

2012 年

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# 全国水利发展统计公报

2012 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



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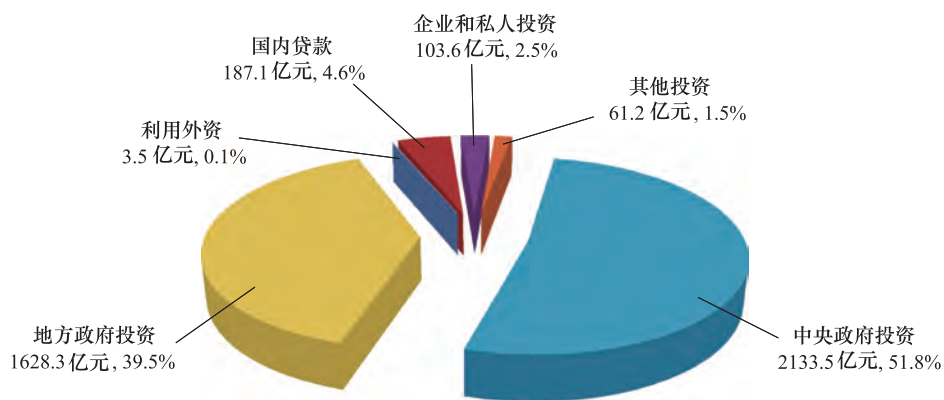
2012年是党的十八大胜利召开、党和国家各项事业取得显著成就的一年，也是治水兴水高潮迭起、水利改革发展取得突出成效的一年。各级水利部门以党的十八大精神为指引，深入贯彻落实中央兴水惠民决策部署，凝心聚力，锐意进取，开拓创新，扎实工作，各项水利工作呈现又好又快发展的良好势头，为实现全国粮食产量“九连增”、经济持续健康发展和社会和谐稳定提供了强有力支撑。

# 1

## 水利固定资产投资

2012年，全社会共落实水利建设投资计划4117.2亿元，较上年增加23.0%。分投资来源看：中央政府投资2133.5亿元，较上年增加36.7%，其中，中央水利建设投资1623.0亿元，南水北调国家重大水利工程建设基金467.0亿元，其他部门水利建设投资43.5亿元；地方政府投资1628.3亿元，较上年增加14.1%；利用外资3.5亿元，较上年减少43.9%；国内贷款187.1亿元，较上年减少17.3%；企业和私人投资103.6亿元，较上年增加52.9%；其他投资61.2亿元，较上年增加0.6%。

全社会水利固定资产投资计划



中央水利建设投资 1623.0 亿元，其中：中央预算内固定资产投资 891.06 亿元、水利建设基金 27.5 亿元、财政专项资金 704.44 亿元。按工程类型分：防洪工程投资 706.52 亿元，占 43.53%；水资源工程投资 812.93 亿元，占 50.09%；水土保持及生态工程投资 62.66 亿元，占 3.86%；专项工程投资 40.89 亿元，占 2.52%。

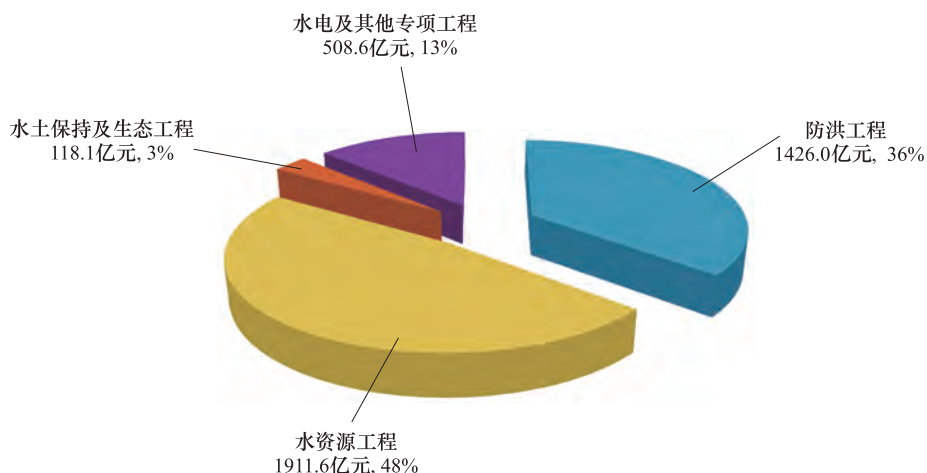
全年正式施工的水利建设项目 20501 个，在建项目投资总规模 13703.1 亿元，较上年增加 16.4%。全年中央投资的水利建设项目 7839 个，较上年增加 54.1%；在建投资规模 8017.0 亿元，较上年增加 23.6%。全年新开工项目 13364 个，较上年增加 30.0%，新增投资规模 3348.0 亿元，比上年减少 6.8%。

全年水利建设完成投资 3964.2 亿元，较上年增加 878.2 亿元，增幅达 28.5%。其中：建筑工程完成投资 2736.5 亿元，较上年增加 30.1%；安装工程完成投资 237.8 亿元，较上年增加 95.4%；机电设备及工器具购置完成投资 178.1 亿元，较上年增加 54.6%；其他完成投资（包括移民征地补偿等）811.8 亿元，较上年增加 8.8%。

|               | 2007年<br>(亿元) | 2008年<br>(亿元) | 2009年<br>(亿元) | 2010年<br>(亿元) | 2011年<br>(亿元) | 2012年<br>(亿元) | 增加比例<br>(%) |
|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------|
| 全年完成          | 944.9         | 1088.2        | 1894.0        | 2319.9        | 3086.0        | 3964.2        | 28.5        |
| 建筑工程          | 672.5         | 781.5         | 1297.2        | 1524.9        | 2103.2        | 2736.5        | 30.1        |
| 安装工程          | 46.5          | 67.4          | 113.4         | 109.6         | 121.7         | 237.8         | 95.4        |
| 设备及工器具购置      | 56.8          | 60.0          | 125.0         | 124.5         | 115.2         | 178.1         | 54.6        |
| 其他（包括移民征地补偿等） | 169.1         | 179.3         | 358.4         | 560.9         | 745.9         | 811.8         | 8.8         |

在全年完成投资中，防洪工程建设完成投资 1426.0 亿元，水资源工程建设完成投资 1911.6 亿元，水土保持及生态工程完成投资 118.1 亿元，水电、机构能力建设等专项工程完成投资 508.6 亿元；七大江河流域完成投资 3363.9 亿元，东南诸河、西北诸河及西南诸河等其他流域完成投资 600.4 亿元；东部、东北、中部、西部地区完成投资分别为 1154.0 亿元、293.9 亿元、1237.2 亿元、1279.2 亿元，占全部完成投资的比例分别为 29.1%、7.4%、31.2% 和 32.3%。

2012年分用途完成投资情况

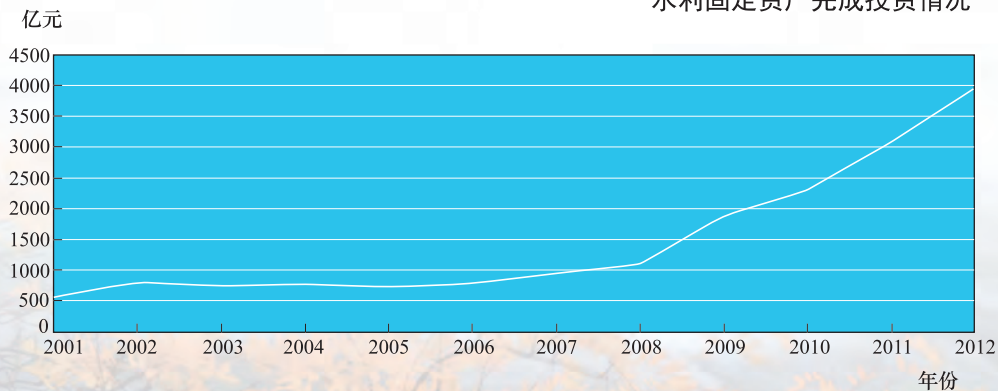


在全年完成投资中，中央项目完成投资 665.4 亿元，地方项目完成投资 3298.8 亿元；大中型项目完成投资 1169.5 亿元，小型及其他项目完成投资 2794.7 亿元；各类新建工程完成投资 2553.7 亿元，扩建、改建等项目完成投资 1410.5 亿元。

全年水利建设项目部分投产项目 708 个，全部投产项目 10282 个，共新增固定资产 1371.3 亿元。全年完成投资新增固定资产 2756.6 亿元，固定资产形成率为 69.5%。截至 2012 年年底，在建项目累计完成投资 8906.0 亿元，投资完成率为 65.0%，比上年提高 6.5 个百分点；在建项目累计新增固定资产 5775.3 亿元，固定资产形成率为 64.8%，比上年提高 3.2 个百分点。

全年水利建设完成土方、石方和混凝土方分别为 34.4 亿立方米、4.7 亿立方米、0.7 亿立方米。截至 2012 年年底，在建项目计划实物工程量完成率分别为：土方 71.9%、石方 57.7%、混凝土方 65.6%。

水利固定资产完成投资情况







# 2

## 重点水利建设

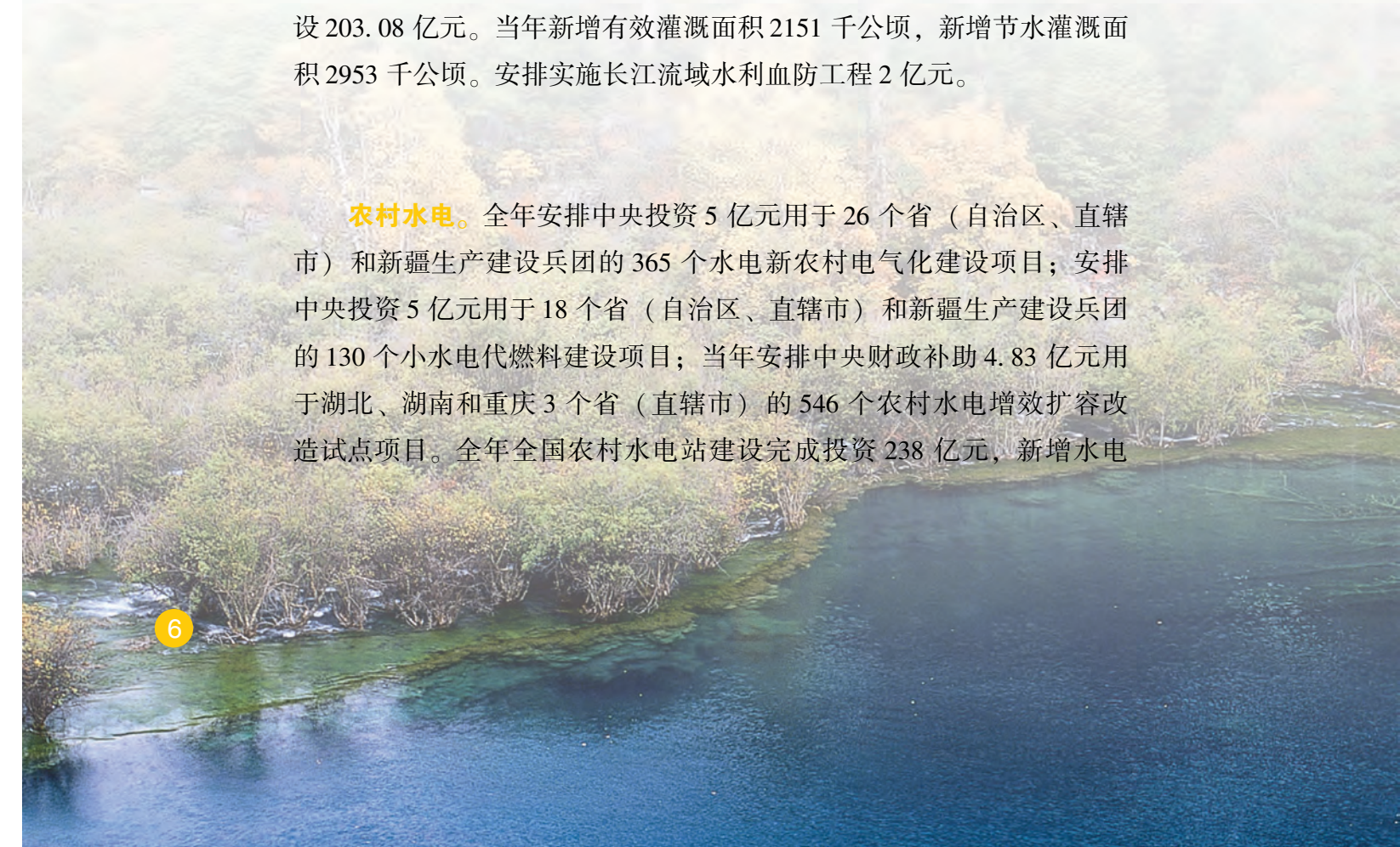
**大江大河治理。**全年在建江河治理工程 1282 处，累计完成投资 1105.3 亿元，项目投资完成率 53.0%。当年河道整治长度 12446 公里，完成 9904 公里。根据国务院 2010 年治淮工作会议要求和《关于进一步治理淮河近期工作的指导意见》，全面推进治淮 38 项工程的前期工作，重点平原洼地治理、入江水道整治工程 2 项已经国家发展和改革委员会批复实施，分准入沂整治、洪泽湖大堤除险加固、淮河行蓄洪区及淮干滩区居民迁建等项目建设进一步推进。黄河下游近期防洪、黄河宁蒙河段、松花江干流、嫩江干流、辽河干流、太湖综合治理、广西西江干流、广东重点堤围、天津独流减河等项目建设进展顺利。

