assets was 61.5%, an increase of 2.7% comparing to 2014.

A total of 25,184 water projects were under construction in 2015, with a total

investment of 2, 258. 07 billion Yuan, with an increase of 15. 7% comparing to that of the year before. The projects with central government finance were 21, 437 with an increase of 42. 1% comparing to the year before. The total funds used by projects under construction reached 1, 511. 95 billion Yuan and increased 41. 2% comparing to the year before. There were 16, 702 newly-constructed projects in 2015, with an increase of 23. 6% and newly-added investment was 538. 90 billion Yuan with a increase of 26. 0%.

In 2015, the completed civil works of earth, stone and concrete structures were 3. 76 billion m³, 600 million m³, and 80 million m³ respectively. By the end of 2015, the ratio of complete quantity of earthwork, stonework, concrete of the under-construction projects were 77. 8% , 78. 4% , and 62. 3% respectively.

Completed Investment of Fixed Assets Investment



II. Key Water Projects Construction

Harness of large rivers and lakes. In 2015, there were 5, 730 river harness projects under construction, including 600 flood control embankment

construction, 803 projects for large river and main tributary control and 4,029 medium and small river control works and 298 flood diversion and storage areas or other projects. By the end of 2015, the accumulated investment in projects under construction was 328.14 billion Yuan, with a completion rate of 54.5%. There were 17,250 km of river channels being trained and 11,424 km of which completed within the year.

Reservoir projects. There were 296 reservoir projects under construction in 2015. By the end of 2015, the completed investment of under-construction projects reached 163.59 billion Yuan, accounting for 55.6% of the total completed investment. There were 2,622 hazard-vulnerable reservoirs completing repair or reinforcement in 2015. By the end of 2015, the completed investment was 23.95 billion Yuan, accounting for 77.0% of the total completed investment. A total of 2,413 small and medium hazard-vulnerable reservoirs completed repair or reinforcement in 2015.

Water allocation projects. The yearly investment for water allocation projects reached to 463.43 billion Yuan. The completed investment had accumulated to 342.96 billion Yuan, accounting for 74.0% of the total. The investment for under-constructed projects of phase-I of eastern and middle routes of South-to-North Water Diversion Project was 261.95 billion Yuan and accumulated completed investment reached 259.00 billion Yuan. The completed investment in 2015 totaled 4.68 billion Yuan.

Water allocation projects had been running smoothly in 2015. Main works of Water Diversion from Huai River to North of Anhui were completed. The gate of Guizhou Qianzhong Water Complex was closed for water impoundment. Phase-I of Jiayan Water Complex and Water Diversion in Northwest of Guizhou had completed supply

of water, electricity and road and site clearing. Damming of Sanhekou Water Complex was realized for transfer water from Han to Wei River. Huangjinxia Water Complex was initiated for construction. Tunnel of Main Channel for Water Diversion from Datong River to Huangshui River in Qinghai was completed for trial operation. Phase-I of Water Supply by Diverting Water from Taohe River in Gansu was put into trial operation. Other projects including Phase-II of Water Supply by Diverting Water from Taohe River, Water Allocation in North of Hubei, Water Diversion for Nandu River in Hainan and Water Diversion from Yellow River to Hebei and Baiyangdian Wetlands, were all started construction.



Irrigation, drainage and rural water supply. The investment to the under-constructed projects for providing safe drinking water worthies 106.39 billion Yuan, with an accumulated investment of 89.38 billion Yuan. The newly increased capacity helped 67.09 million rural residents and school teachers and students access to safe drinking water. By the end of 2015, the beneficial rural population who have centralized water supply made up a percentage of 82.4% of the total. The Central Government allocated 19.14 billion Yuan (including 16.83 billion Yuan listed in Key Water Project) for completion of counterpart systems and rehabilitation of 151 large irrigation districts for water saving purpose, 10 newly-constructed irrigation districts, rehabilitation of large irrigation and drainage pumping stations in 10 provinces, construction of demonstration projects for large-scale extension and benefit increase of water-saving irrigation systems in 30 provinces (autonomous regions or municipalities) as well as water projects constructed by Xinjiang Production and Construction Corps and in pastureland. In addition, 31.79 billion Yuan from central government finance invested to build small-scale farmland waterworks for irrigation and drainage and water supply in rural areas. The newly-added effective irrigated area reached 1,798,000 ha; moreover, new-added water-saving irrigated area was 2,725,000 ha. Meanwhile, 200 million Yuan was allocated to schistosome prevention projects.

Rural hydropower and electrification. In 2015, the completed investment of rural hydropower station construction amounted to 24.40 billion Yuan; the newly increased hydropower stations were 360, with a total installed capacity of 2.41 million kW. The completed investment for rural electricity network in the whole country was 6.4 billion Yuan; the newly increased capacity of 110 kV substation or above was 2.95 billion kVA; the newly increased capacity of 35 (63) kV substation was 1.77 million kVA; the capacity of distribution transformer was 4.55 million kVA. The newly constructed 10 kV or above high pressure transmission line was 17,000 km and low pressure line was 30,000 km.

Soil and water conservation. An investment of 36.60 billion Yuan had been arranged for soil and water conservation and ecological restoration project construction in 2015 and 27.78 billion Yuan were invested. The newly-added areas with soil conservation measures were 54,000 km², of which the areas under National Major Project for Soil Conservation were 16,000 km². The newly-added forest protected areas reached 19,000 km². There had been 1,934 small watersheds with comprehensive measures of soil and water conservation and 236 silt retention dams built on the Loess Plateau. The newly built basic farmlands were 590,000 ha (including 483,000 ha of terrace lands and 13,000 ha of silted land). Newly-created forestland for soil conservation reached 1,408,000 ha and grassland 323,000 ha.

