

Design and Analysis of A Secure Online Monitoring of Engineering Works By A.P Tourism Development Corporation

Aruna Kumari Samsani^{1*}, P. Krishna Subbarao²

^{1,2}Dept. of CSE, Gayatri Vidya Parishad College of Engineering, Madhurawada, Komaddi, India

Available online at: www.ijcseonline.org

Accepted: 21/Jun/2018, Published: 30/Jun/2018

Abstract—Tourism is considered as the interval for pleasure or business and also in terms of touring it is termed as the business of attracting, accommodating, and entertaining tourists. This may be available within the same country or outside the country may be international. It is also described as an engine of development and a catalyst to economic prosperity of a state. Now a day’s tourism became a major importance in the modern era for carrying immense importance. As we all know all the works that takes place in any tourism are done manually in certain hours of time, but there is no work done round the clock. So in this proposed work ,we try to construct a system to monitor all the engineering works in Andhra Pradesh state and try to find out the working status as they were completed or still in progress or not yet commenced based on the appropriate financial year. Some of the engineering work sources are CFA(Central Fund Assistance),GOAP Funds(State),LTW(Local Tourism Works) and major other components like Capital component, complimentary component and maintenance components etc.All the works are sanctioned with certain amounts for that particular projects based on individual district wise and state wise. By designing this proposed application, the govt of AP try to promote a steady and sustained growth of the travel and tourism sector for making the destinations more accessible, more attractive with many facilities for the tourists worldwide.

Keywords— Tourism, Engineering Works, Central Fund Assistance, Capital Components.

I. INTRODUCTION

Now a day’s tourism has become one of the major important roles in each and every aspect of human life, especially to spend some time for pleasure or business to get relaxed [1]. This tourism may be within the visitor’s country like local tour or sometimes outside the visitor’s country like international tour. This has become an important source of income for many regions within our country and even entire countries [2]-[4]. As we all know that the importance of tourism is greatly explained by the Manila Declaration on World Tourism of 1980 as “an important activity that is very essential to the life of each and every nations due to its direct effects on the social, economical, educational, and so on relations ".This tourism also brings a wide range of amounts to the local government in the form of payments received for goods and services which was laid and collected from the customers[5],[6].As per the world trade in services, they concluded that nearly in the year 2011,the local economy has received 30% of the world's trade in services, and for 6% of overall exports of goods and services.[7]-[10] .

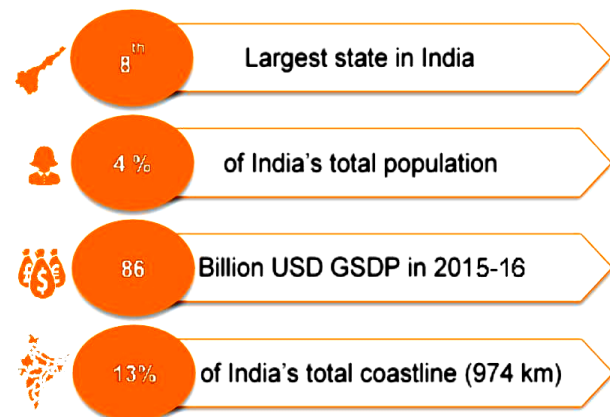


Fig.1.Denotes the some of the Examples of Tourism

From the above fig 1, we can clearly identify that tourism can have alternate names like excursion, quest, flying, vacation and a lot more. And also we can find some more terms like road, voyage, airplane, cruise and walk, these are nothing but some of the modes of travelling for a particular tourism based on the distance [11].

As we all know that tourism has become one of the key concept area for Government of India and the State Government of Andhra Pradesh. This is mainly because to promote huge investments in tourism sector through a lot of Pvt ltd company investments as well as various government

manner. As we know that all the projects are spread all over the State, it is felt that an IT solution that provides real-time information will help the management in monitoring the status and progress of the projects and enable the senior management to guide the field teams properly and also reduce the time and cost of travel and other gaps in conventional manual monitoring system. The main objective is to track the progress of various projects with the help of geo-tagged images.

From the below fig 3, we can clearly understand the flow of application in order to monitor the engineering works in govt of AP. Here in order to perform any operation each and every module will have login first. Once the login is done then the admin has the facility to allow user registration as well as project registration. For user registration, the user need to enter all his basic details and try to submit the details to the server for authentication. Once the user details are authenticated in terms of verifying whether the user account is created for the first time or it is already available. If it is new then only user registration is success from the administrator who monitors all the users. Once the users are registered they will be given the login permission for entering into the system with their valid credentials. In the same way the admin has the privilege to add new projects, update the project details from time to time, delete the projects which are already completed and finally modify the project details if it was wrongly posted. Along with these the users also has a management roles like password change in order to change his/her password most frequently.