**水库枢纽工程。**全年在建枢纽工程 339 座，累计完成投资 1387.7 亿元，项目投资完成率 63.5%。新开工建设了河北双峰寺、湖南涪天河、重庆金佛山等重点工程，加快了黄河海勃湾、辽宁锦凌、江西峡江、河南河口村、广西漓江补水、海南红岭、四川亭子口、云南小中甸、贵州黔中、新疆生产建设兵团肯斯瓦特等续建工程建设。当年在建病险水库除险加固工程 6289 座，累计完成投资 450.6 亿元，项目投资完成率 80.0%；当年安排中央投资 233 亿元，用于大中型水库（闸）和重点小型水库除险加固任务，当年基本完成除险加固任务 3016 座。

**水资源配置工程。**全年在建各类水资源配置工程投资规模 2645.0 亿元，累计完成投资 1937.4 亿元，项目投资完成率 73.2%。南水北调东、中线一期工程主体工程 147 个设计单元工程开工建设，在建规模 2232.7 亿元，累计完成投资 2029.2 亿元，当年完成投资 652.9 亿元。加快了吉林引松供水、江西浯溪口、桂中治旱、四川小井沟、牛栏江—滇池补水、甘肃引洮一期、宁夏中部干旱带等续建工程建设。

**农村水利。**全年农村饮水安全工程在建投资规模 805.0 亿元，累计完成投资 662.4 亿元。当年解决 7294 万人的饮水安全问题。截至 2012 年年底，农村饮水安全人口已达 7.5 亿人，农村集中式供水受益人口比例 67.9%。中央安排 121.57 亿元用于规划内 244 处大型灌区续建配套与节水改造、13 处三江平原新建灌区建设、116 处中型灌区节水配套改造建设、125 处大型灌排泵站更新改造、74 个规模化节水灌溉示范和 48 个牧区水利试点项目建设，安排中央财政小型农田水利设施建设 203.08 亿元。当年新增有效灌溉面积 2151 千公顷，新增节水灌溉面积 2953 千公顷。安排实施长江流域水利血防工程 2 亿元。

**农村水电。**全年安排中央投资 5 亿元用于 26 个省（自治区、直辖市）和新疆生产建设兵团的 365 个水电新农村电气化建设项目；安排中央投资 5 亿元用于 18 个省（自治区、直辖市）和新疆生产建设兵团的 130 个小水电代燃料建设项目；当年安排中央财政补助 4.83 亿元用于湖北、湖南和重庆 3 个省（直辖市）的 546 个农村水电增效扩容改造试点项目。全年全国农村水电站建设完成投资 238 亿元，新增水电



站 600 座，装机容量 340 万千瓦。全国农村水电配套电网建设共完成投资 50 亿元，新增 110 千伏及以上变电站容量 305 万千伏安；新增 35（63）千伏变电站容量 98 万千伏安；配电变压器容量 257 万千伏安。新投产 10 千伏及以上高压线路 1.6 万公里，低压线路 3.4 万公里。

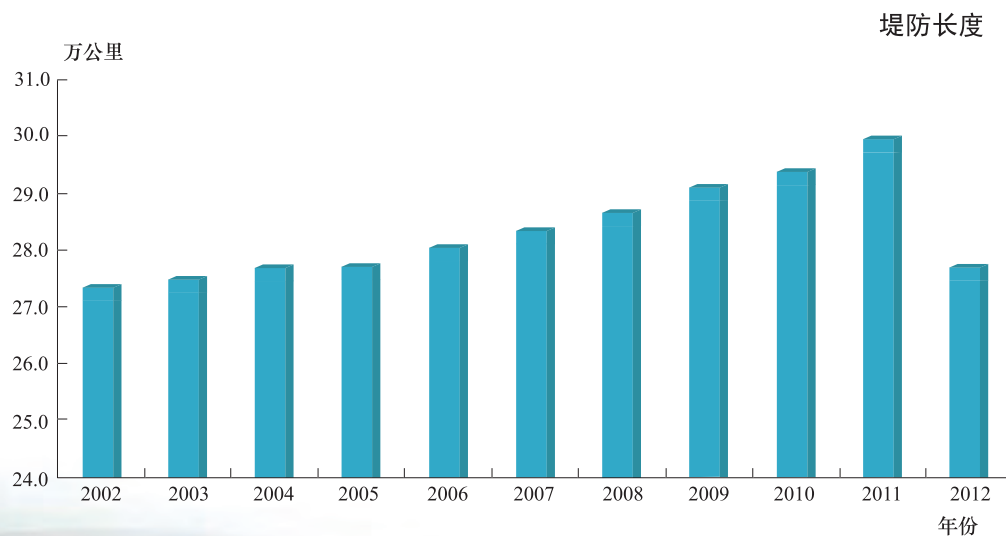
**水土保持。**全年中央安排水土保持及生态建设投资 54.66 亿元，全年水土保持及生态工程在建规模 458.5 亿元，累计完成 282.2 亿元。全国新增水土流失综合治理面积 4.4 万平方公里，其中国家水土保持重点工程新增水土流失治理面积 1.61 万平方公里。全年新增封育保护面积 2.59 万平方公里。实施 3400 条小流域水土流失综合治理，兴建黄土高原淤地坝 340 座，治理崩岗 2100 处。全年新修梯田 524 千公顷，新增沟坝淤地面积 27 千公顷，新栽种水保林面积 1564 千公顷，新增种草面积 406 千公顷。开展国家重点治理的项目县达 900 多个。坡耕地水土流失综合治理试点工程建设范围扩大到 22 个省、140 个县，当年完成坡改梯 267 千公顷。

**行业能力建设。**全年水利行业能力建设完成投资 71.8 亿元。其中：防汛通信设施投资 13.8 亿元，水文建设投资 30.7 亿元，科研教育设施投资 2.0 亿元，水利前期投资 14.6 亿元，其他投资 10.6 亿元。

## 3

## 主要水利工程施工

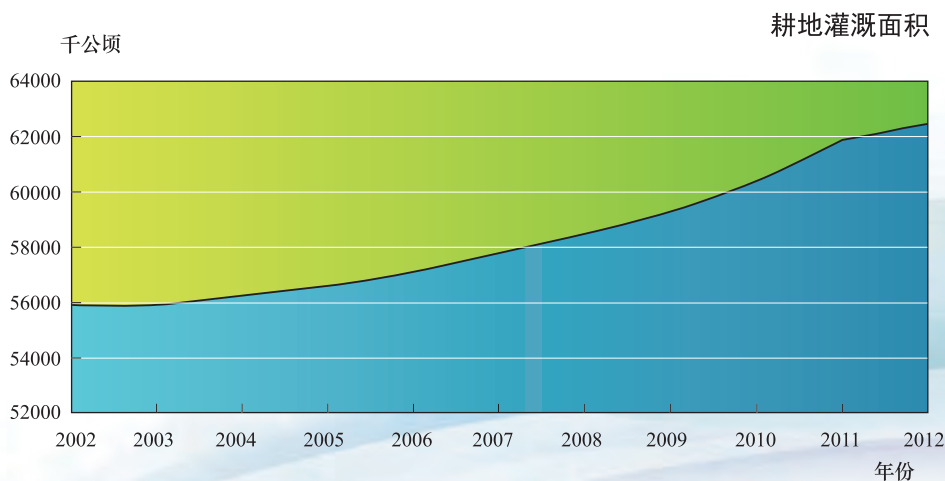
**堤防和水闸。**全国已建成五级以上江河堤防 27.73 万公里<sup>①</sup>，累计达标堤防 17.75 万公里，堤防达标率为 64.0%；其中一、二级达标堤防长度为 2.79 万公里，达标率为 73.6%。全国已建成江河堤防保护人口 5.7 亿人，保护耕地 4.3 万千公顷。全国已建流量为 5 立方米每秒及以上的水闸 97256 座，其中大型水闸 862 座；其中分洪闸 7962 座，排（退）水闸 17229 座，挡潮闸 5813 座，引水闸 10955 座，节制闸 55297 座。



① 2011 年以前各年堤防长度含五级以下江河堤防。

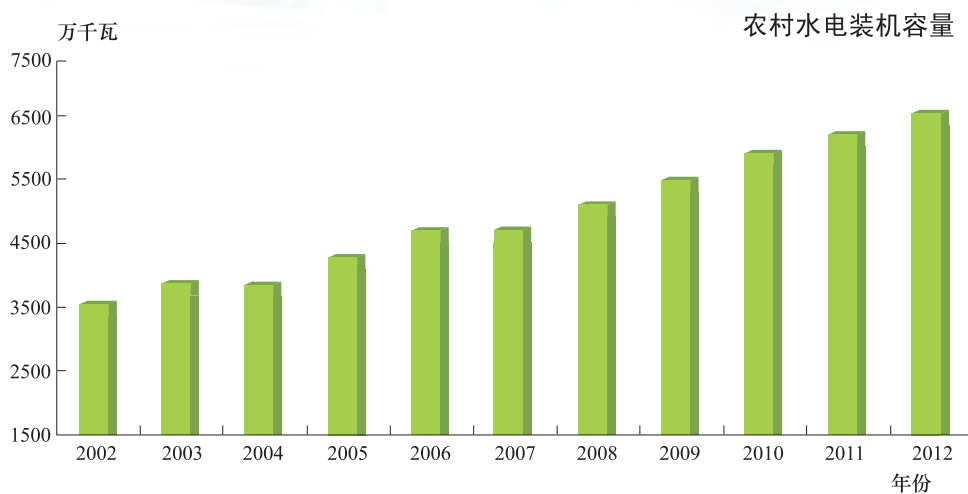
**水库和枢纽。**全国已建成各类水库 97543 座，水库总库容 8255 亿立方米。其中：大型水库 683 座，总库容 6493 亿立方米，占全部总库容的 78.7%；中型水库 3758 座，总库容 1064 亿立方米，占全部总库容的 12.9%。全国大中型水库大坝安全达标率为 95.2%。

**农业灌溉。**全国设计灌溉面积大于 2000 亩及以上的灌区共 22318 处，耕地灌溉面积 33898 千公顷。其中：50 万亩以上灌区 177 处，耕地灌溉面积 6242 千公顷；30 万~50 万亩大型灌区 280 处，耕地灌溉面积 5018 千公顷。截至 2012 年年底，全国耕地灌溉面积 62491 千公顷，占全国耕地面积的 52.1%。全国节水灌溉工程面积 31217 千公顷，其中，喷、微灌面积 6600 千公顷，低压管灌面积 7526 千公顷，渠道防渗节水灌溉面积 12823 千公顷，其他工程节水灌溉面积 4267 千公顷。