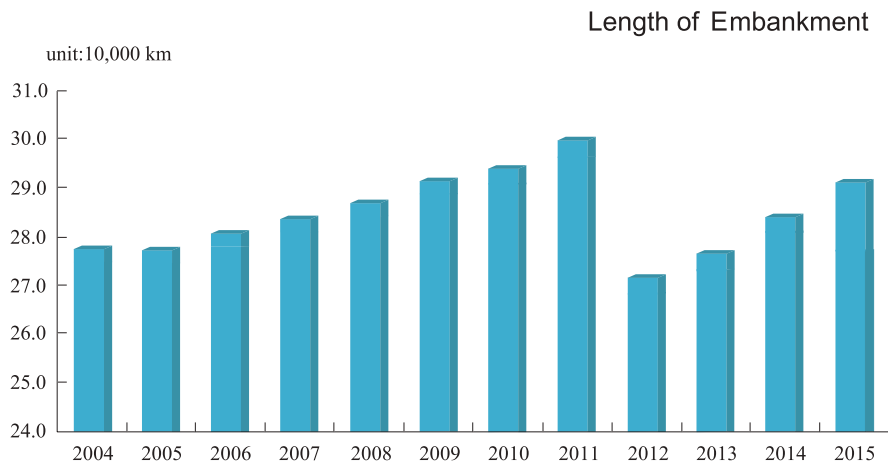
Capacity building. The completed investment for capacity building in 2015 was 3.33 billion Yuan, of which 0.94 billion Yuan spent on procurement of communication equipment for flood control, 0.99 billion Yuan for hydrological facilities, 0.13 billion Yuan for scientific research and education facilities, 0.94 billion Yuan for early-stage work, and 0.33 billion Yuan for others.

III. Key Water Structures

Embankments and water gates. In 2015, the completed river embankments from Grade-I to Grade-V in the whole country had a total length of 291,400 km^①. Of which, 196,500 km of embankment met the standard, with a percentage of 67.4% of the total up to standard. The length of embankment met the standard of Grade-I and Grade-II were 31,200 km, with a percentage of 78.2% of the total. These embankments can protect 586 million people and 40,800 ha of cultivated land. The number of water gates with a flow of 5 m³/s or above increased to

① The length of embankment before 2011 includes embankment below Grade-V.

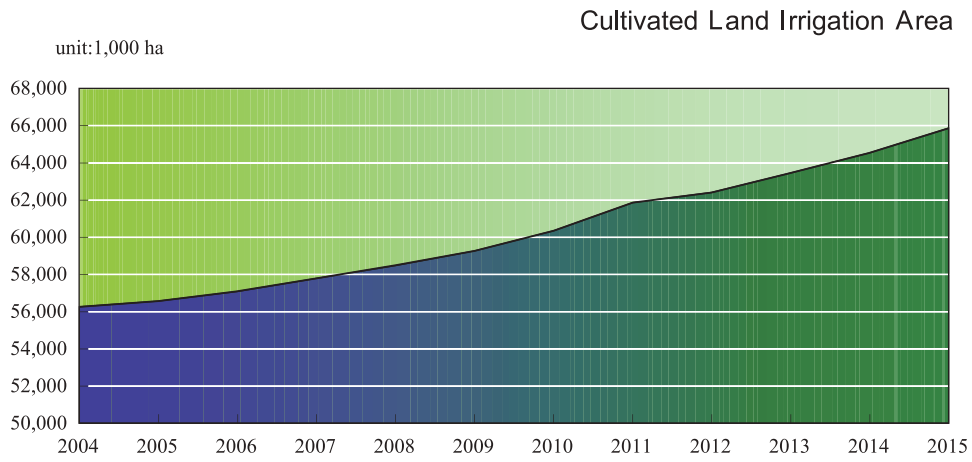
103,964, of which 888 were large water gates, 10,817 flood diversion sluices, 18,800 drainage/return water sluices, 5,364 tidal barrages, 14,296 water diversion intakes and 54,687 controlling gates.



Reservoirs and water complexes. There were 97,988 reservoirs built in China, with a total storage capacity of 858.1 billion m^3 , of which 707 belong to large reservoirs with a total capacity of 681.2 billion m^3 , accounting 79.4% of the total; 3,844 medium-sized reservoirs with a total capacity of 106.8 billion m^3 , accounting 12.4% of the total. The percentage of large and medium reservoirs up to the safety standard ranked 93.3% of the total.

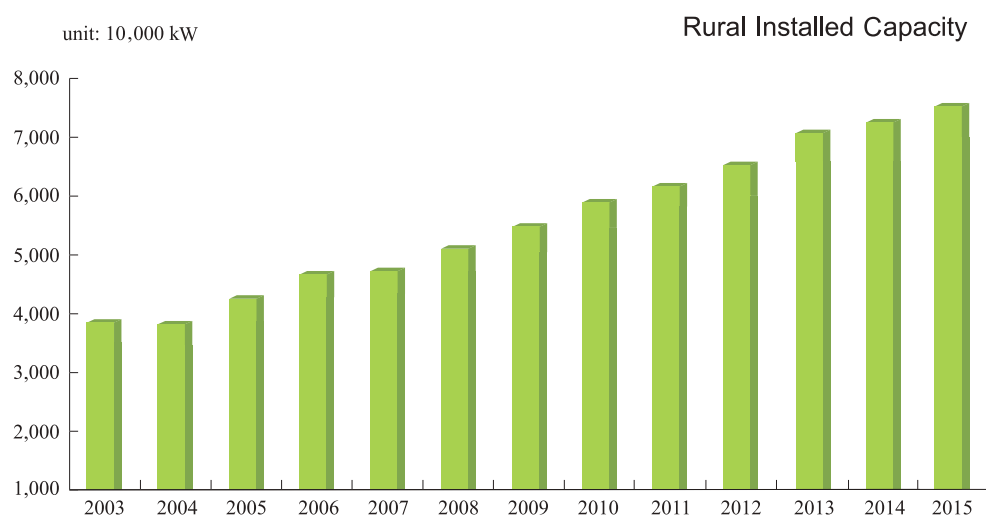
Irrigation. Irrigation districts with an area equal or above 2,000 mu added to 22,573, with a total cultivated land irrigated area of 36.341 million ha. In which, the irrigation districts equal or above 500,000 mu were 176, with a total cultivated land irrigated area of 12.024 million ha; the irrigation districts covering an area from 300,000 to 500,000 mu were 280, with a total cultivated land irrigated area of

5.663 million ha. By the end of 2015, National irrigation area reached to 72.061 million ha, the total cultivated land irrigated area reached to 65.873 million ha that accounted to 48.7% of the total cultivated area in China. The areas with water-saving irrigation facilities was totaled 31.060 million ha, among which 9.012 million ha equipped with sprinkler or micro irrigation systems and 8.912 million ha installed low-pressure pipes.

