

黄山旅游可持续发展

2013 年监测报告

黄山风景区管理委员会

联合国世界旅游组织旅游可持续发展观测点管理与监测中心

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1 前言

1.1 监测介绍

世界级风景名胜区黄山是中国山岳型旅游目的地的杰出代表。作为集中国首批十大风景名胜、中国 5A 级旅游景区、全国文明风景旅游区、世界文化与自然遗产、世界地质公园等多项国际国内桂冠于一体的旅游目的地，黄山的可持续旅游发展受到中国乃至全世界的瞩目。2008 年 2 月 26 日，世界旅游组织和联合国教科文组织正式设立世界旅游组织旅游目的地可持续发展黄山观测点和世界遗产地可持续旅游发展（黄山）观测区。目的在于通过对游客认知与满意度、旅游对社区的影响等多项指标进行长期监测，收集黄山旅游业可持续发展的多项指标数据，进而探求世界遗产地旅游经济最大化、社区受益最大化、负面环境影响最小化的发展模式。

中山大学自 2006 年开始，已经根据世界旅游组织 GOST 项目的指标与方法成功完成了中国阳朔 2006-2008 年的监测报告；2011 年 5 月 30 日，中国黄山风景区管理委员会与中山大学正式签署观测点合作建设协议，正式加入联合国世界旅游组织 GOST 项目的技术评估体系。2011 年 8 月 22 日，监测中心正式启动为期五年的黄山旅游可持续发展监测与管理工作。2012 年通过 3 月、5 月、9 月等三次实地调研，完成 2012 年黄山可持续发展监测。在黄山风景区管委会的大力支持和积极配合下，中山大学于 2013 年 8 月 28 日至 9 月 7 日，派监测组前往黄山进行实地调研。希望通过全面调查黄山旅游发展产生的环境、社会及经济影响，总结其可持续旅游发展的管理经验并在全球推广。

1.2 监测方法

1.2.1 监测过程

本期监测范围为黄山风景区总体规划范围（2006 年）以及缓冲区，具体包含列入黄山风景名胜区的 160.6 平方千米，及其周边的五镇一场（黄山区汤口镇、谭家桥镇、三口镇、耿城镇、焦村镇和洋湖林场，行政总面积约为 490 平方公里）。

在对第一、二期监测成果进行梳理总结的基础上，本期调研做出补充和调整如下：

2013 年 8 月 28 日至 9 月 7 日，由中山大学旅游发展与规划研究中心（以下简称中心）的 1 名教授、监测中心的 1 名项目协调员、2 名博士生、4 名本科生组成的监测小组，通过问卷、实地观察和访谈的形式，完成了对：（1）景区游客满意度；（2）景区游客遗产价值与国家认同；（3）

黄山旅游对缓冲区五镇环境、社会及经济影响；(4) 缓冲区五镇居民对黄山旅游满意度；(5) 山岔村翡翠谷社区旅游发展案例分析。共收回有效游客问卷 425 份；有效社区问卷 365 份（汤口镇 89 份，焦村镇 57 份，耿城镇 73 份，三口镇 65 份，谭家桥镇 81 份）；对缓冲区村镇主要负责人，山岔村翡翠谷家庭旅馆经营者、景区上班者、离退休居民、外来务工者等进行了访谈，并收集了相关二手资料。

1.2.2 主要问题与指标筛选

结合世界旅游组织（WTO）指标方法、《黄山风景区旅游总体规划》以及黄山风景区旅游发展实际情况，在第一、第二期监测经验的基础上，制定了本期黄山风景区旅游可持续发展的基本指标，具体见表 1 所示。

表 1 黄山风景区旅游可持续发展监测主要问题和基本指标汇总

	主要问题	监测基本指标	是否已有 常规监测	建议本项 目监测频 率
旅游 与资源 环境保 护	生物多样性保护	1. 国家重点物种数量	是	5 年
		2. 濒危物种种类；数量	否	5 年
		3. 古树名木数量；分布状况；保护等级	是	5 年
		4. 森林覆盖率	是	5 年
		5. 资源保护方面的科研合作项目名称；任务；合作机构；历时时间	否	1 年
		6. 新增保护措施	否	2 年
	文化资源保护	7. 摩崖石刻和文物古迹的数量、保护状况	是	5 年
		8. 用于文物保护（恢复、保护和维持）的资金和比例	否	1 年
		9. 新增政策与保护措施	否	5 年
	游客分流情况	10. 各大门的进山游客比例	是	1 年

	水环境	11. 地表水水质达标情况	是	1 年
		12. 饮用水水质达标情况	是	1 年
		13. 生活污水处理每年总量；与旺季日处理量峰值	是	1 年
	声环境	14. 生活和交通噪声达标情况	是	1 年
	大气环境	15. 空气质量达标情况	是	1 年
	固体废弃物	16. 固体废弃物年产总量	是	1 年
		17. 处理废弃物的方式	是	5 年
		18. 循环再用的废弃物总量所占比例	是	1 年
	主要景观美誉度	19. 主要景观的美誉度	否	3 年
	保护区建设面积	20. 保护区内的建设面积、集中度	是	3 年
旅游 与社 区	旅游发展 水平	1. 社区人口总数（本地外地构成）	是	3 年
		2. 景点数量	是	1 年
		3. 住宿设施数量	是	1 年
		4. 接待到访的游客数量	是	1 年
		5. 旅游对当地社区的总体影响	否	2 年
	居民态度和影响 感知	6. 居民对旅游发展的总体态度（问卷）	否	1 年
		7. 对于旅游带来的经济、社会以及文化影响的居民感知	否	1 年
	社区参与程度和 意识	8. 社区居民从事旅游相关工作的比例（数量）与主要类型	否	1 年
		9. 社区居民对其旅游参与程度的感知	否	1 年
		10. 社区居民对“旅游可持续发展”概念的感知度	否	1 年
		11. 居民所关注的旅游发展相关问题	否	1 年
	商业伙伴的满意度	12. 导游及旅行社的满意度	否	1 年

游客感知与满意度	游客满意度水平	1. 游客对黄山资源、服务、整体旅游环境及其他方面的满意度水平	否	1 年
		2. 游客总体满意度	否	1 年
		3. 游客对于旅游体验是否符合预期的感知	否	1 年
		4. 游客的重游率与推荐意愿	否	1 年
		5. 黄山风景区游客投诉率	是	1 年
	游客安全	6. 游客事故发生率	是	1 年
		7. 游客对黄山旅游的安全感知	否	1 年
	游客教育	8. 参加黄山风景名胜区开展的解说教育活动的游客占总数的比例	否	1 年
旅游的经济影响	旅游收入	1. 黄山风景区接待游客总人数	是	1 年
		2. 旅游统计数据（旅游总收入、床位数、过夜人数，人均花费等）	是	1 年
		3. 周边低山景点的接待游客人数	是	1 年
		4. 周边低山景点的旅游统计数据	是	1 年
	旅游季节性程度	5. 景区旺月与淡月游客数量的比率	否	1 年
	旅游与就业	6. 旅游创造的就业机会	否	1 年
		7. 旅游从业人员的满意度	否	2 年
	旅游的经济带动作用	（专项研究）	否	3 年
组织与管理	组织管理上的成绩和社会认可度	在业界和社会上的认可度	否	3 年

报告主体内容包括旅游与资源、环境保护，旅游与社区，游客感知与满意度，结论与建议和专题研究（包括游客对黄山的遗产价值与国家认同研究、翡翠谷旅游发展案例研究两个专题）六个部分。

2 旅游与资源、环境保护

2.1 资源保护指标监测

表 2 资源保护方面的监测指标与监测结果

主题	指标	频率	相关部门	方式	本期监测结果
生物多样性保护	1. 国家重点物种数量	5 年	园林局资保科	生物多样性普查课题	黄山目前有国家重点保护动物 35 种， 国家重点保护植物 31 种。
	2. 濒危物种种类；数量	5 年	园林局资保科	生物多样性普查课题	黄山风景名胜区现状共发现 42 种珍稀濒危动植物。对于这些物种的监测缺乏数据，因此较难确定目标种数。
	3. 古树名木数量；分布状况；保护等级	1 年	园林局资保科	常规性监测	暂无更新。 2009 年调查认定名木 69 株（含世界文化与遗产名录 54 株）；一级保护的古树 3 株；二级保护的古树 7 株；三级保护的古树 57 株；温泉辖区古树名木 61 株，其中列入世界遗产名录 19 株；天海辖区古树名木 39 株，其中列入世界遗产名录 24 株；芙蓉辖区古树名木 19 株，其中列入世界遗产名录 10 株；钓桥辖区古树名木 0 株。
	4. 森林覆盖率	5 年	园林局资保科	常规性监测	1955 年以前黄山森林覆盖率为 75%；1979 年植被覆盖率下降至 56%；1992 年-2000 年，森林覆盖率为 83.4%；2001 年至今，森林覆盖率为 83.7%。 剩下的 16.3%基本为不可绿化的道路、溪流、建筑和裸岩。
	5. 资源保护方面的科研合作项目名称；任务；合作机构；历时时间	1 年	园林局资保科	本监测项目	详见 2.2.2 表格 3。

	6. 新增保护措施	2 年	园林局	本监测项目	现有主要措施： 1) 封闭轮休；2) 一树一策；3) 日常巡查； 4) 专家咨询；5) 防火、防虫、防极端气候， “全山、全员、全年”防火机制。
文 化 资 源 保 护	7. 摩崖石刻和文物古迹的数量/质量	5 年	政治处 文物管理科	文物普查	现存摩崖石刻 290 多处；文物古迹 148 处；全国首例黄山松属“活文物”1 处（迎客松）。2012 年，修缮慈光阁大殿屋面、千僧灶、芙蓉洞等古建筑遗迹，增补摩崖石刻 3 处，为新建 2 处避雨亭题写亭名、楹联。
	8. 用于文物保护（恢复、保护和维持）的资金和比例	1 年	政治处文物管理科	本监测项目	2012 年初步建成不可移动文物数据库，完成可移动文物数据采集与录入工作。
	9. 新增政策与保护措施	5 年	政治处文物管理课；规划土地局遗产办	本监测项目	2006 年 9 月 21 日，制定专门的《黄山风景区文物保护暂行规定》。
分 流 情 况	10. 各大门的进山游客比例	1 年	集团公司统计科	本监测项目	2012 年景区累计接待入山游客 3007570 人。其中云谷寺（南门）接待入山游客 1520866 人，占比 50.57%，慈光阁（南门）接待入山游客 1144025 人，占比 38.04%；松谷庵（北门）接待入山游客 342679 人，占比 11.39%。南大门依然是主要的游客进山入口，接待游客占 88.6%。

资料来源：根据调查资料整理

2.2 生物多样性保护评估

2.2.1 概况

根据《生物多样性公约》，所谓生物多样性就是地球上所有的生物体及其所构成的综合体。它包括遗传多样性，物种多样性和生态系统多样性三个层次。生态系统多样性方面，黄山处于中纬度亚热带地区，气候受东南季风控制，典型的森林生态系统，发育有大面积的亚热带森林（包括常绿阔叶林、常绿落叶阔叶林、落叶阔叶林、针阔混交林等。山顶部分还分布有针叶林），森林覆盖率达 75%以上。物种多样性方面，黄山有 456 种脊椎动物和高等植物 1807 种（超过中国总数的 7%）；其中，国家重点保护动物 35 种，国家重点保护植物 31 种。

基于黄山地区丰富的生物多样性，在 IUCN 确定的世界 108 个生物多样性分布中心中就包含了黄山地区（江南丘陵和浙闽山地，IUCN Conservation office, 1990. 评价标准：植物物种多样性）；在中国最新确定的 33 个生物多样性保护优先区域中也包含黄山地区（评价标准：大自然保护协会“生态区评估”方法体系）。在 CBPF（中国多样性伙伴与合作框架）中，黄山地区生物多样性不可替代性指数在中国华东地区也是最高的，是该地区最值得保护的生物多样性热点地区。以上证据说明，黄山地区的生物多样性具有全球重要意义。

2.2.2 保护现状

黄山风景区一直以来都非常重视生物多样性保护工作，本轮调查显示，目前黄山风景区总体上生物多样性保护状况是非常好的。其具体措施包括：

（1）生态环境保护方面，黄山管委会组织编制了公园生态环境保护规划等多个专项规划，建立了 ISO14001 环境管理认证体系并成功创建 ISO14000 国家示范区，首创了景点封闭轮休制度，倡导和实践低碳旅游，投资 2 亿余元对公园南部门区进行了搬迁和生态修复。建立专门机构，整合资金资源和技术力量，在全国同类公园率先实现“污水统管”，完成了生态环境背景值调查并启动生态环境观测站建设。强化“三全”防火，建成了 5 座资源保护管理站和红外线林火自动监测系统，实现连续 33 年无森林火灾，且成功阻止松材线虫病传入景区。建成了西海、芙蓉岭污水处理站和温泉、云谷垃圾收集中转站，率先在全国山岳型景区开展 PM2.5 监测，启动实施“黄山地区生物多样性保护”GEF 项目。

（2）古树名木方面，2009 年完成景区第五次重点古树名木调查。通过确定黄山风景区内所有古树名木的基础资料、具体地点、海拔高度、保护级别、树龄等资料建立古树名木名录档案。对重点古树名木实施“一树一策”的保护与管理制度，针对每一棵古树名木都建立起了长期监测、

专家咨询、守护和应急等保护管理体系。

(3) 科研合作方面, 黄山风景区园林局近几年来持续与一些科研单位和高校合作, 开展生物多样性调查、古树名木保护、生态维护方面的项目研究工作, 本次监测在前两期监测报告的基础上, 更新补充了近年来景区在生物多样性保护方面的研究课题:

表 3 新增生物多样性保护方面主要的研究课题列表

名称	任务	合作单位	历经时间
1. 黄山风景区 栎旋木柄天牛 防治技术研究	掌握栎旋木柄天牛生物学特性和生态学特性; 筛选出对栎旋木柄天牛高致病力病原真菌; 研究管氏肿腿蜂控制栎旋木柄天牛的潜力, 开展病原真菌与天敌联合控制研究; 总结出一套相对成熟并适合景区应用的防治技术方法; 开展栎旋木柄天牛化学生态学相关研究, 明确栎旋木柄天牛虫体、寄主植物的主要成分; 获取栎旋木柄天牛存在接触信息素的证据; 开展栎旋木柄天牛化学感受生理学方面研究。	安徽省林业 有害生物防 治检疫局、 安徽农业大 学微生物防 治重点实验 室	2006 年 1 月~2009 年 12 月
2. 黄山风景区 森林植被重大 病虫害综合防 治关键技术研究 与示范	研究对黄山风景区森林植被, 特别是古树名木危害强、威胁大的虫害、病害进行摸底调查和遴选, 根据重大病虫害的发生规律, 有针对性的进行物理、生物、化学防治研究, 组装重大病害、虫害种类的防治关键技术模型。	黄山学院	2008 年 1 月~2010 年 12 月
3. 黄山风景区 松褐天牛发生 规律及生物防 控效果研究	摸清松褐天牛在黄山风景区的生物学特性和发生特点, 为松材线虫病预防工作提供技术基础; 筛选适合黄山风景区的最有效的松褐天牛防治方法和推广使用技术。	南京林业大 学	2010 年 5 月~2013 年 12 月
4. 微生物防治 黄山松红蜘蛛 关键技术研究	筛选 2 个寄生能力强、速度快、致死率高的真菌; 对中选菌株进行安全性检测; 研究探索菌株繁殖和孢子提取工艺的产业化技术; 研制开发广谱、持续、高效、复合菌剂制品; 研制自动真菌孢子喷发装置。	黄山学院	2013 年 1 月~2016 年 12 月

资料来源: 黄山风景区管委会园林局资保科

2.3 文化资源评估

2.3.1 概况

黄山地处文化历史悠久的古徽州，文化遗产丰厚。目前，黄山风景名胜区总体规划将其文化资源分为以下三类：摩崖石刻；历史建筑物；博物馆收藏（包括非物质类文化遗产，即神话传说、黄山画派、诗词散文、书目辑存、历史遗迹名单、历史事件等）。其中，摩崖石刻在黄山风景名胜区物质类文化资源中的占有格外重要的历史地位，是黄山历史事件和到访过黄山的历史名人的见证，具有重要的历史价值；充分体现了古人的文采和中国书法的意境，具有重要的美学价值。

根据文物普查数据，黄山现存摩崖石刻 290 余处，2012 年增补摩崖石刻 3 处；古道、石桥、古寺、古亭、古墓等古建筑遗迹 148 处；2009 年，对照全国第三次文物普查标准，迎客松第一次被认定为也是全国首例黄山松属“活文物”。另外，在非物质文化遗产方面，黄山是黄山画派的发源地，该画派历数百年而不衰，以黄山为题材的书法、绘画、摄影作品难以计数，历代歌颂黄山的诗词歌赋达 2 万多首（篇）。

2.3.2 保护现状

（1）保护机构设置方面，黄山管委会具体细化了各部分的文物保护和管理工作：政治处文化发展中心设置了文物管理科、博物馆，为全山文物保护职能机构，负责景区文物保护管理，负责各历史时期文物、史料收集，负责世界遗产、遗迹的陈列工作；规划土地局设置遗产办，负责全山世界遗产的管理。

（2）政策支持方面，除国家层面及安徽省层面的各种文物保护与管理规定外，2006 年 9 月 21 日，黄山风景区专门制定了景区层面的《黄山风景区文物保护暂行规定》以指导和约束黄山风景区内部文物保护的工作。

（3）文物认定方面，黄山风景区目前共有 4 处省级重点文物保护单位（慈光阁、观瀑楼及听涛居、黄山摩崖石刻群、黄山古观景亭）；有 2 处正积极申请国家级重点文物保护单位认定。

（4）长期监测方面，除全国性文物普查登记外，黄山风景区实施了景区范围的文物普查工作，并长期辅以人工监测。目前，已对普查的 668 个自然景观和 331 个文化景观建立清单，并完成了公园文物普查，初步建成不可移动文物数据库，完成可移动文物的数据采集与录入工作。

（5）文物保护与修缮方面，目前，黄山风景区近年文物保护与修缮费用汇总如表 4：

表 4 黄山风景区文物保护与修缮费用

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
慈光阁	3 万	10 万	73 万	/	125 万	37 万	/	52 万	200 万	
观瀑楼	/	5 万	/	70 万	/	/	/	/	/	
灵锡泉	6 万	/	/	/	/	/	/	/	/	
松谷庵	30 万	/	/	/	/	/	/	/	45 万	
钓桥庵	/	21 万	/	/	/	/	/	/	/	
半山寺	/	/	/	/	/	70 万	/	/	/	
其它	/	/	/	20 万	/	150 万	32 万	80 万	755 万	
合计	39 万	36 万	73 万	90 万	125 万	257 万	32 万	132 万	1000 万	1000 万

2012 年用于文物保护（恢复、保护和维修）的资金 1000 万元，未收集到具体使用项目情况。

资料来源：管委会政治处文物管理科

（6）重要文化景观“复原”方面，始终坚持“保护为主、抢救第一、合理利用、加强管理”的文物工作方针，加大专项资金与文保科技投入，积极开展文物保护与文化景观“复原”工作，取得了突出成绩。自上世纪九十年代以来，实施完成的文保项目工程主要有：

1991 年，实施完成毗卢殿古建筑落架修缮工程。

1995 年 11 月，实施完成观瀑楼整体修缮和环境整治工程。

1999 年，实施完成毗卢殿古建筑屋面、木构整体修缮工程。

2003 年 5 月，实施完成松谷庵古建筑落架修缮及周边环境整治工程。

2003 年 7 月，实施完成灵锡泉发掘修复工程。

2003 年 8 月，实施完成慈光阁名人书法碑廊保护加固工程。

2004 年 12 月，实施完成钓桥庵古建筑落架修缮及周边环境整治工程。

2004 年 10 月，实施完成观瀑楼油漆出新与屋面维修工程。

2005 年 10 月，实施完成慈光阁山门、普门塔、千僧灶、法眼泉古迹抢救修复及周边环境整治工程。

2007 年 8 月，实施完成慈光阁古建筑群防雷设施完善工程。

2007 年 10 月，实施完成半山寺古建筑修缮及防雷工程。

2008 年 5 月，实施完成黄山风景区博物馆标准化文物库房建设工程。

2009 年 9 月，实施完成慈光阁、黄山古观景亭、黄山摩崖石刻、观瀑楼与听涛居等四处省保立牌保护工程。

2010 年 11 月，实施完成慈光阁古建筑屋面维修工程。

2011 年 12 月，实施完成慈光阁放生池维修工程。

2012 年 4 月，实施完成槩庵大师塔维修工程。

2012 年，实施完成慈光阁大殿屋面、千僧灶、芙蓉洞等古建筑遗迹修缮工程；增补 3 处摩崖石刻；为新建的 2 处避雨亭题写亭名、楹联；完成慈光阁藏品库房视频监控与防火报警系统安装工程。

2.4 环境保护指标监测

表 5 环境保护方面的监测指标与监测结果

主题	指标	频率	相关部门	方式	本期监测结果
水 环 境	1. 地表水水质达标情况	1 年	风景区 环保办	生态环境监测站 常规性工作	地表水：2012 年水质监测数据：优于国家 GB3838-2002 I 类标准； 泉水：2008 年监测，水质良好。
	2. 饮用水水质达标情况	1 年	风景区 环保办	委托市环境监测站	黄山风景区水库饮用水源水质达标率 100%。
	3. 生活污水处理每年总量；与旺季日处理量峰值	1 1 年	风景区 污管站	常规工作	生活污水年处理总量约 70 万吨，旺季（一般指“五一”和“十一”期间）处理量峰值为 3500 吨/日，生活污水年平均处理量约为 1900 吨/日；计划新建水利用设施。

声 环 境	4. 生活和交通噪声达标情况	1 1 年	风景区 环保办	委托市 环境监 测 站	暂无更新。只有 2006 年监测数据。详见 2.5。
大 气 环 境	5. 空气质 量达标情 况	1 1 年	风景区 环保办	空气自 动连续 监 测系 统	2012 年黄山风景区空气质量皆优于国家一级标准，空气中所含二氧化硫（SO ₂ ）、二氧化氮（NO ₂ ）以及可吸入颗粒物（PM ₁₀ ）年均值皆远低于国家一级标准。
固 体 废 弃 物	6. 固体废弃 物年产 总 量	1 1 年	环卫 部门	常规 检测	2012 年固体废弃物年产量为 4766.08 吨。
	7. 处理废 弃物的方 式	1 5 年	环卫 部门	本监测 项目	目前为焚烧、生物处理、填埋、废品回收和有机垃圾回收利用相结合的方式；危险废物单独回收，运输和放置处理。
	8. 循环再 用的废弃 物总量所	1 1 年	环卫 部门	本监测 项目	暂无相应统计。

资料来源：根据调查资料整理

2.5 水环境评估

2.5.1 地表水水质

黄山风景名胜区为国家级风景名胜区，按照《地表水环境质量标准》（GB3838—2002）中水域功能划分标准和黄环字〔1993〕第 38 号文件关于黄山市水域功能划分办法，黄山风景名胜区地表水资源执行国家 II 类标准。目前景区的监测单位将景区的地表水资源分溪水、泉水和水库水三种类型监测。

溪水水质监测方面，黄山风景区设有四个监测点位：九龙瀑、黄山大门、松谷庵和焦村，监测项目有酸碱度、溶解氧、氨氮、高锰酸盐指数、和五日生化需氧量五类，按照监测项目对其水环境质量状况进行相应的时间序列分析。本期调研获得 2010 至 2012 年 3 月、6 月、8 月、11

月的地表水监测数据。数据显示，黄山风景区地表水质量优良，均达到或好于《地表水环境质量标准》（GB3838-2002）中 II 类水质要求。其中：

- (1) 4 个监测断面的酸碱度（pH 值）均满足地面水环境质量标准规定要求。
- (2) 4 个监测断面的溶解氧均能满足地面水质量一类标准要求。
- (3) 4 个监测断面的生化需氧量均满足地面一类水体标准。
- (4) 4 个监测断面的高锰酸盐指数浓度均小于一类水质标准。
- (5) 4 个监测断面氨氮均低于国家二类水质量标准的检测限值。

对比 2010 年 3 月与 2012 年 11 月黄山风景区地表水监测四个监测点位监测结果均值，数据显示近三年间地表水酸碱度和溶解氧量有所下降，五日生化需氧量上升，其他数值基本保持。总体而言，黄山风景区地表水质优，均达到了《地表水环境质量标准》（GB3838-2002）中 I 类水质要求，地表水质量近年来小幅度下降，但作用不显著。

表 6 黄山风景区地表水监测数据

监测时间	酸碱度 (6-9)	溶解氧 ($\geq 6\text{mg/L}$)	氨 氮 ($\leq 0.5\text{mg/L}$)	高锰酸盐指数 ($\leq 4\text{mg/L}$)	五日生化需氧量 ($\leq 3\text{mg/L}$)
2010.3	7.45	8.99	0.052	1.05	0.09
2012.11	7.30	8.86	0.051	1.06	0.44

资料来源：黄山风景区环保办

泉水水质监测方面，景区有泉 15 处，根据 2008 年对其主要的 4 处泉眼（温泉水、鸣弦泉、松谷泉、法眼泉）的水质进行监测分析的结果，黄山风景区泉水水质较好。

2.5.2 饮用水质量

根据《安徽省环境保护条例》及《安徽省城镇饮用水水源环境保护条例》的规定，为做好景区饮用水水源安全保护和监测工作，景区自 2011 年第四季度起开展饮用水源水质委托监测（监测单位为黄山市环境监测站）并将结果予以公告。检测结果表明黄山风景区饮用水源水质达标率 100%。

2.5.3 污水处理

生活污水方面，景区从 1986 年起共建有 13 处污水处理站，分别为玉屏片、西海片（在建）、

温泉片、半山寺、管委会大楼、急救中心、天海、北海片、狮林片、云谷新索道、云谷片、松谷片、芙蓉岭（在建）。设计日处理能力达 7000 吨以上，目前正在逐步对其污水站进行升级改造，现以完成 3 处（天海、温泉、玉屏），预实现自动化控制和 24 小时视频监控，其中玉屏和温泉两处站点的污水排放标准已经提升至 GB18917-2002《城镇污水处理厂排放标准》一级 A 标准。

2012 年景区污水站提供的数据显示，生活污水年处理总量达到 52.2 万吨（2011 年）；2013 年提供数据显示生活污水年处理总量低于 70 万吨（2012 年）。其中生活污水年平均处理量约为 1900 吨，旺季（一般指“五·一”和“十·一”期间）日处理量峰值为 3500 吨/日，旺季日处理量谷值低于 1000 吨。另外，景区玉屏楼宾馆原建有中水利用设施，后在宾馆改建过程中（大约在 2008-2009 年）关闭；2012 年，在温泉地段整体改造项目中，计划新建中水利用设施。

2.6 声环境评估

黄山风景区噪声主要来源于宾馆、饭店、商店、文化娱乐设施、居民生活和车辆运行所产生，分为生活噪声和交通噪声。

噪声控制方面，有两项措施能够促进风景区的噪声监测以及噪声控制工作的开展：（1）2004 年 9 月黄山风景区成立了新国线旅游客运有限公司，禁止个体户和中巴车进入景区，交通噪声得到进一步的改善；（2）黄山风景名胜区监测站已于 2005 年启动噪声监测工作。本期调研获得黄山风景区环保办委托黄山市环境监测站于 2006 年 6 月 20 日 4 个点的交通噪声和 11 个点的区域噪声的监测结果显示：“交通噪声测点全部达标，区域噪声测点云谷寺、玉屏楼两测点超标，超标值分别为 3.5dB（A）和 0.9dB（A），为景区游客大声喧哗所致。”

2.7 大气环境评估

黄山风景名胜区对环境空气质量监测始于 1988 年，早期全凭人工采样和手工分析，而且仅监测 TSP、NO₂、SO₂ 三项指标。2004 年初景区开始建设空气自动连续监测系统，九月底全面建成。2010 年至 2012 年黄山风景区主要空气污染物的数据参见下表 7，数据显示，2010 至 2012 三年间风景区空气质量皆优于国家一级标准。

表 7 黄山风景区空气质量统计表（单位：mg/m³）

监测时间	二氧化硫 (SO ₂) 年均值	二氧化氮 (NO ₂) 年均值	可吸入颗 物 (PM ₁₀) 年均值
2010	0.007	0.014	0.029
2011	0.010	0.009	0.027
2012	0.012	0.008	0.026
国家一级标准（年平均）	0.02	0.04	0.04

资料来源：黄山风景区生态环境监测站

2.8 固体废弃物处理

与城市相比，黄山风景区的固体废弃物年产出数量较小，且年产生量总体上呈平稳趋势，产生量的年际波动主要源自开发建设产生的建筑垃圾数量以及入山人数的变化。黄山固体废物主要分布在三个区域，一是游道附近，二是宾馆酒店等经营场所，三是职工生活区。

目前黄山风景区对固体废弃物进行严格的分类管理：危险固体废弃物根据其类型不同（医疗废物、废弃的变压器、废试剂、废墨盒、废电池等）分别由环卫部门和相关部门按照严格的危险废物管理制度专门收集、运转和存放。一般固体废弃物分建筑垃圾和生活垃圾，对建筑垃圾严格执行申报、监督与验收制度，对生活垃圾的处置也采取了一系列的措施，包括减量化、资源化（回收利用）以及无害化（完善处理系统）。其中较为突出的几方面措施包括：

（1）建立采购配送中心，实现净菜上山，尤其是蔬菜类、禽类和水产类均经过除杂、加工、洗净后方可运输上山，减少垃圾产出；

（2）全面实行垃圾袋装化（袋装率达 100%），减少二次污染；并加强垃圾分类制度，从源头到过程都积极推进垃圾分类工作；

（3）日常清洁依靠人工作业，旅游高峰期利用索道清运垃圾；

（4）完成环卫专项规划，以全面推进“山上垃圾山外处置”系统工程。

根据 2008-2010 年统计数据，景区固体废弃物主要为生活垃圾，年产量约为 4000 吨，2012 年固体废弃物年产量为 4766.08 吨。处理方式主要包括焚烧、生物处理、填埋、废品回收和有机垃圾回收利用，对于循环再利用的废弃物总量暂时还没有相应统计。在管委会发布的黄山风景区 2010-2011 年度综合治理工作方案中，提出将出台《黄山风景区固体废物管理办法》，以加强对建筑垃圾等固体废物的管理。本监测建议专门对旅游活动产生的固体废弃物作独立统计。

3 旅游与社区

3.1 社区监测指标

在前两期监测的基础上,本期监测结合 WTO 指标方法、黄山风景区旅游总体规划以及黄山风景区旅游发展实际情况完善了旅游与社区监测的基本指标,具体见表 8 所示:

表 8 旅游与社区监测指标与监测结果

主题	指标		频率	方式	本期监测结果
社区 发展 水平	1. 社区人口总数（本地 外地构成）		3 年	统计资料	详见 3.2.1 表 9。
	2. 社区主要产业		2 年	统计资料 、调研	五镇产业情况，农业、旅游业经济现状， 人口就业。
	3. 景点数量		1 年	统计资料	详见 3.2.3 表 12。
	4. 住宿设施数量		1 年	统计资料	缓冲区五镇星级农家乐统计。
	5. 接待到访的游客数量		1 年	统计资料	2012 年接待游客量：三口镇 9.7 万人次， 谭家桥镇约 90 万人次。已获得黄山区主 要景点近两年游客接待数据。
	6. 旅游对当地社区总体 影响		2 年	问卷、访谈、 实地考察	详见 3.4 小结。
社区 环境 状 况	环 境 保 护	7. 声环境	2 年	问卷、访谈、 实地考察	详见 3.3.2。
		8. 水环境			
		9. 大气环境			
		10. 固体垃圾等			
	能源 利用	11. 水			详见 3.3.3。
		12. 电			
		13. 燃料等			

居民 态度 和 影 响感 知	14. 总体态度（问卷）	1 年	问卷抽样调查+访谈	详见 3.4.1。
	15. 对于旅游带来的经济、社区、文化影响的居民感知	1 年	问卷抽样调查+访谈	详见 3.4.2。
社区 参 与 程 度 与 意 识	16. 社区居民从事旅游相关工作的比例（数量）与主要类型	1 年	统计数据； 问卷抽样调查	2006 年黄山风景区总规提供的统计数据；其他旅游相关行业的从业情况；从问卷抽样和访谈中获得。
	17. 社区居民对其旅游参与程度的感知	1 年	本监测项目 问卷抽样调查；访谈	详见 3.4.3。
	18. 社区居民对“旅游可持续发展”概念的感知度	1 年	本监测项目 问卷抽样调查；访谈	通过问卷间接了解。
	19. 社区居民所关注的旅游发展问题	1 年	本监测项目 问卷抽样调查；访谈	详见 3.4.5。

下文将根据上表所列指标，将社区监测成果从三个方面进行归纳总结：发展水平、环境状况以及居民态度。

3.2 缓冲区发展水平

3.2.1 基本信息

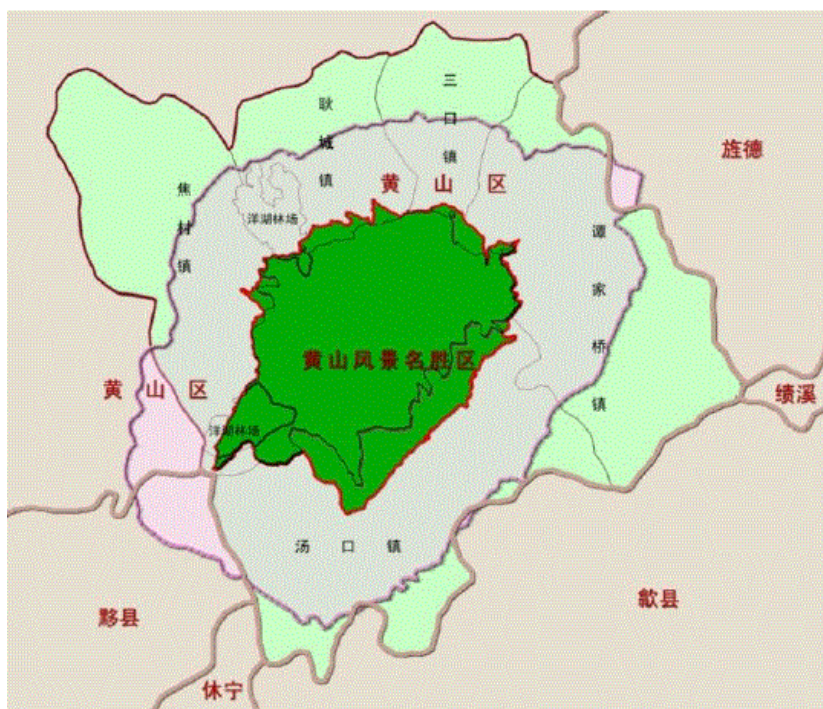


图1 黄山风景区及其毗邻镇区图

资料来源：黄山风景名胜区总体规划 2007-2025

根据黄山风景名胜区规划（2007-2025），黄山风景名胜区占地 160.6 平方公里。缓冲区范围包括与之相邻的五镇一场，即黄山风景区汤口镇、谭家桥镇、三口镇、耿城镇、焦村镇和洋湖林场（见图 1）。表 9 中显示了五个镇的人口、面积、区域规模、与黄山风景区相毗邻的行政村以及镇政府所在地等基本情况。

表9 五镇人口、地域基本信息汇总

镇名	常住人口（人）		面积 (km ²)	区域大小		毗邻黄山（共 16个行政村）	政府 驻地
	本地	外地		行政村	村民组		
汤口镇 （南）	15755	4733	129.35	5	74	山岔、汤口、 寨西、芳村、 冈村	汤口村
谭家桥镇 （东）	6031	1962	136	6	49	中墩、新洪、 长罗村	中墩村
三口镇 （北）	9287		60	5	65	汪家桥、巷联 村	白果树 村
耿城镇 （北）	7998	356	85.8	5	51	城澜村、辅村、 沟村	金桥村
焦村镇 （西）	15330		275	10	107	章村、刘村、 汤刘村	陈村

资料来源：根据调研资料整理

由上表可以看出，汤口镇常住人口、外来人口均最多，外地人占常住人口比例也最高；汤口镇地处黄山南大门，其所有行政村都与黄山毗邻，与黄山的地域联系最为密切。五镇中地域面积最广的是焦村镇，其也是黄山区面积最大、农业人口最多的建制镇。