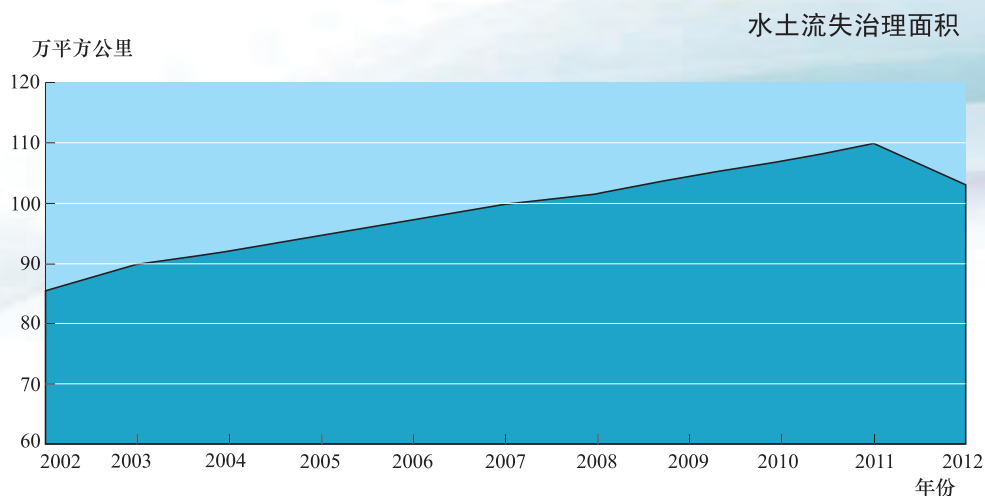


**机电井和泵站。**全国已累计建成日取水大于等于20立方米的供水机电井或内径大于200毫米的灌溉机电井共454.3万眼。全国已建成各类装机流量1立方米每秒或装机功率50千瓦以上的泵站89328处，其中大型泵站346处，中型泵站3641处，小型泵站85341处。固定机电抽水泵站43.4万处，装机容量2716万千瓦，流动排灌和喷滴灌设施装机容量2563万千瓦。

**农村水电。**截至2012年年底，全国共建成农村水电站45799座，装机容量6568.6万千瓦，占全国水电装机容量的26.4%。全国农村水电年发电量2173亿千瓦时，占全国水电发电量的25.1%。累计解决56万无电人口用电问题。



**水土保持工程。**全国水土流失综合治理面积 102.95 万平方公里<sup>①</sup>，累计实施生态修复面积达 74.6 万平方公里，建成生态清洁型小流域 301 条。全面完成全国水土保持监测网络和信息系統建设二期工程，建成 715 个水土保持监测点，完成了竣工验收的各项准备工作。开展了国家水土保持基础信息平台建设前期工作。



**水文和信息化。**截至 2012 年年底，全国共有各类水文测站 70179 处，其中：国家基本水文站 3214 处，专用水文站 378 处，水位站 5317 处，雨量站 35637 处，水质站 10030 处，地下水监测站 13726 处，蒸发站 11 处，实验站 58 处，墒情站 1808 处。全国共有 16494 处拍报水情测站，1039 处水文预报测站。已建成水环境监测（分）中心 277 个，水质监测基本覆盖了全国主要江河湖库。

① 2012 年水土流失综合治理面积数据根据第一次全国水利普查成果进行了修正。

水利信息化建设进入全方位、多层次推进的新阶段。省级以上水利部门接入网络的各种类型 PC 机数量 71069 台，服务器设备 3053 套；省级以上水利部门已配备的各类在线存储设备的存储能力 1384704.1GB；省级以上水利部门可接受信息的各类水利信息采集点 78720 个，其中自动采集点 44460 个，正常运行的数据库达 600 个，存储的数据量达到 261899.5GB；流域机构和省级水行政主管部门视频会议系统有 30 家实现了对下一级单位的全覆盖；各级网站公开的行政许可事项 734 项，网上办理的行政许可事项 440 项。正常运行的各类业务应用系统涵盖了水利行政和业务的主要方面。





# 4

## 水资源利用与保护

据初步统计，2012年全国水资源总量29526.9亿立方米，比常年值偏多6.6%，比上年增加27.0%；全国平均降水量688.0毫米，比常年值偏多7.1%，较上年增加18.2%。截至2012年年底，全国583座大型水库蓄水总量3240.6亿立方米，比2012年年初增加256.4亿立方米；3271座中型水库年末蓄水量为415.6亿立方米，比2012年年初增加41.2亿立方米。

全年全国总供水量6131.2亿立方米，其中地表水源占80.8%，地下水源占18.5%，其他水源占0.7%。全国总用水量<sup>①</sup>6131.2亿立方米，其中：生活用水739.7亿立方米（其中城镇生活用水占74.3%），占总用水量的12.1%；工业用水1380.7亿立方米，占总用水量的22.5%；农业用水3902.5亿立方米，占总用水量的63.6%；生态环境补水108.3亿立方米，占总用水量的1.8%。与2010年比较，生活用水增加67.4亿立方米，工业用水减少66.6亿立方米，农业用水增加

<sup>①</sup> 2012年供用水量相关数据均为初步数，与往年相比，将生活用水量中的牲畜用水量调整至农业用水量中。

119.9 亿立方米，生态环境补水减少 11.5 亿立方米。全国人均用水量为 454 立方米。万元 GDP 用水量 130 立方米（2010 年可比价），比 2010 年下降 14%；万元工业增加值用水量 72 立方米（2010 年可比价），比 2010 年下降 20%。

根据对全国 20.1 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 67.0%。

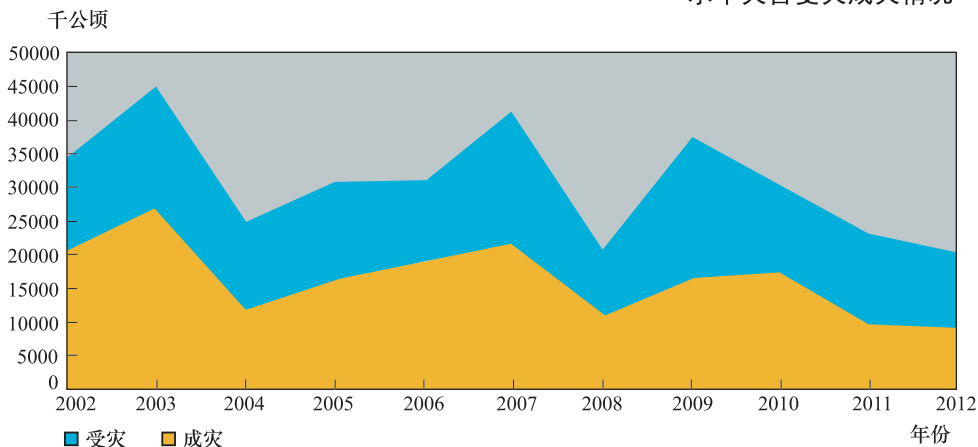


# 5

## 防洪抗旱

2012年，全国洪涝灾害总体偏轻。全国农作物受灾面积11218千公顷，成灾面积5871千公顷，受灾人口1.2亿人，因灾死亡673人、失踪159人，倒塌房屋59万间，县级以上城市受淹184个，直接经济损失约2675亿元，其中水利设施直接经济损失468亿元。四川、甘肃、河北、北京、内蒙古、浙江、山东、辽宁等省（自治区、直辖市）受灾较重。全国因山洪灾害造成人员死亡失踪人数占全部死亡失踪人数的75%，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24%。

水旱灾害受灾成灾情况



全国旱灾总体偏轻。云南、湖北等地区旱情比较严重。全国农田因旱受灾面积9333千公顷，成灾面积3509千公顷，直接经济损失533亿元。全国因旱累计有1637万城乡人口、848万头大牲畜发生临时性饮水困难。

全年中央下拨用于防汛抗旱方面的经费共94.45亿元，其中，水利建设基金5.92亿元，特大防汛经费27.75亿元，特大抗旱经费19.20亿元，山洪灾害防治经费41.38亿元，抗旱调水专项0.20亿元。

2012年防汛抗旱工作取得全面胜利，全国重要堤防无一决口，大中型水库无一垮坝，全年防洪减淹耕地4413千公顷，避免城市进水受淹134座，防洪减灾经济效益892亿元。解决了1303万城乡居民和805万头大牲畜因旱临时饮水困难，全年完成抗旱浇地面积17266千公顷，抗旱挽回粮食损失314亿公斤。



# 6

## 水利改革与管理

**水利规划和前期工作。**全年共批复各类规划 32 项，其中：国务院批复 5 项，水利部单独批复 27 项。水利部继续推动全国水中长期供求规划编制工作，流域综合规划修编工作取得较大进展，长江、辽河流域综合规划已经国务院批复，黄河、淮河、海河、珠江、松花江、太湖流域综合规划修编全面进入协调报批阶段，启动全国水资源保护规划编制，通过规划技术大纲审查，编制完成全国灌溉发展总体规划、全国坡耕地水土流失综合治理规划、全国大、中型水库建设“十二五”规划、全国水利定点扶贫专项规划等一批重点水利规划。全年共向国家发展和改革委员会报送 56 项重点水利项目，投资规模 3218.50 亿元，国家发展和改革委员会批复 37 个重点水利项目，总投资 1504.03 亿元。其中，项目建议书 9 项，总投资 398.28 亿元；可行性研究 19 项，总投资 424.89 亿元；初步设计 9 项，总投资 680.86 亿元。

**水利立法与水政管理。**2012 年水利部共计准予（延续）水行政许可 1462 件，其中：建设项目水资源论证机构资质认定 70 件，建设项目水资源论证报告审批 1 件，水利工程建设监理单位资质认定 434 件，水

利工程质量检测单位资质认定 116 件，生产建设项目水土保持监测单位资质认定 360 件，水利水电建设项目环境影响报告书（表）预审 24 件，生产建设项目水土保持方案审批 253 件，生产建设项目水土保持设施验收 152 件，水文、水资源调查评价机构资质认定 15 件，水利工程启闭机使用许可证核发 37 件。长江中下游干流河道采砂规划划定 41 个可采区，2012 年度审批采砂经营许可权 31 个，许可年度采砂总量 7529 万吨，许可采砂船只数量 259 艘。全国共查处水事违法案件 54842 件，已结案 47569 件，结案率 86.74%，挽回直接经济损失 18570 万元。全国共调处水事纠纷 5410 件，挽回经济损失 9987 万元。2012 年水利部共受理行政复议案件 10 件，办结 10 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 1923 个，占全国县级以上行政区总数的 78.9%。在组建的 1469 个水务局中，省级水务局（厅）4 个，副省级水务局 7 个，地级水务局 212 个，县级水务局 1246 个。水务系统共有自来水厂 3785 座，供水管道总长 49.1 万公里，自来水供水能力 17758 万立方米每日，年供水总量 350.6 亿立方米。污水处理厂 2030 座，排水管道总长 24.2 万公里，污水处理能力 8786 万立方米每日，年污水处理总量 231.3 亿立方米。水务系统共有水务企业 2446 家，年末固定资产总值 1829.8 亿元，年销售收入 437.8 亿元，年利润-3.4 亿元。水务系统城市水务投资总额 1137.7 亿元。全国城市（县城）水源地合计 4537 个，水源年供水能力 1052.7 亿立方米。全国城市（县城）年污水处理回用量 44.3 亿立方米，除污水处理回用外的其他非传统水资源利用量 575.8 亿立方米。实行水务管理地区原水水价 0.01~6.0 元每立方米，地表水征收水

资源费 0.002 ~ 2.0 元每立方米，地下水征收水资源费 0.01 ~ 10.0 元每立方米。

**建设管理与改革。**全国水利工程管理体制基本完成并通过验收。12240 个水利工程管理单位全部完成“两费”测算，98.2% 的单位完成分类定性。“两项经费”共落实 180.9 亿元，落实率达 87%，其中：落实人员经费 98.9 亿元，落实率为 91%；落实维修养护经费 82.0 亿元，落实率为 83%。实行管养分离（包括内部管养分离）的水管单位 7579 个，占水管单位总数的 61.9%。全国共有水利水电工程施工总承包特级资质企业 10 家，水利水电工程施工总承包一级资质企业 195 家。注册水利工程建设监理工程师 50579 人，一级注册建造师水利水电工程专业资格 11872 人。全年新批准取得水利工程施工监理专业甲级资质单位 42 个，乙级资质单位 70 个，丙级资质单位 219 个；取得水土保持工程施工监理专业甲级资质单位 10 个，乙级资质单位 33 个，丙级资质单位 69 个；取得机电及金属结构设备制造监理专业甲级资质单位 5 个，乙级资质单位 11 个；取得水利工程建设环境保护监理专业资质（不分级）单位 21 个。全年新增取得岩土工程类质量检测甲级资质单位 22 个，取得混凝土工程类质量检测甲级资质单位 27 个，取得金属结构类质量检测甲级资质单位 8 个，取得机械电气类质量检测甲级资质单位 6 个，取得量测类质量检测甲级资质单位 17 个。