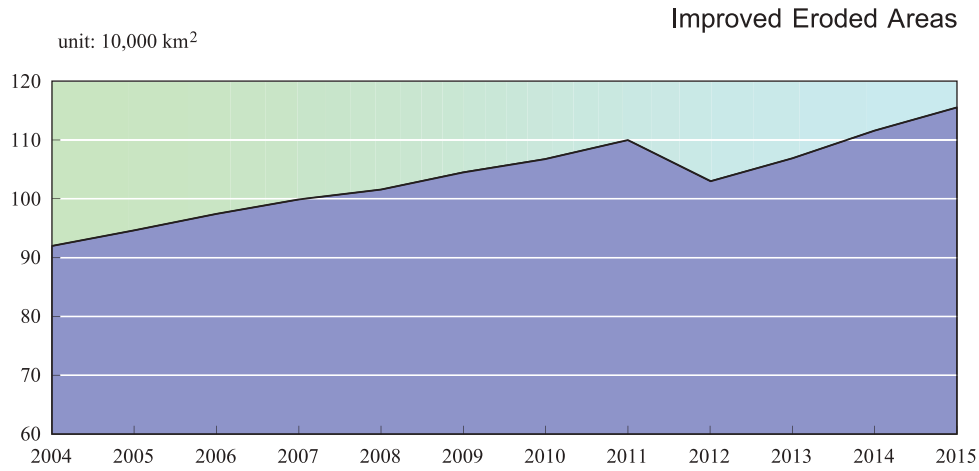


Tube wells and pumping stations. A total of 4.832 million water supply tube wells, with a daily water abstraction capacity equal or larger than 20 m³ or an inner diameter larger than 200 mm, were employed in the whole country. A total of 91,795 pumping stations that have an installed flow of 1 m³/s or installed voltage above 50 kW had been installed, among which 368 belong to larger pumping stations, 4,178 medium-size and 87,249 small-size pumping stations.

Rural hydropower and electrification. By the end of 2015, hydropower stations built in rural areas totaled 47,340, with an installed capacity of 75.83 million kW, accounting for 23.8% of the total in China. The annual power generation by these hydropower stations reached to 235.1 billion kWh, accounting for 21.1% of the total power generation in China.



Soil and water conservation. By the end of 2015, the restored eroded areas reached 1.1558 million km²; ecological restoration areas accumulated to 800,000 km². A total of 640 ecologically-clean small watersheds had been constructed. Dynamic monitoring for soil and water loss had been conducted in 18 key areas of national importance, 16 protection and control areas of national importance and 1 centralized area of production and construction project, with a total sampling monitoring area of 586,100 km². Positional observation was applied to 65 typical small watersheds of various types of soil erosion and 91 typical monitoring sites.



Hydrology and informationization. By the end of 2015, the number of hydrological stations of all kinds increased to 99,575 in the whole country, including 3,151 national basic hydrologic stations, 2,555 special hydrologic stations, 11,180 gauging stations, 49,403 precipitation stations, 14 evaporation stations, 1,856 soil moisture monitoring stations, 14,560 water quality stations, 16,800 groundwater monitoring stations and 56 experimental stations. There were 45,863 various kinds of hydrological monitoring stations that provide hydrological information to flood control commanding headquarters at and above the county level; 1,247 various kinds of hydrological monitoring stations that provide forecast information. A total of 311 water environment monitoring centers (sub-centers) put into operation. Water quality of nearly all major rivers, lakes and reservoirs in China are monitored. Water ecology monitoring has been initiated.

The servers of varied kinds installed in the water resources departments at or above the provincial level reached 4,567, among which internet server 1,311, servers outside the web 3,256. There were 84,503 counterpart net-connected computers of various kinds, among which 17,827 for inter net and 66,676 for outer net. The

storage capacity of all kinds of on-line store equipment installed in the water resources departments at or above the provincial level reached 5,545,750.87 GB. Currently, we have installed 426 small satellite station, 1,535 other satellite networks, 47 portable satellite stations, 1,921 wireless broadband access terminals and 1,222 cluster communication terminals. A total of 140,482 information gathering points were installed for water departments at or above the provincial level, among which 110,622 were automatic information gathering points.

IV. Water Resources Utilization and Protection

The availability of water resources in 2015 totaled 2,796.26 billion m^3 , 0.9% more than multi-year average. Mean annual precipitation was 660.8 mm, 2.8% more than multi-year average and 3.7% more than the year before. By the end of 2015, total water storage of 624 large reservoirs reached 358.72 billion m^3 , 1.44 billion m^3 more compared with that of the year before; total water storage of 3,378 medium-size reservoirs were 45.01 billion m^3 , 4.16 billion m^3 more than that in early 2015.

In 2015, the total water supply amounted to 610.32 billion m^3 , among which 81.4% came from surface water, 17.5% from underground aquifers and 1.1% from other water sources. The total water consumption amounted to 610.32 billion m^3 , of which domestic use amounted to 79.35 billion m^3 (in which urban domestic water use occupied 77%) or 13.0% of the total; industrial use 133.48 billion m^3 or 21.9% of the total; agricultural water use 385.22 billion m^3 or 63.1% of the total and environmental flow of 12.27 billion m^3 or 2.0% of the total. Comparing to that of the year before, water consumption raised by 0.83 billion m^3 , in which domestic water use increased by 2.69 billion m^3 , industrial use decreased by 2.13 billion m^3 , agricultural water use decreased by 1.68 billion m^3 and environmental flow increased by 1.95 billion m^3 .