3.2.2 农业经济发展现状

表10 五镇农业经济发展现状统计表

镇名	主要产业	农村人均年纯收入		
		2011	2012	同比增长
汤口镇	旅游业（占80%）、林业（木、竹、茶等）	10050	12374	17.8%
谭家桥镇	种植、林业（木、竹、茶等）、外出务工	7898	9635	22%
三口镇	养殖、林业（茶林）、外出务工	7749	9592	24%
耿城镇	种植、林业（木、竹、茶等）、外出务工	/	/	/
焦村镇	养殖、林业（木、竹、茶、山珍等）、外出务工	7672	8837	15%

数据来源：各镇 2012 年年鉴、调研组访谈收集资料、

汤口镇人民政府网站（<http://www.tangkou.gov.cn/>）

表 10 统计了黄山风景区周边五镇农业经济发展现状。由数据可以看出, 汤口镇由于其优越的地理位置, 旅游业发展相对其他四镇较早且较为成熟, 经济发展水平较高, 农村人均年纯收入较高。而其他四镇经济水平差距不大, 在 2012 年均表现出较强的增长趋势。

汤口镇境内山多地少, 林地总面积 11142.77 公顷, 园地 1091.42 公顷, 耕地总面积仅 156.33 公顷。其农业以林业为主, 林业是汤口镇的重要产业, 境内林木蓄积量较大。而由于耕地面积、日照等因素限制, 汤口镇内种植业发展较弱, 粮食不能自给, 其水田基本上是单季稻, 旱地主要种植玉米、黄豆、甘薯、马铃薯、油菜等。境内家禽养殖以鸡为主, 约占总数的九成以上。

谭家桥镇经济发展以农业为主, 农业人口占总人口比例为 94%。其耕地面积 754.6 公顷, 林地 8070 公顷, 茶园 136.2 公顷。粮食种植以水稻为主, 兼有旱、杂粮, 旱杂粮有麦类、玉米、薯类、荞麦、高粱和豆类; 家禽养殖以鸡、鸭、鹅为主, 家畜养殖主要以猪、牛为主。谭家桥是黄山毛峰的发源地, 境内自古便有茶叶种植, 茶叶生产是谭家桥镇的支柱产业之一, 全镇茶叶总收入 250 至 270 万元, 占农业总收入的 26%, 占农民人均纯收入的 10%以上。

三口镇白果树村位于三口镇东北部, 村民以种植业为主, 毛竹资源十分丰富。全村土地面积 12420.62 亩, 耕地面积 1065.62 亩, 水田 2443.62 亩, 旱地 260 亩, 茶园 300 亩, 山场 15455 亩, 竹林面积 5560 亩。农民收入来源主要依靠水田、毛竹、茶叶及外出务工。湘潭村位于三口镇东南部, 村民以茶叶、毛竹为主要收入来源, 生产的茶叶品质高、远销到港澳等地。

耿城镇农民种植作物以水稻、茶叶、毛竹为主。水稻多是自给自足, 采摘的茶叶一般送到黄山区茶叶市场出售或是客户直接上门提货, 毛竹主要送到区里的加工厂进行再加工。其镇政府所在的金桥村人均实有耕地不到 0.5 亩, 产业以工业为主, 旅游地产为辅。耿城镇下辖辅村是黄山北大门第一村, 农业种植作物以水稻为主, 辅以经果林, 种粮大户的粮食以外销为主, 销往粮食站及外面的粮食加工厂, 一般农户则是自给自足。

焦村镇是黄山区面积最大, 农业人口最多的建制镇。其龙源村位于焦村镇中心位置, 农业作物主要以水稻、油菜、西瓜和药材垂盆草为主。近年来, 随着产业结构的调整, 又种植特色农业食用菌, 成立了农村专业合作社。陈村农村生产以种植水稻、油菜为主, 家庭经济收入多来源于外出务工, 从事建筑、家庭服务业等。

小结: 总体而言, 黄山风景区缓冲区五镇的主要农产品为水稻、茶叶、毛竹。其粮食种植以水稻为主, 除汤口镇外, 水稻种植大多可以自给自足。各镇森林覆盖率高, 其林业以种植茶叶、砍伐山场的毛竹等树木为主, 产出的毛竹基本上销售给城区园区的大型企业, 茶叶则是茶厂收购进行统一加工, 然后运往位于黄山区政府驻地的甘棠镇茶叶交易市场销售。

从调研情况来看,各个村镇结合自身资源优势有侧重地发展了多项农、林产品。从供应链条上看,除了部分留作自给自足,大部分通过黄山区的交易市场流向整个黄山市境内以及周边省市。

3.2.3 旅游经济发展现状

表 11 缓冲区低山旅游景点

镇名	近期招商引资项目	低山旅游景点	旅游就业
汤口镇	黄山国际茶文化园、徽商国际大酒店、工业园区汤口园黄山广印堂中药项目等,3个项目总投资资金 13.44 亿元	翡翠谷、九龙瀑、凤凰源、香溪漂流(2008)、猴谷、新桃源、天湖(2009)、芳村大竹海	旅游景区经营、农家乐、景区景点工作、宾馆酒店等旅游产业服务员、汤口镇旅游服务公司及新国线工作
谭家桥	丰大温泉度假区、徽商集团、大东海综合旅游度假区、东方度假区、东黄山旅游度假区等	石门峡、普仁滩漂流(2011 年废止)、黄帝源(2011 年废止)、东黄山旅游度假区(2007)、红军北上抗日先遣队纪念馆(2010)、夫子峰	农家乐经营、景区景点工作、酒店餐馆等旅游服务企业工作等
三口镇	梅兰地旅游综合开发、黄山药用植物园、华绿园、昌荣选矿、碧水秀景、东茂药业、百草园、名山胜水等 7 个项目	夫子山旅游综合开发项目(龙裔公墓)、千亩树莓基地、油菜花基地、“碧水秀景”(在建)、联中小海南岛、虹山钓场、梅兰地	较少,龙裔公墓景区工作人员、农家乐经营
耿城镇	未获得 2012 年数据。金桥科技工业园区:引进浙江兴乐铜业、安徽金鼎、天津厚海等 16 家现代农业示范区	黄山虎林园(2009)、芙蓉谷景区(2007)、飞龙瀑景区(2011 年废止)	景区景点工作、农家乐经营(集中在辅村)、酒店餐馆等旅游服务企业工作等

焦村镇	安华山庄、西海家园(一期)、西峰山庄、龙胜影视基地、车友宿营俱乐部、佛文化主题公园等	地轨缆车、翠微寺	较少, 景区基建、服务员、导游等, 季节性农家乐经营
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数据来源: 访谈资料整理、汤口镇人民政府网站 (<http://www.tangkou.gov.cn/>)

从表 11 对近期招商引资项目的统计可以看出, 五镇中发展最好的是位于南大门的汤口镇和北门的耿城镇。汤口镇得益于和黄山景区的密切联系, 在房地产、大型度假酒店等项目开发上进展较快, 低山景点经营情况也很乐观, 居民对旅游的参与度高。耿城镇凭借与黄山区政府的地缘关系(邻近区政府所在的甘棠镇), 发展较早, 工业是其主要产业, 其境内主要是一些生态型工业项目。其他三个镇谭家桥、三口镇、焦村镇由于地理位置劣势、发展起步晚等, 引进项目资金较少, 项目推进较慢。而近两年, 由于西海大峡谷地轨缆车的建设、黄山风景区对西门重视度的提升, 焦村镇签约及续建项目有所增加。

对调查问卷统计分析的数据显示, 截至 2013 年 9 月, 西海大峡谷地轨缆车开通了两个月, 目前对各镇居民生产生活的的影响仍不明显。五镇居民认为西海大峡谷地轨缆车对自身的生活或工作没有影响的占 77.5%, 而认为影响大的仅占 3.3%。缓冲区大多数居民表示即使开通了西海大峡谷地轨缆车, 游客普遍依然选择南门或北门上下山。有焦村居民表示地轨缆车开通后, 游客从山上下西海后, 可以直接坐缆车迅速上山, 反而使游客不会再前往西门。这也与西门公路交通不便, 基础设施仍在建设当中, 游客偏好从南门、北门上下山等因素相关。关于西海大峡谷地轨缆车能否推动焦村镇旅游发展需要长期监测与跟踪。

表 12 2011 年和 2012 年缓冲区景点接待游客(人)与旅游收入(万元)统计

年份	门票人数			门票收入		
景点	2011 年	2012 年	同比增长	2011 年	2012 年	同比增长
翡翠谷	887396	1164593	31.24%	3754.05	5516.91	46.96%
芙蓉谷	637611	782943	22.79%	1634.62	1836.45	12.35%
九龙瀑	415616	549870	32.30%	1003.49	1604.58	59.90%
石门峡	218630	271228	24.06%	587.39	813.66	38.52%
东黄山	217650	274400	26.07%	——	——	——

凤凰源	215100	309331	43.81%	210.61	349.93	66.15%
黄山虎林园	80201	90545	12.90%	400.35	414.48	3.53%
猴源	38358	59408	54.88%	33.31	65.55	96.82%

资料来源：黄山区旅委

表 12 反映了近两年缓冲区低山景点旅游接待人数和旅游收入情况。可以看出，主要景点的旅游接待呈良好上升态势：门票人数和门票收入皆同比增长，特别是猴源、凤凰源、九龙瀑的门票收入同比涨幅超过 50%。这表明通过市场促销、旅行社组团打包旅游等方式，黄山旅游对周边社区低山景点的发展起到了较好的带动作用，整体上促进了风景区周边地区旅游经济的发展。而在所有缓冲区景点中，南大门汤口镇翡翠谷、九龙瀑和北大门耿城镇芙蓉谷门票人数和门票收入都要明显高于其他景区，这也反映出缓冲区各景点由于地理位置、资源条件差异，发展不均衡。

表 13 黄山风景区缓冲区星级农家乐汇总表

	省级					市级			区级			合计
	5 星	4 星	3 星	2 星	1 星	3 星	2 星	1 星	3 星	2 星	1 星	
汤口镇	1	4	6	1	0	8	2	3	61	12	1	99
谭家桥镇	1	0	2	4	0	0	5	2	3	4	1	22
焦村镇	0	0	3	2	0	0	1	1	1	1	6	15
耿城镇	1	0	3	2	0	0	1	0	2	4	0	13
三口镇	0	0	1	2	0	0	0	0	0	0	1	4

资料来源：黄山区旅委

表 13 为黄山风景区缓冲区星级农家乐五镇分布情况，境内农家乐的数量及质量是该镇旅游发展程度的表征之一。上表数据显示，汤口镇旅游发展程度较高，游客量大，境内农家乐的数量和质量均明显高于其他四镇，汤口镇农家乐的数量远多于其他四镇农家乐数量总和，且其评定为省市级农家乐的数量也明显多于其他四镇；但汤口镇星级农家乐的分布极不均匀，84 家聚集于山岔村，12 家位于芳村，3 家位于汤口居，这主要是受山岔村翡翠谷和山岔村其他村民组经营的景点效益较好，接待游客量大等因素影响。缓冲区其他四镇境内，农家乐数量相对较少，且分布较为分散。谭家桥镇近年来积极进行招商引资，推进低山景区的建设，吸引近程客源市场和黄山客源，农家乐数量相对较多。焦村镇农家乐数量、质量不及谭家桥镇，15 家农家乐中仅有 7 家被评为省级、市级农家乐，旅游发展程度相对较低，但随着西海大峡谷的开发，其可能能够带动

焦村镇旅游的发展和基础设施的开发建设。耿城镇农家乐数量略低于焦村镇，其下辖辅村是黄山北大门第一村，镇内星级农家乐 80%以上分布在辅村，且其平均质量较高，多接待自助游客。而三口镇由于地理位置、旅游资源的弱势，游客稀少，农家乐数量最少。

小结：通过对缓冲区五镇招商引资项目、低山旅游景点接待游客与旅游收入、星级农家乐分布的统计分析可知：黄山风景区缓冲区五镇旅游发展呈现汤口镇领头，耿城镇、谭家桥镇、焦村镇继后，三口镇尾随的态势。南大门的汤口镇由于其优越的地理位置，旅游业最早发展起来，黄山旅游对汤口镇的经济带动最大、带动面也最广。

3.3 缓冲区环境及能源利用现状

本次调研了解了五个镇的村容村貌、垃圾及污水处理、声音及空气污染、能源利用、森林保育等方面内容。

3.3.1 村容村貌

总体来说，五个镇的村容村貌建设都卓有成效。道路修建、电网改造等工程使得村内道路整齐划一，在临近道路区域对居民建筑限制层高和风貌整治，也在一定程度上规范了建筑风格。民居布局 and 结构紧凑，屋宇相连，民居建设保留着传统徽派建筑特征，高低起伏，错落有致，黑白辉映，其间田陌纵横，呈现出一派皖南乡村景致。

3.3.2 环境保护

垃圾处理方面，缓冲区五镇各村内都定点摆放了垃圾收集箱，由政府聘请清洁人员回收至镇内垃圾转运站或垃圾处理厂继续集中处理。

污水处理方面，除耿城镇金桥村（与甘棠镇统一建设），五镇目前均尚未建立起污水排放系统。部分地区，如谭家桥镇中墩村，村内有排水管网但是没有修建污水处理厂，因为境内没有工业污染，污水主要是当地居民的生活污水，都通过排水管网直接排到当地的河流里。由于长期无人管理，一些河流被污染，如谭家桥镇的麻川河等。在调查过程中，64.2%的居民认为其居住地的水源被污染。



图 2 耿城镇农家乐排出污水

图片来源：调研组拍摄

另外，受访的五镇居民有近半数认为其生活的社区存在空气、噪声污染，这归因于公路车辆及修路、建房等工程施工发出的噪音。

环境保护意识方面，绝大多数村民具有较强的环保意识，几乎所有居民都认同保护环境和野生动植物非常重要，其中有 88.5% 表示为保护环境，愿意使用清洁能源（太阳能、沼气等）。在监测员走访过程中，也观察到新能源在五镇的推广，如谭家桥镇的太阳能路灯等。

3.3.3 能源利用

缓冲区居民生活用能主要为液化气、沼气、电能、太阳能（热水器、路灯）、薪柴秸秆消耗等，谭家桥镇对 50 户农户年度生活用能情况进行抽样调查的数据显示，2004 年农村生活用能中新能源所占比例为 35%，2010 年大幅上升至 89.3%，至 2012 年农村生活用能中新能源所占比例高达 96.3%。

3.3.4 森林保育

与黄山风景区毗邻的 16 个行政村每年需要承担重要的防火护林任务。黄山风景区管委会与周边乡镇的管委会办公室、综合治理办公室以及防火办均有联系。根据对五镇镇政府相关工作人员的访谈，整理出缓冲区与黄山风景区毗邻的 16 个行政村每年对黄山风景区承担的职责与收益情况如下：

管委会每年给每个村子 2.4 万元，合并的村子为 4.8 万元资金补助，用于各村防火工作的开展，如防火器材库的建立、防火人员工资发放以及其他日常管理事务等。各镇每年轮流安排一个项目，做一些基础设施完善、道路修建、保证环境卫生等工作。各村还与黄山风景区联合进行防火宣传，合作组建黄山救援队，加强了对驴友等六类人员的集中整治。此外，林业站、林业公安也能够从黄山区获得资金补助。

2001 年，黄山风景区周边划出了 4 公里隔离带，所涉及的村镇居民无偿砍伐了隔离带内所有的松木树种，为松材线虫病的预防做出了巨大牺牲。

3.4 缓冲区居民态度和感知

此次监测对象为黄山风景区缓冲区内五镇居民，采取的调查方法以问卷发放为主，访谈为辅。访谈包括对社区居民在填写问卷过程中的补充性访谈，以及对部分村镇政府的访谈等。

在 8 月 29 日至 9 月 6 日期间，共发放有效社区问卷 365 份，其中汤口镇 89 份，焦村镇 57 份，耿城镇 73 份，三口镇 65 份，谭家桥镇 81 份。黄山旅游可持续发展的社区调查问卷涉及黄山旅游发展的经济、社会、文化、环境影响以及居民态度等内容，问卷发放对象主要为各镇中旅游发展程度相对较高以及作为镇政府驻地的行政村村民。在问卷设计上，采用了李克特 5 级量表（five point Likert scale）设计模式，即对量表中每题给出 5 个备选答案，这五个答案按照同意度递增顺序排列，相应赋值为 1、2、3、4、5，并对问卷结果进行描述性统计分析。

此外，监测员对缓冲区五镇政府相关工作人员进行了访谈，了解各镇的旅游招商引资进展、旅游收入等情况。

3.4.1 居民总体态度

对黄山旅游发展满意度方面，69.3%的社区居民认同黄山风景区为本地发展做了很大贡献，67.7%表示对黄山旅游发展很满意。数据显示，黄山旅游发展对周边地区的社会经济发展起到了

较强的带动作用，改善了居民的生活。

3.4.2 对于旅游带来的经济、社区及文化影响的居民感知

经济方面，数据显示黄山风景区旅游发展促进了缓冲区五镇经济发展，一定程度上增加了当地就业机会，但是同时也带来了物价上涨、贫富差距拉大的问题。高达 83.8% 的社区居民肯定了旅游对当地经济的推动作用，有 64.6% 的居民表示旅游发展促进就业机会增多，但仍有 25.5% 的居民认为其目前生活中最大困难是就业。67.9% 的居民认为旅游使本地物价上涨，有 27.7% 的人认为当前生活中最大困难是物价，旅游发展，游客增多的同时也拉高了当地的物价水平。而普通农民、基层工作者工资水平等没有随之提升，有 47.6% 的居民月工资仍在 2000 元以下，物价提升也增加了其生活负担，同时有 64.4% 的居民认为旅游发展使本地居民的贫富差距扩大。

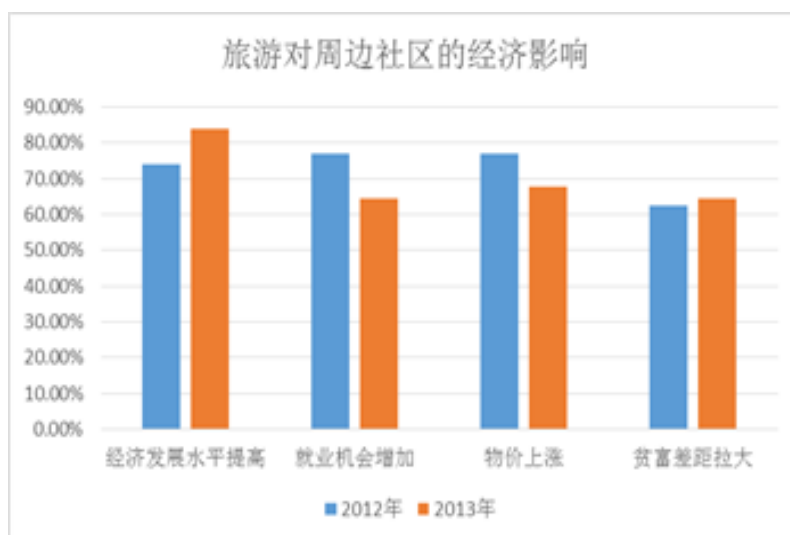


图 3 周边居民对旅游经济影响的感知

社会方面，旅游发展带动了黄山风景区缓冲区五镇道路、水电等设施的改善，老房子拆迁，新房子增加。81.9% 的居民同意旅游发展带动了道路、水电等设施的改善。79.2% 的居民认为旅游发展使老房子被拆迁，新房子增加，仅 9.6% 的居民不同意。53.2% 的居民同意旅游促使交通变得拥挤，29.9% 的居民表示并没影响。

而旅游发展对医疗条件提升方面的带动作用较弱，仅有 52.6% 的社区居民同意或非常同意医疗条件有所提升，将近一半的居民对此持消极否定态度。在走访过程中，监测员了解到虽然设置了黄山风景区医疗急救中心，但是急救中心更多的是针对游客和工作人员，对于当地居民，他们在此就医的频率不高。总体而言，五镇居民的医疗条件受旅游影响不大，当地居民表示小病一般

就近在当地卫生站、小医院就医，大病要去屯溪或者更远的医院。

旅游对于教育水平的影响更为薄弱，仅有 50.1%的居民同意教育水平有所提高，29.6%的人认为无影响。居民表示小学、初中可以就近上学，但是高中仍然要去其他区县，并且就近学校的教学质量不高。在黄山旅游发展的同时，周边政府对于社区居民的教育投入的关注较少。在各镇居民反映的村里关于环境教育和生物多样性保护方面的培训或讲座次数方面也可以体现，50.4%的居民表示村里没有此类培训或讲座；仅有 4.6%的居民认为此类讲座很多或较多，而当监测员就问卷与被访者进一步详谈时了解到，这部分村民对题意理解存在偏差，将政府不要乱丢垃圾、护林防火之类的宣传词与培训、讲座混淆，也有被访者尽管在其言谈中表示并无此类培训或讲座，但其在填写问卷过程中也习惯性地勾选有相关培训，导致问卷所获数据失真。



图 4 谭家桥镇垃圾桶



图 5 谭家桥镇护林防火宣传语



图 6 三口镇污染河水

图片来源：调研组拍摄

文化方面，70.7%的居民同意或非常同意黄山游客、外来打工者促进了本地和外地的文化交流。在黄山旅游发展和文化交流的同时，也衍生了一些节庆活动。此次调查中，55.1%的居民同意旅游发展增加了节庆活动，丰富了当地居民的生活，比如翡翠谷的情人节活动、三口镇的油菜花节等。但仍有 44.6%的人对此持消极否定态度。黄山旅游对于五镇传统文化的负面作用相对较弱，有 30.7%的居民认为旅游使民俗和传统文化被破坏和淡忘，但也有更多居民表示本地自身不具备有特色的民俗习惯和传统活动，居民对于当地特色的认知和保护程度较为有限。

环境方面，黄山旅游对缓冲区五镇的环境负面影响主要表现在垃圾增多和水污染方面，75.1%的居民认为旅游发展，带来大量游客的同时，也带来了更多垃圾；64.2%的人认为当地的水源被污染，未经处理的污水被直接排入河流中，造成了河流水质变差甚至被污染。而且这不仅影响了当地村镇的水环境，同时也波及了下游地区，比如谭家桥镇的麻川河，受上游汤口镇水污染的影响，水质变差。另外，噪声、空气污染其次，59.4%的居民同意旅游发展使得噪声增多，这些

噪音主要来自道路上增多的机动车辆以及修路建房等工程施工引发的噪音；47.7%的居民认为空气被污染。

黄山旅游对缓冲区五镇环境的正面影响则主要表现为环境卫生的改善和村民环保意识的增强。71.2%的居民认为村里的环境卫生条件明显改善，且有41.9%的居民表示对其生活所处的环境感到满意，这似乎与上面提到的旅游使得垃圾增多有所冲突，但实际上尽管游客增多带来了更多垃圾，但同时环卫工作、垃圾处理等也有了较大程度的改进，如在人口较多的公路周边垃圾桶数量明显增多，有环卫工人定时进行垃圾清扫，有专门的垃圾处理厂统一处理垃圾等。68.5%的居民认为周边自然保护区的设立对环境教育和生物多样性保护作用明显，66%的居民表示现在捕杀或砍伐保护类动植物的数量明显减少，24.7%的居民表示其逐渐了解了周边有需要受到保护的野生动植物。数据显示，村民对生物多样性保护的现状基本满意，但总体而言，政府的教育宣传力度较为薄弱，居民自身对动植物保护的关注度不高，各村镇几乎没有开展针对居民的环境教育和生物多样性保护方面的培训或讲座，村民也因忙于工作或娱乐，对了解环保知识缺乏积极性。

3.4.3 社区居民对旅游参与度感知

71.5%的居民表示其愿意从事与旅游相关的工作，78.9%的居民表示愿意主动为景区的发展提出建议，但仅35.3%的居民表示景区在做决策时会听取社区居民的意见。总体而言，缓冲区五镇居民大多愿意为黄山旅游发展献策献力，但是景区做决策时较少听取社区居民意见。

3.4.4 社区居民旅游支持度

88.2%的社区居民渴望发展旅游，87.7%的人表示会继续支持黄山发展旅游。数据表明，黄山旅游推动了缓冲区五镇的发展，绝大多数居民愿意支持旅游发展，希望旅游发展能带来更多就业机会，促进基础设施的改善和居民生活水平的提高。

3.4.5 社区居民日常生活

41.9%的居民表示对生活环境感到满意，物价和就业是缓冲区五镇居民目前面临的最大困难，分别占到27.7%和25.5%。数据显示，由于黄山本身的自然环境优势以及管委会、各镇政府有效的环境保护措施，居民对其自身生活环境满意程度较高，但旅游发展也促使了物价水平的上涨以及就业压力增加等。

饮用水方面，汤口镇汤口村、谭家桥镇中墩新村、焦村镇的饮用水方面，居民反映存在自来水被污染或经常断水等问题。但总体而言，黄山风景区缓冲区五镇居民饮用水较为方便且在不断改善过程中，77.3%的居民认为饮用水没有困难，三口镇白果树村村民表示以前自来水经常断水，而且水质浑浊，但是自今年3月份，政府投资解决了当地居民的饮用水问题。

路灯方面，居民反映存在较大问题。对于街道两旁的路灯，有59.6%的居民表示没有路灯或者路灯不亮。有些道路虽然装了路灯，但是时亮时不亮，并且长久没有相关工作人员来修理；又或者由于夜晚街道上行人、车辆稀少，为了省电，路灯不点亮；而在一些村子里，田地间、房屋前没有安装路灯，村民出行不便。

3.5 小结

黄山旅游发展促进了缓冲区各镇社会经济的发展，但其辐射作用并不均衡。地域上，汤口镇发展势头强劲，受黄山旅游辐射作用最强，旅游成为其支柱产业，而其他四镇则起步较晚，农业仍占据其经济的主体地位。

居民十分支持旅游发展，大多愿意从事旅游相关工作。旅游发展促进社会经济发展的观念深入人心，居民对发展旅游业的热情度高，但是黄山风景区决策过程中社区参与度较低，居民的意见难以有效反映。

黄山旅游发展对缓冲区的影响利弊共存。在经济方面，黄山旅游的发展提升了当地经济发展水平，增加了就业，但同时也带来了物价上涨、贫富差距扩大等问题。在社会方面，旅游的发展促进了基础设施的完善和文化交流，但对于医疗、教育等方面的积极影响较弱。环境方面，旅游的发展促进了当地居民环保意识的提升和政府相应环保措施的开展，但也引发了垃圾增加、水体污染等环境问题。

黄山旅游发展改善了缓冲区总体基础设施建设，但在污水处理和路灯维修方面仍有待提升。随着旅游的发展，当地政府加大了缓冲区基础设施建设和完善，基础设施方面有了较大程度的改善，但对污水处理和路灯维护等问题，相关政府部门应积极采取措施。

居民普遍环保意识较强，愿意为了环境保护使用清洁能源。随着旅游的发展，当地居民的环保意识普遍提升，在对野生动植物保护、垃圾处理、新能源利用方面都展开了积极响应和尝试，但目前当地居民对环境保护方面的具体知识了解较少，在环境保护的实践方面，仍需政府通过宣传教育等方式进行积极推动。

4 游客感知与满意度

4.1 游客指标监测

表 14 游客满意度监测指标和监测结果

主题	指标	频率	相关部门	方式	本期监测结果
游客满意度水平	1. 游客对黄山资源、服务、整体旅游环境及其他方面的满意度水平	1 年	旅游办	本监测项目问卷抽样调查；访谈	游客对黄山自然景观及环境满意度高，但希望增加基础设施如石凳、厕所等数量；游客对文化体验、服务质量、食物质量、旅游信息获取和解说系统等方面评价较高。
	2. 游客总体满意度	1 年	旅游办	本监测项目问卷抽样调查	总体满意度较高，80%游客认为此次旅行物有所值，评价较高。
	3. 游客对于旅游体验是否符合预期的感知	1 年	旅游办	本监测项目	本次调研未涉及。
	4. 游客的重游率与推荐意愿	1 年	旅游办	本监测项目问卷抽样调查	82%的游客有愿意向亲友推荐，有重游意向的游客也达到 62.1%。
	5. 黄山风景区游客投诉率	1 年	尚未获得数据	本监测项目	调研过程中未遇到有投诉经历的游客。
游客安全	6. 游客事故发生率	1 年	尚未获得数据	本监测项目	调研中一位导游提到一名游客在莲花峰游玩时因雷击身亡。
	7. 游客对黄山旅游的安全感知	1 年	旅游办	本监测项目问卷抽样调查	游客对黄山游览秩序较为满意，但是对游步道、防护栏安全满意度中等，认为有些稀疏和低矮，同时对医疗救援等意外事故处理感知薄弱。

游客教育	8. 参加黄山风景名胜开展解说活动教育的游客占总数的比例	1 年	旅游办	本监测项目	详见 4.4.2。
游客研究专题	9. 游客对黄山风景名胜价值感知和国家认同	2 年	监测项目组	本监测项目：访谈	游客对黄山审美景观价值认知程度最高，历史科学价值认知较高，社会精神价值相对较低；游客游览黄山后其国家认同有所提升其中，民族优越感提升最明显，其次为因自然景色而增强的认同感，最后为历史文化信仰方面的认同感。

4.2 问卷样本基本情况

本次调研中，调研组分别于 8 月 30 日于黄山风景区温泉景区，8 月 31 日、9 月 1 日、9 月 2 日、9 月 3 日于慈光阁派发问卷，问卷派发对象为已经游览过黄山的游客。共收回有效问卷 425 份，本次调查报告主要依据此，对相关游客监测指标进行分析。问卷针对游客满意度方面设计了 9 个大的评价项目，分别是目的地景观、进入性、旅游信息、目的地环境、安全保障、服务质量、对本地人的态度、总体满意度以及游客的推荐意愿和重游意愿。不同的评价项目，又分成不同的评价子项目，共有 38 个评价子项。游客对于这些指标的评价采用李克特 5 点量表，分为“非常反对”、“反对”、“中立”、“赞成”以及“非常赞成”5 个等级，“非常反对”得 1 分，“反对”得 2 分，“中立”得 3 分，“赞成”得 4 分，“非常赞成”得 5 分。

在对样本的人口统计分析中，前往黄山风景区旅游的游客以安徽省为主，其次则来自江浙、上海、湖北等毗邻省市。游客群体呈现年轻化特征，其中 32.7% 为 15 至 24 岁群体，49.6% 为 25 至 44 岁群体，游客以中等收入的企业职员和低收入的学生为主。

4.3 游客行为偏好

4.3.1 旅行目的及方式

对游客前往黄山风景区旅游的动机中，77.4%是出于观光，48%为休闲度假。其中69.6%为团队游客，26.8%为自助游。可以看出黄山风景区目前仍以团队游客为主，且为观光休闲旅游，是典型的大众旅游目的地。但同时自助游的游客比例也将近三成，比例相对往年有所增加。

4.3.2 西海大峡谷地轨缆车体验

西北大峡谷位于黄山风景区西部，以打造梦幻景区、开发西海大峡谷为目标，黄山风景区于今年7月份开通西海大峡谷地轨缆车。在完成的404份问卷中，有170位游客表示乘坐过西海大峡谷地轨缆车，占比例40%。乘坐的游客中有155名游客赞同或非常赞同西海大峡谷风景很美。

但是，在随机访谈中，有游客说“风景并不好看，就是在一个山谷里，看到的景色只有山谷的两边，没有觉得有梦幻的感觉。”其中大部分游客并没有乘坐过地轨缆车，甚至有游客没有听说过。在填写问卷的过程中，也有游客向笔者询问西海大峡谷的位置；有些游客在调研员的解释下将原来的乘坐过改成未乘坐。可见游客对地轨缆车的认知有着较大偏差，很多游客并没有区分地轨缆车和索道，这直接导致游客将地轨缆车当成玉屏、云谷或太平索道，从而估高了地轨缆车的乘坐比例及评价，因此该数据存在较大误差，需要后续追踪和关注。

4.4 游客态度与评价

4.4.1 游客对目的地景观的评价

游客对黄山风景区的自然景观评价很高，98.4%赞同或非常赞同其自然风光非常优美。同时虽然有游客认为其文化内涵不如自然景观，但是仍有78.1%的游客认为其文化内涵丰富。

4.4.2 游客对进入性及旅游信息的评价

游客进入黄山前及进入后的交通和信息获取均对游客体验有较大影响。70.1%游客对黄山风景区外部交通表示肯定，72.2%游客对景区内部交通的便捷性表示肯定。同时67.0%的游客赞同或非常赞同“景区为各类人群提供方便行动的设施与工具”。但是仍然有接近三成的游客表示反对或中立。在对游客的访谈中，游客表示反对的原因有：（1）不知道游客必须从汤口镇新国线换

乘中心乘车前往黄山景区大门这个信息，同时觉得 19 块的价钱太贵；（2）景区内的索道价格太贵。这些原因同时在下文游客对景区的建议中也有所体现。

在游客的游玩过程，对其旅游信息获取；游览线路、路标指示牌、景点介绍的便捷及清晰度的满意度中等偏上，70%左右的人赞同或非常赞同，分别为 73%、71.8%、74.4%、67.1%。但是，18%左右的游客表示中立，这些游客并没有关注景区内的指示牌。调查发现游客对于能方便获得地图宣传册满意度并不高，仅有 54.8%的人赞同或非常赞同。通过实地的观察及访谈，调查发现其原因主要是黄山风景区大门或其他游客聚集地并没有免费的提供地图宣传册，游客需要必须自己去商铺购买。

4.4.3 游客对目的地环境评价

游客在游玩过程中，对黄山风景区的环境评价较高，对景区环境各项指标的均值均在 4 左右，表明基本上都是满意的。但是在其游玩体验上评价却一般，其中纪念品与美食均值接近 3，基本上都处于中立状态。

在硬件设施的质量如观景、公厕、设施与自然的协调上，游客评价较高，赞同或非常赞同都在 80%左右，其中 88.9%的游客认为景区很干净。但是在数量上却有所缺失，73.2%的游客认为需要增加公厕的数量，79%的游客认为需要增加休息设施。

4.4.4 游客对目的地文化体验评价

在旅游体验上，主要体现对拥挤度、纪念品、美食及野生动物方面评价较低。41.5%的游客认为黄山风景区不拥挤，有 21.7%的游客觉得拥挤。对于购买当地纪念品及地方美食，仅有 38.2%的游客感到满意，37.6%的游客有所消费；41.6%的游客认为一般，37.9%的游客没有在黄山消费。通过访谈，不少游客反应黄山上的食品物价过高，且质量一般。大部分游客表示并没有在黄山看到任何野生动物。80.9%的游客希望看到猴子、松鼠等野生动物。值得特别提出的是景区的解说系统，解说系统对游客从观光到体验有一定促进作用，能够提高游客满意度，但仅有 60%的游客对其解说系统感到满意，30.8%的游客并没有关注到解说系统。

4.4.5 游客对景区服务评价

游客对他们在旅游中接受的服务评价偏低，主要体现在游客对景区的食物质量、住宿质量、

景区工作人员服务质量和导游服务质量等方面评价偏低。游客对食物、住宿接待的满意度均值接近 3，表示都一般。仅有 37.2% 的游客赞成或非常赞成食物的质量好，43.8% 的游客认为旅游目的地的食物质量一般。在对景区接待住宿质量的评价中，40.5% 的游客认为景区的住宿质量一般，认为景区住宿质量好的游客只占总游客的 41.9%。通过访谈，游客对于景区的食物和住宿质量的评价不高主要是由于食物和住宿的价格过高造成的。游客对于景区工作人员的服务质量评价，包括游客对景区的索道服务人员，酒店服务人员以及巡逻管理人员的服务质量评价。只有 57.9% 的游客赞成或者非常赞成景区服务人员的服务质量好，33.4% 的游客认为景区服务人员的服务质量一般。游客对于导游的服务质量的评价高于景区工作人员的服务质量，但是仍然只有 65.7% 的游客赞成或者非常赞成导游的服务质量好。

4.4.6 游客对当地人的态度

黄山风景区周边毗邻 5 个镇，但是游客跟社区或当地人的接触非常少，更多的是景区的工作人员以及做生意如酒店、农家乐的商家。仅有 37% 的游客表示跟当地人接触较多，45.6% 的游客表示相处的并不多，这与很多黄山游客是一日游游客有关。他们并没有很多机会与当地人相处。而在周边城镇如汤口镇的商家中，有游客说没有办法知道是不是当地人。因此也只有 46.8% 的游客认为当地人很热情，42.6% 的游客表示中立，并没有认知。