**农村水利改革。**全国成立的以农民用水户协会为主要形式的农民用水合作组织累计达到 7.8 万多家，协会管理灌溉面积约 2.4 亿亩，占

全国耕地灌溉面积的 25.9%。出台了小型农村水利工程管理体制改革的实施意见，通过拍卖、租赁、承包、股份合作等方式，对 700 多万处小型农田水利工程进行了产权制度改革。

**水土保持管理。**全国共审批开发建设项目水土保持方案 2.8 万个，其中水利部审批国家大中型项目水土保持方案 253 个，涉及防治责任范围 2970.5 平方公里。全年完成生产建设项目的水土保持设施验收 5720 个。启动全国第二批 788 个县水土保持监督管理能力建设。出台《国家农业综合开发水土保持项目管理实施细则》。

**水价改革。**2012 年，全国农业供水成本 25.89 分每立方米，其中国有水利工程农业供水成本 17.51 分每立方米，末级渠系供水成本 8.38 分每立方米。农业水价为 9.19 分每立方米，约为成本的 35.5%，其中国有水利工程水价 6.21 分每立方米、末级渠系水价 2.98 分每立方米，全国平均农业水费实收率为 75.97%。在全国 20 个省（自治区）125 个县开展农业水价综合改革示范区建设，示范区农业水费实收率平均达到 95% 左右。

**水电改革和管理。**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。14 个省明确由水行政主管部门负责水能资源统一管理。积极落实农村水电安全生产“双主体”责任，安全监管覆盖率超过 95%。



**水利安全监督。**继续深入开展“安全生产年”活动。全国共开展“打非治违”专项行动 16317 次，查处违法违规生产经营建设行为 14025 起。组织 10994 个安全生产检查组，深入 61703 个生产经营单位和工程项目现场开展检查，共排查出一般安全隐患 26670 项，重大安全隐患 748 项，累计投入安全隐患治理资金 29.56 亿元。水利行业共发生 15 起生产安全事故，死亡 22 人，未发生重特大生产安全事故，水利安全生产形势保持了稳定向好的态势。全年共派出 102 个稽察组，稽察和复查项目 293 个、核查项目 4747 个。其中，组织流域机构稽察、复查项目 63 个。项目类型包括小型农田水利重点县、中小河流水文监测系统、山洪灾害防治县级非工程措施、坡耕地水土流失综合治理试点工程、中小河流治理、大型灌排泵站更新改造、枢纽及水源工程、小型病险水库除险加固等 8 类。查出各类问题 1295 个，下发稽察整改意见 178 份。推动省级水行政主管部门开展自主稽察项目 1117 个，发现问题 7567 个。

**水利移民。**亭子口、峡江、锦凌、青山、海勃湾、漓江、黔中、旁多、红岭、小中甸、龙口等 11 个大型水利工程，涉及 11 个省（自治区、直辖市），搬迁人口约 5 万人，已开工建设安置点 62 个，安置农村移民 4 万余人，已建住房约 100 万平方米，调整土地 1.8 万亩，纳入后期扶持约 2 万人。

**水利科技。**全年共安排近 5 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 4 项，水利公益性行业科研专项 66 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 56 项。水利科技项目成果获国家科技进步奖 5 项。截至 2012 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 12 个。落实中央级科学事业单位修缮购置专项资金 11355 万元。水利行业现行有效标准达 713 项，在编（含修订）水利技术标准 319 项，列入 2008 年版《水利技术标准体系表》拟编水利技术标准 96 项。

**国际合作。**成功举办或参与多边国际交流活动 46 次，签署双边水利合作协议 5 份，多边水利合作协议 4 份。组织召开双边政府固定交流机制会议 7 次。圆满完成国际金融组织贷款项目 2 个，即世行贷款云贵鄂渝水土保持项目、亚行贷款松花江洪水管理项目，贷款总金额 2.5 亿美元。世行贷款淮河流域重点平原洼地排涝治理项目正式启动，贷款金额 2 亿美元。正在执行的赠款项目 9 个，赠款总金额 0.44 亿美元。

# 7

## 水利行业状况

**职工与工资。**全国水利系统从业人员 107 万人，比上年增加 0.5%。其中，全国水利系统在岗职工 103.4 万人，比上年增加 0.9%。在岗职工中，部直属单位在岗职工 7.4 万人，比上年减少 1.3%，地方水利系统在岗职工 96 万人，比上年增加 1.1%。全国水利系统在岗职工工资总额 389.1 亿元，比上年增加 10.7%。全国水利系统在岗职工年平均工资 37692 元，比上年增加 9.9%，其中：部直属单位在岗职工年平均工资 78695 元，比上年增加 6.9%；地方水利系统在岗职工年平均工资 34512 元，比上年增加 10.7%。

职工与工资情况

|               | 2002年 | 2003年 | 2004年 | 2005年 | 2006年 | 2007年 | 2008年 | 2009年 | 2010年 | 2011年 | 2012年 |
|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 在岗职工人数 (万人)   | 128.9 | 122.9 | 118.2 | 110.5 | 109.2 | 106.8 | 105.6 | 103.7 | 106.6 | 102.5 | 103.4 |
| 其中：部直属单位 (万人) | 6.4   | 6.4   | 6.4   | 6.6   | 6.8   | 7.2   | 7.2   | 7.2   | 7.4   | 7.5   | 7.4   |
| 地方水利系统 (万人)   | 122.5 | 116.5 | 111.8 | 103.9 | 102.3 | 99.6  | 98.4  | 96.5  | 96.3  | 95.0  | 96.0  |
| 在岗职工工资 (亿元)   | 136.3 | 140.6 | 157.1 | 159.8 | 184.3 | 211.3 | 234.4 | 264.7 | 297.9 | 351.4 | 389.1 |
| 年平均工资 (元/人)   | 10652 | 11443 | 13054 | 13969 | 16776 | 19573 | 22143 | 25633 | 28816 | 34283 | 37692 |

**勘察设计。**2012年全国具有水利行业设计甲级资质的单位82家，拥有设计乙级资质的单位308家，丙级资质690家。甲、乙、丙级单位从业人员近8万人。

**水利风景区。**累计批准国家级水利风景区518个，其中：水库型274个，自然河湖型96个，城市河湖型71个，湿地型34个，灌区型22个，水土保持型21个。

全国水利发展主要指标（2007—2012年）

| 指标名称            | 单位    | 2007年 | 2008年 | 2009年 | 2010年 | 2011年 | 2012年 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|
| 1. 灌溉面积         | 千公顷   | 63413 | 64120 | 65165 | 66352 | 67743 | 67780 |
| 2. 耕地灌溉面积       | 千公顷   | 57782 | 58472 | 59261 | 60348 | 61682 | 62491 |
| 其中：本年新增         | 千公顷   | 1344  | 1318  | 1533  | 1722  | 2130  | 2151  |
| 3. 机电井灌溉面积      | 千公顷   | 16894 | 17163 | 17480 | 17807 | 18250 | 24832 |
| 4. 机电排灌面积       | 千公顷   | 38715 | 39277 | 40016 | 40751 | 41465 | 42491 |
| 其中：提灌面积         | 千公顷   | 34265 | 34659 | 35581 | 36401 | 37079 | 38152 |
| 5. 节水灌溉面积       | 千公顷   | 23489 | 24436 | 25755 | 27314 | 29179 | 31217 |
| 6. 万亩以上灌区       | 处     | 5869  | 5851  | 5844  | 5795  | 5824  | 7756  |
| 其中：30万亩以上       | 处     | 294   | 325   | 335   | 349   | 348   | 457   |
| 万亩以上灌区耕地灌溉面积    | 千公顷   | 28341 | 29440 | 29562 | 29415 | 29748 | 30087 |
| 其中：30万亩以上       | 千公顷   | 14667 | 15401 | 15575 | 15658 | 15786 | 11260 |
| 7. 当年解决农村饮水安全人口 | 万人    | 4468  | 5378  | 7295  | 6717  | 6398  | 7294  |
| 8. 除涝面积         | 千公顷   | 21419 | 21425 | 21584 | 21692 | 21722 | 21857 |
| 9. 水土流失治理面积     | 万平方公里 | 99.9  | 101.6 | 104.3 | 106.8 | 109.7 | 103.0 |
| 10. 水库          | 座     | 85412 | 86353 | 87151 | 87873 | 88605 | 97543 |
| 其中：大型水库         | 座     | 493   | 529   | 544   | 552   | 567   | 683   |
| 中型水库            | 座     | 3110  | 3181  | 3259  | 3269  | 3346  | 3758  |

续表

| 指标名称           | 单位   | 2007年   | 2008年   | 2009年   | 2010年   | 2011年   | 2012年   |
|----------------|------|---------|---------|---------|---------|---------|---------|
| 水库总库容          | 亿立方米 | 6345    | 6924    | 7064    | 7162    | 7201    | 8255    |
| 其中：大型水库        | 亿立方米 | 4836    | 5386    | 5506    | 5594    | 5602    | 6493    |
| 中型水库           | 亿立方米 | 883     | 910     | 921     | 930     | 954     | 1064    |
| 11. 全年水利工程总供水量 | 亿立方米 | 5819    | 5910    | 5933    | 6022    | 6107    | 6141.8  |
| 12. 堤防长度       | 万公里  | 28.4    | 28.7    | 29.1    | 29.4    | 30.0    | 27.73   |
| 保护耕地           | 千公顷  | 45518   | 45712   | 46547   | 46831   | 45418   | 42597   |
| 堤防保护人口         | 万人   | 56487   | 57289   | 58978   | 59853   | 59697   | 56566   |
| 13. 水闸总计       | 座    | 41110   | 41626   | 42523   | 43300   | 44306   | 97256   |
| 其中：大型水闸        | 座    | 438     | 504     | 565     | 567     | 599     | 862     |
| 14. 已配套农田机电井眼数 | 万眼   | 439     | 444     | 451     | 458     | 465     | 483     |
| 装机容量           | 万千瓦  | 4089    | 4151    | 4236    | 4321    | 4376    | 4943    |
| 15. 年末全国水电装机容量 | 万千瓦  | 14523.0 | 17090.0 | 19686.0 | 21157.0 | 23007.0 | 24881.0 |
| 全年发电量          | 亿千瓦时 | 4870.0  | 5614.0  | 5055.0  | 6813.0  | 6507.0  | 8657.0  |
| 16. 农村水电装机容量   | 万千瓦  | 4738.9  | 5127.4  | 5512.1  | 5924.0  | 6212.3  | 6568.6  |
| 全年发电量          | 亿千瓦时 | 1437.0  | 1628.0  | 1567.0  | 2044.0  | 1757.0  | 2173.0  |
| 17. 当年完成水利建设投资 | 亿元   | 944.9   | 1088.2  | 1894.0  | 2319.9  | 3086.0  | 3964.2  |
| 按投资来源分：        |      |         |         |         |         |         |         |
| (1) 预算内拨款      | 亿元   | 270.0   | 390.4   | 929.9   | 918.1   | 898.8   | 1291.5  |
| (2) 预算内专项      | 亿元   | 195.7   | 160.5   | 128.8   | 94.8    | 29.2    | 25.4    |
| (3) 财政专项       | 亿元   | —       | —       | —       | —       | 564.8   | 1004.2  |
| (4) 水利建设基金     | 亿元   | 67.8    | 60.5    | 105.5   | 215.2   | 79.6    | 120.0   |
| (5) 重大水利工程建设基金 | 亿元   | —       | —       | —       | —       | 437.8   | 434.9   |
| (6) 土地出让收益     | 亿元   | —       | —       | —       | —       | 12.1    | 25.8    |
| (7) 水资源费       | 亿元   | —       | —       | —       | —       | 18.2    | 21.5    |
| (8) 国内贷款       | 亿元   | 83.4    | 96.9    | 152.9   | 337.4   | 270.3   | 265.6   |
| (9) 利用外资       | 亿元   | 9.5     | 10.5    | 7.6     | 1.3     | 4.4     | 4.1     |
| (10) 自筹资金      | 亿元   | 219.9   | 235.4   | 333.9   | 316.2   | 406.8   | 350.4   |