Water consumption per capita in 2015 was 445 m³ in average. Water use of 10,000 Yuan GDP (at comparable price of the same year) was 90 m³, a 30% decrease at comparable price of that in 2010. Water use of industrial production value added per 10,000 Yuan (at comparable price of the same year) was 58.3 m³, 37% less at comparable price of that in 2010.

According to the result of water quality assessment on river sections of 235,000 km, rivers with better water quality that comply with or super than class-III standard occupied 74.2% of the total.

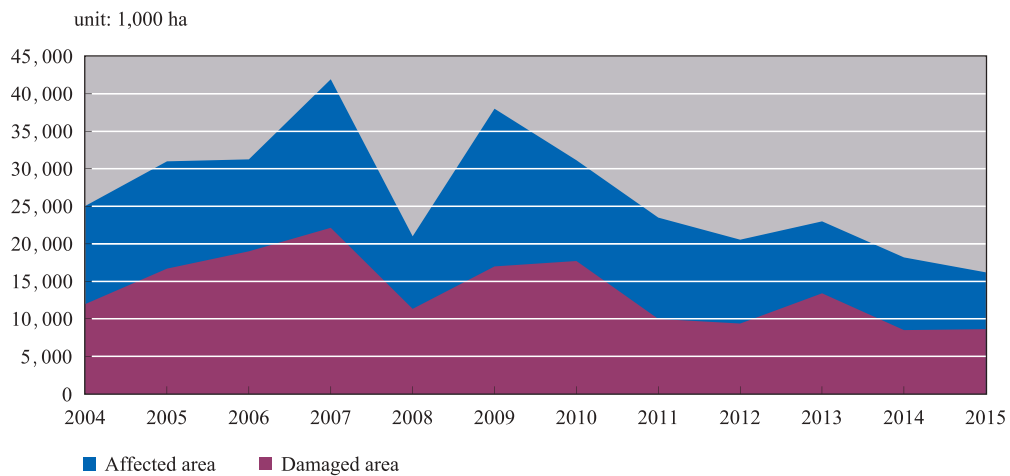
V. Flood Control and Drought Relief

Generally speaking, no large scale damages occurred as a result of flood and water-logging disasters in 2015. Nevertheless, a total of 6.132 million ha of cultivated land were affected by floods, resulting in 3,054,000 ha damaged, 76.00 million people affected, 319 people dead, and 81 missing. A total of 150,000 houses were destroyed and 168 cities suffered from inundation. The disasters resulted in 166.1 billion Yuan of direct economic losses, among which the loss with water infrastructures reached 25.4 billion Yuan. The flood stricken areas were relatively concentrated that mainly affected Jiangsu, Zhejiang, Anhui, Fujian, Jiangxi, Hubei, Hunan, Sichuan, Guizhou and Yunnan. The death toll or the number of missing caused by mountain flood took 71% of the total in 2015. The direct economic loss caused by typhoons took 41% of the total loss as a result of flood and waterlogging disasters.

In 2015, no large scale drought occurred in the whole country. Drought affected province (autonomous regions) mainly included Inner Mongolia, Hebei, Liaoning and Shandong. The farmland affected by droughts reached 10.067 million ha, of which 55.77 million ha damaged, with a direct economic losses of 57.9 billion

Yuan. A total of 8.36 million urban and rural population and 8.07 million man-feed big animals and livestock suffered from temporary drinking water difficulties due to water shortage caused by these droughts.