4.4.7 游客对目的地安全保障的评价

黄山风景区对游客的安全保障无疑是最重要的。安全保障的指标主要体现在游览秩序、索道、游步道、防护栏安全和意外处理的医疗救援及时性方面。72.9% 的游客认为黄山游览秩序很好，仅有 6.6% 认为不好。而这个认知与黄山的游客量也有较大关系。问卷调查期间为黄山淡季，对游览秩序管理较为有力；在旺季，维持游览秩序显得更为困难和重要。游客对索道安全也较为满意，占 85%，仅有 0.9% 的游客表示不满意。但是对游步道、防护栏的安全，只有 67.8% 游客感到满意，24.7% 的游客认为一般。在访谈中，有游客反映黄山防护栏偏低，建议加高，同时还有游客反映有些防护栏下方较为稀疏，若游客不小心滑倒，极有可能滚落山崖。仅有 45.4% 的游客对医疗、救援及时到位等表示满意，48% 的游客表示中立，这也因为较多游客并没有面临这种意外情况，没有试图去了解其意外事故处理的措施，因此较多的游客表示中立。

4.4.8 游客总体满意度

整体上,80.9%的游客表示满意,但是觉得物有所值的游客降到64%。不满意的游客仅占0.7%,但是不觉得物有所值的游客占11.3%。从访谈中,调研者可以知道其中的主要原因是黄山的物价高,包括门票、索道、食物、住宿等方面。不仅景区,周边城镇的物价也相当高,因此降低了游客的满意度。

游览后,游客如果获得了较为满意的体验,常常希望将该旅游目的地推荐给其他人或者其自己希望再次前来黄山旅游,因此游客的推荐意愿以及重游意愿可以作为反映游客满意度的指标。游览完黄山后,有82%的游客愿意向亲友推荐,有62.1%的游客表示愿意重游,可见黄山风景区的推荐意向和重游意向较高。

4.5 小结

首先,游览黄山的游客构成较为稳定,自助游客呈现增多的趋势。本次调研数据反映游客多来自安徽及周边省市,年轻学生和企业职员群体占据较大部分,尽管目前黄山的游览游客仍以团队游客为主,但自助游客较之往年则逐渐增加。

其次,游客对于黄山自然风光的满意程度很高,而对黄山文化体验方面的满意程度相对较弱。这与黄山优美的自然环境和优越的自然资源相关,也在一定程度上与黄山文化遗存在历史上被自然、人为灾害破坏,文化氛围相对较弱等因素有关。

游客对黄山风景区的自然保护给予了肯定,同时游客评价中反映出需要提升的方面也较为集中:(1)安全保障——游客对安全的担忧主要是护栏的高度及密度不能完全起到保护的作用;(2)物价——主要体现在食宿方面价格较高;(3)基础设施——游客认为公厕以及石凳等休憩设施需适当增加。

最后,有关新增西海大峡谷地轨缆车游客的评价方面,通过问卷得到的结果表明游客的体验较高,但是通过访谈得到的结果却表明游客体验不甚理想。这主要是由于很多游客将索道错认为地轨缆车,给了非常好的评价。而很多游客并不清楚西海大峡谷的地轨缆车,体验过的游客对其评价一般。

5 旅游的经济影响

5.1 旅游经济影响指标监测

表 15 旅游的经济影响监测指标与监测结果

主题	指标	频率	相关部门	方式	本期监测结果
旅游收入	1. 黄山风景区接待游客总人数	1 年	计统科	常规统计	黄山风景区 2012 年累计接待入山游客 3007570 人, 同比增长 9.61%; 经营收入 20.30 亿元, 同比增长 11.57%。
	2. 旅游统计数据 (旅游总收入、床位数、过夜人数, 人均花费等)	1 年	计统科、周边社区政府相关部门 (目前只有汤口镇)	常规统计	黄山风景区 2012 年山上床位数 4278 张, 2013 年增加西海饭店 180 间客房, 360 张床位。整个黄山集团公司 2011 年收入超过 201760 万元人民币, 同比增长 9.82%。2012 年汤口镇酒店 230 家, 农家乐 250 家, 床位数约 18000 左右。
	3. 周边低山景点接待游客人数	1 年	周边社区政府相关部门、区旅	常规统计	详见 3.2.3. 表 11。
	4. 周边低山景点的旅游统计数据	1 年	周边社区相关政府部门、区旅委	常规统计	详见 3.2.3. 表 11。

旅游的 季节性 程度	5. 旺月与淡月 游客数量的比率	1 年	集团公司 计统科	本监测项目 统计数据	黄山风景区 2011 年旺季的游客总量占全年的 79.41%; 接待游客最多的旺月 (10 月) 与接待人数最少的淡月 (1 月) 接待量的比率为 4.02。
旅游对就 业的 影响	6. 旅游创造的 就业机会	3 年	计统科	本监测项目: 问卷抽 样调查;	暂无更新。 股份公司在景区的员工 2299 人, 其中固定职工 2245 人, 季节性员工 54 人。汤口本地职工人数 967 人左右 (景区 278 人, 黄山区 1191 人, 大致推算)。男女比例为: 男性职工占 50.7%, 女性职工占 49.3%。
游客 花费 构成	7. 游客花费中 “吃住行游娱购”各 部分的支出比例构成	1 年	监测项目 组	本监测项目: 问卷抽 样调查; 统 计数据	本期调研中较难获得数据, 建议下期监测从统计数据间接了解。
旅游的 经济 带 动作 用	(专项研究)	3 年	监测项目组	专项研究	本次调研未涉及。

资料来源: 根据调查资料整理

5.2 概况

5.2.1 旅游收入

根据本期监测调研所获数据, 黄山风景区 2012 年累计接待入山游客 3007570 人, 同比增长

9.61%；整个黄山集团公司 2012 年收入超过 201760 万元人民币，同比增长 9.82%。黄山风景区周边低山景点的接待游客数和旅游收入详见 3.2.3 表 11。

5.2.2 旅游季节性程度

黄山风景区接待游客量保持季节性变化，旺季持续时间较长，游客数量在 4 月至 10 月都保持较高的水平，为旺季（共 7 个月）；在 11 月至次年 3 月较少，为淡季（共 5 个月）。黄山风景区 2012 年旺季的游客总量占全年的 79.41%；接待游客最多的旺月（10 月）与接待人数最少的淡月（1 月）接待量的比率为 4.02。

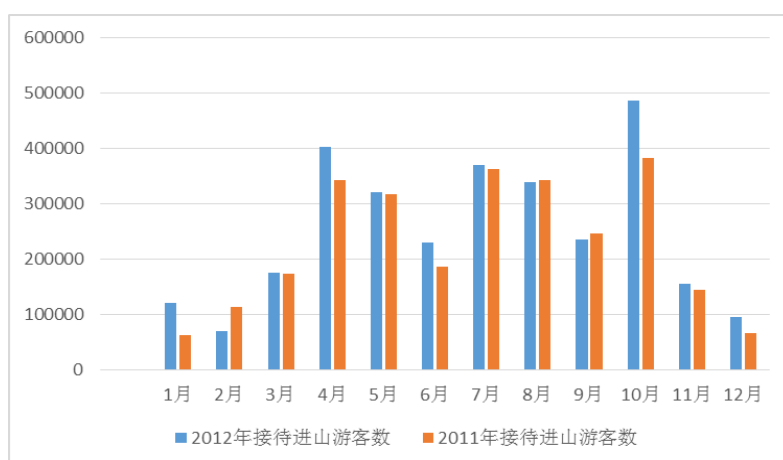


图 7 黄山风景区 2011-2012 年各个月份进山游客数量分布

6 组织与管理

6.1 科学保护资源与环境方面的成绩

黄山风景区的管理机构最早追溯至“黄山建设委员会（HSAC）”。1931至1934年，原中华民国国务总理许世英，以“保护资源环境、发展旅游经济、光大风景名胜”为宗旨，发起设立“黄山建设委员会”，开创中国“国家公园”的管理模式。

1982年，黄山在中国风景区最早启动《风景区总体规划》编制；1989年，安徽省人大颁布《黄山风景名胜区管理条例》，这是中国风景区管理与保护的最早立法。

1998年，世界遗产委员会第22次特别会议称“黄山是一个杰出的景区，一个管理得很好的遗产地，一个有大量游客到访且管理优秀的亚洲示范景区”。建设部、国家文物局、中国联合国教科文组织全委会授予黄山风景区管委会“中国世界遗产地保护管理先进单位”称号。

1999年，黄山风景区管委会获得联合国教科文组织首批“文化与景观保护管理国际荣誉奖”，是亚洲首个获奖者。

2001年，黄山被国土资源部命名为“国家地质公园”。2004年，黄山成为联合国教科文组织首批“世界地质公园”网络成员。

2005年，委托清华大学修订编制《黄山风景区总体规划（2007-2025）》，提炼了可持续发展思想：（1）平衡科学保护与可持续发展；（2）注重公众教育与游客体验；（3）统筹景区内外有序发展；（4）展示特色性与文化性；（5）处理好理论前瞻性与现实操作性。

2006年末，黄山被国家环保总局评为“ISO14000国家示范区”。

2007年，黄山获国家重点风景名胜区管理办公室评选的“最佳资源保护的中国十大风景名胜区”称号。

2012年，中华环保联合会、中国旅游景区协会授予黄山“全国低碳旅游示范区”。

近年来，围绕系统化战略、精细化管理、人性化服务、数字化支撑，黄山风景区管委会（HSAC）进行了系列探索：

（1）推广“山上游、山下住”；合理确定景区日接待的最佳容量与最大容量；推广“冬游”产品，促进旅游季节性协调发展；实施产品线路管理，通过“三预”（预测/预约/预警）等机制，实现假日旅游的“削峰、调谷”。牵头制定了《景点封闭轮休规范》、《古树名木保护管理规范》等，这些标准成为省级标准，《景区游步道建设要求》、《景区环境保洁要求》等标准正在申报成

为国家行业标准。开展了“阻击松材线虫病专项行动”，建立了 100 千米长、4 千米宽的“生物隔离带”。启动“黄山生物多样性保护”研究项目（该项目总投资 1300 万美元，涵盖了黄山全市 9800 多平方公里范围内的动、植物本底资源调查与研究）。

（2）与国家各部委合作，先后启动“全国风景名胜区数字化示范基地”（中国风景名胜区协会/中国电子学会）、“全国旅游标准化试点单位”（国家旅游局）、“全国低碳旅游示范区”（中华环保联合会/中国旅游景区协会）、“国家旅游气象服务示范区”（国家气象局）、“国家旅游安全应急救援黄山基地”（国家安监局/国家旅游局）等项目建设。

（3）进一步完善黄山遗产博物馆、黄山地质博物馆、黄山书画研究院、黄山游客中心的教育功能，系统展示黄山自然与人文资源、可持续发展历程、景区管理方针与要求。

（4）同 30 多家媒体保持友好伙伴关系，向公众广泛宣传可持续发展；与国家旅游局、中央电视台联合拍摄“品质旅游，伴你远行”公益广告；与全国 20 多家知名景区发表“绿色生活，低碳发展”黄山联合宣言。

（5）与 20 多家知名高校以及科研机构深化合作关系：共同组建“南京大学旅游可持续发展研究暨南京大学博士后流动站黄山基地”、“中山大学黄山旅游研究基地”等；聘请知名专家担任黄山资源保护与环境管理“首席科学家”。

6.2 荣誉与社会认可

1979 年，中国国家领导人邓小平视察黄山并发表著名的“黄山谈话”，掀开中国旅游业改革开放的序幕，黄山因此成为中国旅游业改革开放的“发轫地”。

1982 年，国务院审定并公布安徽黄山为第一批“国家重点风景名胜区”。

1985 年，在《中国旅游报》组织的“中国十大风景名胜”评选中，黄山在 600 多个候选单位中脱颖而出，作为唯一的山岳景区入选“十大风景名胜”地。2007 年，黄山获国家重点风景名胜区管理办公室评选的“最受群众喜爱的中国十大风景名胜区”称号。

1990 年，黄山入选联合国教科文组织“世界文化与自然遗产”名录，成为全球第 17 处“混合遗产”地。

1996 年，“黄山旅游”股票上市，成为中国第一支“全要素旅游概念股”；“黄山 旅游”获得了中国“驰名商标”。

2005 年，黄山被《中国国家地理》及全国 30 家媒体评选为“中国最美十大名山”。

2007 年，国家人事部、国家旅游局授予黄山风景区管委会“全国旅游系统先进集体”称号。同年，黄山被全国旅游景区质量等级评定委员会评定为首批国家 5A 级旅游景区。

2010 年，黄山风景区管委会获得世界旅游业理事会“目的地管理奖”，是该奖的亚洲首个获奖者。同年，黄山旅游集团公司加入世界旅游业理事会，成为该组织在中国的第三家成员。

2010 年，黄山被评选为“长三角世博旅游主题体验之旅”示范点。同年，在携程旅游网等行业机构组织评选的“十大中国最佳旅游目的地”（城市/景区）中，黄山入选前三甲。

2011 年，在中华环保联合会、中国风景名胜区协会推荐下，黄山风景区管委会加入世界自然保护联盟，黄山成为该国际组织中的中国首个旅游景区暨首个遗产地。

2012 年，黄山旅游发展股份公司荣获首批“全国旅游标准化示范单位”。

2012 年，黄山地质公园工作得到教科文组织肯定。

6.3 国际交流与合作

黄山风景区管委会（HSAC）围绕着“肩负历史使命，保护好世界双重遗产地；抢抓时代机遇，建设好世界一流目的地”的目标，除了坚持绿色发展以外，还注重开放发展，加强国际交流合作。

黄山风景区先后与瑞士少女峰（2002 年）、美国约塞米蒂公园（2006 年）、希腊莱斯沃斯石化森林公园（2008 年）、新西兰凯库拉观鲸公司（2011 年）缔结了友好关系；近期，将与加拿大班芙国家公园缔结为友好公园，另外黄山风景区也正在加快推进与美国黄石国家公园以及澳大利亚、俄罗斯、巴西等国家的知名公园与世界遗产地之间的联系。

2008 年 3 月起，黄山与全球可持续旅游委员会（GSTC）、联合国世界旅游组织（UNWTO）、联合国环境规划署（UNEP）、联合国基金会（UNF）等国际组织合作推进全球首个“世界遗产地可持续发展黄山观测区”项目的建设，并于 2012 年与上述国际组织合作建设了首批“全球目的地可持续旅游标准黄山实验区”。黄山风景区管委会（HSAC）在亚洲率先获得了联合国教科文组织（UNESCO）“文化景观保护与管理国际荣誉奖”（2000 年）、世界旅游业理事会（WTTC）颁发的“全球目的地管理奖”（2010 年）。2011 年的亚太旅游协会（PATA）六十周年庆典大会上，黄山风景区管委会（HSAC）阐述“善行旅游”，即“友善的旅行与游览”的理念与内涵，被 PATA 宣传推广，并被 UNESCO 吸收借鉴和发展。

为贯彻联合国“千年发展目标”，黄山风景区管委会（HSAC）作为亚洲唯一的业界代表，参与起草、制订《全球目的地可持续旅游标准》（GSTC-D），并于 2012 年正式发布；同年，HSAC 与

世界优秀目的地中心(CED)合作,以中国黄山为蓝本起草和拟定“景区类”世界优秀目的地标准的基本框架。未来,HSAC 将继续秉承“保护当头、发展为上,管理创新、和谐立山”这一职责与使命,稳步致力于“环境影响最小化、经济产出最大化、社会影响最优化、游览体验最佳化”四位一体的愿景与实践探索。

6.4 旅游营销方案

表 16 中列出了黄山 2011、2012、2013 三年间的黄山旅游营销方案,对比 2011 年至 2013 年的营销方案,三年间黄山旅游营销的两大主题和营销所针对的三大市场基本保持,全年进山人数的目标任务则是逐年增长,而具体的政策措施则及时根据旅游发展的外部环境和内部要求进行调整创新。比如,2011 年提出的后世博市场旅游热点转换契机;2012 年围绕国家旅游局确定的“中国欢乐健康游”宣传主题推出的“四季主题活动”;2013 年对高铁市场、自驾游市场的关注。而在这三年间,网络营销始终是黄山旅游营销的重点工作。

表 16 黄山旅游营销方案

	营销方案
2011 年	“一个目标”:2011 年进山人数 260 万 “两大主题”:国内市场“登黄山,天下无山”;境外市场“中国黄山,人间仙境” “三大市场”:传统市场、新兴市场、入境市场 “四个重点”:航空旅游包机和专列、网络销售、分社拓展、后世博市场旅游热点转换契机 “五个结合”:“新老”、“内外”、“远近”、“长短”、“大小”结合
2012 年	“一个目标”:2012 年 280 万进山人数的目标任务 “两大主题”:国内市场“天地之美,美在黄山”;境外市场“中国黄山,人间仙境” “三大区域”:境内主打市场、境内主攻市场、境外主拓市场 “四季主题活动”:春漫黄山,欢乐踏青;夏临黄山,避暑休闲;秋赏黄山,寻谷探幽;冬游黄山,人间仙境 “五个转变思路” “六项重点工作”:巩固提升旅游三进、全面深化网络营销、积极促进航班专列、

	稳步实施分社拓展、抓好特定时段促销、大力开展整体联动
2013 年	“一个目标”：2013 年 310 万进山人数的目标任务 “两大主题”：境内市场为“感受黄山，天下无山”；境外市场为“中国黄山，人间仙境” “三大市场”：传统市场、新兴市场、境外市场 “七项措施” 五项“新政策”：自驾游引导、大型会议团队优惠、俄罗斯市场促进、定额抵扣消费、西海观光缆车价格政策

资料来源：黄山旅游发展股份有限公司营销中心

6.5 景区与社区交流

2010 年以来，黄山风景区管委会与周边乡镇互派干部，进行持续三个月或两年的挂职，以促进双方的沟通与合作。2010 年 2 月至 2014 年 3 月，黄山管委会共选派科级干部、机关干部 5 人次到周边村任职。2011 年、2012 年共互派干部 13 人次，2011 年 9 月至 11 月，选派 3 名管委会科级干部至周边乡镇挂职谭家桥镇镇长助理、焦村镇镇长助理、黄山区城市管理行政执法局汤口分局副局长等，接收 3 名黄山区乡镇干部挂职，分别挂任黄山风景区管委会综合执法局紧急救援大队副大队长、黄山风景区管委会规划土地处规划管理办公室副主任、黄山风景区交通局副局长等；2012 年 9 月至 11 月，选派 3 名人员到周边乡镇挂职，分别担任三口镇镇长助理、耿城镇镇长助理、焦村镇镇长助理，接收 4 名黄山区乡镇干部至黄山管委会挂职，分别担任黄山旅游集团有限公司投资部项目经理、黄山管委会政治处办公室主任助理、黄山管委会园林局芙蓉管理区主任助理、黄山管委会经济发展局旅游事业管理办公室主任助理。

此外，为增强对黄山风景区的防火安全管理，增强毗邻周边群众和广大游客的防火安全意识，黄山风景区与毗邻镇村合作采取了一系列措施，表 17 为 2012 年黄山风景区与周边防火联防工作情况的基本介绍。

表 17 2012 年黄山风景区与周边防火联防工作情况

措施	具体内容
1. 防火联合宣传	利用防火宣传车广播进行有声宣传、张贴防火通告、发放防火宣传单等。
2. 驴友联合管理	加强对驴友等六类人员的集中整治，全年截堵驴友等违规进山人员 27 批次 226 人次，依法查处 12 批 164 人次。
3. 庙会防火联防	在三口镇夫子山神仙洞和翠微寺庙会期间，防火办工作人员和毗邻镇村到现场开展防火安全督查，对沿途步行上山的香客们发放防火宣传资料，并要求驻守的防火队员做好巡护工作。
4. 防火联防考核	黄山风景区管委会和黄山区对毗邻五镇一场，15 个行政村，3 个森林派出所，3 个检疫检查站，开展经常性的防火检查、督查，召开防火联防工作会议，建立完善以奖代补奖惩机制并及时兑现。
5. 生物林带建设	2012 年 4 月份完成了焦村镇、三口镇、汤口镇防火林带建设，实际投资 34 万元，建成 1000 余亩，包括毛竹 400 亩，油茶林 600 亩。 8 月 21 日，对景区周边 4 座资源保护管理站建设工程项目进行了验收。
6. 防火道路补助	2012 年度黄山风景区在调研的基础上给予黄山区谭家桥镇新洪村、洋湖公益林场、汤口镇冈村防火通道，每单位 10 万元补助。
7. 景区周边防火仓库建设	景区投资在毗邻周边镇村的主要进山道口新建了 25 座的小型防火仓库，2011 年 9 月完成验收。

资料来源：园林局防火办

7 结论与建议

7.1 进一步提升游客体验

目前游客满意程度较高，黄山风景区在提升游客满意度方面进行了不懈的努力且卓有成效，但游客评价也反映出，在部分领域黄山风景区仍需持续努力，进一步提升游客体验。

本期监测结果显示，前往黄山游览的游客市场较为固定，大部分游客对黄山旅游资源评价较高，总体而言，游客对其旅游体验较为满意，有一半以上的游客表示会重游或推荐。而对于7月份新开设的西海大峡谷地轨缆车项目，调研中约四成游客乘坐，部分乘坐的游客对其评价较高。

但游客对于黄山风景区交通可进入性、解说系统和景区内食宿质量等方面满意程度较低，游客认为景区换乘交通和索道等收费较高，满意程度较低。对于解说系统，游客对景区解说系统的使用主要集中在道路指示、方向指示牌上，对于景观的科学解说功能关注较少，一方面路标指示牌、风景区地图等需要进一步改善，如为游客提供免费景区地图，为游客提供更为清晰易懂的路标指引，为游客提供有关交通换乘的信息指引等；另一方面也应注意提升风景区内解说牌的趣味性和教育功能。游客对风景区内服务评价偏低，尤其是景区内的食物和住宿质量，这主要是因为游客反映食宿物价高，影响其对食宿性价比的总体评价，因此景区的食、购、住几项基本服务功能需进一步提升。调研还反映游客与本地人接触较少，除观光旅游外，本地其他体验活动较为单一，游客的游览体验需进一步丰富。

7.2 增强关于遗产价值的宣传教育

本期监测结果显示，游客对黄山审美景观价值认知程度最高，历史科学价值认知较高，社会精神价值相对较低。黄山作为自然和文化双重遗产地，具有多方面的价值，大部分大众游客在游览过程中只参观了解了黄山特殊的自然景观和地貌，但对黄山珍贵动植物、黄山相关文化方面价值、与当地联系等方面的价值感知较低，黄山风景区应进一步做好相关历史文物的保护和修缮工作，保护好其珍贵动植物，同时也应当增加对游客的宣传教育，让更多当地人参与到遗产的保护和展示中，从而在这一过程中让更多游客加深对黄山文化特色、当地风俗民情、动植物资源等方面的了解，也增强当地人对于黄山遗产地的认同感和归属感。

绝大多数游客在游览完黄山后，其民族自豪感有所提升，这也说明游览黄山能够作为增强国人爱国主义精神、民族凝聚力的一种手段。但针对另一部分游客反映的如黄山收费高、旅游追求纯休闲娱乐、黄山具有代表性局限等原因，黄山风景区在今后发展中应降低进入门槛，增强国家

公园的保护、展示功能，让更多国民能够更好地前往黄山风景区游览。在游览过程中，也应当注重在休闲娱乐的同时，寓教于乐，增加国家公园的教育意义。

7.3 协调统筹周边社区共同发展

社区参与是统筹社区共同发展的有效路径，黄山风景区与周边社区紧密相连，在黄山风景区旅游发展过程中，不能够仅重视核心景区的发展，而忽视周边社区的可持续发展。本次监测从经济、社会、文化、环境、居民态度等多方面对汤口、谭家桥、三口、耿城、焦村等五镇受黄山旅游发展的影响情况进行了分析对比，为今后增加社区参与提供依据，专题二中对翡翠谷案例的探讨，也为周边社区参与至黄山风景区旅游发展提供了成功的借鉴模式。

本次调研结果显示，黄山周边其他社区由于不同的地理位置、交通条件等客观原因，其受黄山风景区旅游发展的辐射影响程度也有所差异，汤口镇优越的地理位置使得其旅游发展程度最高，受到黄山旅游发展的影响最大，包括就业机会增加、收入增多、基础设施、住房改善等正面影响，而受旅游的负面影响如经济方面物价增高、贫富差距扩大，环境方面垃圾增多、污染加重等也最大。而三口镇由于位置交通等原因，受到旅游的辐射影响作用最弱。

总体而言，绝大多数居民认识到旅游发展带来的积极作用，愿意支持旅游发展，也表示愿意为景区的发展出谋划策，但目前对于大多数居民而言，其对于景区的开发、发展并没有太多发言权，参与方式较为单一，黄山风景区为村民提供的工作岗位也较为有限，大多数社区仍以务农为主要形态，黄山风景区与周边社区互动尚有限。在未来的发展中，黄山风景区应在开发过程中，更多地增加周边社区的参与，增加景区和社区的互动，促进可持续发展。

7.4 持续关注西海大峡谷地轨缆车影响

西海大峡谷地轨缆车于2013年7月9日开通，今年监测显示，西海大峡谷地轨缆车的开通缩短了游客的游览时间，为游客提供了交通的便利，扩展了游客的游览空间，丰富其游览内容；西海地轨缆车将更多游客分流至西海大峡谷景区，在一定程度上分流了游客，扩大了黄山风景区承载力。但西海大峡谷地轨缆车并没有实现打开黄山西大门，促进黄山西、北、南三大门间游客有序流动的目标，对于黄山西门焦村镇、北门耿村镇的带动有限。当然，西海大峡谷地轨缆车刚刚开通，其对游客体验、周边社区的带动影响作用等仍需后续监测跟进。

8. 专题研究

专题一 遗产价值与国家认同

1 背景

世界遗产具有显著的普遍的价值，对外作为一张名片，能够提升我国的形象和地位，对内能够引发国人的共鸣，增强凝聚力。黄山于 1990 年被评为文化和自然双重遗产，符合世界遗产评定标准的(ii) (iii) (iv)，即“为传统中国文化提供着独特见证”、“具备不可复制的自然景色”、“可作为植物和动物群演变及发展过程的典型范例”。作为我国著名的文化与自然双重遗产地和世界地质公园，黄山风景区具有众多价值，其影响不仅局限于景观审美方面，还包含着更深层次的民族认同感和民族自豪感，而游客对于黄山价值的认知在一定程度上可能也会影响游客游览黄山后的认同感知，因而游览黄山不仅仅是单纯的游览休闲放松，可能也会成为增强民族认同感和自豪感的一种方式，从而与其他传统爱国主义教育手段相互补充。从这一层面而言，黄山风景区的保护、旅游开发和可持续发展等也显得更为重要。

根据世界遗产价值认定标准和往届监测成果等，结合黄山自身特征，制定了黄山遗产价值量表，量表包含审美价值、科学价值、历史价值、社会价值、精神价值五大维度，其下包含 16 个子项。根据国家认同测量方面的以往研究，结合黄山风景区特征，设计认同量表，量表包含历史背景、文化信仰、自然景观、民族优越感等四个维度，其下包含 15 个子项。运用李克特五点量表，设置 1 至 5 让游客进行打分，即游客对于这些项目的评分分为“非常反对”、“反对”、“中立”、“赞成”、“非常赞成”5 个等级，“非常反对”得 1 分，“反对”得 2 分，“中立”得 3 分，“赞成”得 4 分，“非常赞成”得 5 分。问卷与游客满意度问卷一同派发，共回收 425 份有效问卷，通过对回收问卷的统计分析，对游客关于遗产价值和国家认同感知等进行衡量。

表 1 遗产价值和国家认同监测指标

主题	内容	监测指标	频率	方式	本期监测结果
遗产价值	游客对黄山遗产价值的感知情况	审美价值 科学价值 历史价值 社会价值 精神价值	初次监测	采用问卷抽样调查，辅之以访谈	游客对黄山的自然景观价值感知最强烈，历史科学价值其次，社会精神价值感知度较低。
国家认同	游客游览完黄山后的国家认同受影响情况	历史背景 文化信仰 自然景观 民族优越感	初次监测	采用问卷抽样调查，辅之以访谈	游客在游览完黄山后，量表反映出其国家认同度有较大提升，但在访谈过程中存在一些例外。

2 遗产价值

2.1 黄山价值构成

参考相关遗产价值方面的研究、世界遗产登录标准和国际公约等，结合黄山具体特征，制定了黄山遗产价值的衡量量表。采用巴拉宪章¹中提到的五类遗产价值，即审美、科学、历史、社会、精神等作为参照，并结合世界自然和文化遗产公约中的标准作为解释。

审美价值主要指独特优美的自然景观。在审美价值方面，黄山自古以其名峰、怪石、奇松、云海、温泉等自然景观享誉中外，此亦被誉为黄山五绝，“黄山天下奇”，黄山具有其雄奇之美，具有较高审美价值。

科学价值主要指生物多样性，具有科考、研究、教育等功能。在科学价值方面，黄山现有国家二级保护植物 8 种，三级保护植物 13 种，此外黄山还拥有古松、银杏、南方铁杉、华东黄杉等众多古树名木。黄山有国家一级保护动物 6 种（其中鸟类 2 种，兽类 4 种），国家二级保护动物 26 种²。

¹ 资料来源：www.icomos.org/australia/ Burra Charter

² 参考资料：《黄山志》

社会价值主要指具有传统独特的文化、风俗习惯等。在社会价值方面，黄山拥有大量非物质文化遗产，如相关神话传说、黄山画派、诗词词赋游记散文、楹联、历史事件等，黄山还设立了博物馆对此进行收藏、展示和保护。

历史价值主要指见证了自然、人类社会文化的变迁。在历史价值方面，黄山拥有 290 多处摩崖石刻和古道、石桥、石室、石坊、古亭、古寺、古墓等 148 处古建筑遗迹³。

精神价值主要指增强了当地人的归属感，景观本身还被赋予精神信仰和寄托。在精神价值方面，黄山所承载的价值超越了其物质形态。

2.2 因子分析

运用 SPSS 软件进行因子分析，将 16 个子项归入三类因子，历史价值和科学价值的子项合并，重命名为历史科学价值；社会价值和精神价值的子项被归入一类，重命名为社会精神价值；审美价值不变，重命名为审美景观价值。

表 2 价值维度旋转后因子载荷矩阵

因子命名	子项	1	2	3
历史 科学 价值	见证人类社会变迁	. 823	. 241	. 096
	有独特历史文物	. 715	. 362	. 079
	值得科考	. 705	. 224	. 212
	有我国独特山水画、诗词	. 702	. 302	. 062
	经历地球重大演变	. 684	. 165	. 237
	动植物种类多样	. 628	. 200	. 317
	有独特传说、故事	. 590	. 470	. 078
	有濒危动植物	. 553	. 340	. 177
	山上建筑物有特色	. 420	. 365	. 360
社会 精神 价值	有宗教气氛	. 168	. 820	. 004
	本地人有强烈归属感	. 256	. 778	. 088
	体现本地民俗风情	. 290	. 739	. 137
	能成为民族精神寄托	. 323	. 732	. 158

³ 同 4

	展现人与自然和谐相处	.406	.618	.078
审美景观价	地貌景观独特	.201	.086	.905
值	自然风景优美	.187	.080	.901

2.3 游客遗产价值认知

游客对黄山审美景观价值认知程度最高，历史科学价值认知较高，社会精神价值相对较低。除宗教氛围一项标准差大于1以往，其他项标准差均小于1，表明这些项的游客认同程度相对较集中。游客对黄山遗产价值认知情况的各项指标详见下表。

游客对于审美景观价值认知程度最高，在访谈中游客也多表示游览黄山主要是观赏黄山的美景。有97.4%的游客赞同或非常赞同黄山“地貌景观独特”，有96.9%的游客赞同或非常赞同黄山“自然景观优美”，这两项位列16个子项均值的前两位。

游客对历史科学价值认知程度其次，其中有78.9%的游客赞同或非常赞同黄山经历了地球重大演变，有76.7%的游客赞同或非常赞同黄山具有较高科考价值，值得进行科考，但游客对于黄山动植物方面的价值认知相对较低。游客对黄山自古以来积累的山水画、诗词、传说、故事等认知较高，有78.1%的游客赞同或非常赞同黄山具有山水画、诗词等方面的价值，75.3%的游客赞同或非常赞同黄山有独特传说、故事等方面的价值。对于黄山历史建筑、历史文物、见证历史变迁等价值认知程度相对低一些，游客表示“来黄山游览，文化方面没有想象中那么浓厚”、“沿路几乎没有看到寺庙啊，唯一的寺庙还被改成了游客中心，也没有你说的摩崖石刻”。

而游客对社会精神价值的认知程度最低，游客比较认同黄山展现了人和自然和谐相处方面的价值，有81.2%的游客赞同或非常赞同此说法，但仅69.2%的游客赞同或非常赞同黄山能够成为我国民族精神的寄托，对于黄山与本地人联结方面的价值，如体现本地民俗风情、增强本地人归属感等方面的社会价值，认同程度较低。对于黄山有宗教气氛这一说法，游客差异最大，但有57%的游客对此持中立或不赞同的态度，这主要因为尽管历史上佛教、道教曾在黄山盛行，黄山一度有道观、佛寺等，但其宗教活动日渐衰落，战争破坏、经济困难、水火灾害等更使得其宗教建筑、活动较少，不复存在，因而导致现在游客对黄山的宗教氛围感知较弱。

表3 游客对黄山遗产价值认知情况

因子命名	子项	平均值	均值 排名	标准差	非常反对	反对	中立	赞成	非常赞成
				单位: %					
历史 科学 价值	经历地球重大演变	4.1694	4	0.838	0	0.2	20.2	38.4	40.5
	有我国独特山水画、诗词	4.1318	5	0.886	0.5	1.4	19.3	38.6	39.5
	值得科考	4.1224	6	0.821	0.2	1.9	21.2	38.8	37.9
	有独特传说、故事	4.1059	7	0.861	0.2	2.1	22.1	36.7	38.6
	山上建筑物有特色	4.0776	8	0.912	0.5	1.9	27.5	29.2	40.9
	有独特历史文物	4.0682	9	0.876	0.2	2.6	23.5	36.2	37.2
	见证人类社会变迁	3.9812	12	0.906	0.2	2.4	28.7	34.1	34.1
	动植物种类多样	3.9200	13	0.997	0.7	5.6	28.0	29.9	35.3
	有濒危动植物	3.6800	15	0.984	0.7	8.2	38.1	27.1	25.6
	因子均值	4.0285							
社会 精神 价值	展现人与自然和谐相处	4.1741	3	0.788	0	1.4	17.2	42.8	38.4
	能成为民族精神寄托	3.9906	10	0.898	0.9	2.6	27.3	34.8	34.4
	体现本地民俗风情	3.8565	14	0.929	0.5	4.7	32.0	33.2	29.4
	本地人有强烈归属感	3.8400	15	0.889	0.5	3.5	35.3	32.9	27.8
	有宗教气氛	3.4635	16	1.030	2.4	12.7	41.9	22.4	20.7
	因子均值	3.8649							
审美 景观 价值	地貌景观独特	4.6047	1	0.557	0	0.5	2.1	33.9	63.5
	自然风景优美	4.5929	2	0.596	0.2	0.7	2.1	33.4	63.5
	因子均值	4.5988							

3 国家认同

3.1 国家认同构成

目前有关国家认同的测量量表较少，主要根据 1996 年学者 Keillor 提出的 NATID 量表⁴，结合黄山的情况制成。量表包含国家遗产（national heritage）、信仰体系（believe system）、文化共同性（cultural homogeneity）、优越感（ethnocentrism）等，其中国家遗产主要指历史因素在国家认同中起到的作用，如历史人物、历史事件、独特历史背景等；文化共同性主要强调文化的独特性；信仰体系包含国家范畴上的宗教信仰等；优越性主要偏向于消费者优越性，即偏好本国生产的产品，而非外国生产的产品。

根据黄山的情况，国家遗产维度基本借用原有子项，包含悠久历史、历史遗迹、历史背景等子项，命名为历史价值；信仰因素和文化因素比较相像，即合并为文化信仰维度，包含独特文化、思维模式、传承必要性等子项；民族优越感原有维度主要是以市场营销学科为背景，以产品为导向，强调消费者的优越感，此处改为民族优越感，以旅游目的地为导向，强调游客在游览过程中感受到的民族优越感，下含黄山自豪感、国家自豪感、世界遗产必要性、世界遗产对外展示等子项；同时结合黄山特征，增设自然景观维度，包含自然景色、欣赏自然景色方式、欣赏目的等子项，具体见下表。

表 4 国家认同测量维度

维度	子项
历史价值	通过本次黄山游览，我更欣赏我国的悠久独特历史
	通过本次黄山游览，我更觉得我国有丰厚的历史遗迹
	通过本次黄山游览，我更觉得中国人有共同的历史背景
文化信仰	通过本次黄山游览，我更欣赏我国独一无二的文化
	通过本次黄山游览，我更觉得中国人具有独特的思维方式
	通过本次黄山游览，我更认为有必要学习我国的传统文化
自然景观	通过本次黄山游览，我更觉得我国自然景色比国外优美
	通过本次黄山游览，我更觉得中国人欣赏自然的方式是独特的
	通过本次黄山游览，我更觉得我国的自然景观使人身心愉悦、舒适

⁴ Keillor, B. D., Hult, G. T. M., Erffmeyer, R. C., & Babakus, E. (1996). NATID: the development and application of a national identity measure for use in international marketing. Journal of International Marketing, 57-73.