续表

| 指标名称          | 单位 | 2007年 | 2008年 | 2009年 | 2010年  | 2011年  | 2012年  |
|---------------|----|-------|-------|-------|--------|--------|--------|
| (11) 企业和私人投资  | 亿元 | 38.3  | 35.9  | 41.4  | 48.0   | 74.9   | 113.4  |
| (12) 债券       | 亿元 | —     | —     | —     | 2.5    | 3.9    | 5.2    |
| (13) 其他投资     | 亿元 | 60.3  | 98.1  | 194.2 | 386.5  | 285.1  | 302.4  |
| 按投资用途分:       |    |       |       |       |        |        |        |
| (1) 防洪工程      | 亿元 | 318.5 | 370.1 | 674.8 | 684.6  | 1018.3 | 1426.0 |
| (2) 水资源工程     | 亿元 | 405.1 | 467.8 | 866.0 | 1070.5 | 1284.1 | 1911.6 |
| (3) 水土保持及生态建设 | 亿元 | 60.3  | 76.9  | 86.7  | 85.9   | 95.4   | 118.1  |
| (4) 水电工程      | 亿元 | 66.5  | 77.4  | 72.0  | 105.4  | 109.0  | 117.2  |
| (5) 行业能力建设    | 亿元 | 8.9   | 10.6  | 10.6  | 19.6   | 40.2   | 59.6   |
| (6) 前期工作      | 亿元 | 11.6  | 16.0  | 15.9  | 24.9   | 42.0   | 40.7   |
| (7) 其他        | 亿元 | 74.0  | 69.4  | 167.9 | 329.1  | 496.9  | 291.1  |

- 说明: 1. 本公报不包括香港特别行政区、澳门特别行政区及台湾省的数据。  
 2. 2012年主要发展指标数据已与第一次全国水利普查数据衔接; 供(用)水量相关数据为初步数。  
 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。  
 4. 农村水电的统计口径为装机容量5万及5万千瓦以下水电。

# 2012 STATISTIC BULLETIN ON CHINA

## WATER ACTIVITIES

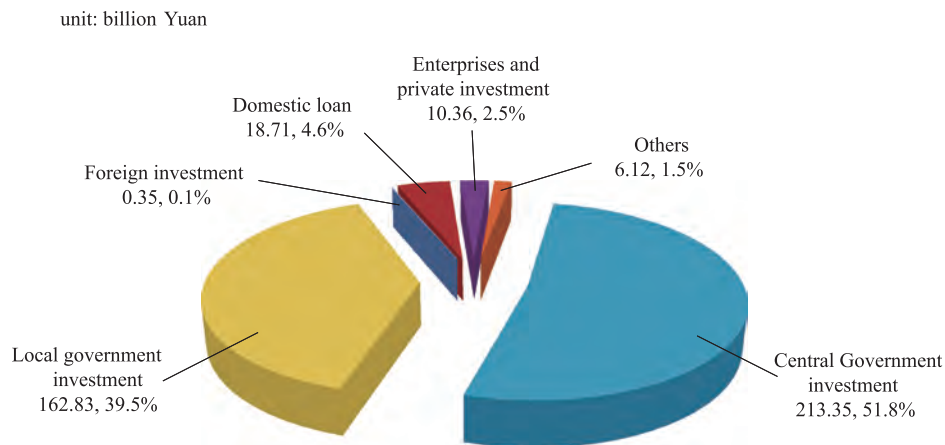
Ministry of Water Resources, People's Republic of China

In the year of 2012, the Communist Party of China (CPC) held the 18th national congress successfully, and a remarkable achievement had been obtained in all aspects of the country. This year, water management and development has embarked on a new stage, moreover water reform and development has produced an effective result. The water departments at all levels have fully implemented the decisions made by the Central Committee of CPC and the State Council to benefit people with water, conducted solid work for a glorious future with united efforts, forged ahead with determination, pioneering and innovative spirit. All of these have provided great support to the realization of “nine consecutive growth” of grain production as well as healthy and continuous development of economy and social harmony in China. As a result, water sector kept a momentum of better and fast development.

### I. Investment in Fixed Assets

The total investment in fixed assets from the water sector was up to 411.72 billion Yuan in 2012, a 23.0% increase comparing to the year of 2011. Divided by sources, 213.35 billion Yuan was financed by the Central Government, 36.7% increase, among which 162.30 billion Yuan from MWR, 46.70 billion Yuan from the special funds of South-North Water Diversion Project, 4.35 billion Yuan from other departments; 162.83 billion Yuan financed by local governments, 14.1% increase; 0.35 billion Yuan of foreign investment, 43.9% decrease; 18.71 billion Yuan of domestic loans, 17.3% decrease; 10.36 billion Yuan from enterprises and private sector, 52.9% increase; and 6.12 billion Yuan from other sources, 0.6% increase.

## Total fixed assets investment plan of water sector



A total of 162.30 billion Yuan came from funds allocation of Central Government in 2012, among which 89.106 billion Yuan from central government budget, 2.75 billion Yuan from Water Construction Funds and 70.444 billion Yuan from Special Funding of Central Government Budget. Divided by the types of projects: 70.625 billion Yuan for flood control, taking 43.53%; 81.293 billion Yuan for water resources project, taking 50.09%; 6.266 billion Yuan for soil and water conservation and ecological improvement, taking 3.86%; and 4.089 billion Yuan for special projects, taking 2.52%.

A total of 20,501 water projects were under construction in 2012, with a total investment of 1370.31 billion Yuan, with an increase of 16.4% comparing to that of the year before. The projects with Central Government finance were 7,839 with an increase of 54.1% comparing to the year before. The total funds used by projects under construction reached 801.70 billion Yuan and increased 23.6% comparing to the year before. There were 13,364 newly-constructed projects in 2012, with an increase of 30.0% and newly-added investment was 334.8 billion Yuan with a decrease of 6.8%.



Completed investment of water project in 2012 amounted to 396.42 billion Yuan, with an increase of 87.82 billion Yuan or 28.5% increase. In which, 273.65 billion Yuan put into construction project with a increase of 30.1%; 23.78 billion Yuan for installation with an increase of 95.4%; 17.81 billion Yuan for purchase of machinery, electric equipment and instruments, with an increase of 54.6%; and 81.18 billion Yuan for other purposes (including compensation of resettlement and land acquisition), with an increase of 8.8%.

|   | 2007<br>(billion Yuan) | 2008<br>(billion Yuan) | 2009<br>(billion Yuan) | 2010<br>(billion Yuan) | 2011<br>(billion Yuan) | 2012<br>(billion Yuan) | increase<br>(%) |
|---|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-----------------|
| Yearly Completed  | 94.49                  | 108.82                 | 189.40                 | 231.99                 | 308.60                 | 396.42                 | 28.5            |
| Construction project  | 67.25                  | 78.15                  | 129.72                 | 152.49                 | 210.32                 | 273.65                 | 30.1            |
| Installation project  | 4.65                   | 6.74                   | 11.34                  | 10.96                  | 12.17                  | 23.78                  | 95.4            |
| Procurement of instruments and equipment                                | 5.68                   | 6.00                   | 12.50                  | 12.45                  | 11.52                  | 17.81                  | 54.6            |
| Others (including compensation for resettlement and land expropriation) | 16.91                  | 17.93                  | 35.84                  | 56.09                  | 74.59                  | 81.18                  | 8.8             |

In the total completed investment, 142.60 billion Yuan was allocated to the construction of flood control projects, 191.16 billion Yuan for the construction of water resources projects, 11.81 billion Yuan for soil and water conservation and ecological restoration, and 50.86 billion Yuan for special projects, such as hydropower development and capacity building.

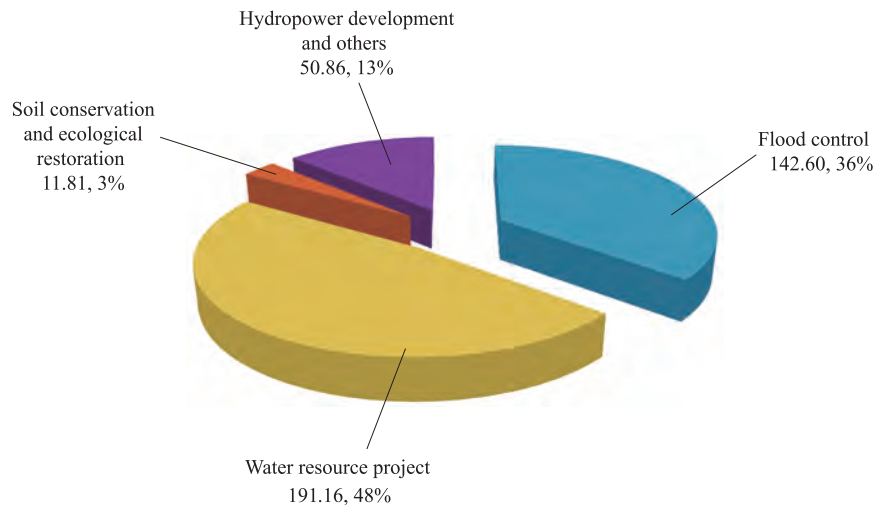
The completed investment for seven major river basins reached 336.39 billion Yuan, of which 60.04 billion Yuan was invested in river basins in the southeast,

southwest and northwest of China. Moreover, completed investments in eastern, northeast, middle and western regions were 115.40 billion Yuan, 29.39 billion Yuan, 123.72 billion Yuan and 127.92 billion Yuan respectively, accounting 29.1%, 7.4%, 31.2%, and 32.3% of the total.

Of this total completed investment, the Central Government contributed 66.54 billion Yuan, and local governments contributed 329.88 billion Yuan. Large- and medium-sized projects completed investment of 116.95 billion Yuan; small-sized and other projects completed 279.47 billion Yuan; newly-constructed project completed 255.37 billion Yuan; and reconstruction and expansion completed 141.05 billion Yuan.

#### Completed investment of projects in 2012

unit: billion Yuan

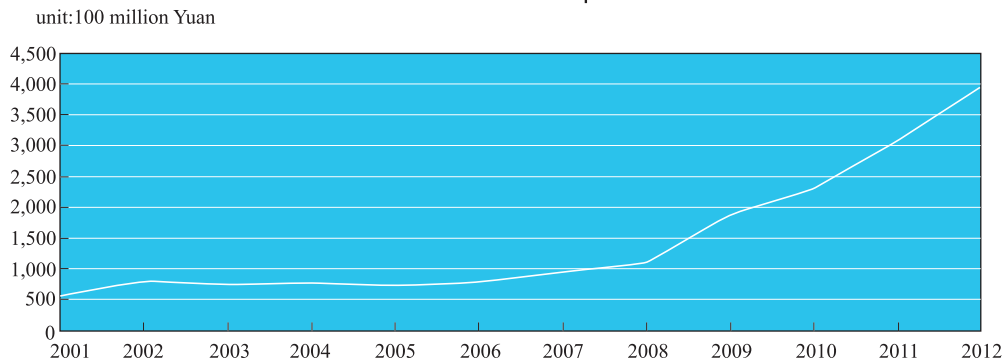


The projects that has partially put into operation were 708. The projects put into full operation were 10,282 with a newly increased fixed asset of 137.13 billion Yuan. The newly-added fixed assets totaled 275.66 billion Yuan in 2012 and the rate of

investment transferred into fixed assets was 69.5% . By the end of 2012, the accumulated investment in projects under construction was 890.60 billion Yuan, and the completion rate was 65.0% , a 6.5% increase over 2011. The newly increased fixed assets of projects under-construction had a value of 577.53 billion Yuan, and the rate of investment transferred into fixed assets was 64.8% , an increase of 3.2% comparing to 2011.

The civil works completed of earth, stone and concrete structures in 2012 were 3.44 billion m<sup>3</sup> , 470 million m<sup>3</sup> , and 70 million m<sup>3</sup> respectively. By the end of 2012, the ratio of complete quantity of earthwork, stonework, concrete of the under-construction projects were 71.9% , 57.7% , and 65.6% respectively.

Completed of Fixed Assets Investment



## II. Key Water Projects Construction

**Harness of large rivers and lakes.** There were 1282 river harness projects under construction that had spent 110.53 billion Yuan, accounting for 53.0% of the total completed investment. There were 12,446 km of river channels trained in 2012, and 9,904 km of which completed. According to the guidance of the State Council issued in the 2010 Working Conference for Huaihe River Harness and the Guidelines for

Recent Activities of Furthering Huaihe River Harness, the early-stage preparation of 38 project for furthering Huaihe River harness made new progress. National Development and Reform Commission approved two projects for implementation, namely Improvement of lowland in major plain in the Huaihe River Basin and training of Huaihe River Channel of Entering into the Yangtze River. The other projects, including Diverting Water from Huaihe River to Yihe River, Strengthening of Embankment of Hongze Lake and relocation of people lived in the retention basin in the Huaihe River Basin and shore areas of the mainstream of the Huaihe River, had been accelerated. The construction of river training project were under going smoothly, including short-term flood control for lower reaches of the Yellow River, Yellow River Ningxia-Inner Mongolia Section, Songhua River Mainstream, Nenjiang River Mainstream, Liao River Mainstream, Taihu Basin Comprehensive Regulation, Xijiang River Mainstream in Guangxi Province, Major Embankment Construction in Guangdong and Duliujian Flood Relief Channel in Tianjin.