Flood or Drought Affected and Damaged Areas

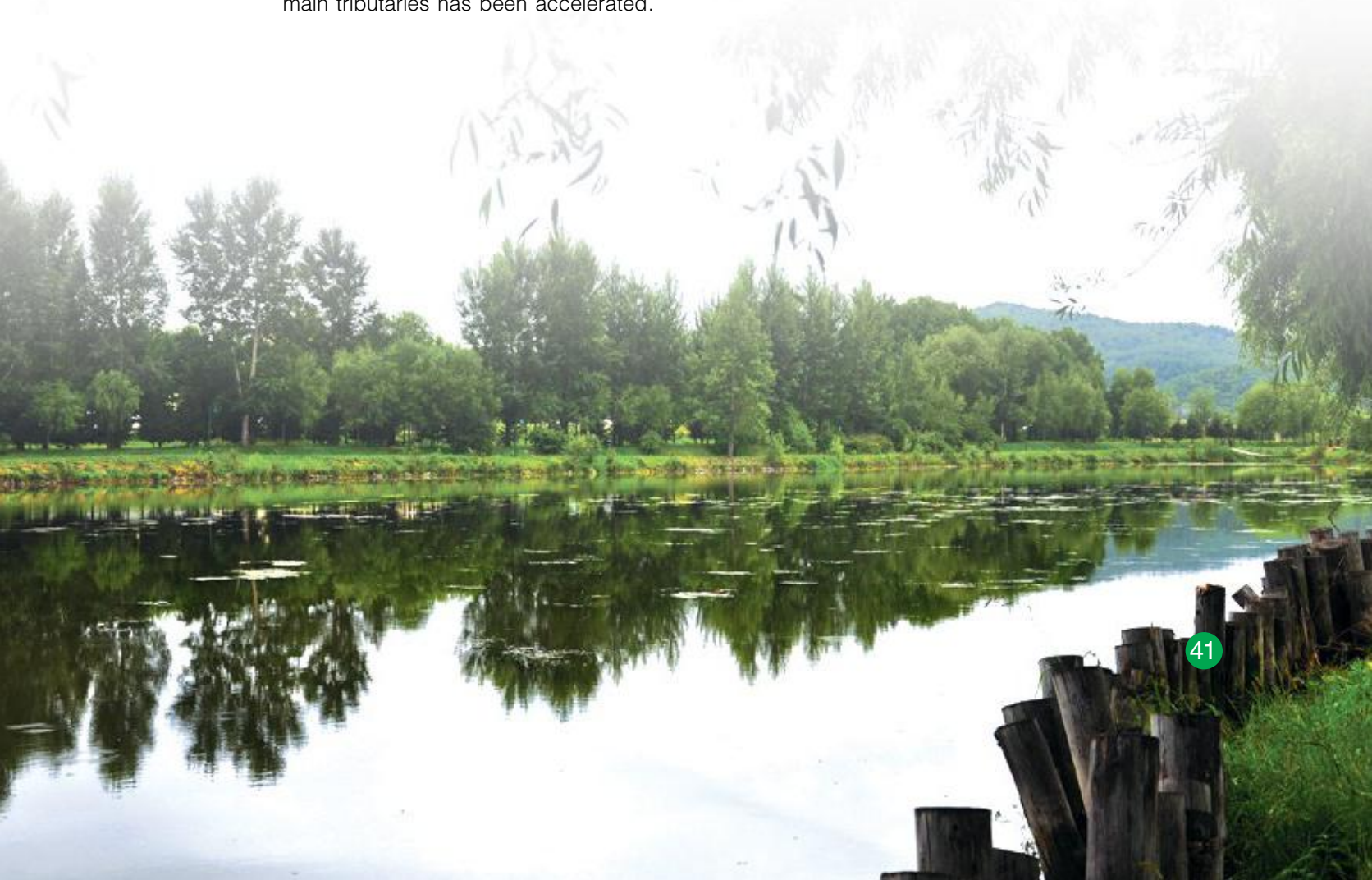


In 2015, the funds allocated to flood control and drought relief amounted to 2.91 billion Yuan, among which 2.36 billion Yuan for extraordinary flood defense and 550 million Yuan for extraordinary drought. The flood control works protected 1.134 million ha of cultivated land and 77 cities from flooding. The efforts of flood control and disaster reduction generated 42.2 billion Yuan of economic benefits. Safe drinking water was provided to 6.91 million people in rural and urban areas as well as 6.53 million big animals and livestock for alleviating temporary water shortage. The area with anti-drought measures reached 16.556 million ha that prevented a loss of 22.6 billion kg of grain. The accumulative input for flood disaster relief was 3.44 million person-time, 10,000 vessel-time, 153,000 shifts of transportation and 165,000 shifts of mechanical equipment. The consumed materials valued 1.31 billion Yuan. The person-time of emergency evacuation was 6.28 million. The person-time of rescue from flooding reached 490,000. The labor input for drought

relief was 30.05 million person-time. There were 3.10 million tube wells, 36,000 pumping stations, 19.28 million mobile devices and 484 million various kinds of water transporting vehicle employed for drought relief.

VI. Water Management and Reform

Water resources planning and early-stage work. In 2015, there were 25 water resources plans approved by the government agencies at the central level; two plans approved by the State Council including National Water and Soil Conservation Plan; 23 plans approved by the Ministry of Water Resources including Comprehensive Management Plan for Nanyunhe River and Comprehensive Plan of Water Resources for Three River Sources Area in Qinghai Province. Preparation of the National 13th Five-Year Plan on Water Development and special subject plans were all completed. Other plans such as Development and Protection Plan for Yangtze Economic Belt and Coastlines as well as Planning Layout for Water Intakes, Pollution Discharge Outlets and Emergency Water Sources in Yangtze Economic Belt and so on. Preparation work of comprehensive plans for major river basins and main tributaries has been accelerated.



In 2015, a total of 63 projects were delivered to NDRC for approval, with a total investment of 402.558 billion Yuan. NDRC approved 64 water-related projects, including 16 project proposals, 40 feasibility study reports, 7 budgetary estimates and 1 project plan, with a total investment of 474.233 billion Yuan. There were 36 preliminary designs approved by MWR, with a total investment of 218.992 billion Yuan.

Water legislation and administrative enforcement. In 2015, the ministry has authorized/extended 1,155 water-related administrative approvals or permits, including 36 preliminary design documents of water construction projects, 3 water resources assessment reports, 3 approvals for evaluation reports of flood impact by non-flood control project, 258 approvals of soil and water conservation plan of production and construction projects; 172 check and acceptance of soil and water conservation plans of construction projects; 67 licenses of headstock gear utilization; 5 qualification certificates of survey and assessment for hydrology and water resources; and 483 approvals/extensions of qualification certificates of supervising organs of water-related projects.

In 2015, the investigated illegal cases totaled 30,188 and 27,588 or 91.4% of them resolved. A total of 3,206 water disputes were accepted and 3,079 resolved. There were 19 administrative reconsideration cases received by the Ministry of Water Resources that all being settled.

Water affairs management. There are 2,684 administrative regions at or above the county level assigning the responsibilities of water affairs management to newly-created water authorities or existed water resources bureaus, accounting for 83.2% of the total in China. Among 1,536 established water authorities, 4 at provincial level, 8 at sub-provincial level, 230 at prefecture or city level, and 1,294 at county level. There were 2,551 water plants operated by utilities under

these water authorities, with 476,000 km of water supply pipes, a daily water supply of 17,375 million m³ and annual water supply of 32.59 billion m³. A total of 4,082 sewage treatment plants were under operation, with a total pipeline of 395,000 km long and daily treatment capacity of 202.45 million m³/d. The annual amount of sewage treatment reached to 43.92 billion m³.

Reform in project construction and management. Reform of state-owned water management institutional system has been deepened. Full funding has been provided for managerial staff and operation and maintenance in the water sector. Government procurement has been highlighted for bettering off services for operation and maintenance of water projects. Professionalized, intensified and socialized management of water projects has made considerable progress.