民族优越感	通过本次黄山游览,我更觉得中国人都应该游览黄山
	通过本次黄山游览,我更觉得我国还有很多旅游地值得游览
	通过本次黄山游览,我觉得较国外旅游地,我更喜欢我国的旅游地
	通过本次黄山游览,我更为我的国家感到自豪
	通过本次黄山游览,我觉得我国应该有更多的世界遗产
	通过本次黄山游览,我觉得应该更多地向外国人介绍我们的世界遗产

3.2 因子分析

通过因子分析,得到三大因子,民族优越性、自然景色维度与调研前预设相同,变化不大,而文化信仰和历史价值维度间差异较小,合为一类因子,重新命名为历史文化信仰。

表 5 认同维度旋转后因子载荷矩阵

维度	子项	1	2	3
历史文化信仰	共同历史背景	.813	.195	.267
	悠久独特历史	.811	.316	.197
	丰厚历史遗迹	.803	.237	.253
	独一无二文化	.796	.189	.263
	独特思维方式	.707	.406	.200
自然景色	山岳景观比国外美	.147	.839	.208
	欣赏自然方式独特	.318	.772	.227
	中国人都应游览黄山	.354	.633	.272
	自然景观使身心愉快	.379	.611	.308
	学习中国传统文化	.496	.549	.275
民族优越感	应有更多世界遗产	.238	.214	.809
	应向更多外国人介绍我们的世界遗产	.219	.200	.804
	为我的国家感到自豪	.293	.208	.749
	我国有更多旅游地值得游览	.211	.358	.522
	更喜欢我国旅游地	.172	.496	.521

3.3 游览后游客认同

量表反映游客游览黄山后其国家认同有所提升,其中各项的提升水平均较高,三大因子的均值均超过 4.2。其中,民族优越感项目均值最高,即游览完黄山后,民族优越感提高程度最大;其次为自然景色,即从自然景观方面增强了国家认同;最后为历史文化信仰,紧随自然景色维度后,在历史文化信仰方面体现出国家认同感的提升。这也与游客的价值认知存在一定联系,游客对于黄山自然景观方面的认知最高,自然景观作用下的认同提升更明显,而游客对黄山文化方面的认知相对低一些,历史文化信仰方面作用使国家认同提升的幅度相对小一些。各子项的标准差均低于 1,表明这些项的游客选择相对较集中。游览黄山后游客的认同情况各项指标详见下表。

“我更喜欢我国旅游地”、“我国山岳景观比国外优美”、“拥有独特思维方式”、“独特欣赏自然方式”项目得分相对最低,但各项均值均高于 4,对这些项得分水平相对低一些的解释如下。游客在选择过程中较为理性客观,在选项“我更喜欢我国旅游地”“我国山岳景观比国外优美”等选项方面,游客表示其并没有游览过国外旅游地,此处不好进行判断,故较多选择了中立,其均值水平也相对较低。而尽管游客在游览黄山过程中普遍会运用很多象征、想象、联想等观赏游览方式,但我国很多游客并没有意识到其观赏游览方式是我国特殊的,与国外游客追求客观科学的游览方式有所差异,因此中国游客在“拥有独特思维方式”、“独特欣赏自然方式”等选项上持中立态度,这也导致这两项均值得分相对较低。

表 6 国家认同测量维度统计值

因子命名	子项	平均值	均值 排位	标准 差	非常 反对	反对	中立	赞成	非常 赞成
				单位: %					
历史文化信仰	独一无二文化	4.3176	6	0.807	0.2	0.5	11.8	38.8	48.0
	丰厚历史遗迹	4.2824	7	0.777	0.2	1.2	12.7	40.7	44.9
	有必要学习中国传统文化	4.2824	8	0.804	0.5	0.5	13.2	39.8	45.6
	共同历史背景	4.2024	10	0.859	0.2	1.4	16.0	39.1	42.6
	悠久独特历史	4.1906	11	0.782	0.2	0.9	16.2	43.5	38.8
	独特思维方式	4.1012	14	0.920	0.7	2.4	21.6	34.4	40.5
		4.219							

自然 景色	自然景观使身心愉快	4.3953	5	0.764	0.5	1.2	8.5	36.9	52.7
	中国人都应游览黄山	4.2518	9	0.919	0.5	1.9	17.2	29.4	50.4
	欣赏自然方式独特	4.1576	12	0.842	0.2	1.9	19.3	37.9	40.5
	山岳景观比国外美	4.1294	13	0.916	0.5	1.9	25.4	27.5	44.5
		4.234							
民族 优越感	应向更多外国人介绍我们的 世界遗产	4.5859	1	0.661	0	0	4.9	29.2	65.4
	应有更多世界遗产	4.4541	2	0.706	0	0.5	6.4	38.1	54.6
	我国有更多旅游地值得游览	4.4494	3	0.699	0	1.4	17.2	42.8	38.4
	为我的国家感到自豪	4.4047	4	0.833	0.5	0.7	8.2	34.4	55.3
	更喜欢我国旅游地	4.0565	15	0.912	0.5	1.9	28.0	29.6	39.8
		4.390							

3.4 访谈情况分析

游客在填写量表的过程中,往往会进行道德方面的判断,即规避不道德或者不规范的行为,趋向于规范性的行为,因此量表有时并不能够真实全面地反映事实,因此在发放问卷的同时,调研者还进行了一定的访谈以补充量表结果,共访谈 22 名游客,其中除了 10 名受访者表达了游览完黄山后确实在国家认同感、自豪感方面有所提升外,其余超过一半的受访者反映的情况与量表所得结果存在一定差异,即游览完黄山之后,其反映并没有感受到很大的民族认同感。以下首先对 10 名反映国家认同感通过黄山游览有所提升的游客进行了总结,之后总结了 12 名反映其国家认同感并未提升的游客的情况,并进行了适当原因分析。

10 名反映在游览完黄山后,其认同感提升的受访者,这与量表得到的结果较为一致,因此以下仅对其情况进行简要概括说明。感到其国家认同感有所提升的受访者主要有以下几方面原因:(1)风景美,为祖国大好河山自豪。“风景很美,游玩之后确实有自豪”、“为我国的大好河山感到自豪”、“看到大自然,觉得人太渺小,中国了不起、世界了不起”、“看到山很自豪”、“我以前当过兵,这里很壮观,很美,为我的祖国感到骄傲”;(2)旅游体验好,为祖国感到自豪。“这一趟旅游感觉感觉挺好的,很自豪”;(3)惊叹自然中的人文景观,为祖国的历史和古人感到自豪。“石梯一级级修成的,很不容易”、“看到石梯感觉古人真的太厉害了”“亭子装点

的恰到好处”；（4）与黄山相关的文化纽带得以加强后的自豪感。“小时候学到黄山的课文，印象很深，就来游览，自然风光很美，拍拍照片，感触很深”。

而访谈过程中反映其认同感并未得到提高的受访者以下将对其情况进行重点的总结和分析，分别归纳为公共资源所有权问题、旅游本身的休闲娱乐性、黄山代表性局限等三个方面进行阐述。

（1）公共资源的所有权

此类受访者将黄山视为其消费的商品，认为其对黄山不具有所有权，在游览过程中很难形成民族认同感和自豪感。这也在一定程度上反映了尽管黄山作为国家公共资源、公共产品自居，但存在国家和个人相分离的状态，国家公园与外界存在边界阻隔，国民前往国家公园游览存在进入性限制。

很多受访者都认为所有权和认同感、自豪感是紧密相关的。如：“觉得谈不上民族自豪感，来到这里感觉山虽然美，不是自己的，怎么会有自豪感。举个例子，别人家的孩子优秀，你只会感觉到羡慕，不是自己的孩子啊，是自己的孩子，才会感到自豪，这是一样的呀。”、“觉得自己是客人，并不是主人，怎么会有自豪感”。

很多受访者都表示黄山作为公共资源，却不是自己的，对于游览需要收取高额门票和索道费存在不满，很难有认同感。“感觉来到这里主要是消费的，就和你消费其他商品差不多，门票也贵，索道也贵，谈什么认同，谈什么自豪”、“物价太高了，很花钱，没什么自豪感”。

（2）旅游本身的休闲娱乐性

此类受访者表示旅游是追求休闲和放松，追求新奇和刺激，不会上升至国家的高度。我国游客在游览过程中更多倾向与追求视觉方面的美感，将旅游视为轻松愉悦的体验，不会和严肃的问题挂钩。如部分受访者表示：“我就是来旅游的，并没有想那么多”、“说这次游玩之后，增强了国家认同，那有点假，我来旅游的，没有想这么多”、“为祖国自豪？旅游谁会想那么多啊！”、“没什么感觉”、“纯粹来看风景，不会想那么多”。

（3）黄山不足以代表整个中国

另外还有一些受访者表示黄山不足以代表整个中国，中国具有众多自然美景和深厚的历史文化底蕴，单凭此次游览，其国家认同感并未提升。

黄山仅仅是我国众多自然景观中的一部分，不具有代表性。如：“并没有什么特别的感觉，觉得黄山和我国其他名山差不多，没有那么大的感觉”、“游玩之后和去其他地方旅游差不多”、“身处在我国，不会感觉，像黄山一样的大好河山多的很了，所以游玩黄山没什么感觉，也许哪天出了国感觉会强烈些。”、“中国像黄山一样的山、美景多的很了，单纯游玩黄山，并不会感

到很自豪”。

对于黄山文化方面的感知并不强，对于游客心理认同方面的提升影响有限。如：“黄山的文化感知不是很强，沿路几乎没有看到寺庙啊，唯一的寺庙还被改成了游客中心”、“文化氛围感觉不到”、“还没有上升至那种感觉，黄山并不代表什么”、“影响不是很大吧，文化方面没有想象中那么浓厚”。

专题二 翡翠谷社区案例

1 基本情况

翡翠谷作为黄山周边小型风景区之一，依托于黄山风景区，取得了较好的发展成绩。如今黄山周边各种小型景区层出不穷，而它们很多以失败告终。翡翠谷的成功可为黄山风景区周边的发展提供范例和借鉴。同时，翡翠谷与黄山风景区间的关系也可为黄山风景区与周边城镇的发展与互动提供借鉴。

翡翠谷是黄山区汤口镇山岔村上张村民组所在地，整个村民组有 50 多户，280 多人。现上张村民组的居民主要居住在翡翠新村，也叫翡翠人家，有 48 户，250 多人；此外还有少数居民居住在新村外。

翡翠新村呈南北走向，位于翡翠谷景区入口，依山而建，主要由 48 栋别墅和 1 栋老年公寓构成。邻近 103 省道和 205 国道，距离黄山南大门 6 公里。

全村以旅游为主要产业，居民 90% 以上从事旅游，新村几乎每户都开办农家乐。村中设有翡翠谷旅游公司、翡翠谷农家乐旅游公司，分别经营景区和管理农家乐。此外，公司还开办了翡翠谷大坪山农业开发有限公司，将村民的茶园统一管理，集中运营。2011 年翡翠新村人均收入超过 5 万元，2012 年村接待游客数量 116.4 万人次，同比增长 31.24%，旅游总收入 5558.91 万元。



图 1 翡翠新村地理位置

2 村容村貌

房屋：翡翠新村由政府统一规划建设，建筑采用徽派建筑风格，以古徽州的青砖绿瓦、马头墙的为主，有鲜明的地方特色。整个新村依山而建层次鲜明、错落有序。主要建筑物为 48 栋别墅，1 栋老年公寓，1 栋旅游综合楼。别墅用于新村居民居住和农家乐接待。老年公寓设有老年健身房、棋牌室、卧室、食堂。住房是仿宾馆的标准间。村民组 60 岁以上老人可自愿入住，食宿免费。旅游综合楼共 3 层，一层为游客服务中心和景区办公室，二三层为餐厅和酒吧，为游客提供服务。



图 2 翡翠新村别墅



图 3 翡翠公寓



图 4 旅游综合楼：游客服务中心

资料来源：调研组自摄

村内设施配套：村内配好设施齐全，有自来水、地下电缆、电话、有线电视、局域网、液化气、健身娱乐设施等。电视、电话、宽带等入户率达 100%。

道路：翡翠新村全部实现道路硬化，道路宽阔平整，小型车辆可以在村中通行，大型车辆可以停在翡翠谷景区建设的停车场内。

绿化环境：翡翠谷深林覆盖面积在 90%以上，景区内绿树成荫，并且村民拥有大片山林，总体绿化水平很高。不过在居民生活区，缺少高大的树木，绿化主要为草坪和灌木，村委会雇佣专门人员进行管理。在环境卫生方面，新村村容整洁，有专人清扫，垃圾桶比较充足，整体卫生良好。并且，为保证环境卫生，村里不允许居民养家禽。



图 5 道路与绿化



图 6 健身器材



图 7 垃圾桶

资料来源：调研组自摄

垃圾与污水处理：村中村民的生活垃圾放在门口，有专门人员收集，统一到垃圾处理厂处理。据村民介绍村中有专业污水处理池，表面上看不到。

3 居民从业状况及与旅游的相关性

翡翠谷社区居民主要依靠旅游业为生。家庭主要收入来源于旅游公司上班的薪资、翡翠谷景区的股份分红和自家的农家乐旅馆经营，仅 4-5 户家庭没有从事旅游业。除原住民居民外，还有一些外来服务打工人员居住在翡翠谷，也从事旅游相关职业。

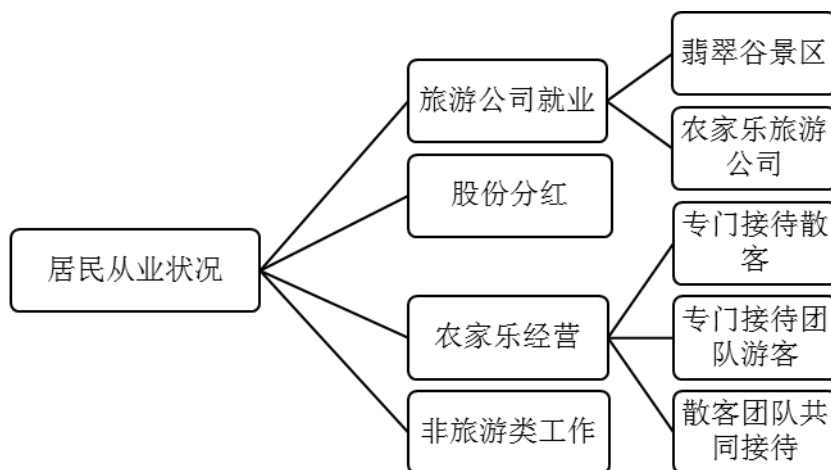


图 8 翡翠谷社区居民从业状况

3.1 旅游公司就业

翡翠谷旅游公司主要负责管理翡翠谷景区，翡翠谷是国家 AAAA 级景区，是黄山脚下第一个农民自主开发的旅游景区，交通便利，有较高的知名度。公司的员工大多为本地居民，景区具体职位主要有 4 类：票务、安保、保洁、停车场管理。公司就业的基本工资每人每月在 1500-2000 元，节日和旅游旺季有奖金发放。公司管理人员基本为本地居民，男性占大多数，本地居民大多选择票务和停车场一类较为轻松的工作，保洁和安保工作的外村人比例较大。为保证服务人员的年轻化，景区工作人员要求年龄为 18-45 岁，对于超过 45 岁的本地居民，公司每月会每人发放 300 元的补助，每年传统节日时 60 岁以上的老人有 100-200 元的红包。

翡翠谷旅游公司投资开办了翡翠谷农家乐旅游公司和大坪山农业开发有限公司。农家乐旅游公司，与 38 家经营户签协议，统一宣传、统一收费、统一分配客源，以期达到统一管理、避免恶性竞争，增加居民收入的目的。大坪山农业开发有限公司农业体验观光基地，目前承包了居民的茶园，进行茶叶的采摘、制作、销售。也有一部分居民在这两个公司任职。



图 9 翡翠谷旅游公司



图 10 售票处

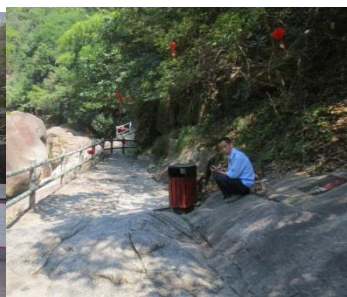


图 11 安保人员

资料来源：调研组自摄

3.2 股份分红

翡翠谷景区是上张村民共有的，其旅游收益由村民共同享有。每年旅游公司会给每位村民分红，只要户口所在地为上张村民组，每人每年至少有 10000 元的分红，一些土地被占用的居民会有土地租金，每亩 500 元，总体每人一年可以得到 10000-15000 元的分红。

3.3 农家乐经营

翡翠新村居民主要发展农家乐旅游项目，新村拥有 3 星级农家乐标间 328 间，可同时接待 1000 多位旅客，有散客、团队接待食宿，团队包餐，以土菜为主，还可以打定山上客房，代买山下各景点门票，代订长途汽车票等。依据调查访谈，村中的农家乐接待状况可以依照接待游客类型分为三类：专门接待散客，同时接待散客和团队游客，专门接待团队游客。

专门接待散客：这一类农家乐不接受农家乐公司统一安排的客源，而是自己建设网页，在网络上营销，获得散客客源。全村大概有 6、7 家。一栋别墅一般可以提供 15-20 个床位，设有 10 个左右房间。淡季每间房 80-100 元，旺季 300-400 元，年收入每户可以达到十多万，非常可观，是农家乐经营比较好的情况。

专门接待团队游客：这种类型农家乐不进行独立的宣传营销，客源依靠农家乐旅游公司统一安排，接待的是团队游客。淡季每间房 50 元，旺季时 200 元。居民与客人交流很少，客人来只是住一晚，也并不在家里用餐，而是外出去吃团队餐。

同时接待散客和团队游客：这一类型的农家乐在自己进行独立网络营销的同时，也接受农家乐公司的团队客人。主要是由于网络上的客源不够充足，其服务质量会好于专门接待团队游客的，收入介于专门接待散客和专门接待团队之间。

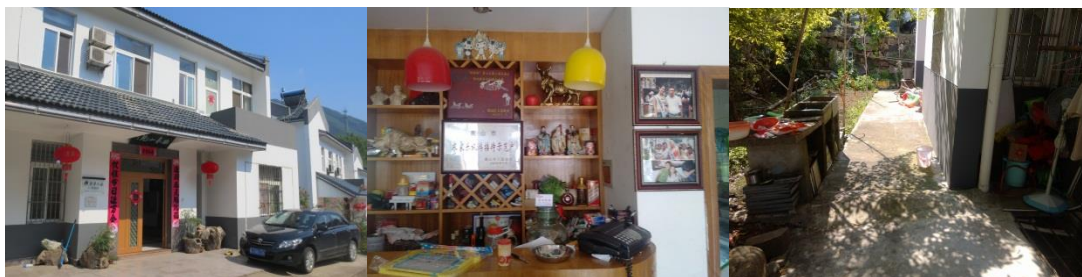


图 12 翡翠新村农家乐

资料来源：调研组自摄

3.4 非旅游类工作

少数居民在村中或镇上有其他较好的工作，也并不希望辛苦的从事旅游。有 3、4 户人家将别墅出租给同村农家乐开办较好的、或者外村人来经营农家乐，自己获取一栋房每年的 5 万左右的租金，自己居住在其中的一间房或者搬出村外居住。

4 翡翠谷社区发展历程

翡翠谷社区从 20 世纪 80 年代的贫困落后村变为如今美好乡村建设的典范，与其村民全面参与旅游，走旅游致富之路密不可分。随着旅游的不断发展，社区的居住条件、收入就业、生活环境等许多方面发生了显著提升。然而发展并不是一帆风顺，也有坎坷。下表为翡翠谷从开始发展旅游到如今经历的关键事件，将其按照时间顺序总结。然后将社区的发展总结为 4 个阶段。

表 1 翡翠谷社区发展关键事件

时间	事件名称	事件内容	事件起因	意义或作用
1987 年	翡翠谷旅游公司成立	1986 年开发翡翠谷景区，次年成立旅游公司	为便于管理景区，筹集资金	全国第一家农民兴办的旅游公司
1991 年	北京总参谋部投资入股	投资 60 万为景区建设售票亭，检票口，在景区内修桥	景区建设缺乏资金	促进景区发展
1999 年前后	北京总参谋部退出	通过法律程序退出参股，村子赔付 200 万	国家政策不允许军队参与民办企业、与村民的分红纠纷	纠纷良好解决

2000 年	新村建设一期工程启动	景区大门楼, 停车场、行知走廊、综合楼、商业街、情侣道等建筑面积 4600 平方米, 总投资 1036 万元	安徽省建设美好乡村项目, 完善旅游配套设施	翡翠谷景区进一步完善
2003 年	新村建设二期工程完工	别墅 48 幢和 1 幢老年公寓, 总面积 1 万平方米, 总投资 970 万元		翡翠社区由旧村变为新村, 开始农家乐经营
2005 年	翡翠谷农家乐旅游公司成立	专为农家乐经营服务, 统一管理培训, 统一分配客源	避免恶性竞争, 增加居民收入, 提高接待能力	农家乐快速发展
2006 年	三岔村政府介入公司管理	政府出 5 万元入股管理旅游公司, 一位三岔村村长出任董事长	政府希望便于管理, 推进社区旅游发展	集体的公平公正出现问题, 部分居民丧失权利
2012 年	大坪山农业开发有限公司成立	将山林茶园统一管理, 进行商业运作、生态农业观光	翡翠三期工程的规划	全面升级, 打造华东农家乐名牌

资料来源: 根据访谈资料整理

4.1 社区旅游探索发展期 (1986-1999)

这一时期是社区旅游发展的初期, 首先是 1986 年当地的黄剑杰老师发现了一条峡谷, 认为这里可以发展旅游, 命名为翡翠谷。次年居民们自发把已承包到户的山场作股, 总估价 2000 万元, 成立了翡翠谷旅游公司并在建成了 3 公里的观景山路, 开始接待游客。初期发展村里在经济上有很多困难, 1991 年北京总参谋部在翡翠谷投资促进了翡翠谷的旅游建设, 后由于政策原因, 总参部从公司的股份中撤出。期间, 为便于景区管理, 减少利益纠纷, 旅游公司的管理权从村委会中独立出来, 使用两套领导班子。这一时期, 旅游收入主要是景区的门票, 居民并未开始农家乐经营。

4.2 社区旅游建设繁荣期（2000–2005）

这一时期有大量投资建设项目，使旧村变为新村，社区旅游参与度进一步加强。翡翠谷社区于 2000 年开始新村建设项目，包括一期旅游公司对景区的建设和二期对居民住房拆旧建新。2003 年新村别墅建设完成，居民纷纷开始经营农家乐，使得各家的旅游收入较大提升。并且在 2005 年，成立农家乐公司专门发展农家乐。这些建设项目极大的促进了社区旅游的发展，特别是新村别墅的建设，使得大量居民参与到农家乐的经营中。

4.3 社区旅游由发展到成熟期（2006–2011）

这一时期农家乐发展逐步完善，旅游收入不断提高。翡翠谷的游客数量和旅游收入持续增加，景区分红由几千元钱上升到万元，并且设立各项专项基金，如老年人的补助金，孩子考上大学的奖励等。居民的服务意识和服务质量都在提升，居民开始通过网络手段进行农家乐营销，家庭收入不断增加，2011 年人均收入以超过 5 万元。同时，旺盛的旅游发展也吸纳了周边村民的就业。

4.4 社区旅游升级发展期（2012 至今）

翡翠谷未来的规划设想是进行三期工程建设，进行旅游产业的升级，继续发展旅游业。2012 年由翡翠谷旅游公司投资开办的大坪山农业开发有限公司力求加入农业观光元素，全面提升农家乐接待能力。翡翠新村三期工程正在筹划中，计划总投资 1.6 亿，包括星级酒店、联排别墅、公寓住宅及配套的管理用房，同时也有部分农业观光项目及设施，以期完善翡翠谷的旅游服务配套，延长产业链，并且翡翠谷已经提出口号，力求三年之内争创 5A。

总体来说，翡翠谷社区凭借着优越的地理位置、良好的资源，再加上全村集体团结一致的努力，使得社区旅游不断发展，人们的生活越来越富裕。

5 社区关系

邻里关系：翡翠新村的邻里关系是比较和睦的。村里大多数人姓张，都是一个祖先的后代，并且整个村民组团结一心，将翡翠谷的旅游办了起来。然而全村经营农家乐，难免同行竞争，有村民反映有个别拉客的现象存在。不过大多数村民认为竞争程度还好。

城市化问题：翡翠新村的城市化现象明显。旅游的发展使村民不再需要种地，而是以服务业

为生。居民生活在独家独栋的别墅里，不耕地而是从外村购买蔬菜和食物，经营各自的农家乐，邻里关系开始疏远，呆在家里看电视、上网，与城市的生活方式相似。

贫富差距：翡翠新村的贫富差距存在，但矛盾并未凸显。村中没有低保户和困难户，村里每年一万多的分红已经可以解决基本的生活问题。村里也给予了大多数人平等的致富机会，每个村民都可以在公司上班，家家户户都可以开办农家乐。但是不同家庭的收入有很大差别：村中富裕的家庭每年有几十万甚至到百万的收入，也有每年收入几万元的家庭。

6 居民态度与发展认知

6.1 居民生活与旅游发展的关系

如今，整个翡翠谷社区与旅游业紧密相关，居民主要收入来自旅游。对于黄山周边的旅游发展，居民的态度为大力支持。翡翠新村除翡翠谷景区外，周边还有九龙瀑、天湖景区、香溪漂流、凤凰源等低山景点，有部分居民认为会对翡翠谷景区的发展产生竞争。但是多数居民认为竞争并不大，由于目前翡翠谷的名气高，与其他景点类型不同，并且丰富的景点会吸引更多游客前来，积极效应更大。同时，多数居民表示翡翠谷的旅游发展是靠黄山风景区旅游发展而带动的。

在环保意识方面，村里的居民都有较强的环保意识，认为村里发展旅游保持良好的环境十分重要，对环境保护、资源保护、野生动植物保护、护林防火意识都非常的高。

6.2 居民对旅游发展的满意度

对于翡翠谷目前的旅游发展现状，多数居民是比较满意的，觉得比其他景区早些发展，知名度和经验都多一些，相比其他低山景点有一定优势。对于农家乐经营较好的家庭，对自身的收益比较满意。对于在景区工作的人，觉得生活安稳，有保障，比较安于现状。但有部分居民对公司的管理表示不满：有居民认为公司管理混乱，也有村民指出农家乐公司安排的团队游客质量太低，收益少。

6.3 个人与家庭的发展计划

多数居民们表示，自己安于在村子的生活，未来会继续从事旅游行业。对于村里的年轻人，由于收入丰厚，多数会回到村子工作。一些家长认为，孩子的选择在于他们自己，并不会强迫孩

子留在身边。也有许多村民表示，村中的生活还是比较单调无聊，能力比较好的在外面工作，能走出去还是要出去，能力一般的就留在村里比较舒服。

首先，翡翠谷社区的建设方面：翡翠谷依靠旅游而发展起来，一方面居民通过景区获得就业和分红，另一方面开办农家乐，进一步参与旅游的发展，居民生活富裕。翡翠新村这种农民开办旅游公司发展旅游的模式，使得社区居民可以广泛的参与其中。

其次，社区关系方面，出现了城市化和贫富差距的问题。以旅游为主导产业，居民改变了原有生产生活方式，不耕种，邻里关系开始疏远，现在的翡翠新村居民的生活与城镇居民类似。在社区发展的过程中，一部分居民主动参与，自食其力，将农家乐开办的有声有色；另一部分居民仅依靠村集体旅游业发展生活，安于现状，是一种相对被动的参与形式，收入也相对不高。这样，在全村共同走向富裕的过程中，贫富差距也逐渐拉大。

最后，居民态度感知方面，大多数居民非常支持黄山的旅游发展，认为自身的旅游发展要依靠黄山的旅游发展。居民大多对生活充满信心，认为生活有保障，但又有些年轻人安于现状，不愿去拼搏。也有一些居民对旅游公司的管理现状表示不满，认为其管理混乱，任人唯亲。

7 总结与评价

首先，翡翠谷社区的建设方面：翡翠谷依靠旅游而发展起来，一方面居民通过景区获得就业和分红，另一方面开办农家乐，进一步参与旅游的发展，居民生活富裕。翡翠新村这种农民开办旅游公司发展旅游的模式，使得社区居民可以广泛的参与其中。

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2013 Monitoring Report on the Sustainable Tourism Development of Mt. Huangshan

**Mt. Huangshan Scenic Zone Administrative Committee
Monitoring Center for UNWTO Sustainable Tourism Observatories
2013.10**

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1 Foreword

1.1 Background

Mt. Huangshan, as a world-class scenic zone, is an outstanding representative of mountain-type tourist destination in China. As a tourist destination integrated with many domestic and foreign credits, including first batch of top ten scenic zones in China, 5A tourist attractions in China, National Civilized Scenic Area, World Cultural and Natural Heritage, and World Geological Park, sustainable tourism development in Mt. Huangshan draws the attention of China and the world. On February 26, 2008, the World Tourism Organization and United Nations Educational, Scientific, and Cultural Organization formally established Mt. Huangshan observatory for WTO sustainable tourism destination and (Huangshan) observation area for sustainable tourism development of World Heritage Sites. The purpose is to collect a variety of indicators on the sustainable tourism development of Mt. Huangshan, and explore a development pattern that maximizes the tourism economy and minimizes negative environmental impacts at world heritage sites by monitoring for a long time the indicators, such as tourist perception and satisfaction and tourism impact on the community.

Since 2006, Sun Yat-sen University has successfully complete the monitoring reports of 2006-2008 Yangshuo according to the indicators and methods GOST project; on May 30, 2011, Mt. Huangshan Scenic Zone Administrative Committee formally signed a cooperation agreement regarding the construction of monitoring center with Sun Yat-sen University and joined in technical evaluation system of GOST project under UNWTO. On August 22, 2011, Monitoring Center for Sustainable UNWTO Tourism Observatories officially launched a five-year monitoring and management of Mt. Huangshan sustainable tourism development. Sun Yat-sen University has completed the monitoring of sustainable tourism development of Mt. Huangshan through three field surveys respectively in March, May and September in 2012. With great support and active cooperation of Mt. Huangshan Scenic Zone Administrative Committee, Sun Yat-sen University has sent a task force to conduct field surveys in Huangshan in August 28 – September 7, 2013. It is hopeful

through a comprehensive survey of environmental, social and economic impacts from Huangshan tourism development to summarize and promote management experience of sustainable tourism development in the globe.

1.2 Monitoring Methodology

1.2.1 Monitoring Process

The range of this monitoring project includes the range of the Master Plan of the Huangshan Scenic Zone (2006), and part of the buffer zone. Specifically, the range includes an area of 160.6 km² of the Huangshan scenic zone, and surrounding five towns and one farm (Tangkou, Tanjiaqiao, Sankou, Gengcheng and Jiaocun Towns, and Yanghu Forest Farm in Huangshan District, with a total administrative area of about 490 km²).

Based on the summary of monitoring results in first and second rounds, the supplement and adjustment have been performed in this survey below:

From August 28 to September 7, 2013, the task force is composed of one professor from Center for Tourism Planning Research of Sun Yat-sen University (hereafter referred to as the “CTPR”), one project coordinator from Monitoring Center, two doctoral students and four post-graduate students, and conducted the case studies below, through questionnaire, field survey and interview, including 1) Tourist satisfaction; 2) Tourist heritage value perception and national identity; 3) Impact of Mt. Huangshan tourism on the environment, society and economy in five towns in buffer zone; 4) Mt. Huangshan tourism satisfaction of the residents in buffer zone; 5) Case study of Jade Valley community tourism in Shancha Village. In this survey, 425 valid copies of the questionnaires from the tourists were collected, along with 365 valid copies from the community (89, 57, 73, 65 and 81 valid copies respectively from Tangkou, Jiaocun, Gengcheng, Sankou and Tanjiaqiao Towns); the following personnel, including main principals in towns in buffer zone, hotel managers in Jade Valley community in Shancha Village, employees in scenic zone, retired residents and migrant workers, were interviewed and then relevant second-hand data was collected.

1.2.2 Screening of key topics and indicators

Based on monitoring experience in first and second rounds, basic indicators for sustainable tourism development of Huangshan scenic zone have been developed, combined with UNWTO's indicators and methods, and "Master plan on tourism in Huangshan scenic zone" and practical tourism development in the zone, specially as shown in Table 1.

Table 18 Summary of key topics and basic indicators of sustainable tourism development monitoring of Huangshan scenic zone

	Key topics	Basic monitoring indicators	Regular monitoring?	Recommended monitoring frequency
Tourism and protection of resources and environment	Biodiversity conservation	1. Number of national key species	Yes	5 years
		2. Endangered species and quantities	No	5 years
		3. Quantity, distribution and protection levels of famous ancient trees	Yes	5 years
		4. Forest coverage	Yes	5 years
		5. Cooperative scientific research projects on resource conservation, tasks, cooperative agencies, durations	No	1 year
		6. Additional protective measures	No	2 years
	Conservation of cultural resources	7. Quantities of cliff stone inscriptions and cultural relics, and protection	Yes	5 years
		8. Funds used for cultural relic protection (restoration, protection and maintenance), and proportion thereof	No	1 year

		9. Additional policies and protective measures	No	5 years
	Tourist difffluence	10. Proportions of incoming tourists from different gates	Yes	1 year
	Aquatic environment	11. Conformance to quality standard for surface water	Yes	1 year
		12. Conformance to quality standard for drinking water	Yes	1 year
		13. Annual treatment capacity domestic sewage and peak daily treatment capacity in the busy season	Yes	1 year
	Acoustic environment	14. Conformance to standard for domestic and traffic noise	Yes	1 year
	Atmospheric environment	15. Conformance to standard for air quality	Yes	1 year
	Solid waste	16. Annual output of solid waste	Yes	1 year
		17. Method of waste disposal	Yes	5 years
		18. Proportion of recycled waste to total waste	Yes	1 year

	Reputation of main attractions	19. Reputation of main attractions	No	3 years
	Construction area of reserves	20. Construction area and concentration of reserves	Yes	3 years
Tourism and community	Tourism development level	1. Community population (locals and non-locals)	Yes	3 years
		2. Number of attractions	Yes	1 year
		3. Number of accommodation facilities	Yes	1 year
		4. Number of tourists received	Yes	1 year
		5. Overall impact of tourism on local communities	No	2 years
	Residents' attitude and perception of impacts	6. Overall attitude of residents to tourism development (questionnaire)	No	1 year
		7. Resident perception of economic, social, cultural and environmental impacts of tourism	No	1 year
		8. Percentage (quantity) of community	No	1 year

	Community engagement and awareness	residents doing tourism-related jobs and main types		
		9. Perception of tourism engagement by community residents	No	1 year
		10. Percentage of the concept “sustainable tourism development” by community residents	No	1 year
		11. Issues on tourism development concerned by community residents	No	1 year
	Satisfaction of business partners	12. Satisfaction of tour guides and travel agencies	No	1 year
Tourist perception and satisfaction	Tourist satisfaction level	1. Satisfaction of tourists with resources, services, overall environment and other aspects of Mt. Huangshan	No	1 year
		2. Overall satisfaction of tourists	No	1 year
		3. Tourist perception of whether tourist experience is as expected	No	1 year

		4. Revisit rate of tourists and willingness for recommendation	No	1 year
		5. Tourist complaint rate of the Huangshan scenic zone	Yes	1 year
	Tourist safety	6. Incidence of tourist accidents	Yes	1 year
		7. Tourist safety perception in Mt. Huangshan	No	1 year
	Tourist education	8. Proportion of tourists participating in interpretation and education activities in Huangshan scenic zone	No	1 year
Economic impacts of tourism	Tourism receipts	1. Total number of tourists received by the Huangshan scenic zone	Yes	1 year
		2. Tourism statistics (gross tourism receipts, number of beds, number of tourists staying overnight and per capita spending, etc.)	Yes	1 year
		3. Number of tourists received by surrounding low-altitude attractions	Yes	1 year
		4. Tourism statistics of surrounding	Yes	1 year

		low-altitude attractions		
	Seasonality of tourism	5. Tourist ratio in busy months to slack months	No	1 year
	Tourism and employment	6. Job opportunities created by tourism	No	1 year
		7. Satisfaction of tourism employees	No	2 years
	Economic driving role of tourism	(Topical study)	No	3 years
Organization and management	Achievements and social recognition on organization and management	Recognition in the industry and society	No	3 years

Main report body includes the following six parts, such as Tourism and resources, Environmental protection, Tourism and community, Tourist perception and satisfaction, Conclusions and suggestions, along with Topical study (including the research of tourist heritage value perception and national identity in Mt. Huangshan and Jade Valley development case study).