**Reservoir projects.** There were 339 reservoir projects under construction in 2012, with an accumulative investment of 138.77 billion Yuan, accounting for 63.5% of the total completed investment. Key reservoir projects of Shuangfengsi in Hebei, Centianhe in Hunan and Jinfoshan in Chongqing were initiated for construction. The other projects fastened the speed of construction, such as those continued projects of Yellow River Haibowan, Jinling in Liaoning, Xiajiang in Jiangxi, Hekoucun in Henan, Water Diversion to Lijiang River in Guangxi, Hongling in Hainan, Tingzikou in Sichuan, Xiaozhongdian in Yunnan, Qianzhong in Guizhou, and Kensiwate in Xinjiang Production Construction Corps. There were 6,289 hazard venerable reservoirs completing repair or reinforcement, with an accumulated investment of 45.06 billion Yuan, accounting for 80.0% of the total completed investment. The Central Government spending for reinforcement of large and medium reservoirs as well as some small reservoirs of great significance reached to 23.30 billion Yuan, and 3,016 reservoirs completed reinforcement.

**Water allocation projects.** The yearly investment for water allocation projects reached to 264.50 billion Yuan. The completed investment in these projects had accumulated to 193.74 billion Yuan, accounting for 73.2% of the total completed investment. Project initiated included 147 designed units out of phase-I of eastern and middle routes of South-to-North Water Diversion Project, with a total investment of 223.27 billion Yuan. The completed investment of this project accumulated to 202.92 billion Yuan, of which the completed investment in 2012 was 65.29 billion Yuan. Continued projects, including Diverting River from Songhua River to Jilin, Wuxikou in Jiangxi, Drought Relief in Central Part of Guangxi, Xiaojingou in Sichuan, Water Diversion from Niulanjiang River to Dianchi, Phase-I of Water Diversion from Taohe River in Central Part of Gansu, and Drought Relief in Central Part of Ningxia, all accelerated pace of construction.

**Irrigation, drainage and rural water supply.** The under-constructed projects for providing safe drinking water attracted 80.50 billion Yuan of investment in the whole year, with an accumulated investment of 66.24 billion Yuan. The newly increased capacity helped 72.94 million people access to safe drinking water. By the end of 2012, the rural population with safe drinking water increased to 750 million. The beneficial rural population who have centralized water supply made up a percentage of 67.90% of the total. The Central Government allocated 12.157 billion Yuan to complete rehabilitation of 244 large irrigation districts for water conservation and water saving, 13 newly-constructed irrigated districts in Sanjiang Plain, continuous construction of 116 medium irrigation districts for water saving, rehabilitation of 125 large irrigation and drainage pumping stations, 74 demonstration projects of water-saving irrigations and 48 pilot projects in pastureland. In addition, 20.308 billion Yuan from central government finance invested to small-scale farmland waterworks for irrigation and drainage and rural water supply. The newly-added effective irrigated area reached 2,151,000 ha; moreover, new-increased water-saving irrigated area reached 2,953,000 ha, Meanwhile, 200 million Yuan allocated to

schistosome prevention projects that conducted in the Yangtze River Basin.

**Rural hydropower and electrification.** A total of 500 million Yuan of investment from Central Government used by 365 rural hydropower and electrification projects in 26 provinces (autonomous regions or municipalities directly under the Central Government) and another 500 million Yuan for 130 Small Hydropower for Fuel Projects in 18 provinces and Xinjiang Production Construction Corps. Another 483 million Yuan released from the Central Government were used as subsidy to Hubei, Hunan and Chongqing for the construction of 546 pilot projects for efficiency improvement and increase of installed capacity in rural areas. The completed investment of rural hydropower station construction amounted to 23.8 billion Yuan; the newly increased hydropower stations were 600, with a total installed capacity of 3.40 million kW. The completed investment for rural electricity network in the whole country was 5.0 billion Yuan; the newly increased capacity of 110 kV substation or above was 3.05 million kVA; the newly increased capacity of 35 (66) kV substation was 0.98 million kVA; the capacity of distribution transformer was 2.57 million kVA. The newly increased 10 kV high pressure transmission line was 16,000 km and low pressure line was 34,000 km.

**Soil and water conservation.** A yearly investment of 5.466 billion Yuan had been arranged for soil and water conservation and ecological restoration project construction; the allocated funds for soil and water conservation and ecological restoration projects under construction reached 45.85 billion Yuan; the completed investment reached 28.22 billion Yuan. The newly-increased areas with soil conservation measures were up to 44,000 km<sup>2</sup>, of which the areas under National Major Project for Soil Conservation reached to 16,100 km<sup>2</sup>. The newly increased forest protected areas were up to 25,900 km<sup>2</sup> in 2012. There had been 3,400 small watersheds with comprehensive measures of soil and water conservation; 340 silt

retention dams built on the Loess Plateau; and 2100 landslides brought under control. The newly built terrace lands increased 524,000 ha. Check dams had silted a land area of 27,000 ha. Newly-created forestland for soil conservation reached 1,564,000 ha and grassland 406,000 ha. More than 900 counties had been listed as national major project counties for soil and water conservation. The pilot project construction for erosion control in slope farmland extended to 140 counties in 22 provinces. The completed area of slope for terraced field reached 267,000 ha.

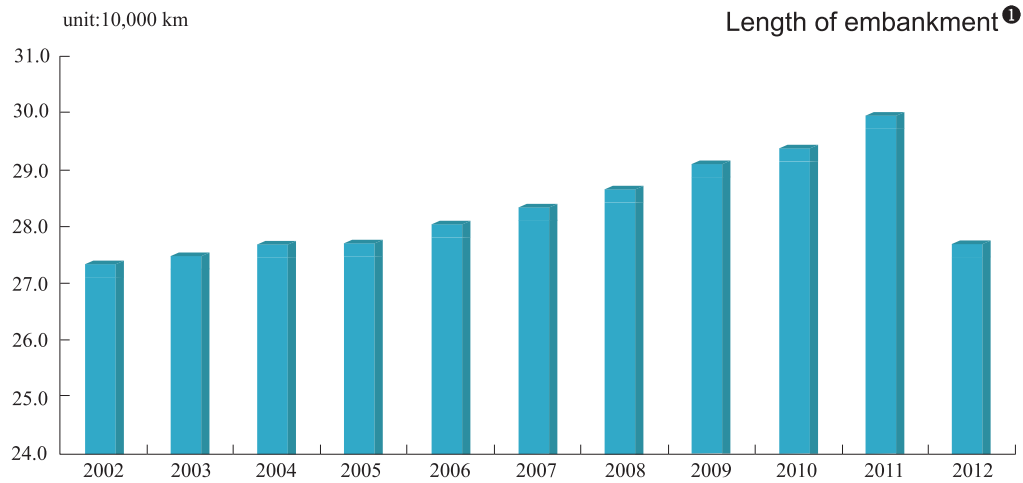
**Capacity building.** The completed investment for capacity building was 7.18 billion Yuan in 2012, of which 1.38 billion Yuan was spent on procurement of communication equipment for flood control, 3.07 billion Yuan for hydrological facilities, 200 million Yuan for scientific research and education facilities, 1.46 billion Yuan for early-stage work, and 1.06 billion Yuan for others.

### III. Key Water Structures

**Embankments and water gates.** Grade-V more than the length of river embankments from in the whole country reached to 277,300 km<sup>①</sup>. Of which, 177,500 km of embankment met the standard, with a percentage of 64.0% of the total up to standard. The length of embankment met the standard of Grade-I and Grade-II increased to 27,900 km, with a percentage of 73.60% of the total. These embankments can protect 570 million people and 43 million ha of cultivated land. The number of water gates with a flow of 5 m<sup>3</sup>/s and above reached to 97,256, of which 862 were large water gates, 7,962 flood diversion sluices, 17,229 drainage/return water sluices, 5,813 tidal barrages, 10,955 water diversion intakes and 55,297 controlling gates.

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



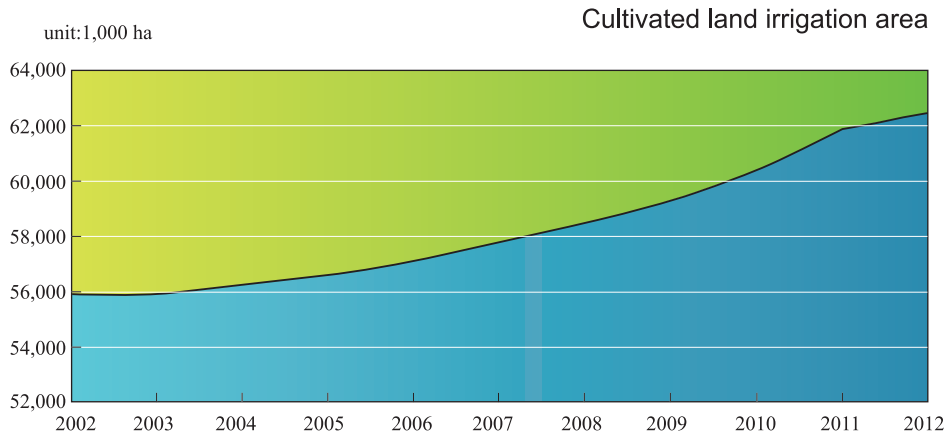
**Reservoirs and water complexes.** The total number of reservoir in China boosted to 97, 543, with a storage capacity of 825. 5 billion m<sup>3</sup>, of which 683 belong to large reservoirs with a total capacity of 649. 3 billion m<sup>3</sup>, accounting for 78. 7% of the total; 3, 758 medium-sized reservoirs with a total capacity of 106. 4 billion m<sup>3</sup>, accounting for 12. 9% of the total. The percentage of large and medium reservoirs up to the safety standard ranked 95. 2% of the total.

**Irrigation.** Irrigation districts with an area equal or above 2,000 mu added to 22, 318, with a total cultivated land irrigated area of 33. 898 million ha. In which, the irrigation districts equal or above 500, 000 mu were 177, with a total cultivated land irrigation area of 6. 242 million ha; the irrigation districts covering an area from 300, 000 to 500, 000 mu were 280, with a total cultivated land irrigation area of 5. 018 million ha. By the end of 2012, the total cultivated land irrigated area reached to 62. 491 million ha that accounted to 52. 1% of the total cultivated area. Water-saving

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



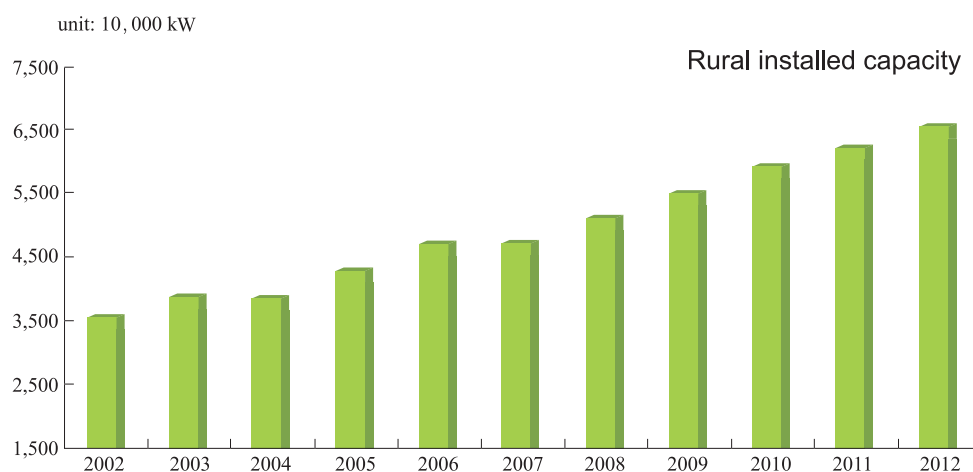
irrigated area reached to 31.217 million ha that applied with water-saving irrigation technologies, among which 12.823 million ha of land had lined canals, 7.526 million ha installed low-pressure pipes, 6.600 million ha equipped with sprinkler or drip or infiltration irrigation, 4.267 million ha had other water-saving methods.