In 2015, a total of 21.7 billion Yuan had been used for covering cost of managerial staff and operation and maintenance of 13,115 water utilities, which covered 83.0% of the total. The funds used for basic expenses for staff of public utilities were 12.60 billion Yuan that covered 92.0%; while the funds used for operation and maintenance of water facilities were 9.1 billion Yuan that covered 74.0%. Reform of management system by separating functions of administration with operation was adopted in 9,402 utilities, accounted for 72.0% of the total.

In 2015, another 34 enterprises were approved as Class-A qualification of supervisors for water and hydropower project construction, 93 got Class-B qualification and 144 got the Class-C qualification. Another 13 enterprises got Class-A qualification of supervisors for soil and water conservation project construction, 30 got the Class-B qualification and 40 got the Class-C qualification. There were 1 enterprise obtained Class-A qualification of supervisors for electromechanical and metal equipment manufacture and 6 obtained Class-B

qualification. A total of 22 enterprises got the qualification (no classification is given) of supervisors for environment protection of water project construction. There were 21 enterprises obtained Class-A quality inspection organizations for geotechnical engineering approved; 18 obtained Class-A quality inspection organizations for concrete structures; 5 obtained Class-A quality inspection organizations for metal structures; 3 obtained Class-A quality inspection organizations for mechanical and electronic equipment; and 8 obtained Class-A quality inspection organizations for measuring and gauging tools.

By the end of 2015, the approved national water scenery spots reached 719, including 340 reservoirs, 147 natural rivers and lakes, 140 lake or riverine cities, 39 wetlands, 27 irrigation districts and 26 soil conservation areas.



Reform in rural water resources management. Reform of property right system of small irrigation and drainage system has been deepened. Innovative approaches have been adopted for reform and innovation of operation and maintenance system for 100 counties that selected as pilot projects. Preliminary results have been obtained and targets of “clear ownership, specified duties and responsibilities, funds guarantee, proper utilization of fund and sustainable development” have been realized in some irrigation schemes. A mechanism of “using price for subsidy and construction before subsidy” has been perfected in 57 pilot projects. Financial subsidies for operation and maintenance of irrigation schemes were allocated to 61 pilot projects. Multi-dimensional governance pattern such as self-construction and operation, government procurement public service and farmer water user association have been applied in 71 pilot project counties. Ownership of water structures in 17 pilot counties was further defined that smoothed the way for property mortgage. Reform of property right system has been conducted in nearly 8 million small irrigation schemes in the whole country. The coverage rates of cost of basic personal expenses in large irrigation districts as well as operation and maintenance of public-good waterworks reached to 69% and 48% respectively. A total of 29,351 township (river basin) water stations were rebuilt or newly-built in the country. Water User Associations (WUAs) established in the whole country reached to 83,400 and managed 294 million mu of irrigated land that occupied 29.7% of the total in China.

Soil and water conservation. A total of 29,000 soil and water conservation plans of development and construction projects were examined and approved, covering a scope of 3,117 km² for protection and control; A total of 5,900 soil and water conservation projects completed check and acceptance.

In 2015, Measures for Implementation (Regulations) of Soil and Conservation Law were promulgated in 6 provinces (autonomous regions or municipalities) .

Provincial Administrative Methods for Collection and Utilization of Compensation Fee for Soil Conservation were issued in 8 provinces (autonomous regions or municipalities) . By the end of 2015, there were 27 provinces (autonomous regions or municipalities) promulgated the implementing provisions or regulations of Soil and Water Conservation Law; and 17 provinces (autonomous regions or municipalities) made public the standards for the collection of compensation fee.

Water pricing reform. Reform of pricing system for agricultural water use has been promoted by means of innovative management, price adjustment, financial subsidy and counterpart structures. Pilot projects in 80 counties of 27 provinces (excluding Tibet, Hainan, Zhejiang and Shanghai) had been implemented with an area of 2.02 million mu or 25,000 mu per county in average. Water saving and benefit increase had been realized thanks to the reform, for water saving in the pilot area reached 100 m³ per mu and irrigation cycle shortened by 20% in average.



Reform of hydropower management system. Transformation of water use right on parable basis has been implemented in 17 provinces (autonomous regions, municipalities) . Administrative rules and regulations for water-power resource development and utilization were promulgated in 16 provinces (autonomous regions, municipalities) . It was stipulated by 12 provinces that water resources department shall take whole responsibility for integrating water resources management. Safety production has been reinforced for electric generation in rural areas by means of introducing approaches of “ specifying person-in-charge of production and supervision” , which had been carried out at each level.

Production safety supervision. In 2015, there were 6 production accidents with 10 people dead. A variety of safe production supervision and special-subject inspections were conducted, and 29,000 potential hazards were detected and 5,000 potential hazards were eliminated. The database created by the reporting system of safe production information has been updated that contained basic data of 60,947 water enterprises or public institutions and 386,949 water utilities as well as 66,193 data that relevant to potential safety hazard. Monthly reports of potential safety hazard and accidents had been submitted by 53,445 water enterprises or public institutions on time. There were 45 water enterprises passed the examination during the first level-I standard evaluation for water safety production. Performance evaluation had been completed for 4,185 persons in charge of construction enterprises, projects and professional safety production managers.

On-site investigations to 1,240 construction projects had been undertaken by 265 inspection teams for 8 times. A total of 200 rectification documents were released to each province regarding to projects with striking problems. By means of project inspection, special inspection and major inspection, investigations had been conducted to those projects that has specific time limit made by the State Council for completion, mainly including key construction projects for water conservation

and supply, water sources, medium-size reservoir and river harness, and also safe drinking water provision in rural areas, medium and small river harness and strengthening of small reservoirs with potential risks. The scope of investigation covered all provinces except Tibet. Self-inspection of provincial water administrative departments had been encouraged and a total of 535 inspection groups were sent out for reviewing 2,096 projects.