2 Tourism and protection of resources and environment

2.1 Monitoring of resources protection indicators

Table 19 Monitoring indicators and results of resources protection

Key topics	Indicators	Frequency	Departments	Means	Monitoring results in this survey
Biodiversity conservation	1.Number of national key species	5 years	Document archives section under Bureau of Landscaping	Biodiversity census topic	The quantities of national key protected animals and plants are respectively 35 and 31 in Mt. Huangshan.
	2.Endangered species and quantities	5 years	Document archives section under Bureau of Landscaping	Biodiversity census topic	Total 42 rare and endangered animals and plants are found in Mt. Huangshan scenic zone. It is hard to identify target species and quantities due to insufficient monitoring data.
	3.Quantity, distribution and protection levels of	1 year	Document archives section under Bureau of Landscaping	Regular monitoring	No update. In 2009, the followings were identified in the survey, i.e. 69 famous trees (including 54 trees in the List of World Cultural and Natural Heritage); 3 ancient trees under Class I protection; 7 ancient trees under Class II; 57 ancient trees under Class III

	famous ancient trees				protection; 61 famous ancient trees in hot spring area, with 19 trees included in World Heritage List; 39 famous ancient trees in Tianhai area, with 24 trees included in World Heritage List; 19 famous ancient trees in Fusong area, with 10 trees included in World Heritage List; 0 famous ancient trees in Diaojiao area.
	4.Forest coverage	5 years	Document archives section under Bureau of Landscaping	Regular monitoring	The forest coverage in Mt. Huangshan reached 75% before 1955; vegetation coverage decreased up to 56% in 1979; forest coverage was 83.4% in 1992-2000; forest coverage has been 83.7% from 2001 to the present. The remaining 16.3% basically refers to greening-failed roads, streams, buildings and bare rocks.
	5.Cooperative scientific research projects on resource	1 year	Document archives section under Bureau of Landscaping	This project	See Table 3 in 2.2.2 in details.

	conservation, tasks, cooperative agencies, durations				
	6.Additional protective measures	2 years	Bureau of Landscaping	This project	Current main measures: 1) Enclosed rotation recovery system; 2) One tactic per tree; 3) Daily patrol; 4) Expert consultation; 5) Prevention from fire, pest and extreme weather along with fire protection mechanism of “Entire mountain, all people and all-year-round”.
Conservation of cultural resources	7. Quantities and quality of cliff stone inscriptions and cultural relics	5 years	Cultural Relic Management Section under Politics Division	Cultural relics census	There are more than 290 cliff stone inscriptions left; 148 cultural relics; 1 “living cultural relic” (Guest-Greeting Pine), the only Huangshan Pinus in the country. In 2012, Mercy light pavilion roofing, Kitchen, Furong Cave and others were renovated, 3 cliff stone inscriptions were supplemented as well as the names and couplets were titled for two newly built rain shelters.

8.Funds used for cultural relic protection (restoration, protection and	1 year	Cultural Relic Management Section under Politics Division	This project	In 2012, a database of immovable cultural relics was initially built to complete data acquisition and entry of movable cultural relics.
9.Additional policies and protective measures	5 years	Cultural Relic Management Section under Politics Division; Heritage office under Planning and Land Division	This project	On September 21, 2006, a special <i>Interim Regulations on the Preservation of Cultural Relics in the Huangshan Scenic Zone</i> was developed.

Tourist difffluence	10.Proportions of incoming tourists from different gates	1 year	Statistics section under Group Company	This project	In 2012 the tourists into the mountains received totaled 3,007,570. Among them, Yungu Temple (South Gate) received 1,520,866 tourists, accounting for 50.57%, Mercy light pavilion (South Gate) received 1,144,025 tourists, accounting for 38.04%, as well as Songgu Nunnery (North Gate) received 342,679 tourists, accounting 11.39%. it is South gate that is still the main
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Source: Sorting by collected survey data

2.2 Biodiversity conservation evaluation

2.2.1 Overview

According to *Convention on Biological Diversity*, the so-called biodiversity refers all organisms and their complex on the Earth. It consists of genetic, species and ecosystem diversities. As for ecosystem diversity, Mt. Huangshan in mid-latitude and subtropical region, subject to southeast monsoon, as a typical forest ecosystem, develops a large area of subtropical forest (including evergreen broad-leaved forest, evergreen broadleaved deciduous forest, broadleaved deciduous forest, theropencedrymion etc. along with coniferous forest on the hilltop), with forest coverage over 75%. As for species diversity, there are 456 vertebrates and 1,807 higher plants (more than 7% of China's total) in Mt. Huangshan; among them, the quantities of national key protected animals and plants are respectively 35 and 31.

Based on rich biodiversity, Mt. Huangshan is included in 108 biodiversity distribution centers in the world identified by IUCN (Hilly areas in the South of Yangtze River and mountainous regions in Zhejiang and Fujian, IUCN Conservation office, 1990 Evaluation criteria: plant species diversity); it is included in 33 biodiversity conservation priorities latest identified in China (Evaluation criteria: the system of “Ecological zone evaluation” by the Nature Conservancy). In the CBPF (China Biodiversity Partnership Framework), it is also Mt. Huangshan that is ranked highest in irreplaceable biodiversity index in East China, also a hotspot region of the biodiversity subject to the most worth protection. The above evidence proves that the biodiversity in Mt. Huangshan plays an important role in the globe.

2.2.2 Conservation status quo

Biodiversity conservation has always been a priority for the Huangshan scenic zone. This round of monitoring reveals that the overall situation of biodiversity conservation in the Huangshan scenic zone is very good. The specific measures include:

(1) In terms of environmental protection, Mt. Huangshan Scenic Zone Administrative Committee has organized and prepared a number of special plans regarding ecological and

environmental protection plan in the zone, established ISO14001 environmental management certification system and created successfully ISO14000 National Demonstration Zone, pioneered enclosed rotation recovery system, advocated and practiced low carbon tourism, as well as made an investment of about RMB 200 million Yuan on the relocation and ecological restoration in south gate area. Then a special agency has been established to integrate financial resources and technology, and Mt. Huangshan scenic zone has achieved first the "unified sewage pipeline system" in the same scenic zones in the country, and completed the investigation of ecological environmental background values and started the construction of ecological observatories. It has strengthen fire prevention by "Integrated grid, density and all-weather" and established five resource conservation stations and infrared automatic monitoring system of forest fire for the purpose of no forest fire in 33 consecutive years and success in preventing pine wilt disease into the zone. Sewage treatment stations in Xihai and Furong Ridge along with garbage collection transfer stations in Hot spring and Yungu have been established, a PM2.5 monitoring is first performed in mountain scenic spots in the country, and GEF project start implementation of the "Biodiversity Conservation Huangshan" GEF projects, biodiversity conservation in Mt. Huangshan are initiated and implemented.

(2) In terms of famous ancient trees, the fifth survey of key famous ancient trees in the scenic zone was completed in 2009. A catalog of famous ancient trees has been established by identifying basic information, specific locations, altitudes, protection levels and ages of all famous ancient trees in the Huangshan scenic zone. Key famous ancient trees are subject to the conservation and management system of "one tactic per tree" with long-term monitoring, expert consultation, guardianship and emergency response.

(3) In terms of scientific research cooperation, the Bureau of Landscaping of the Huangshan scenic zone has been working together with scientific research agencies and universities in recent years to conduct biodiversity surveys, and studies on the conservation and ecological maintenance of famous ancient trees. Based on the previous two surveys, some research topics in biodiversity conservation have been updated and supplemented in recent years:

Table 20 List of major research topics added in biodiversity conservation

Name	Task	Cooperation unit	Period
1.Research on Aphrodisium Sauteri Matsushita control technology in Mt. Huangshan scenic zone	It is required to master biological and ecological characteristics of Aphrodisium Sauteri Matsushita; screen pathogenic fungi highly pathogenic for Aphrodisium Sauteri Matsushita; research the potential of Scleroderma guani controlling Aphrodisium Sauteri Matsushita, and conduct the studies of joint control by pathogenic fungi and its predators; summarize a set of relatively mature prevention and control technology suitable for scenic zone application; conduct chemical, ecological and related studies regarding Aphrodisium Sauteri Matsushita, and clearly identify main components of polypide and host plant for Aphrodisium Sauteri Matsushita; obtain the evidence for Aphrodisium Sauteri Matsushita in contact with the pheromone; and conduct the studies of chemosensory physiology for Aphrodisium Sauteri Matsushita.	Anhui Provincial Bureau of Prevention, Control and Quarantine of Forestry Pests and Anhuai Provincial Key Laboratory of Microbial Control	Jan 2006- Dec 2009
2.Research and demonstration of key technology of comprehensive prevention and	It is required to survey and screen pests and diseases with strong hazard and threat on forest and vegetation, especially famous ancient trees in scenic zone, and then perform the research of physical, biological, and chemical control according to the occurrence of major pests and	Huangshan University	Jan 2008 - Dec 2010

control of major pest and disease for forest and vegetation in Mt.Huangshan scenic zone	diseases, as well as generate key technical models in preventing and controlling major diseases and pests.		
3.Research on the occurrence and effect of biological prevention and control for monochamus alternatus in Mt. Huangshan scenic zone	It is required to find out biological and occurrence characteristics for monochamus alternatus in Mt. Huangshan scenic zone and provide technical basis for pine wilt disease prevention; and screen the most effective control methods of monochamus alternates suitable for Mt. Huangshan scenic zone and then promote the technology.	Nanjing Forestry University	May 2010 – Dec 2013
4.Research on key technology of microbial control for red spider on Pinus taiwanensis	It is required to screen two fungi featuring strong parasitic ability, fast speed high lethality rate; perform safety testing of selected strains; study and explore industrial technology in strain breeding and spores extraction; research and develop broad-spectrum, sustainable, efficient and composite microbial inoculums; and research automatic sprayer of fungal spores.	Huangshan University	Jan 2013 - Dec 2016

Source: Document archives section under Bureau of Landscaping in Mt. Huangshan Scenic Zone Administrative Committee

2.3 Evaluation of cultural resources

2.3.1 Overview

Mt. Huangshan is located in ancient Huizhou with a long history and culture, rich in cultural heritage. Currently, cultural resources are divided into the following three aspects in Master Plan of Huangshan Scenic Zone: Cliff stone inscriptions; historic buildings; museum collections (including intangible cultural heritage, namely myths and legends, Huangshan painting, poems and prose, bibliography reservation, historical site list, historical events etc.). Among them, Cliff stone inscriptions play an extraordinarily important role in the history in tangible cultural heritage in Mt. Huangshan scenic zone, witnessing Huangshan historical events and received historical figures and featuring great historical values; it fully embodies ancient literary and China calligraphy mood, with important aesthetic values.

According to census data of cultural relics, there are more than 290 cliff stone inscriptions left in Mt. Huangshan scenic zone, with 3 added in 2012; there are 148 ancient buildings including ancient roads, stone bridges, ancient temples and pavilions as well as tombs; in 2009, as per the third national census of cultural relics, Guest-Greeting Pine was first identified as “living cultural relic”, the only Huangshan Pinus in the country. In addition, as for intangible cultural heritage, Mt. Huangshan is the birthplace of Huangshan Painting School which lasts for several hundreds of years, while the works themed at Mt. Huangshan in calligraphy, painting and photography are hard to count, with more than 20000 poems and songs (articles) in praise of Mt. Huangshan in various periods.

2.3.2 Conservation status quo

(1) In terms of preservation organization setup, the Mt. Huangshan Scenic Zone Administrative Committee has further defined the cultural relic preservation and management tasks of different departments: The Cultural Development Center of the Politics Div. has set up the Cultural Relic Management Sect. and the Museum as the functional bodies for cultural relic preservation, responsible for the collection of cultural treasures and historical materials in different historical periods, and the display of world

heritage and relics; the Planning and Land Div. has set up a heritage office to manage the world heritage of the whole mountain.

(2) In terms of policy support, except the state- and province-level cultural relic preservation and management regulations, the Huangshan scenic zone developed the Interim Regulations on the Preservation of Cultural Relics in the Huangshan Scenic Zone on September 21, 2006 to direct and regulate the internal cultural relic preservation work of the Huangshan scenic zone.

(3) In terms of cultural relic identification, there are 4 province-level key units of cultural relic preservation in the Huangshan scenic zone (Mercy light pavilion, Billows loft and Tower for watching waterfalls, Cliff stone inscriptions, and Ancient viewing pavilion), and an application for state-level key unit of cultural relic preservation has been filed for two attractions.

(4) In terms of long-term monitoring, except the national census and registration of cultural relics, Mt. Huangshan Scenic Zone Administrative Committee has conducted a census of cultural relics within the scenic zone, which is supplemented by ongoing manual monitoring. Currently, the lists have been established for 668 natural landscapes and 311 cultural landscapes after the census, along with park census of cultural relics. A database of immovable cultural relics was initially built to complete data acquisition and entry of movable cultural relics.

(5) In terms of cultural relic preservation and renovation, the costs for preservation and rehabilitation projects of completed cultural relic are summarized in Table 4 below:

Table 21 **Costs of cultural relic preservation and renovation in Mt. Huangshan scenic zone**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Mercy	30000	100000	730000	/	1250000	370000	/	520000	2000000	
Tower	/	50000	/	700000	/	/	/	/	/	
Lingxi	60000	/	/	/	/	/	/	/	/	
Songgu	300000	/	/	/	/	/	/	/	450000	

Diaoqiao	/	210000	/	/	/	/	/	/	/	
Mid-Hill	/	/	/	/	/	700000	/	/	/	
Other	/	/	/	200000		1500000	320000	800000	7550000	
Total	390000	360000	730000	900000	1250000	2570000	320000	1320000	10000000	10000000

The funds for cultural relic preservation (restoration, protection and maintenance) in 2012: RMB 10 million Yuan, with specific utilization information uncollected.

Source: Cultural Relic Management Sect., Politics Div., Mt. Huangshan Scenic Zone Administrative Committee

(6) The “restoration” of important cultural landscapes focuses always on the heritage policy, “Protection priority, salvage first, rational use, strengthened management”, along with the increase of special funds and technology investment in cultural relic preservation, and active implementation of cultural relic preservation and cultural landscape restoration, and outstanding achievements have been made. Since 1990s, the completed projects of cultural relic preservation mainly include:

In 1991, the implementation and completion of support renovation project of ancient architecture of Vairocana Hall.

In November 1995, the implementation and completion of overall renovation and environmental control projects of Tower for watching waterfalls.

In 1999, the implementation and completion of overall renovation project of roofing and wooden structure of ancient architecture of Vairocana Hall.

In May 2003, the implementation and completion of support renovation and surrounding environmental control projects of ancient architecture of Songgu Nunnery.

In July 2003, the implementation and completion of excavation and repair projects of Lingxi Spring.

In August 2003, the implementation and completion of protection and reinforcement projects of celebrity calligraphy and inscriptions of Mercy light pavilion.

In December 2004, the implementation and completion of support renovation and surrounding environmental control projects of ancient architecture of Diaoqiao Nunnery.

In October 2004, the implementation and completion of repainting and roofing repair projects of Tower for watching waterfalls.

In October 2005, the implementation and completion of salvage, renovation and surrounding environmental control projects of historic sites like Gate, Universal Gate tower, Kitchen, and Fayan Spring of Mercy light pavilion.

In August 2007, the implementation and completion of the improvement of lightning protection facilities of ancient complex of Mercy light pavilion.

In October 2007, the implementation and completion of renovation and lightning protection projects of ancient architecture of Mid-Hill Temple.

In May 2008, the implementation and completion of construction project of standard cultural relic storeroom of Huangshan Scenic Zone Museum.

In September 2009, the implementation and completion of four provincial protection projects like Mercy light pavilion, Ancient viewing pavilion, Cliff stone inscriptions along with Billows loft and Tower for watching waterfalls.

In November 2010, the implementation and completion of roofing repair project of ancient architecture of Mercy light pavilion.

In December 2011, the implementation and completion of repair project of Pool for Freeing Captive Tortoises of Mercy light pavilion.

In April 2012, the implementation and completion of repair project of Bo`an Master Tower.

In 2012, the implementation and completion of the renovation and repair of ancient building sites including Mercy light pavilion roofing, Kitchen and Furong Cave; 3 cliff stone inscriptions were supplemented; the names and couplets were titled for two newly built rain shelters; the installation of video surveillance and fire alarm systems in collection storage of Mercy light pavilion has been completed.

2.4 Environmental protection indicator monitoring

Table 22 Monitoring indicators and results of environmental protection

Key topics	Indicators	Frequency	Departments	Means	Monitoring results in this survey
Aquatic environment	1.Conformance to quality standard for surface water	1 year	Environmental protection office in scenic zone	Regular in Eco-environment monitoring station	Surface water: water quality monitoring data in 2012: better than national GB3838-2002 Class I standard; Spring water: the monitoring in 2008 with good water quality.
	2.Conformance to quality standard for	1 year	Environmental protection office in scenic	Entrusted to Huangshan Municipal	The quality of drinking water source from the reservoirs of Mt. Huangshan scenic zone reaches 100%.
	3.Annual treatment capacity domestic sewage and peak daily treatment	1 year	Sewage management station in scenic zone	Regular	Domestic sewage disposal could totally reach 700000 tons per year, with 3500 tons/day in disposal peak in high season (generally referred to “May Day” and “National Day of PRC”), and annual disposal of domestic sewage on average is
Acoustic environment	4.Conformance to standard for domestic and traffic noise	1 year	Environmental protection office in scenic zone	Entrusted to Huangshan Municipal Environment	No update. Only monitoring data in 2006 is available. See 2.5 in details.
Atmospheric environment	5.Conformance to standard for air quality	1 year	Environmental protection office in scenic zone	Automatic continuous air monitoring	Air quality in Mt. Huangshan in 2012 was better than national Class I standard, with annual values on average for SO ₂ , NO ₂ and PM ₁₀ far lower than national Class I

Solid waste	6. Annual output of solid waste	1 1 years	Environmental sanitation authority	Regular testing	Annual output of solid waste in 2012 reached 4766.08 tons.
	7. Method of waste disposal	1 5 years	Environmental sanitation authority	This project	The modes of disposal include incineration, biological treatment, land filling, waste recovery and organic waste recycling;
	8. Proportion of recycled waste to total waste	1 1 years	Environmental sanitation authority	This project	No relevant statistics.

Source: Sorting by collected survey data

2.5 Aquatic environment evaluation

2.5.1 Surface water quality

The Huangshan scenic zone is a state-level scenic zone. According to the criteria for functional division of reclaimed water areas in the Environmental quality standard for surface water (GB3838-2002), and the measures for functional division of water areas of Huangshan City in Document HMEPB [1993] No.38, the national Class II standard applies to surface water resources in the Huangshan scenic zone. Currently, the monitoring agency of the scenic zone divides surface water resources in the zone into the 3 types of stream water, spring water and reservoir water for monitoring purposes.

In stream water quality monitoring, there are 4 monitoring points in the Huangshan scenic zone – Jiulong Waterfall, main gate of Mt. Huangshan, Songgu Nunnery and Jiaocun, and the monitoring items include pH, dissolved oxygen, ammonia nitrogen, permanganate index and 5-day biochemical oxygen demand (BOD5). Aquatic environment quality is subject to time sequence analysis. It can be seen, from water quality monitoring data of Huangshan scenic zone in March, June, August and November, respectively in 2010-2012, obtained in this survey, that the surface water quality of the Huangshan scenic zone is excellent, and meets or exceeds the Class II requirements in the

Environmental quality standard for surface water (GB3838-2002), where:

(1)The pH values of all the 4 monitoring cross sections meet the requirements in the quality standard for surface aquatic environment.

(2)The dissolved oxygen levels of all the 4 monitoring cross sections meet the Class I standard for surface water quality.

(3)The biochemical oxygen demand value of all the 4 monitoring cross sections meet the standard for Class I surface water bodies.

(4)The permanganate indexes of all the 4 monitoring cross sections are less than the Class I water quality standard.

(5)The ammonia nitrogen levels of all the 4 monitoring cross sections are less than the national Class II water quality standard and the detection limit.

Compared with average monitoring values at four points of surface water monitoring in scenic zone from March 2010 to November 2012, it is shown that surface water pH and dissolved oxygen decreased in nearly three years, 5-day biochemical oxygen demand rose, and other values were remained. Overall, surface water quality in Mt. Huangshan is excellent and meets Class I requirements in the *Environmental quality standard for surface water* (GB3838-2002), but slightly decreases in recent years, which then is not significant.

Table 23 Monitoring data of surface water in Mt. Huangshan scenic zone

Monito ring time	pH (6-9)	Dissolved oxygen ($\geq 6\text{mg/L}$)	Ammonia nitrogen ($\leq 0.5\text{mg/L}$)	Permanganat e index ($\leq 4\text{mg/L}$)	5-day biochemical oxygen demand (BOD5) ($\leq 3\text{mg/L}$)
2010.3	7.45	8.99	0.052	1.05	0.09
2012.11	7.30	8.86	0.051	1.06	0.44

Source: Environmental protection office of Mt. Huangshan scenic zone

There are 15 springs in the scenic zone. In terms of spring water quality monitoring, based on the water quality monitoring and analysis results of the 4 major spring vents (hot spring, Mingxian Spring, Songgu Spring and Fayan Spring) in 2008, the spring water

quality of the Huangshan scenic zone is good.

2.5.2 Drinking water quality

According to the provisions of “Anhui Provincial Environmental Protection Regulations” and “Anhui Provincial Environmental Protection Regulations on urban drinking water source”, the scenic zone has performed the entrusted monitoring (Huangshan Municipal Environmental Monitoring Station as the monitoring unit) and issued the corresponding results of drinking water source since the fourth quarter of 2011, for the purpose of safety, protection and monitoring of drinking water source in the zone. The results show that drinking water quality in Huangshan Scenic Zone achieves 100%.

2.5.3 Sewage treatment

In terms of domestic sewage, 13 sewage treatment facilities have been built in the scenic zone since 1986, including Yuping, Xihai (under construction), hot spring, Mid-Hill Temple, Administrative Committee building, emergency center, Tianhai, Beihai, Shilin, Yungu New Cableway, Yungu, Songgu, and Furong Ridge (under construction), with a total design daily treatment capacity of over 7,000 tons, and are being upgraded and improved gradually. To date, the improvement of 3 facilities (Tianhai, hot spring and Yuping) has been completed, realizing automatic control and 24-hour video monitoring, in which the sewage discharge standard of the Yuping and hot spring facilities has been increased to the Class I, Grade A standard in the Discharge standard of pollutants for municipal wastewater treatment plants (GB18917-2002).

The data provided by sewage management station in scenic zone in 2012 shows that domestic sewage disposal could totally reach 522000 tons per year (2011); the data in 2013 shows that domestic sewage disposal could totally be below 700000 tons per year (2012). Domestic sewage disposal could totally reach 1900 tons on average, with 3500 tons/day in disposal peak in high season (generally referred to “May Day” and “National Day of PRC”) and peak value below 1000 tons. In addition, reclaimed water facilities originally built in Yupinglou Hotel in the zone has been closed in hotel renovation alteration later (about in 2008-2009); in 2012, it is planned to newly build reclaimed water

facilities in overall reconstruction project in hot spring section.

2.6 Acoustic environment evaluation

In the Huangshan scenic zone, noise is from hotels, restaurants, stores, cultural and entertainment facilities, living activities and vehicle driving, and includes domestic and traffic noise.

In terms of noise control, two measures can promote noise monitoring and control in the scenic zone: 1) In September, 2004, New State Line Tourism Passenger Transport Co., Ltd. was founded in the Huangshan scenic zone, and vehicles of individual businesses and minibuses were prohibited from entering the zone, further improving traffic noise; 2) The monitoring station of the Huangshan scenic zone started noise monitoring in 2005. Environmental Protection Office of Huangshan Scenic Zone entrusted Environmental Monitoring Station of Huangshan City to monitor traffic noises in four points on June 20, 2006 and regional noises in eleven points, and the results show that: “Traffic noise in all points meets the standard while Yungu Temple and Yuping building feature the values beyond the standard in regional noise, with the values as 3.5dB (A) and 0.9dB (A) respectively.” It is subject to loud noises from the tourists in the zone.

2.7 Atmospheric environment evaluation

Ambient air quality monitoring in Mt. Huangshan scenic zone began in 1988. At the initial stage, this was done completely manually, and only 3 indicators were monitored – TSP, NO₂ and SO₂. In early 2004, the building of the automatic continuous air monitoring system began, which was completed at the end of September. See Table 7 below for the data of key air pollutants in Mt. Huangshan scenic zone from 2010 to 2012, where the data shows that, in such three years, air quality in the zone is better than national Class I standard.

Table 24 Statistics form of air quality in Mt. Huangshan scenic zone (Unit: mg/m³)

Monitoring period	Annual average value of SO₂	Annual average value of NO₂	Annual average value of inhalable particulate matter (PM₁₀)
2010	0.007	0.014	0.029
2011	0.010	0.009	0.027
2012	0.012	0.008	0.026
National Class I	0.02	0.04	0.04

Source: Eco-environment monitoring station of Mt. Huangshan scenic zone

2.8 Solid waste disposal

Compared to cities, the annual solid waste output of the Huangshan scenic zone is low and remains stable in general. Year-to-year fluctuations in output arise mainly from the amount of construction waste produced in development and construction, and the variation of the number of persons entering the mountain. In Mt. Huangshan, solid waste is located in 3 types of areas – near tourist paths, hotels, guesthouses and other places of business, and living areas of workers.

Currently, solid waste is subject to strict categorized management in the Huangshan scenic zone: Hazardous solid waste is collected, transported and stored specially by the environmental sanitation authority and other authorities concerned according to a strict hazardous waste management system depending on type (medical waste, waste transformers, waste chemicals, waste ink cartridges and waste batteries); general solid waste is divided into construction and domestic waste, where construction waste is subject to a strict declaration, supervision and inspection system, and an array of measures have been taken for domestic waste, including reduction, recycling and hazard-free treatment (sophisticated treatment system). The major measures include:

(1) A purchasing and distribution center has been established to deliver clean food to the mountain, especially vegetables, poultry and aquatic products, and reduce waste output;

(2) All waste must be bagged to reduce secondary pollution, and the waste classification system has been strengthened from the very beginning;

(3) Routine cleaning is done manually, and the ropeway is used to carry waste in the peak period;

(4) A special environmental sanitation plan has been developed to implement the “external disposal of internal waste” project.

Based on the statistical data during 2008-2010, the main type of solid waste in the scenic zone is domestic waste, with an annual output of about 4,000 tons; annual solid waste volume in 2012 reached 4766.08 tons. The modes of disposal include incineration, biological treatment, land filling, waste recovery and organic waste recycling, and there is no corresponding statistics about total number of recycling waste for now. In 2010-2011 comprehensive control plan issued by Mt. Huangshan Scenic Zone Administrative Committee, “Methods of solid waste management in Huangshan Scenic Zone” was proposed and issued for the purpose of strengthening the management of solid waste like construction waste. It is advised to calculate solid waste arising from tourist activities separately.

3 Tourism and Community

3.1 Community monitoring indicators

Based on the previous two surveys, basic indicators for tourism and community monitoring have been perfected, combined with UNWTO's indicators and methods, "Master plan on tourism in Huangshan scenic zone" and practical tourism development in the zone, specially as shown in Table 8.

Table 25 Monitoring indicators and results of tourism and community

Key topics	Indicators	Frequ	Means	Monitoring results in this survey
Community development level	1.Community population (locals and non-locals)	3 years	Statistics	See Table 9 in 3.2.1 in details.
	2. Main industries in the community	2 years	Statistics and survey	Industries in five towns, economic status quo of agriculture and tourism along with employment.
	3.Number of attractions	1 year	Statistics	See Table 12 in 3.2.33 in details.
	4.Number of accommodation facilities	1 year	Statistics	Statistics of star farmhouses in five towns in buffer zone.
	5.Number of tourists received	1 year	Statistics	The quantity of received tourists in 2012: 97000 person-time in Sankou Town and about 900000 person-time in Tanjiaqiao Town. The data of received tourists in main attractions in nearly two years has been obtained.

	6. Overall impact of tourism on local communities	2 years	Questionnaire, interview and field survey	See the summary in 3.4 in details.
Community environment	Enviro	2 years	Questionnaire, interview and field survey	See 3.3.2 in details.
	nment			
	al			
	protect			See 3.3.3 in details.
	Energy			
	utilizat			
	ion			
Residents' attitude and perception of impacts	14. Overall attitude of residents to tourism	1 year	Questionnaire sampling and	See 3.4.1 in details.
	15. Resident perception of economic, social, cultural and environmental impacts of tourism	1 year	Questionnaire sampling and interview	See 3.4.2 in details.
Community engagement and awareness	16. Percentage (quantity) of community residents doing tourism-related jobs and main types	1 year	Statistics and questionnaire sampling	Statistics data specified in Master Plan of Mt. Huangshan scenic zone in 2006; practice situation of other tourism-related industries; acquisition from questionnaire, sampling and interview.
	17. Perception of tourism engagement by community residents	1 year	This project Questionnaire sampling;	See 3.4.3 in details.

18.Percentage of the concept “sustainable tourism development”	1 year	This project Questionnaire sampling;	Indirect understanding by the questionnaire.
19.Issues on tourism development concerned by	1 year	This project Questionnaire sampling;	See 3.4.5 in details.

The results of community monitoring will be summarized in three aspects below on the basis of the indicators in the above table: development level, environment conditions and resident attitude.

3.2 Development level in buffer zone

3.2.1 Basic information

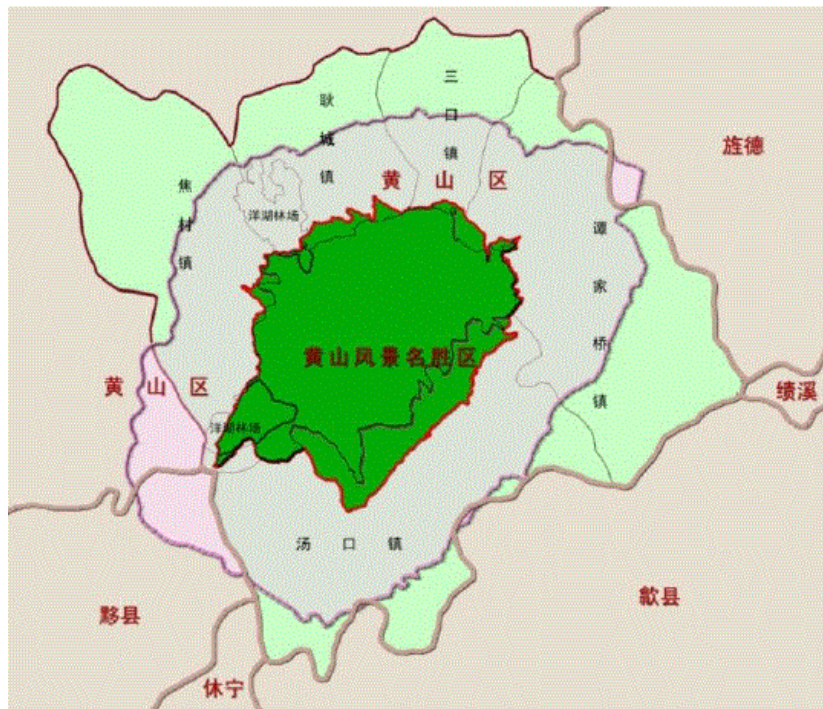


Figure 1 Map of Huangshan Scenic Zone and adjacent township

Source: 2007-2025 Master plan of Huangshan Scenic Zone

According to the planning of Huangshan Scenic Zone (2007-2025), it covers 160.6 sq.km. The buffer zone includes its adjacent five towns and one farm, i.e. Tangkou,

Tanjiaqiao, Sankou, Gengcheng and Jiaocun Towns, along with Yanghu Forest Farm (See Figure 1). Table 9 shows the following basic information, for example, the population, area, regional scale, and administrative villages adjacent to Mt. Huangshan scenic zone as well as town government seat respectively in five towns.

Table 9 Basic information summary of population and geography in five towns

Town name	Resident population (person)		Area (km ²)	Regional scale		Adjacent to Huangshan (Total 16 administrative villages)	Government seat
	Local	Outsider		Administrative village	Villager group		
Tangkou (South)	15755	4733	129.35	5	74	Shancha, Tangkou, Zhaixi, Fangcun, and Gangcun	Tangkou Village
Tanjiaqiao (East)	6031	1962	136	6	49	Zhongdun, Xinhong, and Changluo Villages	Zhongdun Village
Sankou (North)	9287		60	5	65	Wangjiaqiao and Ganglian Villages	Baiguoshu Village
Gengcheng (North)	7998	356	85.8	5	51	Chenglan, Fucun and	Jinqiao Village

						Goucun	
Jiaocun (West)	15330	275	10	107		Zhangcun, Liucun, and Tangliu	Chencun

Source: sorting by collected survey data.

As can be seen, Tangkou Town is the most populous in resident and outsider population, with outsider proportion higher than the local, with all administrative villages adjacent to Huangshan, located in the Huangshan's south gate, most closely connected to Huangshan. Among them, Jiaocun Town features the widest geographical area, as an organic town with the largest national territorial area and the most agricultural population in Huangshan District.

3.2.2 Status quo of agricultural economic development

Table 26 Statistics of agricultural economic development in five towns

Town name	Major industries	Annual net income per capita for rural area		
		2011	2012	Growth on year-on-year basis
Tangkou	Tourism (80%) and forestry (wood, bamboo, tea,	10050	12374	17.8%
Tanjiaqiao	Farming, forestry (wood, bamboo, tea, etc.), and	7898	9635	22%
Sankou	Breeding, forestry (tea), and migrant working	7749	9592	24%
Gengchen	Farming, forestry (wood, bamboo, tea, etc.), and	/	/	/
Jiaocun	Farming, forestry (wood, bamboo, tea, delicacies	7672	8837	15%

Source: 2012 Year books, collection by survey group through interviews as well as website of Tangkou Town Government (<http://www.tangkou.gov.cn/>)

Table 10 shows the statistics of status quo of agricultural economic development in five towns surrounding Mt. Huangshan scenic zone. It can be seen from the data that, relatively, Tangkou Town features earlier and more mature tourism development than the

other four towns, higher economic development as well as higher rural per capita net income due to its prime location. Economic gap among the other four towns, which show strong annual growth trend in 2012, is small.

Tangkou Town possesses more mountains and fewer lands, with total 11,142.77 hectares of forest land, 1091.42 hectares of garden plot together with only 156.33 hectares of total arable land. In agricultural structure, it is mainly the forestry that is an important industry in Tangkou Town with larger timber volume. Due to the limitations including arable land area and sunshine, the planting is weaker, with food insufficiency, and as for paddy field, it is basically subject to single cropping rice, while there are mainly corn, soybean, sweet potato, potato, rapeseed, etc in dry field. Chicken raising is dominated in the poultry, accounting for about 90% of the total.

Tanjiaqiao Town mainly depends on the agriculture, with agricultural population up to 94% of the total. It has 754.6 hectares of arable land, 8,070 hectares of forest land, and 136.2 hectares of tea plantations. Paddy rice is main crop, supported by dry rice and coarse cereals including wheat, corn, potato, buckwheat, sorghum and bean; the farmers raise chickens, ducks and geese, together with pigs and cattle. Tanjiaqiao Town, as the birthplace of Maofeng Tea, cultivated the tea trees since ancient times, one of pillar industries, with RMB 2.5 -2.7 million Yuan of total tea income in the town, accounting for 26% of total farm income and more than 10% of the farmers' per capita net income.