**Tube wells and pumping stations.** A total of 4.543 million water supply tube wells were excavated in the whole country, with a daily water abstraction capacity equal or larger than 20 m<sup>3</sup> or an inner diameter larger than 200 mm. A total of 89,328 pumping stations that have an installed flow of 1 m<sup>3</sup>/s or installed voltage above 50 kW had been installed, among which 346 belong to larger pumping stations, 3,641 medium-size and 85,341 small-size pumping stations. The fixed electro-mechanical pumping stations increased to 434,000, with an installed capacity of 27.16 million kW. The installed capacity of movable equipment of irrigation and drainage or drip irrigation amounted to 25.63 million kW.

**Rural hydropower and electrification.** By the end of 2012, hydropower stations built in rural areas totaled 45,799, with an installed capacity of 65.686 million kW, accounting for 26.4% of the total in China. The annual power generation by these hydropower

stations reached to 217.3 billion kWh, accounting for 25.1% of the total power generation of the whole country. It enabled 560,000 people access to electricity.

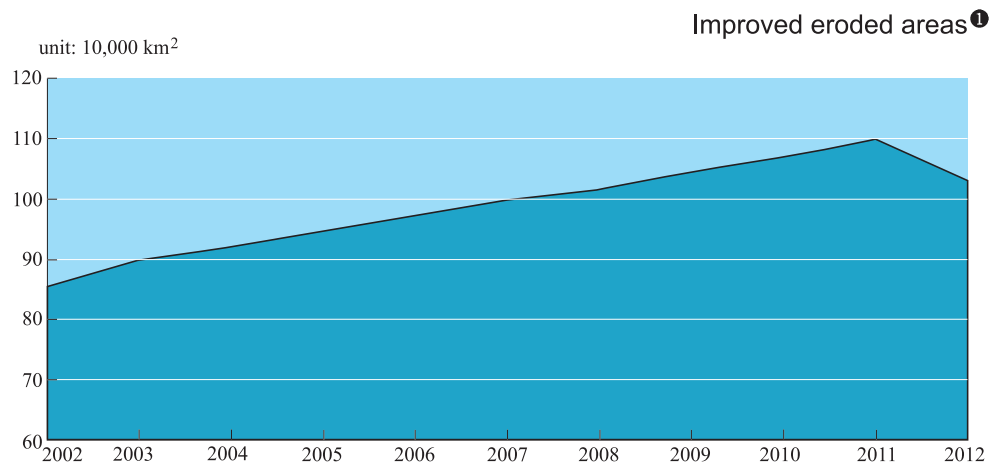


**Soil and water conservation.** In 2012, the restored eroded areas equaled to 1.0295 million km<sup>2</sup><sup>①</sup>; ecological restoration areas accumulated to 746,000 km<sup>2</sup>. A total of 301 ecologically-sound small watershed had been constructed. After the completion of Phase-II of National Soil and Water Conservation Network and Information System, there were 715 soil and water conservation monitoring points were built and ready for completion check and acceptance. Early stage work has been initiated for National Basic Information Platform for Soil and Water Conservation.

**Hydrology and informationization.** By the end of 2012, the number of hydrological stations of all kinds increased to 70,179 in the whole country, including 3,214 national basic hydrologic stations, 378 special hydrologic stations, 5,317 gauging stations, 35,637 precipitation stations, 10,030 water quality stations,

① The data of the restored eroded areas in 2012 were revised according to the data of First National Census for Water.

13,726 groundwater monitoring stations, 11 evaporation stations, 58 experimental stations, and 1808 soil moisture monitoring stations. China has built 16,494 telegram reporting stations and 1,039 hydrologic forecast stations. A total of 277 water environment monitoring centers (sub-center) put into operation that cover nearly all major rivers, lakes and reservoirs in China.



The water conservancy informatization which had opened a new era for an all round and multi-layer development. The PCs and servers of varied kinds that connected to the internet reached 71,069 and 3,053 respectively. The on store capacity of equipment installed in the water resources departments at or above the provincial level reached 1,384,704.1 GB. A total of 78,720 information gathering points were installed that may received all kinds of water information, among which 44,460 were automatic information gathering points. Database under routine operation reached 600, with a storage capacity of 261,899.5 GB. Thirty video conference systems were installed in river basin commissions or water resources departments that realize coverage of all organizations at a lower level. A total of 734 administrative

① The data of the restored eroded areas in 2012 were revised according to the data of First National Census for Water.

licensing systems were displaced on the websites of government agencies at all levels. Through internet, various kinds of administrative licenses, in a total number of 440, can be obtained. The business application system of all kinds operated by water resources departments at or above the provincial level may cover nearly all aspects of water administration and business.

#### IV. Utilization and Protection of Water Resources

According to preliminary statistics, the availability of water resources in 2012 totaled 2,952.69 billion  $\text{m}^3$ , 6.6% more than normal years and a 27.0% increase comparing to that the year before. Mean annual precipitation was 688.0 mm, 7.1% more than normal years and 18.2% more than the year before. By the end of 2012, total water storage of 583 large reservoirs reached 324.06 billion  $\text{m}^3$ , 25.64 billion  $\text{m}^3$  more compared with that of the year before; total water storage of 3,271 medium-size reservoirs increased to 41.56 billion  $\text{m}^3$ , 4.12 billion  $\text{m}^3$  more than that of the year before.

In 2012, the total water supplied by waterworks reached 613.12 billion  $\text{m}^3$ , while 80.8% of which came from abstraction of surface water, 18.5% from groundwater aquifer and 0.7% from other water sources. The total water consumption<sup>①</sup> reached to 613.12 billion  $\text{m}^3$ , of which domestic use amounted to 73.97 billion  $\text{m}^3$  (in which urban domestic water use took 74.3%) or 12.1% of the total; industrial use 138.07 billion  $\text{m}^3$  or 22.5% of the total; agricultural water use 390.25 billion  $\text{m}^3$  or 63.6% of the total and environmental flow of 10.83 billion  $\text{m}^3$  or 1.8% of the total. Comparing to the year 2010, domestic water use increased by 6.74 billion  $\text{m}^3$ ,

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① Relevant data of water supply and consumption in 2012 are from preliminary statistics. Comparing to that in 2010, water use of livestock was removed from domestic water use to agricultural water use.

industrial use decreased by 6.66 billion m<sup>3</sup>, agricultural water use increased by 11.99 billion m<sup>3</sup> and environmental flow decreased by 1.15 billion m<sup>3</sup>.

Water consumption per capita in 2012 was 454 m<sup>3</sup>. In average Water use of 10,000 Yuan GDP (at comparable price of 2010) was 130 m<sup>3</sup>, a 14% decrease comparing with that in 2010. Water use of industrial production value added per 10,000 Yuan (at comparable price of 2010) was 72 m<sup>3</sup>, 20% less comparing to that of the year 2010.

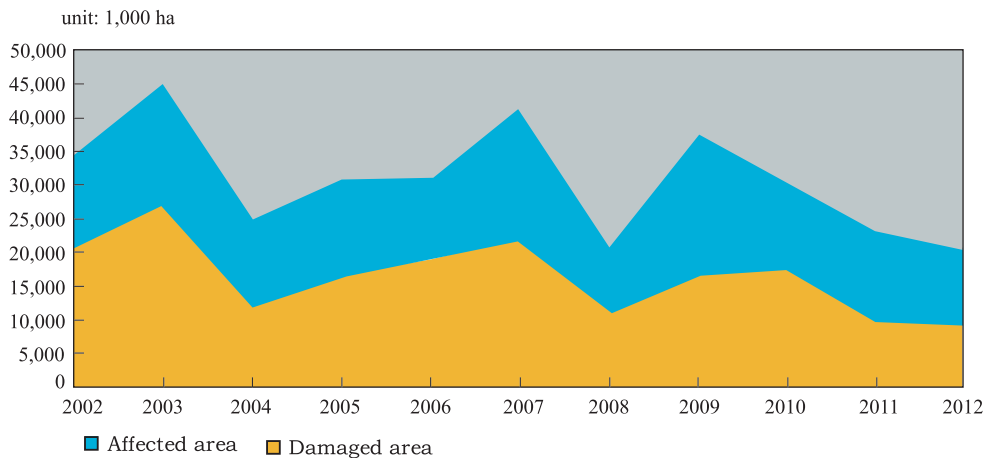
According to the result of water quality assessment on river sections of more than 201,000 km, rivers with better water quality that comply with or super than class-III standard occupied 67.0% of the total.

## V. Flood Control and Drought Relief

Generally speaking, no extraordinary flood and waterlogging happened in 2012. Nevertheless, a total of 11.218 million ha of cultivated land were affected by floods, resulting in 5.871 million ha damaged, 120 million people relocated, 673 people dead, and 159 missing. A total of 590,000 houses were destroyed and 184 cities suffered from inundation. The disasters resulted in 267.5 billion Yuan of direct economic losses, among which the loss with water infrastructures reached 46.8 billion Yuan. The provinces or autonomous regions of Sichuan, Gansu, Hebei, Beijing, Inner Mongolia, Zhejiang, Shandong and Liaoning suffered heavily from these disasters. The death toll or the number of missing caused by mountain flood covered 75% of the total in 2012. Economic loss caused by typhoon equaled to 24% of the total direct economic loss of flood and waterlogging disasters.

Less severe drought occurred in 2012 in China. However, provinces of Yunnan and Hubei suffered from severe droughts. The farmland affected by droughts reached 9.333 million ha, of which 3.509 million ha damaged, with a direct economic losses of 53.3 billion Yuan. A total of 16.37 million urban and rural population and 8.48 million man-fed 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 2012, the funds allocated to flood control and drought relief amounted to 9.445 billion Yuan, among which 592 million spent on structural measures, 2.775 billion Yuan for extraordinary flood defense, 1.92 billion Yuan for extraordinary drought relief, 4.138 billion Yuan for mountain flood prevention and control and 20 million Yuan for emergency water diversion to ease the drought.

The year of 2012 saw a great victory in the battle of flood defense and drought relief. There were no break in major embankment and failure of large and medium dams. These embankments protected 4.413 million ha of cultivated land and 134 cities. The economic benefits of flood control and disaster reduction amounted to 89.2 billion Yuan. Safe drinking water was provided to 13.03 million people in rural and urban areas as well as 8.05 million big animals and livestock for solving

temporary problems of water shortage. The area with anti-drought measures reached 17.266 million ha that prevented a loss of 31.4 billion kg of grain.

## VI. Water Management and Reform

**Water resources planning and early-stage work.** There were 32 plans of varied kinds approved in 2012, among which 5 master plans approved by the State Council; and 27 plans approved by the Ministry of Water Resources (MWR). The Ministry of Water Resources continued to push forward the work of long and medium term planning for balancing national water supply and demand and facilitated. Preparation and revision of master plans of seven river basin commissions has made considerable progress. The approval of master plans of Yangtze River Basin and Liao River Basin was completed by the State Council. Master plans of the Yellow River, Huai River, Hai River, Peral River, Songhuajiang and Taihu has entering into consulting and reporting stage. National Plan for Water Resources Protection was initiated and its technical outlines passed the appraisal. A number of key water resources plans had been worked out, such as Master Plan for National Irrigation Development, National Plan for Erosion Control of Slope Farmland, 12<sup>th</sup> Five-Year Plan for Large and Medium Reservoir Construction and National Special Plan for Targeted Poverty Reduction. A total of 56 projects were delivered to NDRC for approval, with a total investment of 321.85 billion Yuan. Among which NDRC approved 37, with a total investment of 150.40 billion Yuan, including 9 project proposals with a total investment of 39.83 billion Yuan, 19 feasibility studies with a total investment of 42.49 billion Yuan and 9 preliminary designs with a total investment of 68.09 billion Yuan.

**Water legislation and administrative enforcement.** In 2012, the ministry approved/extended 1,462 administrative water permits, among which 70

qualification identifications for water resources assessment organizations; 1 water resources assessment reports of construction project; 434 qualification certificates of supervisors for water conservancy project construction; 116 qualification certificates of quality inspection of water conservancy project; 360 soil and water conservation plans of water development and construction projects; 24 pre-approvals of environmental impact assessment reports of water and hydropower project; 253 approvals of soil and water conservation plan of production and construction projects; 152 check and acceptance of soil and water conservation plans of construction projects; 15 qualification certificates of survey and assessment for hydrology and water resources; and 37 licenses of headstock gear utilization.