Reservoir resettlement. According to uncompleted statistics, there were 169 large and medium reservoirs under construction in 2015, with 309 concentrated relocation sites constructed and centralized newly-constructed housing of 1.95 million km². The resettled population was 100,800, among which 89,100 were relocated rural residents and 11,700 relocated urban residents. A total of 79,200 of resettled people were arranged for production activities, including 44,400 arranged for agricultural production with a year by year compensation for 5,000 persons; 22,100 arranged by monetary compensation (arranged by themselves); 2,900 people joined pension plans, 600 people seeking help from relatives and friends and 4,200 people with other arrangements.

Water science and technology. A total of 300 million Yuan had been allocated to science and technology projects, including identification of 2 National Key Technology R&D Supporting Program, 37 special-subject and water-related scientific research projects of public interest, and 55 projects listed in "948 Plans", National Agricultural Science and Technology Achievements Transformation Fund Programs and MWR Key Technological Achievements Extension Plans. Four water technological achievements won the National Sci-Tech Advance Award. By the end of 2015, the numbers of national level or ministerial level labs were 12, and technical research centers were 15. Special funds for procurement and repairing of equipment of national scientific institutions amounted to 108.90 million Yuan. There were 835 ministerial technical norms and standards that still be effective; 160 water-related

technical standards under review (revision) . There were 106 technical norms and standards listed in the Table of Water-related Technical Standard System.

International cooperation. A total of 70 multilateral cooperation and exchange activities were successfully conducted, with 3 bilateral cooperation agreement signed. Under the fixed mechanism for bilateral exchange of government agencies, 7 meetings were organized and held. Two projects with loans borrowed from international financial organizations such as the World Bank are undertaking, with a total borrowing of 280 million U S dollars. The World Bank has completed appraisal of Key Plain and Low-lying Land Harness in Huai River Basin project with a loan borrowing of 200 million US dollars. There were 4 governmental cooperation projects under implementation, 2 special projects for international cooperation and science and technology at national level got approval, having a funding of 5.40 million Yuan. There were 9 special projects for international cooperation and science and technology at national level under implementation, with a funding of 21.01 million Yuan.

VII. Current Status of Water Sector

Employees and salaries. In 2015, the employees of water sector were totaled 0.974 million, a 2.6% decrease comparing to that the year before. Of which the employees with long-term post amounted to 0.947 million, a 2.5% decrease. In the employees with long-term post, the staff working in the agencies directly under the Ministry of Water Resources was 66,000, a 1.6% decrease over the year before; the staff working in local agencies was 0.881 million, a 2.6% decrease. The total salary for the employees with long-term post in the whole country was 52.94 billion Yuan, and the average salary per employee with long-term post was 55,870 Yuan.

Employees and Salaries

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
number of in service staff/10 ⁴ persons	110.5	109.2	106.76	105.57	103.74	106.63	102.47	103.4	100.5	97.1	94.7
of which, staff of MWR and agencies under MWR/10 ⁴ persons	6.6	6.8	7.15	7.22	7.20	7.42	7.51	7.4	7.0	6.7	6.6
Local agencies /10 ⁴ persons	103.9	102.3	99.61	98.35	96.54	96.26	94.96	96.0	93.5	90.4	88.1
salary of in-service staff/10 ⁸ Yuan	159.8	184.3	211.28	234.37	264.74	297.91	351.37	389.1	415.3	451.4	529.4
average salary / (Yuan/person)	13,969	16,776	19,573	22,143	25,633	28,816	34,283	37,692	41,453	46,569	55,870

Water project constructors. In 2015, there were 15 general construction contractors awarded highest qualification for water resources and hydropower project construction; 215 general construction contractors awarded grade-I qualification. There were 17,538 registered constructors awarded grade-I qualification.

Appendix: Main Index of National Water Resources Development (2010 – 2015)

Name of index	Unit	2010	2011	2012	2013	2014	2015
1. Irrigated area	10 ³ ha	66352	67743	67780	69481	70652	72061
2. Farmland irrigated area	10 ³ ha	60348	61682	62491	63473	64540	65873
Newly-increased in 2015	10 ³ ha	1722	2130	2151	1552	1648	1798
3. Water-saving irrigated area	10 ³ ha	27314	29179	31217	27109	29019	31060
4. Irrigation districts over 10,000 mu	Unit	5795	5824	7756	7709	7709	7773
Irrigation districts over 300,000 mu	Unit	349	348	456	456	456	456
Farmland irrigated areas in irrigation districts over 10,000 mu	10 ³ ha	29415	29748	30087	30216	30256	32302
Farmland irrigated areas in irrigation areas over 300,000 mu	10 ³ ha	15658	15786	11260	11252	11251	17686
5. Rural population accessible to safe drinking water	10 ⁴ people	6717	6398	7294	6343	6600	6709
6. Flooded or waterlogging area under control	10 ³ ha	21692	21722	21857	21943	22369	22713
7. Controlled or improved eroded area	10 ⁴ km ²	106.8	109.7	103.0	106.9	111.6	115.5
8. Reservoirs	Unit	87873	88605	97543	97721	97735	97988
Large-sized	Unit	552	567	683	687	697	707
Medium-sized	Unit	3269	3346	3758	3774	3799	3844
Total storage capacity	10 ⁸ m ³	7162	7201	8255	8298	8394	8581
Large-sized	10 ⁸ m ³	5594	5602	6493	6529	6617	6812
Medium-sized	10 ⁸ m ³	930	954	1064	1070	1075	1068
9. Total water supply capacity of water projects in a year	10 ⁸ m ³	6022	6107	6142	6183	6095	6103
10. Length of dikes	10 ⁴ km	29.4	30.0	27.2	27.7	28.4	29.1
Cultivated land under protection	10 ³ ha	46831	45418	42597	42573	42794	40844
Population under protection	10 ⁴ people	59853	59697	56566	57138	58584	58608
11. Water gates	Unit	43300	44306	97256	98192	98686	103964