Baiguoshu Village, located in the northeast of **Sankou Town**, is dominated by farming, and the bamboo is rich. The village features 12,420.62 acres of the land area, with 1065.62 acres of arable land, 2443.62 acres of paddy field, 260 acres of dry land, 300 acres of tea plantations, 15,455 acres of mountain farm along with 5560 acres of bamboo forest. Main income of the farmers relies on paddy field, bamboo, tea and migrant working. Xiangtan village located in the southeast of Sankou Town features main income from the tea and bamboo, with high-quality tea exported to Hong Kong, Macao and other places.

The villagers in **Gengcheng Town** mainly raise the rice, tea and bamboo, with harvested rice for self-sufficiency, and sell the picked tea to tea markets in Huangshan District or to those customers directly purchasing tea here. Bamboo will be mainly sold to

processing plants in the district for further processing. Arable land really per capita in Jinqiao Village where town government seats is less than 0.5 acre, and it mainly depends on the industry, supported by the tourism-related real estate. Fucun under the jurisdiction of Gengcheng Town, the first village in the North Gate to Mt. Huangshan, mainly relies on the paddy rice as agricultural crops, supplemented by fruit trees, where big farming household will sell the grains outside to grain supply centers and external food processing plants, while ordinary farmers are self-sufficient.

Jiaocun Town is an organic town with the largest territorial area and the most agricultural population in Huangshan District. Longyuan village, at the center of Jiaocun Town, focuses on agricultural crops mainly including rice, canola, watermelon and herbs like sedum sarmentosum. In recent years, with the adjustment of industrial structure, special agricultural edible fungi have been cultivated, and rural cooperatives have been established. Chencun mainly grows paddy rice and canola, and family income depends on migrant working, like construction and domestic service industries.

Summary: Overall, the five towns in buffer zone of Mt. Huangshan scenic zone primarily rely on paddy rice, tea and bamboo in the agriculture. They are dependent on paddy rice cultivation, and except for Tangkou Town, the other four towns can be self-sufficient in rice cultivation. Forest coverage in five towns is high, and the forestry production is subject to tea planting tea and bamboo felling in mountain farms; the bamboo will basically be sold to large enterprises in the zone, and the tea will be purchased and in a unified form processed by tea plants and then transported to tea trading markets in Gantang Town where Huangshan District government is located.

From the survey, the villages focus respectively on many agricultural and forest products combined with their own resources advantages. From supply chain, except for self-sufficiency, most products have been sold to the whole Huangshan City and surrounding provinces and cities through trading markets in Huangshan District.

3.2.3 Status quo of tourism economy development

Table 27 Low mountain attractions in buffer zone

Town	Recent investment	Low mountain attractions	Tourism employment
Tangkou	Total agreement price of Huangshan International Tea Culture Park, Huishang International Hotel	Jade Valley, Jiulong Waterfall, Phoenix Home, Xiangxi rafting (2008), Monkey Valley, New Peach Land, Tianhu Lake (2009) and Fangcun Bamboo Sea	Tourism attractions operation, working in farmhouse and scenic spots, staff in hotels and other tourism industry, and working in Tangkou
Tanjiaqiao	Fengda hot spring resort, Huishang Group, East China Sea, Oriental resort and East Huangshan resort etc.	Shimen canyon, Puren beach rafting (abolished in 2011), Yellow Emperor Home (abolished in 2011), East Huangshan tourism resort (2007), Memorial of	Tourism-related jobs in the farmhouse operations, scenic zone and restaurants and hotels
Sankou	Seven projects including Meilandi comprehensive tourism development, Huangshan Medicinal Plant Garden, China	Comprehensive tourism development in Fuzi Mountain (Longyi Cemetery), Raspberry base, Cole flowers base, Picturesque Scenery (Under	Less, mainly with jobs in Longyi Cemetery and farmhouse operations
Gengcheng	No data obtained in 2012. Introduction of 16 companies in Jinqiao Science and Technology Industrial	Huangshan Tiger Park (2009), Furong Valley (2007) and Dragon waterfall (abolished in 2011)	Tourism-related jobs in scenic spots, farmhouse operations (in Fucun) as well as restaurants and hotels

Jiaocun	Anhua Villa, Xihai garden (Phase I), Longsheng Movie and Television Base, Car camping club,	Rail cable car, and Cui Wei Temple	Less scenic infrastructure, waiters, tour guides, and seasonal farmhouse operation
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Source: Interview sorting and Tangkou Town People's Government website (<http://www.tangkou.gov.cn/>)

It can be seen from recent investment promotion in Table 11 that Tangkou in the south and Gengcheng in the north out of five towns feature best development. Tangkou Town takes the advantage of close contact with Mt. Huangshan scenic zone in rapid progress in the development of real estate, large resort hotels and other projects, with the operation of low mountain attractions very optimistic too. It is higher in resident engagement in tourism. Gengcheng Town develops early, due to geopolitical relations with the government of Huangshan District (adjacent to Gantang Town where the district government seats), and has some eco-industrial projects insides, as its main industry. The other three towns like Tanjiaqiao, Sankou and Jiaocun are subject to slower project promotion due to geographical disadvantage, late development and introduction of less investment. In recent two years, due to the construction of Xihai Valley rail cable car and increasing importance attached to the west gate, the projects signed or continuously constructed have been increased in Jiaocun Town.

Statistical analysis of survey data shows that in two months after the opening of Xihai Valley rail cable car as of September 2013, the impact on resident production and life in towns is still not clear. 77.5% residents in five towns consider that the rail cable car brings about no impact on their life or work, with only 3.3% residents in view of the impact. Most residents in buffer zone present that even if the rail cable car is opened, generally the tourists still go upwards and downwards the mountain through the South Gate or North Gate. Some residents in Jiaocun say that after the opening of rail cable car, the tourists going to Xihai from the mountain could directly take the car to go upwards quickly, so that they will not go to the West Gate. It is also involved in the following factors, such as

inconvenient highway at the West Gate, infrastructure still under construction, along with tourists' preference upwards and downwards the mountain through the South Gate and North Gate. Long-term monitoring and tracking are required to identify whether such rail cable car can promote tourism development in Jiaocun.

Table 28 Statistics of 2011-2012 attractions tourists (person) and tourism receipts (ten thousand Yuan) in buffer zone

Year	Tourists received			Ticket receipts		
Attractions	2011	2012	Growth on year-on-year basis	2011	2012	Growth on year-on-year basis
Jade Valley	887396	1164593	31.24%	3754.05	5516.91	46.96%
Furong Valley	637611	782943	22.79%	1634.62	1836.45	12.35%
Jiulong Waterfall	415616	549870	32.30%	1003.49	1604.58	59.90%
Shimen canyon	218630	271228	24.06%	587.39	813.66	38.52%
East Huangshan	217650	274400	26.07%	—	—	—
Phoenix Home	215100	309331	43.81%	210.61	349.93	66.15%
Tiger Park	80201	90545	12.90%	400.35	414.48	3.53%
Monkey Valley	38358	59408	54.88%	33.31	65.55	96.82%

Source: Huangshan District Tourism Committee

Table 12 reflects the tourists received and tourism receipts of low mountain attractions in buffer zone in recent two years. It can be seen that main attractions reception is well upwards: ticket sales and receipts grow on the year-on-year basis, especially for Monkey Valley, Phoenix Home and Jiulong Waterfall with more than 50% increased on the

year-on-year basis in ticket receipts. This indicates that, through market promotion and group travel by travel agents, Mt. Huangshan tourism plays a better role in driving the development of low mountain attractions in surrounding community, wholly enabling the tourism economy in surrounding regions. In all attractions in buffer zone, ticket sales and receipts in the following places, like Jade Valley, Jiulong Waterfall and Furong Valley in Gengcheng Town at the North Gate are obviously higher than other attractions, reflecting the attractions in scenic zone develops in an unbalanced form due to the difference of geographical location and resources conditions.

Table 29 Summary of star farmhouse in buffer zone of Mt. Huangshan scenic zone

	Provincial					Municipal			District			Total
	Five-star	Four-star	Three-star	Two-star	One-star	Three-star	Two-star	One-star	Three-star	Two-star	One-star	
Tangkou Town	1	4	6	1	0	8	2	3	61	12	1	99
Tanjiaqiao Town	1	0	2	4	0	0	5	2	3	4	1	22
Jiaocun Town	0	0	3	2	0	0	1	1	1	1	6	15
Gengcheng Town	1	0	3	2	0	0	1	0	2	4	0	13
Sankou Town	0	0	1	2	0	0	0	0	0	0	1	4

Source: Huangshan District Tourism Committee

Table 13 shows the distribution of star farmhouses in five towns in buffer zone of Mt. Huangshan scenic zone, and the quantity and quality of the farmhouse become one of the characterizations for the town's tourism development. The data in the above table shows Tangkou Town features higher tourism development, with more tourists received along with the quantity and quality of the farmhouses there obviously higher than the other four

towns; farmhouse number in Tangkou Town is far more than the sum of the farmhouses in the other four towns, and meanwhile the number ranked at provincial and municipal levels is apparently more; but the star farmhouses are not well distributed in Tangkou Town, with 84 gathered in Shancha Village, 12 in Fangcun and 3 in Tangkouju, which are mainly impacted by beneficial attractions and more tourists received in Jade Valley and other resident groups in Shancha Village. In the other four towns in buffer zone, the farmhouse is relatively less and more dispersed. Tanjiaqiao Town actively promotes the investment invitation and construction of low mountain attractions in recent years to attract short-range and Huangshan tourist source markets, and then the farmhouse becomes relatively more. Jiaocun Town is lower than Tanjiaqiao Town in farmhouse quantity and quality, with only 7 out of 15 farmhouses ranked at provincial and municipal levels, indicating relatively low tourism development, but with the development of Xihai Valley, it may drive Jiaocun tourism development and infrastructure construction. Compared with Jiaocun Town, Gengcheng Town has slightly lower farmhouse number, and Fucun, the first village to the North Gate of Mt. Huangshan, features more than 80% star farmhouses located with higher average quality and more focus on self-service travel. Sankou Town has least farmhouses due to the disadvantages in geographical location and tourism resources and less tourists.

Summary: It can be seen through statistics analysis of investment invitation projects, tourists received and tourism receipts in low mountain attractions as well as star farmhouse in five towns in buffer zone: a trend in tourism development in five towns in buffer zone of MT. Huangshan scenic zone has emerged, i.e. led by Tangkou Town, followed by Gengcheng, Tanjiaqiao and Jiaocun Towns and then Sankou Town. Tangkou Town at the South Gate first develops the tourism industry due to its prime location, and Mt. Huangshan tourism plays a largest and broadest role in economy driving to Tangkou Town.

3.3 Status quo of environment and energy utilization in buffer zone

The survey focuses on the following aspects, such as village appearance and scape,

garbage and sewage treatment, noise and air pollution, energy utilization, as well as forest conservation in five towns.

3.3.1 Village appearance and scape

Overall, a fruitful effect has been obtained in village appearance and scape in five towns. Road construction, power grid renovation and other engineer bring about a uniform road in the village, storey limitation and appearance control of residential buildings near the road have standardized building style to some extent; residential layout and structure are compact; with connected buildings, traditional Hui-style architecture has been retained in residential construction, ups and downs, well-arranged, black and white, with field vertically and horizontally, showing a southern Anhui village scape.

3.3.2 Environmental Protection

In waste treatment, designated garbage bins are placed in each village in five towns, and the waste will be collected by cleaning staff hired by the government to town garbage transfer stations or waste treatment plant for continue and concentrated treatment.

In sewage treatment, except for Jinqiao Village under Gengcheng Town (unified construction with Gantang Town), the sewage discharge system is currently not established respectively in five towns. Some places, e.g. Zhongdun Village in Tanjiaqiao Town, discharge pipeline has been laid but no sewage treatment plant is built; because of the absence of industrial pollution, the sewage subject to domestic sewage from local residents is directly discharged into local rivers through discharge pipeline. Due to the lack of management for a long term, some rivers are polluted, for example, Machuan River in Tanjiaqiao Town. In the survey, 64.2% residents consider that the water sources in their residence are polluted.

In addition, nearly half of the residents in five towns present in the interview that there are air and noise pollution in living community attributable to the noises from the vehicles, road repair and building.



Figure 2 Sewage discharge from the farmhouse in Gengcheng Town

Photo source: shot by the survey group

In the awareness survey, 90% of the villagers are strongly aware of environmental protection and almost all the residents agree on that it is very important to protect the environment and wildlife, where 88.5% residents present that they are willing to use clean energy (Solar, biogas etc.) for environmental protection. During the interview, the promotion of new energy is observed in five towns, for example, solar street light in Tanjiaqiao Town.

3.3.3 Energy utilization

Living energy in buffer zone is mainly subject to liquefied petroleum gas, biogas, electricity, solar (water heater, street light), along with firewood and straw; sampling data of annual living energy from 50 households in Tanjiaqiao Town shows that new energy in rural domestic energy utilization accounted for 35% in 2004, then increased sharply by 89.3% in 2010, and up to 96.3% in 2012.

3.3.4 Forest conservation

16 administrative villages adjacent to Huangshan Scenic Zone are responsible to take

on important fire and forest protection per year. Mt. Huangshan Scenic Zone Administrative Committee is mainly related to the departments in surrounding townships, including Administrative Committee office, comprehensive control and management office, and fire prevention office. According to the interview, the responsibilities and benefits borne by 16 administrative villages adjacent to Huangshan Scenic Zone have been sorted out in buffer zone annually below:

The Administrative Committee will give each village financial subsidies of RMB 24000 Yuan, with RMB 48000 Yuan for emerged villages to carry out fire prevention, e.g. establishment of fire-fighting supply depot, wage payment of fire personnel as well as other day-to-day management. Each town in turn launches a project every year, and is responsible for infrastructure, road construction, and environmental sanitation. Each village is cooperative with Mt. Huangshan scenic zone for fire prevention popularization, and establishment of Huangshan rescue team to strongly control tour pal etc. In addition, forestry station and forestry public security organization can also be funded from Huangshan District.

In 2001, 4 km isolation belt round Huangshan Scenic Zone has been delimited, where the residents of the towns and villages cut down all pine trees without any compensation required, and made a great sacrifice for the prevention of pine wilt disease.

3.4 Attitude and perception of buffer residents

The monitoring activity focuses on the objects and the residents in five towns in buffer zone of Mt. Huangshan scenic zone, mainly through survey questionnaires, supplemented by interviews. The interviews include supplementary interviews during resident questionnaires completion and interviews from part of village and town governments.

In the surveys conducted from August 29 to September 6, total 365 copies of valid community questionnaires were distributed, with 89 in Tangkou, 57 in Jiaocun, 73 in Gengcheng, 65 in Sankou, and 81 in Tanjiaqiao. Community questionnaire of sustainable Mt. Huangshan tourism development is involved in the followings, like the impact of Mt. Huangshan tourism development on the economy, society, culture and environment, along

with resident attitude, and mainly distributed to the villagers in administrative villages with relatively high tourism development and where town governments seat. A questionnaire regarding Five point Likert scale has been used in questionnaire design, i.e. five alternative answers are given for each question in the scale, in the order of consent increments, corresponding to 1, 2, 3, 4 and 5. Descriptive statistical analysis has been performed on the results of the questionnaires.

In addition, relevant staffs in five town governments were interviewed to understand tourism investment invitation progress, tourism receipts and others in five towns.

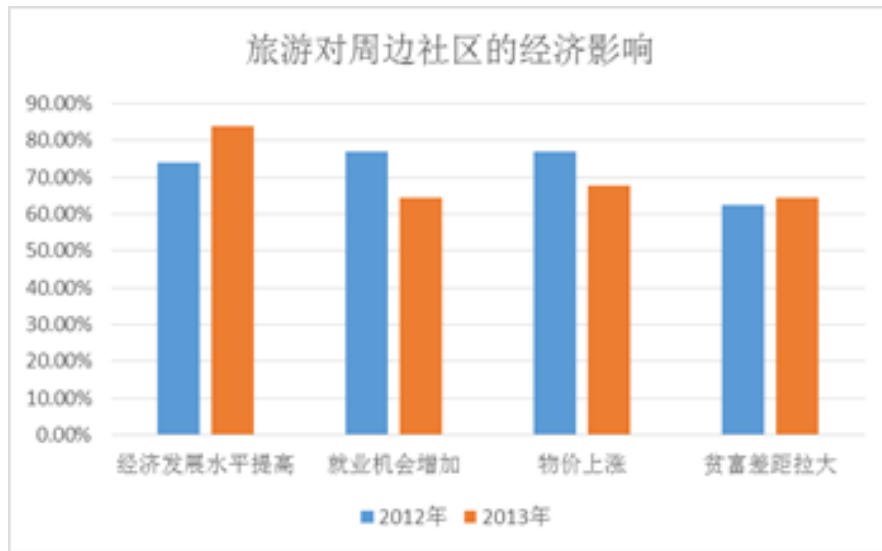
3.4.1 Overall attitude of the residents

As for Mt. Huangshan tourism development satisfaction, 69.3% community residents agree that Mt. Huangshan scenic zone is significantly contributable to local development, and 67.7% residents present their satisfaction to the tourism development in Mt. Huangshan. The data shows that Mt. Huangshan tourism development plays a strong driving role in social and economic development in surrounding areas and improvement of residents' living.

3.4.2 Resident perception of economic, community and cultural impacts of tourism

Economic impact: the data shows that tourism development in Mt. Huangshan scenic zone has promoted the economy in five towns in buffer zone, and to some extent increased local job opportunities, but some problems like rising prices and widened gap between the rich and the poor are emerged. 83.8% community residents affirm that the tourism development plays a role in promoting local economy, and 64.6% residents consider that it brings about more job opportunities, but 25.5% residents still hold a view that the largest difficulty in their current life is the employment. 67.9% residents say that rising prices are caused accordingly, and 27.7% residents present that the largest difficulty in their current life is the rising prices, i.e. local prices are rising in the moment of tourism development and more tourists. The wages for ordinary farmers and grass roots are not increased as the tourism industry develops, and 47.6% residents still gain a monthly wage below RMB

2000 Yuan, and suffer from living burden due to rising prices, and meanwhile 64.4% residents consider that the tourism development widens the gap between the rich and the poor.



旅游对周边社区的经济影响 Tourism-caused economic impact to surrounding communities

经济发展水平提高 Improved economic development

就业机会增加 Increased jobs

物价上涨 Rising prices

贫富差距拉大 Widened wealth gap

Social impact: The tourism development leads to the improvement of roads, water and electricity and other facilities in five towns in buffer zone of Mt. Huangshan scenic zone, along with demolition and new buildings. 81.9% residents think that local roads, water and electricity and other facilities have been improved, and 79.2% residents consider that demolition and new buildings are attributable to the tourism development, while the residents disagreeing tourism development account only for 9.6%. 53.2% residents agree that tourism development causes transportation congestion while 29.9% residents say that no impact is brought about.

The tourism development plays a weak role in improving local medical conditions, i.e.

only 52.6% community residents agree or strongly agree that the medical condition has been improved, but nearly half of the residents hold a negative view. During the interview, it is understood that although a medical emergency center is set up in Mt. Huangshan scenic zone, more attention has been paid to the tourists and staff, and as for local residents, medical treatment frequency is not high. Overall, the impact of the tourism on medical conditions for the residents in five towns is small, and local residents say that local near health stations and small hospitals are preferred for minor illness, while serious illness will be subject to the hospital respectively in Tunxi or farther places.

The tourism development brings about much weaker impact on the education, i.e. only 50.1% residents agree local education level has been enhanced, along with 29.6% residents in view of no impact. Residents say the education of primary and junior schools can be realized near the village, and those students in senior high schools still go to other districts and counties, with teaching quality of the nearest schools not high. In the moment of Mt. Huangshan tourism development, less attention has been paid by the surrounding governments to education investment for community residents. It is reflected through the survey regarding the number of training or lectures of environmental education and biodiversity conservation in the villages that 50.4% residents present that no such training or lectures are available; only 4.6% residents believe that there are many or more lectures; in the event of further detailed interview in the questionnaire with the interviewees, some villagers misunderstand the meaning of the questions, and confound the publicity words like No littering and forest and fire protection from the governments with training and lectures, while other interviewees are customary to check relevant training in the questionnaire, though they say no such training or lectures in the interview, resulting in questionnaire data distortion.



Figure 4 Trash can in Tanjiaqiao Town



Figure 5 Slogan of protecting the forest and preventing fire in Tanjiaqiao Town



Figure 6 Polluted River in Sankou Town

Photo source: shot by the survey group

Cultural impact: 70.7% villagers agree or strongly agree that the tourists and migrant workers play a role in promoting the cultural exchanges between the local and outside. In the moment of Mt. Huangshan tourism development and cultural exchanges, some festival activities are generated accordingly. In this survey, 55.1% residents agree that tourism development has increased festival activities, and enriched the life of local villagers, such as Valentine's Day activities, in Jade Valley and Cole flowers festival in Sankou Town etc. However 44.6% residents are negative on this. Mt. Huangshan tourism plays a relatively weak role in negative impact on traditional culture in five towns, where 30.7% residents believe that local folklore and traditional culture are destroyed and forgotten, and more and more residents consider that there, actually, are no special and unique folklore and customs and traditional activities in the local. The residents are limited to the perception and protection of local specialty.

Environmental impact: negative impact of Mt. Huangshan tourism development on the environment in five towns in buffer zone is mainly reflected in increasing garbages and water pollution; 75.1% residents believe that more garbages are caused in the moment of a large number of tourists; 64.2% residents consider that local water is contaminated, and the sewage not treated is discharged directly into the river, causing worse river water quality, even contaminated. And it not only affects the water environment in local towns

and villages, but also influences the downstream areas, such as Machuan River in Tanjiaqiao Town, resulting in worse water quality due to the water pollution in upstream Tangkou Town. In addition, with noise and air pollution followed, 59.4% residents agree that the noise is increased during tourism development, mainly from increasing motor vehicles on the road and road construction and building; 47.7% residents believe that the air is polluted.

Positive impact on the environment is mainly reflected in the improvement of environmental sanitation and increasing awareness of the villagers' environmental protection. 71.2% residents believe that sanitation conditions in the villages have been obviously improved, and 41.9% residents are satisfied with where they live in, which seems conflicted with the above-mentioned tourism-caused more garbages, but in fact, even though more garbages are caused due to the increasing tourists, a great improvement has been achieved in sanitation and waste disposal, etc., such as obviously more trash cans along the road with increasing population, regular garbage cleaning by sanitation workers as well as unified treatment by dedicated garbage treatment plants. 68.5% residents believe that the establishment of surrounding nature reserve plays a significant role in environmental education and biodiversity conservation, 66% residents say that there are apparently less kill of protected animals or felling of protected plants, as well as 24.7% residents present they come to know the protected wild animals and plants in the surrounding areas. The data shows that the villagers are basically satisfied with status quo of biodiversity conservation, but overall, the governments attach less importance to publicity education, and the residents themselves pay less attention to the protection of animals and plants, for example, almost no training or lectures for environmental education and biodiversity conservation have been performed in the villages and towns, while the villagers are not proactive to understand environmental protection knowledge due to busy work or play.

3.4.3 Perception of tourism engagement by community residents

71.5% residents express their willingness to engage in tourism-related jobs, 78.9%

residents are willing to take the initiative to propose the recommendations for the development of scenic zone, but only 35.3% residents say some decisions of the scenic zone incorporate our advice. Overall, most residents in five towns in buffer zone are willing to offer the suggestions for Mt. Huangshan tourism development, but the views of community residents are not often listened to in decision making of the scenic zone.

3.4.4 Tourism support from community residents

88.2% community residents are eager for tourism development, with 87.7% in view of continuous support to tourism development in Mt. Huangshan. The data indicates that five towns in buffer zone are developed and promoted due to the tourism in Mt. Huangshan, and the vast majority of residents are willing to support and hope tourism development bringing about more job opportunities and improving the infrastructure and living standards.

3.4.5 Daily life of community residents

41.9% residents are satisfied with their living environment, and it is rising prices and employment that are the greatest difficulties facing the residents in five towns in buffer zone, respectively accounted for 27.7% and 25.5%. And the data shows that the residents are highly satisfied with their living environment due to the advantages of natural environment in Mt. Huangshan along with effective measures of environmental protection from Administrative Committee and the governments in towns, but the tourism industry also leads to rising prices and increasing employment pressure.

Drinking water: as for drinking water in Tangkou village in Tangkou Town, Zhongdun village in Tanjiaqiao Town and Jiaocun, the residents reflect the water is contaminated or often cut off. But overall, drinking water in five towns in buffer zone is convenient and continuously improved, where 77.3% residents believe that drinking water is available without difficulty, while the villagers in Baiguoshu village in Sankou Town present that the water was often cut off and muddy, but it is currently solved by local government since the investment in March this year.

Street light: a big problem is reflected by the residents. 59.6% residents present there are no or failed street lights at both sides. Although street lights are installed on some roads, they are not lit all the time and maintained for a long time by relevant staff; or street lights are not lit due to less pedestrians and vehicles and power saving; in some villages, the villagers are inconvenient due to no street light in the farmland and in the front of the houses.

3.5 Summary

Tourism development in Mt. Huangshan plays a role in promoting the society and economy in the towns in buffer zone, with unbalanced radiation. Geographically, Tangkou Town strongly develops, subject to the strongest radiation from Mt. Huangshan tourism, with the tourism as its pillar industry, while tourism industry in four other towns is later, along with the agriculture still as dominant economy.

Residents strongly support tourism development, mostly willing to engage in tourism-related jobs. A view of tourism promotion for social and economic development has been deeply rooted in the minds, and the residents express high enthusiasm in tourism development, but community engagement is lower in the process of the decision-making in Mt. Huangshan scenic zone, and it is hard to effectively reflect the residents' views.

The pros and cons impacts of Mt. Huangshan tourism development are brought about on buffer zone. In the economy, the tourism industry in Mt. Huangshan enhances local economic development and increases the jobs, but also brings about rising prices and widening gap between the rich and the poor. In the society, infrastructure improvement and cultural exchange are promoted in the development of tourism industry, but it plays a weak role in effective impact on medical treatment and education. In the environment, it promotes the improvement of environmental protection awareness of local residents and appropriate environmental protection measures of the governments, and meanwhile some issues like increased garbage and water pollution are caused.

Tourism development in Mt. Huangshan improves overall infrastructure construction in buffer zone, but sewage treatment and streetlight maintenance should

still be enhanced. As the tourism industry develops, local governments make more efforts in infrastructure construction and improvement in such zone, for example, a greater infrastructural improvement, but it is required for relevant governmental departments to actively take measures regarding sewage treatment and streetlight maintenance etc.

Residents are generally aware of strong environmental protection and willing to use clean energy for environmental protection. As the tourism industry develops, local residents improve their environmental protection awareness, and positively respond and try in the followings, like wildlife protection, waste disposal and new energy utilization, but there is less specific knowledge in environmental protection, and it is still required for local governments to actively promote the practice through publicity education and other means.

4 Tourist Perception and Satisfaction

4.1 Tourist indicator monitoring

Table 30 Monitoring indicators and results of tourist satisfaction

Key topics	Indicators	Frequency	Departments	Means	Monitoring results in this survey
Tourist satisfaction level	1. Satisfaction of tourists with resources, services, overall environment and other aspects of Mt. Huangshan	1 year	Tourism office	Questionnaire sampling; interview	Tourists are highly satisfied with natural landscape and environment in Mt. Huangshan, but with more infrastructure like stone benches and toilets expected; the tourists highly evaluate cultural experience, service quality, food quality, access to tourist information as well as interpretation system.
	2.Overall satisfaction of tourists	1 year	Tourism office	Questionnaire sampling	With higher overall satisfaction, 80% tourists consider it is worthy of travelling, along with higher evaluation.
	3.Tourist perception of whether tourist experience is as	1 year	Tourism office	This project	It is not involved in this survey.

	expected				
	4.Revisit rate of tourists and willingness for recommendation	1year	Tourism office	Questionnaire sampling	82% tourists are willing to recommend Mt. Huangshan tourism to family and friends, and those willing to re-visit here are up to 62.1%.
	5.Tourist complaint rate of the Huangshan scenic zone	1year	No data obtained	This project	No tourists with complaining experience are found in the survey.
Tourist safety	6.Incidence of tourist accidents	1year	No data obtained	This project	A tourist was killed by the lightning in Lotus Peak, a tour guide said in the survey.
	7.Tourist safety perception in Mt. Huangshan	1year	Tourism office	Questionnaire sampling	Tourists are satisfied with the travelling order in Mt. Huangshan, but they consider that it is moderate in the satisfaction because of some sparse and low trails and fences, and weakly know medical treatment and accidental rescue.
Tourist education	8.Proportion of tourists participating in interpretation and	1year	Tourism office	This project	See 4.4.2 in details.

	education activities in Huangshan scenic zone				
Topical study	9.Tourist heritage value perception and national identity	2years	Project group	This project: interview	The tourists express the highest perception of aesthetic landscape values, followed by historical and scientific values, and then relatively low social spiritual values in Mt. Huangshan scenic zone; after the travelling, the tourists improve their national identity, with the ethnocentrism improved most obviously, followed by an identity enhanced from natural scenery, and then an identity from history, culture and faith.

4.2 Basic questionnaire sample

In the present survey, the questionnaires were distributed to the tourists travelling Mt. Huangshan respectively in hot spring spots on August 30 and in Mercy light pavilion on August 31 and September 1-3. Total 425 valid questionnaires were collected, on which the survey report mainly depends, in order to analyze relevant tourist monitoring indicators. Nine evaluation items in tourist satisfaction have been designed in the questionnaire, namely destination landscape, accessibility, travel information, destination environment, safety, service quality, the attitude to the locals, overall satisfaction as well as recommendations and revisiting willingness. Various evaluation items are divided into different sub-items totaling 38. Five point Likert scale has been used in indicator evaluation, i.e. "Strongly disagree", "Disagree", "Neutral", "Agree" and "Strongly agree", corresponding respectively to 1 point, 2 points, 3 points, 4 points and 5 points.

In sample-based demographic analysis, it is the tourists from Anhui Province that mainly travel in Mt. Huangshan scenic zone, followed by those from adjacent provinces and cities including Jiangsu, Zhejiang, Shanghai and Hubei. A younger trend is emerged in the tourists, where the tourists aged at 15-24 account for 32.7% while those aged at 44 reach 49.6%, and meanwhile it mainly depends on corporate employees with middle income and students with low income.

4.3 Behavioral Preferences of Tourists

4.3.1 Travel purpose and mode

As for why Mt. Huangshan scenic zone is preferred, there are 77.4% tourists for sightseeing and 48% for leisure. Among them, group tourists account for 69.6%, along with 26.8% for self-service travel. It can be seen that group tourists are still dominated in tourist composition currently in Mt. Huangshan scenic zone, mainly for sightseeing and leisure, indicating Mt. Huangshan scenic zone is a typical mass tourism destination. But the proportion of self-service travel accounts for 30%, relatively increased over previous years.

4.3.2 Experience of Xihai Valley rail cable car

Rail cable car of Xihai Valley, in the west of Mt. Huangshan scenic zone, targeted for a dream scenic zone and Xihai Valley development, were opened in July this year in Mt. Huangshan scenic zone. In 404 copies of completed questionnaires, 170 tourists presented they took rail cable car, accounting for 40%. And 155 tourists taking rail cable car agreed or strongly agreed that beautiful scenery was enjoyed in Xihai Valley.

However, in random interviews, some tourists said "The scenery is not good, and we only view both sides of the valley, and do not fantastic feelings". Most tourists did not take rail cable car, even not heard by other tourists. In the process of questionnaire completion, the author was also asked for the location of Xihai Valley; some tourists in the researcher's interpretation changed original "I took the rail cable car" into "I did not take it". It is visible that a large deviation in the perception of rail cable car is shown, and many tourists did not distinguish rail cable car and cableway, which led directly to treat rail cable car as Yuping, Yungu or Taiping cableway; the resulting proportion and evaluation were highly estimated, and therefore it is required for follow-up tracking and concern due to big data errors.

4.4 Tourist attitude and evaluation

4.4.1 Tourist evaluation of destination landscape

Tourists express high evaluation of natural scenery in Huangshan Scenic Zone, where 98.4% of the tourists agree or strongly agree beautiful natural scenery in Huangshan; the tourists recognize less Huangshan cultural connotation than natural landscape, but there are still 78.1% of the tourists agreeing or strongly agreeing rich Huangshan culture connotation.

4.4.2 Tourist evaluation of accessibility and tourist information

Transport and tourist information before and after the entry into Mt. Huangshan scenic zone bring about a greater impact on tourist experience. 70.1% tourists affirm the transport out of the scenic zone, while 72.2% tourists praise internal transportation convenience in

the zone. Meanwhile 67.0% tourists agree or strongly agree "Convenient facilities and tools are provided for different people". But nearly 30% tourists still disagree or are neutral. In an interview to the tourists, why they disagree lies in: (1) they do not know the transfer from New State Line transfer center to the gate of Mt. Huangshan scenic zone and meanwhile consider that the ticket price RMB 19 Yuan is too expensive; (2) The cableway prices in the zone are too expensive. These reasons are reflected in the following recommendations from the tourists for the scenic zone.

In the travelling, the tourists express the satisfaction at middle and above levels in information access, along with convenience and legibility of travelling line, scenic signs and attractions interpretation, where about 70% tourists hold a view of "Agree" or "Strongly agree", respectively accounting for 73%, 71.8%, 74.4%, and 67.1%. However, about 18% tourists are neutral, but they are not concerned about the signs within the scenic zone. It is found through the survey that the tourists are not satisfied with convenient access to the map and brochure, where only 54.8% tourists agree or strongly agree the accessibility. Through field observations and interviews, the reasons mainly rest with no map and brochure free of charge at the gate of Mt. Huangshan or other tourist gathering places, i.e. the tourists have to buy it themselves in the shops.

4.4.3 Tourist evaluation of destination environment

Tourists in the travelling highly evaluate the environment in Mt. Huangshan scenic zone, with satisfaction average of environment indicators about 4, indicating they are basically satisfied. However, it is ordinary in the evaluation of travelling experience, with souvenirs and food near 3, basically in a neutral state.

In the coordination between hardware facilities including landscape, toilet and facilities and the nature, a high evaluation from the tourists is obtained, with "Agree" or "Strongly agree" respectively accounting for about 80%, where 88.9% tourists consider Mt. Huangshan scenic zone is clean. However, with insufficient number, 73.2% tourists believe that it is required to increase the number of public toilets, while 79% tourists present more rest facilities are required.

4.4.4 Tourist evaluation of destination culture experience

Tourists express lower traveling experience evaluation mainly in crowding, souvenirs, food and wildlife. 41.5% tourists consider it is not crowded in Mt. Huangshan scenic zone, while 21.7% tourists feel crowded. As for local souvenirs and delicacies, only 38.2% tourists are satisfied, and 37.6% tourists spend the money; 41.6% tourists consider it is ordinary, while 37.9% tourists do not spend the money in Mt. Huangshan. Through the interviews, many tourists reflect that the food is too expensive and ordinary in Mt. Huangshan. Most tourists say, they do not see any wildlife in Mt. Huangshan. 80.9% tourists desire to see the monkeys, squirrels and other wildlife. It is particularly worth mentioning that it is scenic interpretation system that plays a promotional role in tourist sightseeing and experience, and could improve tourist satisfaction, but only 60% tourists are satisfied with the interpretation system, while 30.8% tourists are not concerned about it.

4.4.5 Tourist evaluation of scenic services

The tourists show lower evaluation of tourism service they accepted, mainly reflected in the quality of food, accommodation, scenic staff service, as well as tour guide service. **Satisfaction average of food and accommodation from the tourists is near 3, i.e. it is ordinary. Only 37.2% tourists agree or strongly agree that the food in the destination is good, while 43.8% tourists consider that it is ordinary. 40.5% tourists think the accommodation is general, while only 41.9% tourists say that it is good. In the interview, low evaluation of food and accommodation quality in the zone is mainly caused by higher prices. Tourists have evaluated service quality of staff in scenic zone, including those working in cableway, hotel and patrol management, where only 57.9% tourists agree or strongly agree the service from scenic staff is good, while 33.4% tourists consider it is ordinary. Tourists show higher evaluation of tour guide service than scenic staff, but still only 65.7% tourists agree or strongly agree that tour guides serve well.**

4.4.6 Tourist attitude to the locals

Although Mt. Huangshan scenic zone is adjacent to five towns, the tourists have less chance to contact the communities or locals, but for the staff working in scenic zone and shop owners like hotels and farmhouses. Only 37% tourists present they have more contacts with the locals, while 45.6% tourists have less contact, which is related to One-day-travelling selected by many tourists going to Mt. Huangshan who have less chances to contact with the locals. In some shops in Tangkou Town, some tourists say they have nothing to know whether the shop owner is a local or not. Therefore only 46.8% tourists consider that the locals are hospitable while 42.6% tourists hold a neutral view without any perception.