A total of 41 sand excavation zones were approved in the middle and lower reaches of the Yangtze planned. In 2012, there were 31 permits issued for allowing sand excavation business, with a total sand mining of 75.29 million ton. The sand mining boats that got licenses reached 259 in 2012. The investigated illegal cases totaled 54,842 and 47,569 or 86.74% of them resolved. The retrieved economic losses reached 185.70 million Yuan. A total of 5,410 water disputes resolved, and 99.87 million Yuan retrieved. In 2012, there were 10 administrative reconsideration cases received by the Ministry of Water Resources that all being settled.

**Water affairs management.** A total of 1,923 water affairs bureaus or water resources bureaus have been created at or above county level and assigned the responsibilities of water affairs management, which accounted for 78.9% of the total cities and counties. Among 1,469 established bureaus, 4 at provincial level, 7 at sub-provincial level, 212 at prefecture or city level, and 1,246 at county level. The utilities managed by water affairs bureaus own 3,785 water plants, 491,000 km of water supply pipes, with a daily water supply of 177.58 million m<sup>3</sup> and annual water



supply of 35.06 billion  $m^3$ . A total of 2,030 sewage treatment plants put into operation, with a total pipeline of 242,000 km long and daily treatment capacity of 87.86 million  $m^3$ . The annual sewage treatment reached to 23.13 billion  $m^3$  in total.

A total of 2,446 water enterprises or companies created under these water affair bureaus, with fixed assets equal to 182.98 billion Yuan, and annual income of 43.78 billion Yuan as well as a loss of 340 million Yuan. The total investment putting into water industry in urban area amounted to 113.77 billion Yuan. Water sources for cities and counties totaled 4,537, with an annual water supply capacity of 105.27 billion  $m^3$ . The amount of recycled water use in cities (counties) increased to 4.43 billion  $m^3$ ; while water supplied by unconventional sources despite of utilization of recycled water also added to 57.58 billion  $m^3$ . Water tariff of these water supply schemes ranged from 0.01 to 6.0 Yuan/ $m^3$ , among which water resources fees of surface water ranged from 0.002 to 2.0 Yuan/ $m^3$  and water resources fees of groundwater resources ranged from 0.01 to 10.0 Yuan/ $m^3$ .

**Reform in project construction and management.** Reform of national water project management system had completed and passed check and acceptance. Estimation of total managerial staff and operation and maintenance cost for all 12,240 water project management units had been completed, and 98.2% of these organizations completed division of its type of operation, i. e. either totally self managed business or operated with government subsidy. The two estimation costs of 18.09 billion Yuan had been covered, with a rate of 87%, among which managerial staff at 9.89 billion Yuan, accounting 91% of the total; O&M cost at 8.20 billion Yuan, accounting 83% of the total. More than 7,579 organizations completed reorganization by separating functions of management and maintenance of water utilities (include separation of managerial and maintenance functions within the organization), accounted for 61.9% of the total.

The total number of water and hydropower construction companies awarded Super General Construction Contractor remained as 10. A total of 195 companies were approved to be Class-I Professional Contractors. A total of 50,579 people registered as supervisor engineers for water project construction and 11,872 people received Class-I Registered Certificate of Constructor in specialty of water and hydropower project. Another 42 enterprises got Class-A qualification of supervisors for water and hydropower project construction in 2012, 70 got the Class-B qualification and 219 got the Class-C qualification. Another 10 enterprises got Class-A qualification of supervisors of soil and water conservation project construction in 2012, 33 got the Class-B qualification and 69 got the Class-C qualification. Another 5 enterprises obtained Class-A qualification of supervisors for electromechanical and metal equipment manufacture and 11 obtained Class-B qualification. A total of 21 enterprises got the qualification (no grading is defined) of supervisors for environment protection of water project construction. In 2012, another 22 enterprises became Class-A quality inspection organizations for geotechnical engineering approved; 27 won the Class-A quality inspection organizations for concrete structures; 8 won the Class-A quality inspection organizations for metal structures; 6 Class-A quality inspection organizations for mechanical and electronic equipment; and 17 won Class-A quality inspection organizations for measuring and gauging tools.

**Reform in rural water resources management.** The total number of Water User Associations (WUAs) established in the whole country reached to more than 78,000, and about 240 million mu of irrigated areas were under the operation of these associations that amounted to 25.9% of the total effective irrigated areas in China. The guidelines for implementing reform of management system of small waterworks in rural areas were promulgated. Implementation of property system reform covered more than 7 million small waterworks for farmland irrigation and drainage in rural areas, by means of auction, lease, contracting and shareholding cooperation etc.

**Soil and water conservation.** A total of 28, 000 Soil and Water Conservation Plans in water development projects examined and approved, of which 253 belong to large-scale construction projects developed by MWR and cover an area of 2, 970. 5 km<sup>2</sup>. A total of 5, 720 soil and water conservation projects completed check and acceptance. Capacity building was initiated for second group of 788 counties for soil and water conservation supervision and management. Rules for Implementation of National Agricultural Comprehensive Development and Soil Conservation Project came into force.

**Water pricing reform.** In 2012, water supply for agricultural irrigation was at a cost of 0. 2589 Yuan/m<sup>3</sup>, among which the estimated cost of water supplied by state-owned enterprises was 0. 1751 Yuan/m<sup>3</sup> and cost of water supply at the end-canal system was 0. 0838 Yuan/m<sup>3</sup>. Agricultural water charge was 0. 0919 Yuan/m<sup>3</sup>, about 35. 5% of the cost, among which water charge by state-owned enterprise was 0. 0621 Yuan/m<sup>3</sup> and cost at the end canal system was 0. 0298 Yuan/m<sup>3</sup>. The average collection rate of agricultural water charge was 75. 97%. The actual collection rate in demonstration areas reached about 95% in average, thanks to the pilot project construction in 125 counties in 20 provinces/autonomous regions.

**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 ) . Water resources department shall take whole responsibility for integrating water resources management in 14 provinces. 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 expanded the coverage of safety supervision to over 95% .

**Production safety supervision.** The campaign of “Safety Production Year” has been further implemented. A total of 16,317 “Rectification Actions” were taken against illegal production and operation, as well as construction activities, with 14,025 illegal cases investigated and prosecuted. A total of 10994 safety production inspection teams were organized to investigate more than 61,703 production and operation units. Potential safety hazard of 26,670 cases and 748 high risk cases were checked out and corrected. Funds putting into removal of hidden danger and risk accumulated to 2.956 billion Yuan. Generally speaking, safe production was realized in the water sector as no significant accident happened in 2012, except 15 production accidents and 22 people dead. There were 102 inspection teams that completed inspection and recheck of 293 construction projects, as well as 4,747 check of projects. The inspected projects were within 8 categories: major countries for small on-farm waterworks construction; hydrological monitoring system of medium and small rivers; non-structural measures for mountain flood disaster prevention in counties; pilot project for comprehensive control of soil erosion on slope farmland; medium and small river harness; rehabilitation of large irrigation drainage pumping stations; water complex and water source projects; reinforcement of key small hazard venerable reservoirs. There were 1,295 various issues founded, and 178 notification were released. Self-inspection of 1,117 projects was conducted by provincial water department and 7,567 notification were released for correction of violating activities.

**Reservoir resettlement.** The resettled population of 11 large dam projects totaled approximately 50,000 in 2012, including dams of Tingzikou, Xiajiang, Jinling, Qingshan, Haibowan, Lijiang, Qianzhong, Pangduo, Hongling, Xiaozhongdian and Longkou that distributed in 11 provinces (autonomous regions or municipalities). There were 62 relocation sites built for about 40,000 relocated rural residents. The constructed houses for resettlement extended to 1 million km<sup>2</sup> that occupied 18,000 mu of land. Roughly 20,000 relocated people were covered

by the post-relocation support project.

**Water science and technology.** A total of 500 million Yuan had been allocated to science and technology projects, including 4 National Key Technology R&D Program being listed, 66 public-interest scientific research projects of the water sector, and 56 projects in “948 Plans”, National Agricultural Science and Technology Achievements Transformation Fund Programs and MWR Key Technological Achievements Extension Plans. 5 water technological achievements won the National Sci-Tech Advance Award. By the end of 2012, there had 12 national level or ministerial level labs being formed, and 12 technical research centers established. Special funds for procurement and repairing of equipment of national scientific institutions amounted to 113.55 million Yuan. A total of 713 sectoral technical norms and standards are still functioning. A total of 319 technical standard of water sector are under review (revision) . There were 96 technical norms and standards listed in the Table of 2008 Standard System of Technical Norms and Specifications.

**International cooperation.** A total of 46 multilateral cooperation and exchange activities were successfully conducted, with 5 bilateral cooperation agreements and 4 multilateral cooperation agreement signed. Under the fixed mechanism for bilateral exchange of government agencies, 7 meeting were organized and held. Two projects with loans from international financial organizations, namely World Bank financed Changjiang and Pearl River Watershed Rehabilitation Project and ADB financed Songhuajiang Flood Management Project, with a total borrowing of 250 million US dollars. Key plain and low-lying land harness project in Huai River Basin was formally initiated, with a World Bank loan of 200 million US dollars. There were 9 grant projects under implementation, with a total grant of 44 million US dollars.

## VII. Current Status of Water Sector

**Employees and salaries.** The employees of water sector were totaled 1.07 million, a 0.5% increase comparing to that the year before. Of which the employees with long-term post amounted to 1.034 million, a 0.9% increase. In the employees with long-term post, the staff working in the agencies directly under the Ministry of Water Resources was 74,000, a 1.3% decrease over the year before; the staff working in local agencies was 0.96 million, a 1.1% increase. The total salary for the employees with long-term post in the whole country was 38.91 billion Yuan in 2012, a 10.7% increase comparing to that of 2011. The average salary per employee with long-term post was 37,692 Yuan, a 9.9% increase over 2011. Of which the per capita salary of agencies directly under MWR was 78,695 Yuan, a 6.9% increase, and the average salary per employee with long-term post of local agencies was 34,512 Yuan, a 10.7% increase.

### Employees and Salaries

|   | 2002   | 2003   | 2004   | 2005   | 2006   | 2007   | 2008   | 2009   | 2010   | 2011   | 2012   |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| number of in service staff<br>(10 <sup>4</sup> persons)                       | 128.9  | 122.9  | 118.2  | 110.5  | 109.2  | 106.8  | 105.6  | 103.7  | 106.6  | 102.5  | 103.4  |
| of which, staff of MWR<br>and agencies under MWR<br>(10 <sup>4</sup> persons) | 6.4    | 6.4    | 6.4    | 6.6    | 6.8    | 7.2    | 7.2    | 7.2    | 7.4    | 7.5    | 7.4    |
| Local agencies<br>(10 <sup>4</sup> persons)                                   | 122.5  | 116.5  | 111.8  | 103.9  | 102.3  | 99.6   | 98.4   | 96.5   | 96.3   | 95.0   | 96.0   |
| salary of in-service staff<br>(10 <sup>8</sup> Yuan)                          | 136.3  | 140.6  | 157.1  | 159.8  | 184.3  | 211.3  | 234.4  | 264.7  | 297.9  | 351.4  | 389.1  |
| average salary<br>(Yuan/ person)  | 10,652 | 11,443 | 13,054 | 13,969 | 16,776 | 19,573 | 22,143 | 25,633 | 28,816 | 34,283 | 37,692 |

**Reconnaissance and design.** The number of reconnaissance and design institutions obtained Class-A qualification increased to 82 in 2012, and institutions awarded class-B qualification increased to 308 and institutions awarded Class-C qualification added up to 690, with a total staff of more than 80,000.

**Water scenic spots.** There number of water scenic spots approved at national level accumulated to 518, among which 274 were reservoir recreation areas, 96 natural rivers and lakes, 71 urban rivers and lakes, 34 wetlands, 22 irrigation districts, and 21 water and soil conservation areas.

**Notes:**

1. The data in this bulletin do not include those of Hong Kong, Macao and Taiwan.
2. The main index of national water resources development in 2012 has integrated with the data of First National Census for Water. But relevant data of water supply and consumption in 2012 are from preliminary statistics.
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 was based on designed irrigated area that reached or upper to 10,000 mu.
4. Statistics of rural hydropower refers to the hydropower stations with an installed capacity of 50,000 kW or lower than 50,000 kW.

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