Continued

Name of index	Unit	2010	2011	2012	2013	2014	2015
Large-sized	Unit	567	599	862	870	875	888
12. Total installed capacity at the end of 2015	10 ⁴ kW	21157	23007	24881	28026	30183	31937
Power generation in 2015	10 ⁸ kWh	6813	6507	8657	9304	10661	11143
13. Installed capacity of rural hydropower at the end of 2015	10 ⁴ kW	5924.0	6212.3	6568.6	7118.6	7322.1	7583.0
Power generation of 2015	10 ⁸ kWh	2044	1757	2173	2233	2281	2351
14. Completed investment of water project in 2015	10 ⁸ yuan	2319.9	3086.0	3964.2	3757.6	4083.1	5452.2
Divided by different sources							
(1) Budget	10 ⁸ yuan	918.1	898.8	1291.5	1136.8	1282.1	1549.7
(2) Special fund of budget	10 ⁸ yuan	94.8	29.2	25.4	12.7	2.4	14.2
(3) Special subject finance	10 ⁸ yuan	-	564.8	1004.2	937.5	1159.3	1892.1
(4) Water construction fund	10 ⁸ yuan	215.2	79.6	120.0	108.1	132.4	142.1
(5) Construction funds of key water conservancy project	10 ⁸ yuan	-	437.8	434.9	425.0	136.8	80.4
(6) Land sale revenue	10 ⁸ yuan	-	12.1	25.8	30.6	87.1	85.1
(7) Water resources fee	10 ⁸ yuan	-	18.2	21.5	38.5	57.5	67.7
(8) Domestic loan	10 ⁸ yuan	337.4	270.3	265.6	172.7	299.6	338.6
(9) Foreign funds	10 ⁸ yuan	1.3	4.4	4.1	8.6	4.3	7.6
(10) Self-raising funds	10 ⁸ yuan	316.2	406.8	350.4	360.7	339.9	573.1
(11) Enterprises and private investment	10 ⁸ yuan	48.0	74.9	113.4	160.7	89.9	187.9
(12) Bonds	10 ⁸ yuan	2.5	3.9	5.2	1.7	1.7	0.4
(13) Other sources	10 ⁸ yuan	386.5	285.1	302.4	364.0	490.1	513.3
Divided by different purposes ;							
(1) Flood control project	10 ⁸ yuan	684.6	1018.3	1426.0	1335.8	1522.6	1930.3

Continued

Name of index	Unit	2010	2011	2012	2013	2014	2015
(2) Water resources project	10 ⁸ yuan	1070.5	1284.1	1911.6	1733.1	1852.2	2708.3
(3) Soil and water conservation and ecological recovery	10 ⁸ yuan	85.9	95.4	118.1	102.9	141.3	192.9
(4) Hydropower projects	10 ⁸ yuan	105.4	109.0	117.2	164.4	216.9	152.1
(5) Capacity building	10 ⁸ yuan	19.6	40.2	59.6	52.5	40.9	29.2
(6) Early-stage work	10 ⁸ yuan	24.9	42.0	40.7	40.7	65.1	101.9
(7) Others	10 ⁸ yuan	329.1	496.9	291.1	328.2	244.2	337.5

Notes:

1. The data in this bulletin do not include those of Hong Kong, Macao and Taiwan.
2. Irrigated area in 2013 is integrated with data of first national survey on water resources. Other key indicators for water development and statistical data in 2012 is also integrated with the data of first national survey on water resources. Among which, the length of embankment is further clarified as grade-V or above after the data is integrated with that of first national survey on water resources.
3. The number of irrigation districts at 10,000 mu and its irrigated area is calculated based on the number of irrigation districts that have 10,000 mu of effective irrigated area or above in 2011. However, the statistics in 2012 is based on designed irrigated area that reached or upper to 10,000 mu. Correction is made to the irrigated areas of irrigation districts over 300,000 mu in 2015.
4. Statistics of rural hydropower refer to the hydropower stations with an installed capacity of 50,000 kW or lower 50,000 kW. Among which the national installed capacity of hydropower and its annual power generation by the end of 2015 are sourced from Statistics of China Power Industry issued by China Electricity Council.

《2015年全国水利发展统计公报》编辑委员会

主任：周学文
副主任：汪安南
委员：（按姓氏拼音排序）
蔡建元 曹淑敏 陈茂山 郭孟卓 赫崇成 金 旻
匡尚富 李 戈 李原园 刘祥峰 倪文进 钱宜伟
王 翔 王 治 许德志 杨得瑞 张新玉 朱闽丰
祖雷鸣

《2015年全国水利发展统计公报》主要编辑人员

主编：汪安南
副主编：吴 强 段红东
执行编辑：王 勇 王 瑜 乔根平
主要参编人员：（按姓氏拼音排序）
杜崇玲 高 龙 荆茂涛 李 默 吕 焯 齐兵强
乔殿新 乔根平 曲 鹏 汪习文 王 为 王 伟
王 勇 王 瑜 吴梦莹 武 斌 徐 岩 姚似锦
叶莉莉 张 范 张 岚 张晓兰 周 玉
主要数据处理人员：（按姓氏拼音排序）
郭 悦 韩沂桦 李 乐 齐 飞 王小娜

◎ 主编单位

水利部规划计划司

◎ 协编单位

水利部发展研究中心

◎ 参编单位

水利部办公厅
水利部政策法规司
水利部水资源司
水利部财务司
水利部人事司
水利部国际合作与科技司
水利部建设与管理司
水利部水土保持司
水利部农村水利司

水利部安全监督司
国家防汛抗旱总指挥部办公室
水利部农村水电及电气化发展局
水利部水库移民开发局
水利部综合事业局
水利部水文局（水利部水利信息中心）
水利部南水北调规划设计管理局
水利部水利水电规划设计总院
中国水利水电科学研究院