4.4.7 Tourist evaluation of destination safety

It is the most important for tourist safety in Mt. Huangshan scenic zone. The safety indicators are mainly reflected in travelling order, cableway, trail, fence as well as in-time medical treatment in accident. 72.9% tourists consider that the travelling order in Mt. Huangshan is good, while only 6.6% tourists are not satisfied. This is greatly related to the tourists received. It is slack season in the survey, so it is effective in managing travelling order; in peak season, it is much harder and important. The tourists are satisfied with cableway safety, accounting for 85%, while only 0.9% interviewees are dissatisfied. But only 67.8% tourists are satisfied with the safety of the trail and fence, while 24.7% interviewees consider the safety is general. In the interview, some tourists reflect that the fence is lower and recommended for higher height; meanwhile some tourists say it is sparse beneath the fence, and it is possible to fall off the mountain in case of an accident. Only 45.4% tourists are satisfied with in-time medical treatment and rescue, while 48% tourists are neutral because of no encountering of this accident, and no intention to understand the measures for such unexpected accidents.

4.4.8 Overall satisfaction of the tourists

80.9% tourists are satisfied with overall travelling in Mt. Huangshan scenic zone, but

the travelling-worthy proportion is reduced to 64%. Only 0.7% tourists are dissatisfied, and the proportion without travelling-worthy value accounts for 11.3%. In the survey, it is observed that the main reasons lie in higher prices in Mt. Huangshan, including ticket, cableway, food and accommodation. Besides the scenic zone, the prices in surrounding towns are considerably high, and the tourists' satisfaction is reduced accordingly.

The tourists after the travel may often be willing to recommend such destination to others or revisit Huangshan if they get a more satisfactory experience, so the tourists' willingness to revisit and recommend could be considered as the indicators of the tourist satisfaction. 82% tourists are willing to recommend Mt. Huangshan scenic zone to family and friends, while 62.1% tourists are willing to re-visit. It can be seen that the willingness to revisit and recommend Mt. Huangshan scenic zone is high.

4.5 Summary

First, the composition of the tourists visiting Huangshan is more stable, and self-service tourists show a growing trend. The survey data reflects that more tourists come from Anhui Province and neighboring provinces and cities, where young students and company employees account for large proportion. Although still subject to group tourists, self-service tourists gradually increase over previous years.

Second, the tourists are highly satisfied with natural scenery in Mt. Huangshan, but show relatively weak satisfaction in Huangshan cultural experience. This is attributable to beautiful natural environment and superior natural resource in Mt. Huangshan, but to some extent it is also related to the following factors, like natural and man-made destruction in history along with relatively weak culture.

Tourists affirm nature conservation in Mt. Huangshan scenic zone, along with the required improvement below: (1) Safety – it mainly rests with fence height and density which can not fully protect the tourists' safety; (2) Prices – higher food and accommodation; (3) Infrastructure – the tourists consider that more toilets, stone benches and other facilities are required.

Finally, regarding the evaluation of Xihai Valley rail cable car, it is found

through the questionnaire that a higher tourist experience is obtained, but it is not ideal through the interview. This is mainly due to the facts that many tourists confound the cableway with rail cable car, and then a good evaluation result is accordingly produced. Many tourists do not know Xihai Valley rail cable car which is evaluated general in the view of the experienced tourists.

5 Economic Impacts of Tourism

5.1 Indicator monitoring of economic impact of the tourism

Table 31 Monitoring indicators and results of economic impacts of the tourism

Key topics	Indicators	Frequency	Departments	Means	Monitoring results in this survey
Tourism receipts	1.Total number of tourists received by the Huangshan scenic zone	1 year	Statistics section	Regular statistics	Accumulated 3007570 tourists were received in Mt. Huangshan scenic zone in 2012, with 9.61% increased on a year-on-year basis; the operating receipts are RMB 2.030 billion Yuan, with 11.57% increased on a year-on-year basis.

2. Tourism statistics (gross tourism receipts, number of beds, number of tourists staying overnight and per capita spending, etc.)	1 year	Statistics section and relevant governmental departments in surrounding communities (Currently Tangkou Town only)	Regular statistics	There were 4278 beds on the mountain in 2012, with 180 rooms and 360 beds in Xihai hotel increased in 2013. Huangshan Group Company gained more than RMB 2.01760 billion Yuan in 2011, with 9.82% increased on a year-on-year basis. In 2012, there were 230 hotels, 250 farmhouses and about 18000 beds in Tangkou Town.
3. Number of tourists received by surrounding low-altitude attractions	1 year	Relevant governmental departments in surrounding communities and district tourism committee	Regular statistics	See Table 11 in 3.2.3 in details.

	4. Tourism statistics of surrounding low-altitude attractions	1 year	Relevant governmental departments in surrounding communities and district tourism committee	Regular statistics	See Table 11 in 3.2.3 in details.
Seasonality of Tourism	5. Tourist ratio in busy months to slack months	1 year	Group and section	Company Statistics data in this project	In 2011, the number of tourists received by Mt. Huangshan scenic zone in the busy season accounted for 79.41% of all tourists of the year, and the ratio of the number of tourists in the busiest month (October) to that in the slackest month (January) was 4.02.

Tourism impact on the employment	6. Job opportunities created by tourism	3 years	Statistics section	This project: questionnaire sampling;	No update. There are 2299 employees in the stock company in the zone, where there are 2245 regular employees and 54 seasonal employees. There are about 967 local employees in Tangkou Town (278 in scenic zone, 1191 in Huangshan District approximately). The male-female proportion is as follows: 50.7% male and 49.3% female
Tourist spending	7. Spending proportion composition in Eating, living, travel, tourism, shopping and	1 year	Project group	This project: questionnaire sampling; statistical data	It is difficult to acquire the data in this survey and recommended for indirect collection from statistical data in next survey.
Economic driving role of tourism	(Topical study)	3 years	Project group	Topical study	It is not involved in this survey.

Source: Sorting by collected survey data

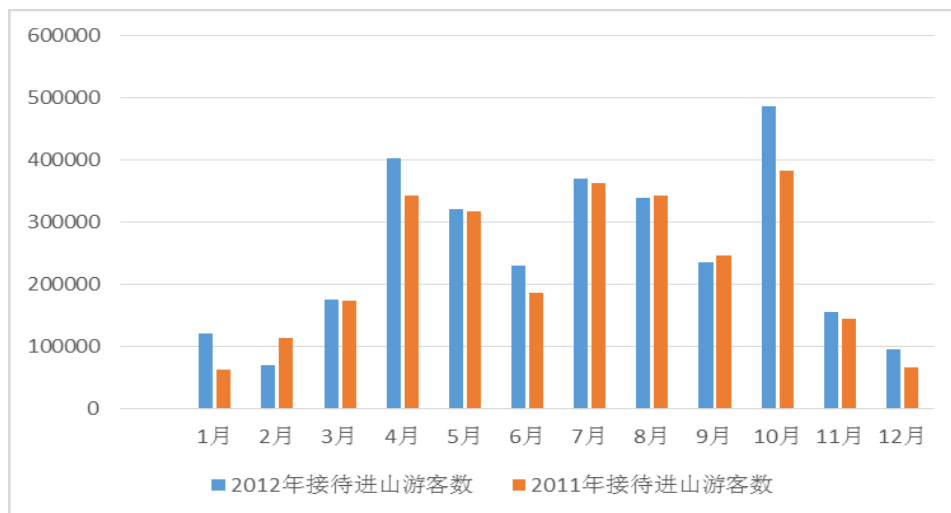
5.2 Overview

5.2.1 Tourism receipts

According to the monitoring data this year, Mt. Huangshan scenic zone received 3007570 tourists in 2012, with 9.61% increased on a year-on-year basis; operating income of Huangshan Tourism Development Co., Ltd. exceeded RMB 2.01760 billion Yuan in 2012, with 9.82% increased on a year-on-year basis. Tourists received and tourism receipts in surrounding low-mountain attractions are shown in Table 11 in Section 3.2.3 in details:

5.2.2 Seasonality of Tourism

The number of tourists received by Mt. Huangshan scenic zone varies seasonally. The busy season lasts long, with the number of tourists remaining at high levels from April to October (7 months in total), and relatively low from November to next March (5 months in total). In 2012, the number of tourists received by Mt. Huangshan scenic zone in the busy season accounted for 79.41% of all tourists of the year, and the ratio of the number of tourists in the busiest month (October) to that in the slackest month (January) was 4.02.



2012 tourists received 2011 tourists received

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

Figure 7 Distribution of tourists quantity received by Mt. Huangshan Scenic Zone in 2011-2012

6 Organization and Management

6.1 Results in scientific protection of resources and environment

Governing body of Mt. Huangshan Scenic Zone can be traced back to “Huangshan Construction Committee” (HSAC), initiated and established Xu Shiyong, the former Prime Minister of Republic of China in 1931-1934 for the purpose of “Protect resources and environment, develop tourism economy, and brighten famous scenic site” to create a "National Park" management model.

In 1982, Mt. Huangshan Scenic Zone first started the preparation of “Master plan of scenic spots” in China; in 1989, Anhui Provincial People's Congress promulgated “Regulations of Mt. Huangshan Scenic Zone”, an earliest legislation in China on protection and management of scenic spots.

In 1998, the 22nd special session of the World Heritage Committee said “Huangshan is an outstanding scenic spot, a well-managed heritage site, and an Asian demonstration under excellent management with a complex scenic spot visited by a large number of tourists. Mt. Huangshan Scenic Zone Administrative Committee was awarded “Advanced unit of protection and management of world heritage site in China” by Ministry of Housing and Urban-Rural Development of PRC, State Administration of Cultural Heritage and China National Commission for UNESCO.

In 1999, HSAC has been first prized with “Honorable Mention of cultural landscape protection and management” by UNESCO in Asia.

In 2001, Mt. Huangshan was named as “National Geopark” by the Ministry of Land and Resources of PRC. In 2004, Mt. Huangshan became the first batch of Global Geoparks Network members of UNESCO.

In 2005, “Master plan of Mt. Huangshan Scenic Zone (2007-2025)” was prepared by the commissioned Tsinghua University and refined the concept of sustainable development: 1) to balance scientific conservation and sustainable development; 2) to focus on public education and tourist experience; 3) to co-ordinate orderly development inside and outside scenic zone; 4) to show the feature and culture; and 5) to deal with theory forward-looking

and realistic operation well.

In late 2006, Mt. Huangshan was named as “ISO14000 National Demonstration Zone” by the State Environmental Protection Administration.

In 2007, Mt. Huangshan was titled as “Top ten scenic zones with best resources conservation” appraised by the Management Office of National Park of China.

In 2012, Mt. Huangshan was awarded “National tourism standardization demonstrative unit” by All-China Environment Federation and China Tourist Attractions Association.

In recent years, Mt. Huangshan Scenic Zone Administrative Committee (HSAC) has conducted a series of exploration around systematic strategy, lean management, people-oriented services, and digitization support:

(1) “Sightseeing on mountains and living at the foot” was promoted; best and maximum capacity of tourists received were reasonably identified per day; “Winter tour” was promoted for coordinated development of seasonal tourism; product line management was carried out and “prediction/reservation/warning” mechanism was used for “tourist capacity control in peak and low seasons” in holiday travel. The followings, such as “Specifications of enclosed rotation retirement in scenic zone”, “Specifications of conservation of famous ancient trees” and other standards, led to prepare by HSAC, have become provincial standards; “Requirements of trail construction in scenic zone” and “Scenic environment cleaning requirements” were applying for national industry standards. A “Special action to prevent pine wilt disease” was launched, with “Biological isolation belt”, 100 km long and 4 km wide, constructed. A research project “Huangshan biodiversity conservation” (the project was totally invested for \$ 13 million, with survey and research of local animal and plant resources in the range of more than 9,800 square kilometers in Huangshan City).

(2) Cooperative with national ministries, the following projects, like “Digital demonstration base of national scenic areas” (China Landscape and Historic Sites Association/Chinese Institute of Electronics), “National tourism standardization demonstrative unit” (National Tourism Administration), “National low-carbon tourism

demonstrative area” (All-China Environment Federation/ China Tourist Attractions Association), “National demonstration area of tourism-related meteorological services” (China Meteorological Administration), and “Huangshan base of national tourism-related safety and emergency rescue” (State Administration of Work Safety / National Tourism Administration), have been launched in succession.

(3) Educational functions from Huangshan Heritage Museum, Geological Museum, Huangshan Painting and Calligraphy Institute and Tourist Center would be further improved in order to systematically demonstrate Huangshan natural and human resources, sustainable development course, along with management guidelines and requirements of scenic zone.

(4) Partnered with more than 30 media, sustainable development was promoted to the public widely; public service ads “Quality travel – together with you” was shot in conjunction with National Tourism Administration and China Central Television; Huangshan joint declaration “Green living - low-carbon development” was published together with more than 20 well-known scenic spots in China.

(5) Cooperation relationship with more than 20 well-known universities and research institutions has been deepened: “Huangshan base for the research of tourism sustainable development & mobile postdoctoral center of Nanjing University”, and “Sun Yat-sen University Huangshan Tourism Research Base” have been co-founded; well-known experts have been hired as “chief scientists” of Huangshan resources protection and environmental management.

6.2 Honors and social recognition

In 1979, Deng Xiaoping, Chinese leader, visited Huangshan and published his famous “Huangshan talks”, which opened a prelude to the reform and opening up of China tourism industry, and then Huangshan became the “beginning” of reform and opening up of China tourism industry.

In 1982, the State Council examined and released Mt. Huangshan as the first batch of “National Park of China”.

In 1985, in public appraisal of “top ten scenic zones in China” organized by *China Tourism News*, Mt. Huangshan stood out from more than 600 candidates, the only mountain scenic spot. In 2007, Mt. Huangshan was appraised as “Top ten most popular scenic zones in China” by the Management Office of National Park of China.

In 1990, Mt. Huangshan was included in the list of "World Cultural and Natural Heritage" of UNESCO, the 17th "mixed heritage" site in the globe.

In 1996, “Huangshan Tourism” was listed (China's first “Total factor tourism concept stock”); “Huangshan Tourism” was prized as a well-known trademark in China.

In 2005, Mt. Huangshan appraised as "Top ten most beautiful mountains in China” by *Chinese National Geography* and 30 national media.

In 2007, Ministry of Human Resources and Social Security of the People's Republic of China and National Tourism Administration awarded “Advanced collective of National Tourism System” to Mt. Huangshan Scenic Zone Administrative Committee. In the same year, Mt. Huangshan was ranked as the first batch of 5A tourist attractions in China by National Committee of Quality Rating for Tourist Attractions.

In 2010, Mt. Huangshan Scenic Zone Administrative Committee has been first prized with “Global Destination Management Award” by WTTC in Asia. In the same year, Huangshan Tourism Development Co., Ltd. joined WTTC, the third member in China.

In 2010, Mt. Huangshan was named a demonstration zone of "Tourism-themed Experience Tour of Shanghai World Expo in Yangtze River Delta". In the same year, Mt. Huangshan was ranked in top three during the appraisal of “Top ten best tourist destinations in China” (city (s)/scenic zone(s)) by Ctrip and other industry bodies.

In 2011, recommended by All-China Environment Federation and China Landscape and Historic Sites Association, Mt. Huangshan Scenic Zone Administrative Committee joined International Union for Conservation of Nature and Natural Resources, the first Chinese tourist attractions and first heritage site in this international organization.

In 2012, Huangshan Tourism Development Co., Ltd. was awarded first batch of "National tourism standardization demonstration unit”.

In 2012, Huangshan Geopark was affirmed by UNESCO.

6.3 International exchange and cooperation

HSAC not only insists on “green” development, but also focuses on opening-up development and strengthens international exchange and cooperation, around the objectives of “Take on historic mission, and protect world natural and cultural heritage sites; seize the opportunities of the times and build a world-class destination”.

HSAC has concluded friendly relationships with Swiss Jungfrau (2002), Yosemite National Park in the United States (2006), Petrified Forest of Lesvos-Greece (2008), and Whale Watch Kaikoura (2011) successively; Recently, HSAC will conclude as a friendly park with Banff National Park; in addition, the link with Yellowstone National Park as well as well-known parks and world heritage sites in Australia, Russia, Brazil and other countries or regions is accelerating).

Since March 2008, HSAC has cooperated with international organizations including GSTC / UNWTO / UNEP / UNF (Global Sustainable Tourism Council, United Nations World Tourism Organization, United Nations Environment Programme, and United Nations Foundation) to promote the construction of (Huangshan) observation area for sustainable tourism development of World Heritage Sites (first in the world). And HSAC constructed, under the cooperation with the said international organizations, “Standard (Huangshan) experimental zone of sustainable tourism in global destinations” (first batch in the world) in 2012. HSAC has been first prized with “Honorable Mention of cultural landscape protection and management” by UNESCO in Asia (2000) and “Global Destination Management Award” by WTTC (2010). In the celebration of the 60th anniversary of Pacific Asia Travel Association (PATA) in 2011, HSAC elaborated the concept and connotation of “Good tourism” (friendly travel and tour), promoted by PATA (referred and innovatively developed by UNESCO).

In order to implement “Millennium Development Goals” by the United Nations, HSAC was, as the only Asian representative in the industry, involved in the drafting and formulation of “Global Sustainable Tourism Destination Criteria” (GSTC-D) which was officially released in 2012; in the same year, HSAC drafted and formulated basic framework of the standards of “scenic” world excellent destinations modeled on

Huangshan, China, cooperative with World Centre of Excellence for Destinations (CED). HSAC will, in the future, continue to adhere to the duty and mission of “Protection first, development-driven; management-innovated, Huangshan harmony”, and then steadily be committed to “four-in-one” vision and practice for “minimal environmental impact, maximize economic output, optimized social impact and best tour experience”.

6.4 Tourism marketing program

Table 16 lists Huangshan tourism marketing programs in three years, i.e. in 2011, 2012 and 2013, and compared with 2011-2013 marketing programs, two themes and three markets in tourism marketing are basically maintained in three years; the objectives and tasks of annual number of tourists received are growing year by year, and specific policy measures will be timely adjusted and innovated according to external environment and internal requirements of tourism development. For example, change opportunity of post-Expo tourism hotspots proposed in 2011; “Four Seasons theme activities” launched on the basis of “China Happy and Healthy Tour” specified by National Tourism Administration in 2012; focus on high-speed rail and self-driving tourism markets. And during these three years, online marketing has always been key to Mt. Huangshan tourism marketing.

Table 32 Mt. Huangshan tourism marketing program

	Marketing program
2011	"One objective": 2.6 million tourists going to Mt. Huangshan in 2011 "Two themes": “No mountain but Mt. Huangshan” in domestic market; “A fairyland in Mt. Huangshan in China” in overseas market "Three markets": traditional, emerging and inbound markets "Four keys": air charter tour and special train, online marketing, branch expansion, as well as change opportunity of post-Expo tourism hotspots "Five combinations": "old and new", "inside and outside", "far and near", "long and short", as well as "large and small"

2012	"One objective": 2.8 million tourists going to Mt. Huangshan in 2012 "Two themes": "All beautiful sceneries in Mt. Huangshan in China" in domestic market; "A fairyland in Mt. Huangshan in China" in overseas market "Three markets": highlighted sceneries in and focus on and domestic market, along with overseas market expansion "Four Seasons theme activities": Happy outing in Spring; Sunstroke prevention and recreation in Summer; Enjoyment and exploring in Autumn; A fairyland in Winter "Five idea changes" "Six priorities": consolidate and enhance tourism popularization (community, campus and company), comprehensively deepen online marketing, actively promote special flight and train, steadily implement branch expansion, perform the promotion in certain periods, as well as vigorously carry out overall linkage
2013	"One objective": 3.1 million tourists going to Mt. Huangshan in 2013 "Two themes": "No mountain experience but Mt. Huangshan" in domestic market; "A fairyland in Mt. Huangshan in China" in overseas market "Three markets": traditional, emerging and inbound markets "Seven steps" Five "new policies": self-driving guide, large conference team preference, promotion in Russian market, fixed deductible consumption, as well as pricing policy of sightseeing cableway in Xihai

Source: Marketing Center of Huangshan Tourism Development Co., Ltd.

6.5 Communication between scenic zone and the community

Since 2010, the cadres have been dispatched mutually between Mt. Huangshan Scenic Zone Administrative Committee and surrounding townships for temporary service

in consecutive three months or two years for the purpose of mutual communication and cooperation. From February 2010 to March 2014, section-level or mechanism cadres in 5 person-times have been selected and dispatched by Administrative Committee to serve in surrounding villages. Mutual dispatching in 13 person-times has been performed in 2011 and 2012, and From September to November 2011, Administrative Committee dispatched 3 section-level cadres to act as alcalde assistants of Tanjiaqiao Town and Jiaocun Town and deputy director in Tangkou branch, Huangshan District Bureau of City Administration and Law Enforcement, and then received 3 township cadres in Huangshan District, i.e. deputy head of Emergency Rescue Brigade under HSAC Comprehensive Enforcement Bureau, deputy director of Planning Management Office, Land Planning Division, Administrative Committee, as well as deputy director general of Traffic Management Bureau in Mt. Huangshan scenic zone; from September to November 2013, Administrative Committee dispatched 3 cadres to act as alcalde assistants of Sankou, Gengcheng and Jiaocun Towns, and then received 4 township cadres in Huangshan District, i.e. project manager of investment department under Huangshan Tourism Development Co., Ltd, office director assistant of HSAC Politics Division, director assistant of Fusong management zone, HSAC Bureau of Landscaping, as well as director assistant of Tourism Management Office, HSAC Economic Development Bureau.

In addition, in order to enhance fire safety management in Mt. Huangshan scenic zone and awareness of fire safety for surrounding villager and tourists, a series of measures have been taken under the cooperation of Mt. Huangshan scenic zone and surrounding towns and villages, and Table 17 shows basic introduction to fire prevention linkage between Mt. Huangshan scenic zone and surrounding places in 2012.

Table 33 Fire prevention linkage between Mt. Huangshan scenic zone and surrounding places in 2012

Measures	Specific contents
1.Joint fire prevention publicity	The followings, such as audio broadcasting of mobile louder speaker for fire prevention, notice posting and leaflet distribution, have been employed.
2.Joint tour pal manageme nt	Concentrated rectification to the personnel in six categories including tour pal has been performed, with 226 person-times in 27 batches of tour pal and others going to the mountain in violation of scenic zone regulations in the whole year, and 164 person-times in 12 batches investigated and treated legally.
3.Fire prevention linkage in temple fairs	During temple fairs in Fairy Cave in Fuzi Mountain in Sankou Town and Cuiwei Temple, the staff of fire prevention office and personnel from surrounding towns and villages performed the supervision of fire prevention safety, distributed the materials of fire prevention to the pilgrims walking to the mountain as well as required the stationed fire prevention staff for the patrolling.
4.Assessme nt of fire prevention linkage	Mt. Huangshan Scenic Zone Administrative Committee and Huangshan District government have carried out regular fire prevention examination and supervision in surrounding five towns and one farm (Tangkou, Tanjiaqiao, Sankou, Gengcheng and Jiaocun Towns, and Yanghu Forest Farm in Huangshan District), 15 administrative villages, 3 forest police stations as well as 3 quarantine and inspection stations, held working meetings regarding fire prevention linkage as well as established, improved and promptly implemented incentive mechanisms with the subsidies substituted by the rewards.
5.Construct ion of bio-forest	In April 2012, the construction of fire prevention forest belt in Jiaocun, Sankou and Tangkou Towns were completed, with actual investment of RMB 340000 Yuan, totaling about 1,000 mu, including 400 mu bamboo

belt	and 600 camellia oleifera forest. On August 21, the engineering project of four resource conservation and management stations around scenic zone has been accepted.
6.Subsidies for fire prevention roads	Mt. Huangshan scenic zone, based on the survey in 2012, provided the subsidies of RMB 100000 Yuan per fire escape respectively in Xinhong village in Tanjiaqiao Town, Yanghu Forest Farm and Gangcun in Tangkou Town.
7.Construction of fire prevention storage around scenic zone	The scenic zone has made an investment in newly building 25 small fire prevention storages at the entrance towards the mountain in surrounding towns and villages, which was completed and accepted in September 2011.

Source: fire prevention office under Bureau of Landscaping

7 Conclusions and suggestions

7.1 Further enhancement of tourists' experience

With current high satisfaction from the tourists, Mt. Huangshan scenic zone has made unremitting efforts in the enhancement of tourists' satisfaction which are fruitful, but it is also reflected through the tourists' evaluation that it is required for Mt. Huangshan scenic zone to continuously work hard in some areas to further enhance the tourists' experience.

The results show that the market of the tourists visiting Huangshan is relatively fixed and that most tourists express high evaluation of tourism resources in Huangshan. Overall, the tourists are more satisfied with their travel experience, where more than half of the tourists present the willingness to re-visit or recommend. As for newly opened Xihai Valley rail cable car in July, about 40% tourists took it, some of which highly affirmed it in the survey.

But the tourists express low satisfaction in transport accessibility to Mt. Huangshan scenic zone, interpretation system and quality of food and accommodation within the zone, and believe that it is much expensive in transfer transport and cableway prices, so they are not satisfied. For interpretation system, the tourists mainly focus on road instruction and direction signs, with less concern about scientific interpretation function of the landscape; on one hand, it is required to further improve road signs, scenic zone maps and others, for example, the maps free of charge, clear and legible road signs as well as information guidance of transport transfer to the tourists; on the other hand, attention shall be paid to the fun and education of interpretative signs in the zone. The tourists' evaluation in the services is very low, especially in the quality of food and accommodation within the zone, mainly due to the tourists' reflection of higher food and accommodation prices which affect overall evaluation of price/performance ratio for food and accommodation, so it is required to further improve basic service functions including food, shopping and accommodation. The survey also reflects less contact between the tourists and locals, and except for sightseeing tourism, it is single in other experience activities in the local, and therefore it is required to further enrich the tourists' travelling experience.

7.2 Strengthening of publicity and education on heritage values

The results show that the tourists express the highest perception of aesthetic landscape values, followed by historical and scientific values, and then relatively low social spiritual values in Mt. Huangshan scenic zone. Mt. Huangshan, as a natural and cultural heritage site, possesses a wide range of values, and most of mass tourists only visit and understand special natural landscape and topography in Mt. Huangshan, but they have less perception in precious animals and plants, Huangshan-related cultural values as well as the contact with the locals, so it is required for Mt. Huangshan scenic zone to further perform the protection and repair of relevant historical relics, protect its precious flora and fauna, and then increase the publicity and education to the tourists, enabling more local people to participate in heritage protection and demonstration, so that more tourists can have a better understanding of culture feature, local customs, and plant and animal resources in Mt. Huangshan, and meanwhile make the locals enhance the identity and sense of belonging for heritage site in Mt. Huangshan.

The vast majority of tourists after the tour improve their national pride, also showing that a travelling in Mt. Huangshan can be treated as the means to enhance patriotism spirit and national cohesion. However, for the following reason reflected by some tourists like high prices, pure leisure and entertainment along with representative limitations in Mt. Huangshan, it is required for Mt. Huangshan scenic zone to lower access standard and enhance the protection and demonstration of national parks in the future to allow more people to access the scenic zone better. In the travelling, attention shall be also paid to the edutainment and the increase of educational significance of national park in the moment of the leisure and entertainment.

7.3 Co-ordination and planning of common development in surrounding communities

Community engagement is an effective way to plan common development of the community. Mt. Huangshan scenic zone should, closely linked with the surrounding

community, focus on the development of core attractions, but not ignore sustainable development of the surrounding communities. In this survey, the analysis and comparison in economic, social, cultural, environmental and the residents' attitudes have been performed with respect to the impact of Mt. Huangshan tourism development on the five towns, namely Tangkou, Tanjiaqiao, Sankou, Gengcheng and Jiaocun Towns, which provides the basis for additional community engagement in the future. The discussion of Jade Valley case in typical study II plays a successful reference role in surrounding community engagement in tourism development in Mt. Huangshan scenic zone.

The survey results show that the impact on other communities surrounding Mt. Huangshan varies due to different geographic locations, traffic conditions and other objective reasons in the radiation of tourism development, where Tangkou Town features the highest tourism development due to its advantageous geographical location, the largest influence from Mt. Huangshan tourism development including positive impact such as increased employment opportunities and incomes, along with the improvement of infrastructure and housing, and negative impact such as rising prices and widened gap between the rich and the poor in the economy and more garbages and aggravated pollution. Sankou Town is weakest impacted by the tourism radiation due to its location and traffic conditions.

Overall, the vast majority of residents recognize positive role from tourism development, and are willing to support tourism development and propose plans the development of scenic zone, but for most people, they have smallest voice on scenic zone development and growth, with single engagement; Mt. Huangshan scenic zone provides limited jobs for the villagers, and it is the farming that is the main job in most communities, and therefore limited interaction between Mt. Huangshan scenic zone and surrounding communities occurs. In the future, Mt. Huangshan scenic zone should pay more attention to the engagement of surrounding communities, and interaction between Mt. Huangshan scenic zone and surrounding communities to promote sustainable development.

7.4 Continuous concern about the impact of Xihai Valley rail cable car

Xihai Valley rail cable car was opened on July 9, 2013, and the monitoring this year shows that the opening of Xihai Valley rail cable car shortens the travelling time, provides the transport convenience, expands travelling space as well as enrich travelling content for the tourists; Xihai Valley rail cable car diverts more tourists to Xihai Valley scenic spots, which, to a certain extent, plays a role of diverting the tourists and expanding the capacity of Mt. Huangshan scenic zone. But an objective, i.e. to open the West Gate of Mt. Huangshan, and promote ordered flow of the tourists among the West Gate, North Gate and South Gate of Mt. Huangshan, is not realized, and it is limited in driving Jiaocun Town at the West Gate and Gengcun Town at the North Gate. Of course, it is required for follow-up monitoring with respect to the tourists' experience and driving impact on surrounding communities because rail cable car is just opened.

8. Typical study

Study I Heritage values and national identity

1 Background

With outstanding universal value for world heritage, it can, as a business card towards the globe, enhance our image and status; internally, it can trigger the resonance and enhance the cohesion. In 1990, Huangshan was named as the cultural and natural heritage, in line with (ii) (iii) (iv) in the World Heritage rating standards, that is, "To provide unique witness for traditional Chinese culture", "To possess natural scenery unable to be reproduced" and "To act as typical example of the evolution and development process of the flora and fauna". As a famous cultural and natural heritage site and World Geopark in China, Mt. Huangshan scenic zone features many values, with its impact is not limited to landscape aesthetic aspects, but also contains a deeper sense of national identity and pride; and the tourists' perception of Huangshan values will, to some extent, also affect their identity perception after visiting Mt. Huangshan, and thus it may be treated as a way to enhance national identity and pride to complement mutually with other traditional means of patriotic education, rather than single traveling and leisure. From this, the followings like the protection, tourism development and sustainable development in Mt. Huangshan scenic zone will become more important.

Based on rating standards of world heritage values and previous monitoring results, and combined with the characteristics of Mt. Huangshan itself, a scale of Huangshan heritage values has been developed accordingly, divided into five dimensions, i.e. aesthetic, scientific, historical, social and spiritual values, which are sub-divided into 16 sub-items. In terms of previous measuring in national identity, combined with the features of Mt. Huangshan scenic zone, an identity scale has been designed, including historical background, cultural beliefs, natural landscape and ethnocentrism, which includes 15 sub-items. Five point Likert scale has been used in questionnaire design, i.e. the 1-5 items will be provided to the tourists for scoring, i.e. "Strongly disagree", "Disagree", "Neutral", "Agree" and "Strongly agree", corresponding to the point(s), 1, 2, 3, 4 and 5.

Questionnaire will be distributed together with tourist satisfaction questionnaire, with 425 valid questionnaires collected, and the tourists' perception of heritage value and national identity will be measured through statistical analysis of collected questionnaires.

Table 1 Monitoring indicators of heritage value and national identity

Key topics	Contents	Indicators	Frequency	Means	Monitoring results in this survey
Heritage value	Tourist perception of heritage value in Mt. Huangshan	Aesthetic value Scientific value Historical value Social value Spiritual value	First monitoring	Questionnaire sampling supported by interview	The tourists express the highest perception of landscape values, followed by historical and scientific values, and then low social and spiritual values in Mt. Huangshan scenic zone
National identity	Impact on the tourists' national identity after visiting Mt. Huangshan	Historical background Cultural beliefs Natural landscape Ethnocentrism	First monitoring	Questionnaire sampling supported by interview	After visiting Mt. Huangshan, the scale reflects the tourists' national identity has been greatly improved, but there are some exceptions in the interview.

2 Heritage value

2.1 Huangshan value composition

A measuring scale of Mt. Huangshan heritage value has been developed, with reference to relevant research of heritage value, world heritage registration standards and international conventions, combined with specific features of Mt. Huangshan. Five

heritage values specified in the Burra Charter⁵, namely aesthetic, scientific, historical, social and spiritual, are referred, combined with the standards in the world's natural and cultural heritage convention.

Aesthetic value mainly refers to unique and beautiful natural landscape. In terms of aesthetic value, Mt. Huangshan is well known due to its famous peak, picturesque rocks, legendary pines, the sea of clouds and hot springs at home and abroad, also known as Five Huangshan greats, and "The most fantastic Huangshan in the world" with magnificent beauty and higher aesthetic value.

Scientific value mainly refers to the biodiversity, functioning scientific expedition, research and education. In terms of scientific value, there are 8 Class II and 13 Class III national protected plants for now, and then many famous ancient trees like ancient pines, ginkgo biloba, *Tsuga chinensis* and East China *Pseudotsuga menziesii*. There are 6 Class I (2 birds and 4 animals) 26 Class II national protected animals in Mt. Huangshan.⁶

Social value mainly refers to traditional unique culture and customs. In terms of social value, there are a large number of intangible cultural heritage, such as related myths and legends, Huangshan painting school, poem, classical Chinese writing, travel notes and prose, couplets as well as historical events etc. A museum in Mt. Huangshan has been established for the collection, display and protection.

Historical value mainly refers to change witness of the nature and human society and culture. In terms of historical value, there are more than 290 cliff stone inscriptions left, together with 148 ancient buildings including ancient roads, stone bridges, stone rooms, ancient temples and pavilions as well as tombs.⁷

Spiritual value mainly refers to the increased sense of belonging of the locals, and spiritual beliefs and sustenance are given to the landscape itself. In terms of spiritual value, the value carried by Mt. Huangshan is beyond its physical form.

⁵ Source: [www.icomos.org/australia/ Burra Charter](http://www.icomos.org/australia/Burra%20Charter)

⁶ Reference: *Mt. Huangshan annals*

⁷ The same as 4

2.2 Component analysis

SPSS software is used for component analysis, with 16 sub-items classified into three components, where historical and scientific values are combined into historical scientific value; social and spiritual values are included in a class, i.e. social spiritual value; and aesthetic value is unchanged, renamed as aesthetic landscape value.

Table 2 Component Matrix after value dimension rotation

Component name	Sub-item	1	2	3
Historical scientific value	Witnessing the changes of human society	.823	.241	.096
	Unique historical relics	.715	.362	.079
	Worthy of scientific investigation	.705	.224	.212
	Unique landscape paintings and poems in China	.702	.302	.062
	Experience of The earth's major evolution	.684	.165	.237
	Diversity of animals and plants	.628	.200	.317
	Special legends and stories	.590	.470	.078
	Endangered animals and plants	.553	.340	.177
	Featured buildings on the mountain	.420	.365	.360
Social spiritual value	Religious	.168	.820	.004
	Strong belongingness of the locals	.256	.778	.088
	Local folk customs	.290	.739	.137

	National spirit sustenance	.323	.732	.158
	Harmonious between the human beings and nature	.406	.618	.078
Aesthetic landscape value	Distinctive geomorphologic landscape	.201	.086	.905
	Beautiful natural scenery	.187	.080	.901

2.3 Tourist perception of heritage values

The tourists express the highest perception of aesthetic landscape values, followed by historical and scientific values, and then relatively low social spiritual values in Mt. Huangshan scenic zone. Except for standard deviation of religious item greater than 1, other items are less than 1, indicating the recognition of these items is relatively concentrated. See the table below for the indicators of tourist perception of Huangshan heritage values in details.

The tourists express the highest perception of aesthetic landscape values, and in the interview, the tourists' present major purpose of beautiful scenery in Mt. Huangshan. 97.4% tourists agree or strongly agree with "Distinctive geomorphologic landscape" in Mt. Huangshan while 96.9% interviewees agree or strongly agree with "Beautiful natural scenery", both of which are ranked top two in the average of 16 sub-items.

Tourists show higher perception of historical scientific value, where 78.9% tourists agree or strongly agree with "Experience of The earth's major evolution" while 76.7% interviewees agree or strongly agree with "Worthy of scientific investigation" due to higher investigation value, but the tourists, in a relatively lower form, perceive the value of the fauna and flora. The tourists affirm highly the accumulated ancient landscape paintings, poems, legends, stories and others, where 78.1% tourists agree or strongly agree with the value of Mt. Huangshan in paintings, poems etc., while 75.3% interviewees agree or strongly agree with "Special legends and stories". The perception in historical buildings, relics and witnessed historical changes is relatively lower, and the tourists say "It is not so strong in the culture as expected", "Almost I did not see any

temple, the only one is changed into the tourist center and Cliff stone inscriptions are not found”.

It is the lowest perception in social spiritual value, and the tourists recognize “Harmonious between the human beings and nature”, where 81.2% tourists agree or strongly agree with this statement, but only 69.2% tourists agree or strongly agree with “National spirit sustenance”, and the values in contact between Mt. Huangshan and locals, for example, social value like “Local folk customs” and “Strong belongingness of the locals”, are lower perceived. The biggest difference occurs in “Religious”, and 57% tourists hold a neutral or unfavorable attitude, mainly because, although Buddhism and Taoism with respective temples prevailed in Mt. Huangshan, religious activities gradually declined, and the followings like war damage, economic difficulties, fire and water disasters etc. also made religious buildings and activities less, even disappeared, resulting in less perception of religious atmosphere in Mt. Huangshan.

Table 3 Tourist perception of heritage values in Mt. Huangshan

Component name	Sub-item	Average	Average ranking	Standard deviation	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
				Unit: %					
Historical scientific value	Experience of The earth's major evolution	4.1694	4	0.838	0	0.2	20.2	38.4	40.5
	Unique landscape paintings and poems in China	4.1318	5	0.886	0.5	1.4	19.3	38.6	39.5
	Worthy of scientific investigation	4.1224	6	0.821	0.2	1.9	21.2	38.8	37.9
	Special legends and stories	4.1059	7	0.861	0.2	2.1	22.1	36.7	38.6
	Featured buildings on the mountain	4.0776	8	0.912	0.5	1.9	27.5	29.2	40.9

	Unique historical relics	4.0682	9	0.876	0.2	2.6	23.5	36.2	37.2
	Witnessing the changes of human society	3.9812	12	0.906	0.2	2.4	28.7	34.1	34.1
	Diversity of animals and plants	3.9200	13	0.997	0.7	5.6	28.0	29.9	35.3
	Endangered animals and plants	3.6800	15	0.984	0.7	8.2	38.1	27.1	25.6
	Component average	4.0285							
Social spiritual value	Harmonious between the human beings and nature	4.1741	3	0.788	0	1.4	17.2	42.8	38.4
	National spirit sustenance	3.9906	10	0.898	0.9	2.6	27.3	34.8	34.4
	Local folk customs	3.8565	14	0.929	0.5	4.7	32.0	33.2	29.4
	Strong belongingness of the locals	3.8400	15	0.889	0.5	3.5	35.3	32.9	27.8
	Religious	3.4635	16	1.030	2.4	12.7	41.9	22.4	20.7
	Component average	3.8649							
Aesthetic landscape value	Distinctive geomorphologic landscape	4.6047	1	0.557	0	0.5	2.1	33.9	63.5
	Beautiful natural scenery	4.5929	2	0.596	0.2	0.7	2.1	33.4	63.5
	Component average	4.5988							

3 National identity

3.1 National identity composition

With less measurement scales about national identity, the current ones are based primarily on NATID scale proposed by a scholar Keillor in 1996, combined with the

situation in Mt. Huangshan.⁸ The scale includes national heritage, believe system, cultural homogeneity, ethnocentrism etc., where national heritage mainly refers to historical role in national identity, such as historical figures and events and unique historical background; cultural homogeneity mainly focuses on the uniqueness of the culture; believe system includes religious belief in the national range; the ethnocentrism is in favor of the superiority of the consumers, i.e. to prefer the products made in their own country, rather than those made in other countries.

Original sub-items are employed in national heritage dimension about Mt. Huangshan, i.e. the sub-items including long history, historical sites and historical background are renamed as historical value; the beliefs are relatively similar to cultural factors, thus combined together as cultural beliefs, including unique culture, thinking, inheritance necessity; the ethnocentrism are originally based on marketing discipline, product-oriented and emphasizing the superiority of the consumers, which now is changed into “tourism destination oriented and emphasizing the ethnocentrism experienced in the travelling” along with Huangshan pride, national pride, world heritage necessity, external display of World Heritage and others; combined with Huangshan features, additional dimension of natural landscape are included, i.e. natural scenery, the way to enjoy natural scenery, why to enjoy and other sub-items, specifically shown in the table below.

Table 4 Measurement dimension of national identity

Dimension	Sub-item
Historical value	I appreciate more about our long and unique history through this travel in MT. Huangshan
	I consider more and thick history in our country through this travel in MT. Huangshan
	I prefer more that Chinese people share the same historical background through this travel in MT. Huangshan
Cultural	I appreciate more about our matchless culture through this travel in MT.

⁸ Keillor, B. D., Hult, G. T. M., Erffmeyer, R. C., & Babakus, E. (1996). NATID: the development and application of a national identity measure for use in international marketing. *Journal of International Marketing*, 57-73.

beliefs	Huangshan
	I consider more that Chinese people are of unique thinking through this travel in MT. Huangshan
	I prefer more that it is necessary to learn our traditional culture through this travel in MT. Huangshan
Natural scenery	I consider more that our natural scenery is more beautiful than other countries through this travel in MT. Huangshan
	I consider more that Chinese people have a distinctive way to enjoy the nature through this travel in MT. Huangshan
	I consider more that our natural scenery is more joyful and comfortable through this travel in MT. Huangshan
Ethnocentrism	I consider more that Chinese people should visit Mt. Huangshan through this travel in MT. Huangshan
	I consider more that there are more valuable destinations in our country through this travel in MT. Huangshan
	I prefer our destinations more than those foreign ones through this travel in MT. Huangshan
	I'm so proud of our country through this travel in MT. Huangshan
	I consider more that there are more and more world heritages in China through this travel in MT. Huangshan
	I consider more that it is required to introduce more and more world heritages in China to the foreigners through this travel in MT. Huangshan

3.2 Component analysis

Through the analysis, three components are solved, where the ethnocentrism and natural scenery are the same with pre-settings before the survey and changed little, while the difference between cultural beliefs and historical value is smaller, and therefore they are combined into one component, and renamed as historical cultural beliefs.

Table 5 Component matrix after identity dimension rotation

Dimen sion	Sub-item	1	2	3
Histori cal cultural beliefs	The same historical background	.813	.195	.267
	Long and unique history	.811	.316	.197
	Rich historical sites	.803	.237	.253
	Matchless culture	.796	.189	.263
	Unique thinking	.707	.406	.200
Natural scenery	More beautiful mountain scenic spots than those in other countries	.147	.839	.208
	Distinctive way to enjoy the nature	.318	.772	.227
	Chinese people should visit Mt. Huangshan	.354	.633	.272
	Joyful and comfortable natural scenery	.379	.611	.308
	Learning of Chinese traditional culture	.496	.549	.275
Ethnoc entrism	We should have more world heritages	.238	.214	.809
	We should introduce more and more world heritages in China to the foreigners	.219	.200	.804
	Proud of our country	.293	.208	.749
	More valuable destinations in our country	.211	.358	.522
	More preference to out destinations	.172	.496	.521

3.3 Tourist identity after travelling

The scale reflects that the tourists' national identity has been improved after travelling in Mt. Huangshan, with improvement average each item higher, and the average of three components respectively more than 4.2. Among them, the ethnocentrism average is highest,

that is, after the travelling in Mt. Huangshan, a highest improvement in the ethnocentrism is obtained; then it is natural scenery, i.e. national identity is improved in natural landscape; finally historical cultural beliefs, following natural scenery dimension, reflect the improvement of national identity. It also exists with value perception of the tourists, i.e. the tourists with highest perception in natural scenery in Mt. Huangshan will improve significantly the identity under natural landscape, while with relatively low perception in the culture in Mt. Huangshan, and historical cultural beliefs play a relatively weak role in the improvement of national identity. Standard deviation of each sub-item is less than 1, indicating that the tourists are relatively concentrated in item selection. See the table below for the indicators of the tourists' identity after the travelling in Mt. Huangshan in details.

The following items including “More preference to out destinations”, “More beautiful mountain scenic spots than those in other countries”, “Unique thinking” and “Distinctive way to enjoy the nature” are relatively lower in the scoring, but the average respectively for each item is greater than 4, and why it is relatively low respectively will be explained below. The tourists are more rational and objective in the selection, for example, the tourists select a neutral option in “More preference to out destinations” and “More beautiful mountain scenic spots than those in other countries” because they say they do not visit foreign destinations and can not judge, so the average is relatively low. And although the tourists generally take the symbolism, imagination, association and others during the traveling in Mt. Huangshan, many tourists in China do not realize that their enjoyment way is unique in China, different from an objective and scientific way pursued by the foreigners, so the facts that Chinese tourists hold a neutral view of “Unique thinking” and “Distinctive way to enjoy the nature” also result in relatively lower scores in such two averages.

Table 6 Statistics of measurement dimension of national identity

Comp onent name	Sub-item	Avera ge	Ave rag e ran kin g	Stand	Stron	Disag	Neutr	Agree	Stron
				ard deviat ion	g disag ree	ree	al		gly agree
				Unit: %					
Histori cal cultural beliefs	Matchless culture	4.3176	6	0.807	0.2	0.5	11.8	38.8	48.0
	Rich historical sites	4.2824	7	0.777	0.2	1.2	12.7	40.7	44.9
	Learning necessity of Chinese traditional culture	4.2824	8	0.804	0.5	0.5	13.2	39.8	45.6
	The same historical background	4.2024	10	0.859	0.2	1.4	16.0	39.1	42.6
	Long and unique history	4.1906	11	0.782	0.2	0.9	16.2	43.5	38.8
	Unique thinking	4.1012	14	0.920	0.7	2.4	21.6	34.4	40.5
		4.219							
Natural scenery	Joyful and comfortable natural scenery	4.3953	5	0.764	0.5	1.2	8.5	36.9	52.7
	Chinese people should visit Mt. Huangshan	4.2518	9	0.919	0.5	1.9	17.2	29.4	50.4
	Distinctive way to enjoy the nature	4.1576	12	0.842	0.2	1.9	19.3	37.9	40.5
	More beautiful mountain scenic spots than those in other countries	4.1294	13	0.916	0.5	1.9	25.4	27.5	44.5
		4.234							
Ethnoc entrism	We should introduce more and more world heritages in China to the foreigners	4.5859	1	0.661	0	0	4.9	29.2	65.4

We should have more world heritages	4.4541	2	0.706	0	0.5	6.4	38.1	54.6
More valuable destinations in our country	4.4494	3	0.699	0	1.4	17.2	42.8	38.4
Proud of our country	4.4047	4	0.833	0.5	0.7	8.2	34.4	55.3
More preference to out destinations	4.0565	15	0.912	0.5	1.9	28.0	29.6	39.8
	4.390							

3.4 Interview analysis

During the completion, the tourists often consider moral judgment, namely to avoid the immoral or unruly behavior, but tend to normative behavior, so the scale is sometimes not able to fully reflect the true facts, and therefore the researchers carry out certain interview supplementary to the scale results in the moment of the questionnaires. Total 22 tourists are interviewed, where more than half of the tourists express some difference from the scale results, i.e. they do not experience high national identity after travelling, except for another 10 interviewees presenting certain improvement in national identity and pride after travelling Mt. Huangshan. A summary has been conducted to 10 tourists reflecting the improvement of national identity through the travelling in Mt. Huangshan, and then the other 12 interviewees with no improvement are summarized, along with proper cause analysis.

The survey that 10 tourists reflects the improvement of national identity through the travelling in Mt. Huangshan is more consistent with the results obtained in scale, so the corresponding simple briefing are only performed. Why they consider the improvement lies in mainly: (1) They are proud of so beautiful scenery in China, for example, "I'm proud because of beautiful scenery after the travelling", "I'm proud of our beautiful scenery", "Human beings are so small when you are here, China is terrific, and the world is terrific", "It is very proud to see the mountains", as well as "I was a soldier, and I'm proud of my country, because it is spectacular and beautiful here"; (2) It is good travel

experience and pride for the country, for example, "I feel good in the travelling and very proud"; (3) Tourists are surprised by the amazing natural landscape, and proud of our history and ancients, for example, "Stone stairs ladder is made one by one, and it is not easy", "Ancient people are really marvelous when you see stone stairs ladder", along with "It is decorated just right for the pavilions"; (4) A pride is acquired after the tie with Huangshan-related culture is strengthened, for example, "I was impressed when I learned the lesson of Mt. Huangshan in the childhood, and then I'm here, and really feel that it is beautiful, and touches me deeply in picturing".

The tourists in view of no identity improvement will be more summarized and analyzed, divided into the ownership of public resources, tourism entertainment and leisure, and Huangshan representative limitations.

(1) Ownership of public resources

Such interviewees consider Mt. Huangshan is one of the commodities, and they not related to the ownership, and then it is difficult to have national identity and pride in the process. This, to a certain extent, reflects that although Mt. Huangshan is boosted as national public resources and public product, the separation between the state and the individual exists, i.e. national park with a border is separated from the outside, and the accessibility is limited to the citizens.

Many interviewees believe that the ownership is closely related to the identity and pride. For example: "It is not a national pride thing, just beautiful mountains, but it is not mine, how can I have a pride. For example, you will envy the excellence of others' children, but they are theirs, not yours; you will be proud if the children are yours, and it is the same way", "I'm here just like a guest, not a master, so how will a sense of pride come out".

Many interviewees say that Mt. Huangshan as public resources is not their own, and it is difficult for them to have such identify due to the dissatisfaction of higher ticket and cableway prices. "I spend my money here just for consumption, like other commodities, so how can I have the so-called identity and pride when I'm asked for expensive ticket and cableway prices", and "I have no pride, because the price is too high and expensive".

(2) Tourism entertainment and leisure

Such interviewees present that the travelling is mainly subject to the entertainment and leisure, also novelty and excitement, and they will not put it at the country level. Our tourists tend to pursue visual effect, and consider the travel as one of joyful and relaxed experience, not linked to serious problems. Part of the interviewees say: "I have no idea but just travelling here", "It is fictitious for the improvement of national identity after travelling, and I'm here just for traveling", "Proud of the motherland? Who will think so much! ", "I do not feel anything", along with "It is just scenic view, not others".

(3) Mt. Huangshan can not represent the whole China

There are also some interviewees saying Mt. Huangshan can not represent the whole China where there are a large number of natural sceneries and profound historical and cultural heritages, and the travelling once can not improve the national identity.

Mt. Huangshan is just one of our natural landscapes, not representative. For example: "There is nothing special, and it is similar to other famous mountains in China, so I'm not feeling so much", "It is not different from other places after travelling", "I have no such feeling in China, you know, there are a lot of Mt. Huangshan-liked places, maybe stronger when I have a chance abroad", "We have so many mountains and sceneries like Mt. Huangshan in China, and will not proud just through a travelling here".

It is not strong in the perception of Huangshan culture, and also limited to the improvement of the tourists' psychological identity. For example: "It is not very strong in Huangshan culture perception, and the only temple has been changed into the tourist center", "No culture found", "Not that far, Mt. Huangshan does not mean anything", as well as "It may not bring about so great impact, and it is not so strong in the culture".

Study II Case of Jade Valley Community

1 Basic information

Jade Valley, one of small attractions around Mt. Huangshan, achieves better development relying on Mt. Huangshan scenic zone. Today more and more small attractions surrounding Mt. Huangshan emerge, but fail in the end. Jade Valley's success can provide examples and reference for the development of the places surrounding Mt. Huangshan scenic zone. Meanwhile, the relationship between Mt. Huangshan scenic zone and Jade Valley also provides a reference for the development and interaction of surrounding towns with Mt. Huangshan scenic zone.

Jade Valley, where Shangzhang villager group, Shancha Village, Tangkou Town, Huangshan District, seats, have about 280 persons in more than 50 households. The residents in the group are now living in Jade New Village, also Jade Home, with more than 250 persons in 48 households; in addition there are a few residents living outside the Village.

Jade New Village, located in a north-south direction at the entrance of Jade Valley and hillside, is mainly composed of 48 villas and 1 apartment for the elderly. It is near Provincial Road 103 and State Road 205, in a distance of 6 km from the South Gate of Mt. Huangshan.

The tourism is the main industry in the village, and more than 90% of the population engages in the tourism, i.e. almost all households run the farmhouses. The village has Jade Valley Tourism Company and Jade Valley Farmhouse Tourism Company, respectively in scenic zone operation and farmhouse management. In addition, a Jade Valley Dapingshan Agricultural Development Co., Ltd. is established to manage and operate the villagers' tea plantations in a unified form. In 2011, per capita income in Jade Valley exceeded RMB 50,000 Yuan, and the number of tourists received in the village reached 1,164,000 person-times in 2012, with 31.24% increased on the year-on-year basis and total tourism receipts up to RMB 55,589,100 Yuan.



Figure 1 The location of Jade Valley

2 Village appearance and scape

Housing: Jade New Village is planned and constructed in a unified form by the government, designed in Hui-style architecture, i.e. mainly decorated by bricks and tiles and wharf wall with distinctive local characteristics. The whole village is hillside at distinct levels, well-arranged. The main buildings include 48 villas, 1 apartment for the elderly, and 1 tourist complex building. The villa is used for resident and farmhouse purpose. The apartment for the elderly is equipped with a gym, chess room, bedroom and dining room. Housing is a hotel-style standard room. The elderly villagers aged over 60 years can volunteer to stay, with the room and food free of charge. Tourist Complex Building is set for 3 storeys, with ground floor for tourist service center and scenic zone office and second and third floors for restaurants and bars providing services for the

tourists.



Figure 2 A villa in Jade



Figure 3 Jade Apartment



Figure 4 Tourism Multiple-use building: Tourist Service Center

Source: shot by the survey group

Supporting facilities in the village: the facilities, including tap water, underground cable, telephone, cable, LAN, gas, as well as fitness and entertainment facilities, are equipped completely in the village. The coverage rate of TV, telephone and broadband reaches 100%.

Road: Jade New Village achieves full hardening of the roads which are smooth and wide for small vehicles in the village, while large vehicles can be parked in the parking lot established within Jade Valley scenic zone.

Greening: With forest coverage rate in Jade Valley over 90%, it is tree-lined in the zone, and the villagers have large forest, resulting in high overall greening. However, there are less tall trees in living area, but mainly subject to lawns and shrubs which are managed by specialized personnel hired by the village committee. In environmental sanitation, the new village is clean and tidy, managed by specialized personnel, with abundant trash cans for the purpose of overall good sanitation. And, in order to ensure environmental sanitation, the residents in the village are not allowed to raise the poultry.



Figure 5 Road and greening

Figure 6 Fitness Equipment

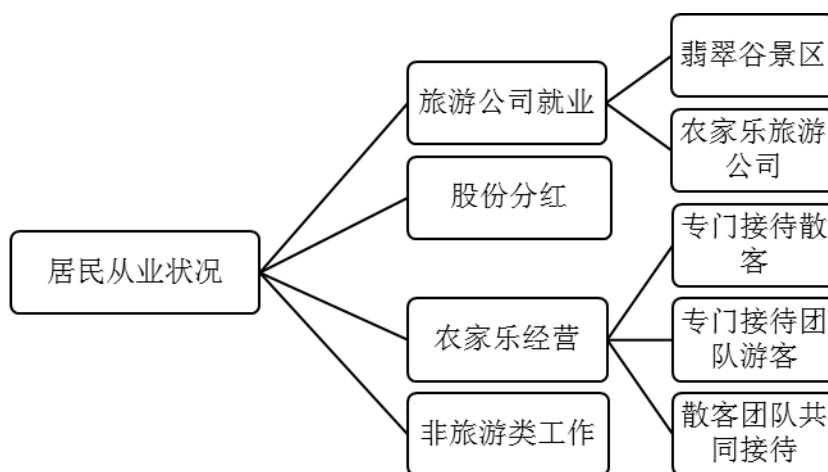
Figure 7 Garbage

Source: shot by the survey group

Garbage and sewage treatment: the villagers place domestic garbage at the door, which will be collected by specialized personnel and transported to waste treatment plant for unified treatment. According to what the villagers say, there is a professional sewage treatment pool, but it is not visible.

3 Resident employment and relevance to the tourism

The residents in Jade Valley community mainly make a living on tourism industry. In household income composition, it comes primarily from the wages in travel companies, share dividends of Jade Valley scenic zone and the operations of their own farmhouses, while only 4-5 households are not engaged in tourism industry. In addition to original inhabitants, there are some migrant workers living and engaging in tourism-related jobs in Jade Valley.



居民从业状况 Tourism employment

旅游公司就业 Jobs in travel company
 股份分红 Share dividend
 农家乐经营 Farmhouse operation
 非旅游类工作 Non-tourism-related jobs
 翡翠谷景区 Jade Valley scenic zone
 农家乐旅游公司 Jade Valley Farmhouse Tourism Company
 专门接待散客 Special individual reception
 专门接待团队游客 Special group reception
 散客团队共同接待 Reception of individual and group tourists

Figure 8 Resident employment in Jade Valley community

3.1 Employment in travel companies

Jade Valley Tourism Company is mainly responsible for managing Jade Valley scenic zone, a national AAAA scenic spot, the first one developed by the farmers themselves at the foot of Mt. Huangshan, featuring convenient transport and higher reputation. The company's employees are mostly local residents, hired specifically as: ticketing, security, cleaning and parking lot management. Besides a base pay of RMB 1500-2000 Yuan/person per month, the bonuses will be provided for the festivals and tourist peak seasons. The company's executives are most local male, and most local residents engage in some relatively easy jobs like ticketing and parking lot, while the majority of the outsiders are employed for the cleaning and security. To ensure a younger service team, it is required for the staff aged at 18-45 years old, and for those local residents aged over 45 years old, they can have a subsidy of RMB 300 Yuan each month, and the elderly people aged over 60 years old will be provided with red packets of RMB 100-200 Yuan in traditional festivals each year.

Jade Valley Tourism Company invested and established Jade Valley Farmhouse Tourism Company, signing the agreements with 38 operators for unified publicity, charging and tourist distribution for the purpose of unified management, vicious competition avoidance and resident income increase, and Jade Valley Dapingshan

Agricultural Development Co., Ltd with a agricultural experience and sightseeing base, contracting currently the residents' tea plantation for tea picking, production and sales. And some residents are serving in both companies.



Figure Jade Valley Tourism Company



Figure 10 ticket office



Figure 11 Security personnel

Source: shot by the survey group

3.2 Share dividend

Jade Valley scenic zone is the common property of the villagers in Shangzhang village, with tourism receipts shared together by the villagers. The company will provide share dividends to each villager per year, who will be at least offered with RMB 10000 Yuan/person/year as long as he/she has a hukou registration in Shangzhang villager group, and some residents whose lands are occupied can be provided with land rent of RMB 500 Yuan per mu, together with overall bonus of RMB 10000-15000 Yuan/person per year.

3.3 Farmhouse operation

Farmhouse tourism project has been developed by the villagers in Jade New Village which has 328 standard rooms in 3-star farmhouses accommodating more than 1,000 tourists, along with the reception and food and accommodation for the individuals and groups and group catering for local dishes; the followings, like room booking and buying of attractions and coach tickets, are available. According to the survey interview, farmhouse reception in the village can be divided as per tourist type into three categories: special individual reception, reception of individual and group tourists as well as special

group reception.

Special individual reception: such farmhouse will not accept the tourists arranged by Jade Valley Farmhouse Tourism Company in the unified form, but with its own website for Internet marketing and access to individual tourists. There are about 6 or 7 farmhouses in the village. A villa can, in general, provide 15-20 beds in about 10 rooms. With RMB 80-100 Yuan per room in slack season and RMB 300-400 Yuan per room in peak season, annual household income can reach more than one hundred thousand, very impressive, in the moment of better operation.

Special group reception: such farmhouse relies on unified arrangement of group tourists from Jade Valley Farmhouse Tourism Company, other than independent promotion and marketing. With RMB 50 Yuan per room in slack season and RMB 200 Yuan per room in peak season, the residents have less contact with the guests who just come here for one night and go out for group meals, not at the operator's home.

Reception of individual and group tourists: such farmhouse receives group tourists arranged by Jade Valley Farmhouse Tourism Company, besides its independent online marketing. Mainly due to insufficient online tourists, service quality will be better than special group reception, with the income between special group and individual receptions.

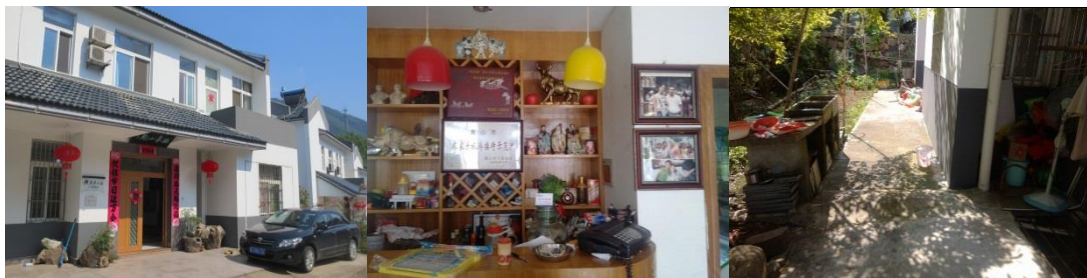


Figure 12 Farmhouse in Jade New Village

Source: shot by the survey group

3.4 Non-tourism-related jobs

The minority of the residents has better jobs in the village or town, and also does not want to work hard in tourism-related jobs. About 3 or 4 households living in one of the rooms in the villas or moving out of the village have rented their villas to the villagers well

running the farmhouses or the outsiders for the rent of about RMB 50000 Yuan/house per year.

4 Development course of Jade Valley community

A beautiful model of Jade Valley community, the one in the poverty and backwardness since the 1980s, is closely related to full engagement in the tourism for tourism-driving wealth. With continuous tourism development, the followings, such as living conditions, income & employment and living environment, has been significantly improved. However, it was difficult, not always good. The following table summarizes, in a chronological order, key events experienced from the beginning of tourism development to the present. Then it is summarized into four stages for community development.

Table 1 Key events in the development of Jade Valley community

Year	Name	Contents	Cause	Significance or role
1987	Establishment of Jade Valley Tourism Company	Jade Valley scenic zone was developed in 1986 and Jade Valley Tourism Company was established in next year	Fund raising for scenic zone management	First tourism company set up by the farmers in the country
1991	Investment in capital by PLA Headquarters of the Central Staff	The investment of RMB 600000 Yuan for ticket booths, ticket entrances and bridge construction in scenic zone	Fund insufficiency for scenic zone construction	Promotion of scenic zone development

Around 1999	Withdrawal of PLA Headquarters of the Central Staff	Withdrawal as per legal procedures and compensation of RMB 2 million Yuan from the village	The army is not allowed for the engagement in mass-run enterprises and share dividend dispute with the villagers in national policies	Satisfied dispute resolution
2000	The commencement of Phase I new village project	Total building areas of 4600 sq.m in total investment of RMB 10.36 million Yuan including gate tower, parking lot, Xingzhi corridor, complex building, shopping street, love lane and others	Beautiful village project in Anhui Province along with the improvement of tourism-supportive facilities	Further improvement of Jade Valley scenic zone
2003	Completion of Phase II new village project	Total building areas of 10000 sq.m in total investment of RMB 9.7 million Yuan including 48 villas and 1 apartment for the elderly people		Jade New Village changed from old community for the beginning of farmhouse operation

2005	Establishment of Jade Valley Farmhouse Tourism Company	Dedicated service for farmhouse operation by unified management training and tourist distribution	Vicious competition avoidance, resident income increase and reception capability improvement	Quick development of the farmhouse
2006	Company management involvement by Sancha village government	Investment in capital by RMB 50000 Yuan from the government for tourism company management along with chairman position held by a Sancha village head	Government desire for convenient management and the promotion of community tourism development	Failed collective fairness and justness and right loss from some villagers
2012	Establishment of Jade Valley Dapingshan Agricultural Development Co., Ltd	Unified management of the mountain, forest and tea plantations for commercial operation and ecological agricultural sightseeing	Planning of Jade Phase III project	All-round upgrade for famous farmhouses in East China

Source: Interview sorting

4.1 Development exploration of tourism community (1986-1999)

It is the beginning of community tourism development. Huang Jianjie, a local teacher,

first found a valley in 1986, and considered it was suitable for the tourism industry, and renamed as Jade Valley. In the following year the residents have spontaneously converted their contracted into share evaluation for RMB 20 million Yuan to establish Jade Valley Tourism Company and then construct a three-kilometer mountain-viewing road for tourist reception. In early stages, there were many difficulties in village economic development, and then PLA Headquarters of the Central Staff made an investment here to promote tourism construction in 1991, but withdrew due to the policies. In the process, in order for convenient management of scenic zone and reduction of interest conflict, the management rights of the tourism company have been independent from the village committee, i.e. two leaderships exist. During this period, tourism receipts were mainly subject to the tickets of scenic zone, and the residents did not start to operate the farmhouses.

4.2 Flourishing of community tourism construction (2000-2005)

A large number of investment projects were on the way to make an old village into a new one, and then community tourism engagement was further strengthened. A new village project has been initiated in 2000 in Jade Valley community, including Phase I tourism company construction for scenic zone and Phase II demolition and new building of the residents' houses. In 2003, the villa in new village has been completed, and the residents started to operate farmhouses, making a larger increase in tourism receipts per household. And in 2005, Jade Valley Farmhouse Tourism Company were established to specialize in the farmhouse. These projects greatly contributed to the development of community tourism, especially villa construction in new village, making large numbers of people to engage in the farmhouse's operations.

4.3 Maturity of community tourism from the development (2006-2011)

In this period, the farmhouse development was gradually improved, and tourism receipts continued to increase. With tourists received and tourism receipts continuously

increased in Jade Valley, the dividends were increased from a few thousand Yuan to RMB ten thousand Yuan, and special funds have been established, such as the elderly subsidy, children incentive for university admission etc. As service awareness and quality of the residents were improved, they have marketed the farmhouses online, resulting in continuously increased household income, for example, per capita income in 2011 was more than RMB 50,000 Yuan. Meanwhile, the strong tourism development also brought about the jobs for surrounding villagers.

4.4 Upgrading development of community tourism (2012 to the present)

In future planning assumption of Jade Valley, Phase III construction will be performed to upgrade and continue tourism industry. Jade Valley Dapingshan Agricultural Development Co., Ltd., established by Jade Valley Tourism Company in 2012, strived to launch agricultural sightseeing elements to enhance farmhouse reception capability completely. Phase III Jade New Village is under planning, with total investment of RMB 160 million Yuan, including star hotels, townhouses, apartments and supporting management space, along with some agricultural sightseeing projects and facilities in order to improve supporting tourism services in Jade Valley and extend industrial chain, and the objective “Strive for 5A within three years” has been raised in Jade Valley.

Overall, Jade Valley community achieves continuous community tourism development and makes the lives wealthier in terms of prime location and good resources, coupled with the efforts of the village collectives.

5 Community relations

Neighborhood relations: the relations among the villagers in Jade New Village are harmonious. The surname of most people in the village is Zhang, inherited from the same ancestor, and the entire villager group unites to initiate the tourism industry in Jade Valley. However, it is inevitable for the competition due to farmhouse operation, and some

villagers say that the touting exists. But most of the villagers consider it is acceptable in the competition for now.

Urbanization: the urbanization is obvious in Jade New Village. It is the tourism industry that enables the villagers to separate from the farming, but engage in the service industry for a living. The residents living in exclusive detached villa buy the vegetables and food out of the village, other than their own farming, but just operating their farmhouses, thus resulting in alienated neighborhood relations; the way staying home to watch TV and surf the Internet is similar to the urban lifestyle.

Wealth gap: the wealth gap does exist in Jade New Village, but the contradiction is not highlighted. With no households enjoying the minimum living guarantee and families in financial or material difficulties, the bonus more than ten thousand from the village could be affordable for basic living. And equal opportunities to get rich have been provided to most of the villager, i.e. each villager could have a job in the company, and every household can operate the farmhouse. But there is a big income difference between different families: the wealthy households in the village can earn hundreds of thousands or even millions of annual income, while there are some families with several ten thousand Yuan as annual income.

6 Resident attitudes and development perception

6.1 Relationship between resident living and tourism development

Today, the entire Jade Valley community is closely related to the tourism industry, and main incomes of the residents come from the tourism industry. The residents strongly support the tourism development surrounding Mt. Huangshan. Besides Jade Valley scenic zone in Jade New Village, there are some low mountain attractions including Jiulong Waterfall, Tianhu attractions, Xiangxi rafting and Phoenix Home, which in the view of some residents will lead to the competition to the development of Jade Valley scenic zone. But most residents consider that the competition is not great, because famous Jade Valley is different from other attractions and will attract more tourists due to a wealth of attractions, which will play a positive role. Meanwhile, the majority of residents say that

the tourism in Jade Valley is as a result of tourism development in Mt. Huangshan scenic zone.

In terms of environmental awareness, the residents in the village have a strong awareness of environmental protection that it is very important to maintain a good environment in the moment of village tourism development, and they are highly aware of environmental protection, resource conservation, wildlife protection, as well as forest protection and fire prevention.

6.2 Resident satisfaction with tourism development

For current status of tourism development in Jade Valley, the majority of residents is quite satisfied, and considers that it is earlier in tourism development than any other areas, and more in visibility and experience, i.e. certain advantages compared to other low mountain attractions. For the families with better farmhouse operations, they are satisfied with their own gains. For the people working in scenic zone, they believe that the life is stable and secure, and are content with things as they are. However, some residents express the dissatisfaction with the company's management: some residents believe that the company management is in chaos, while other villagers point out that the group tourists arranged by the company are too less to gain.

6.3 Personal and family development programs

Most residents say that they are content with living in the village, and will continue to engage in the tourism industry in the future. For young people in the village, most of them will return to the village due to lucrative income. Some parents believe that they will not be involved in children's choice and not force them to stay around. Also many villagers present that it is still relatively simple and boring living in the village; those competent residents could work outside when they have the chances, while those with average capability could have more comfortable lives, staying in the village.

7 Conclusions and evaluation

First, in the construction of Jade Valley community, it is developed thanks to the tourism industry, so the residents, on one hand, are employed and provided with the bonuses through the scenic zone, and on the other hand, they operate the farmhouses to further engage in tourism development for affluent lives. The way the farmers in Jade New Village established travel companies for tourism development makes a wide range of community engagement possible.

Second, in community relations, the followings like urbanization and wealth gap emerge. In tourism-leading industry, the residents change original production and life styles, for example, no farming and alienated neighborhood relations, which is similar to urban lifestyle for the residents now living in Jade New Village. In the process of community development, some residents are actively engaged in based on self-reliance the very impressive farmhouse operation; other residents rely solely on tourism development of the collectives, content with things as they are, which is relatively passive in the engagement and brings about relatively less income. Thus, on the way towards common prosperity in the village, the wealth gap will be gradually widened.

Finally, in resident attitude perception, most of the residents strongly support the tourism development in Mt. Huangshan and consider that they are dependent on tourism industry in Mt. Huangshan. Most residents are confident in living and consider that the life is guaranteed, but some young people are content with things as they are and unwilling to fight. Also some residents are dissatisfied with the status quo of the company management, and consider that the management is in chaos and subject to the cronyism.