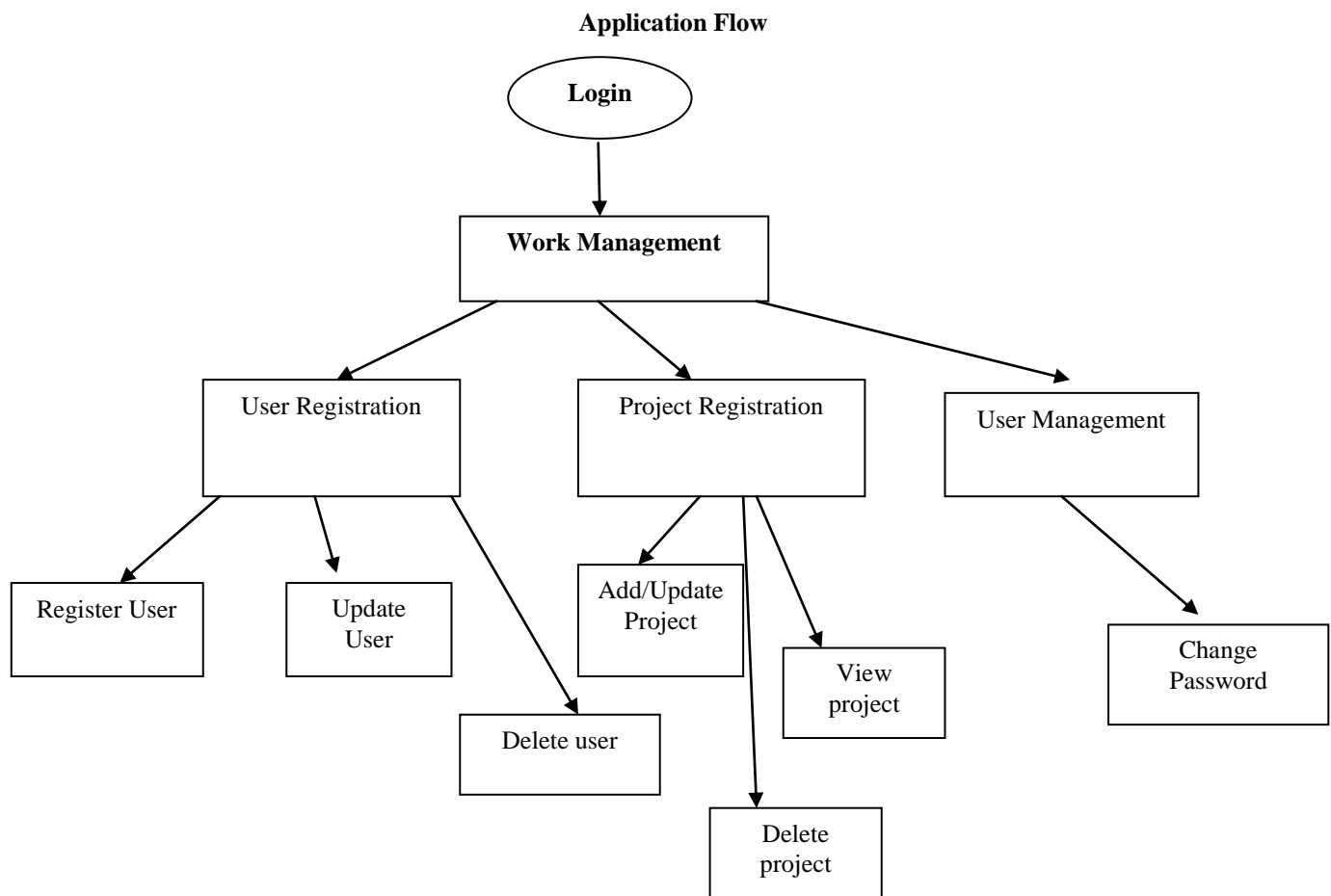


Fig.3.Work Flow of the Application for Monitoring Engineer Works in Govt of A.P

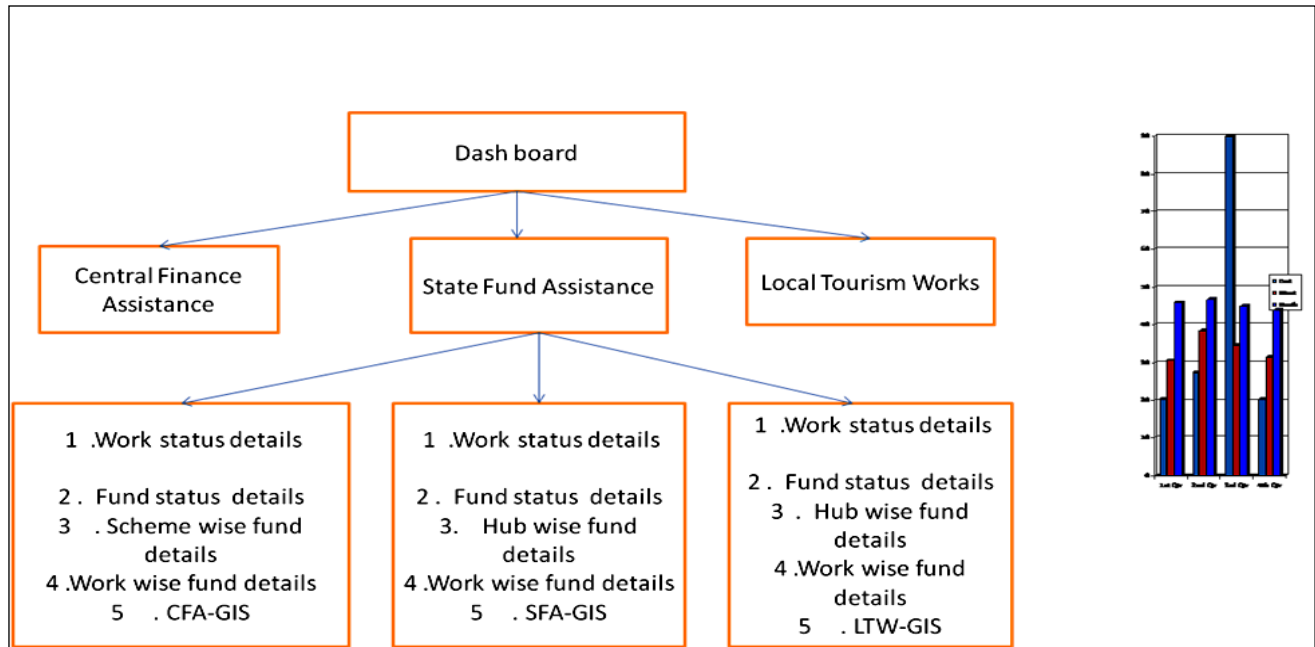


Fig.4.Represent the Dash Board Working Flow chart

From the above figure 4, we can find out the dashboard for granting the funds for appropriate projects assigned by the corresponding finance departments like central finance assistance or state fund assistance or sometimes local tourism works. For example if the work assigned is a state fund assistance then we need to observe the work status details like:

- 1) When the project is assigned for that department.
- 2) What is the start date and end date for that work.
- 3) How much work is completed and how many man power is working on that project.
- 4) How much resources they used for completing this project.
- 5) What is the present status about that project?
- 6) What is the cost for completing that project?
- 7) Whether it is funded from state/central/local?
- 8) How much advance was paid for that project?
- 9) What is the balance amount need to be paid?
- 10) What is the type of fund?
- 11) What is the Hub-Wise Fund details? And so on

So all the above are some of the main protocols that was followed by the state fund assistance department, till now all these works are done in manual way. By doing all these things in a manual way, we can't able to get the exact and accurate reports what the client needs. So in this application we try to maintain all these activities in an online mode by designing all these requirements in a single application.

IV. IMPLEMENTATION MODULES

Implementation is the stage where the theoretical design is converted into a programmatically manner. In this stage we will divide the application into several modules and then coded for deployment. We have implemented the proposed concept on java language under JEE platform. Here we used Html, Jsp, Servlets and CSS as front end coding language and My-SQL as back end database for storing and retrieving the data to and from the database. The application is divided mainly into following 5 modules. They are as follows:

1) Login Module

In this module, users need to login into the system in order to perform any operation, so those who have previously registered under APTDC Web Application with the help of Admin can login directly into their accounts by entering their valid user name and password. Once if their login credentials are correct they can begin into their application. Here the username for login is the valid phone number that was given at the time of registering under the admin and the password will be sent initially by the admin to their mail or mobile and the user can change that default password by logging in for the first time to the web site. If the new user want to enter into the account they need to create an account under work management module which is discussed in next module.

2) Work Management Module

This is the next module in which work can be management by the primary registered user. Once the registered user login into his account, he will enter into the work management tab which is there in his login and from that tab, he can try to add new users, update user, delete any user. This can be shown clearly from the below template

a) Registering a New User

For registering a new user the admin needs to fill these details under New User Registration tab

- **First Name :** Fill in the First Name of the user
- **Last Name :** Fill in the Last Name of the user
- **Select Designation :** Select the designation of user
- **Mobile Number :** Enter phone number of the user
- **Select Hub :** Select the respective Hub under which user comes
- **Select District :** Select the district under the Hub selected above.
- **Location :** Enter the location of the engineering work.
- **Access Type :** Select the access type.
- **Web Login Required (YES/NO) :** Select whether Web login is required or not.

b) Project Registration Module

Once the user is login with his valid details he enters into a new tab like project registration module in which the user can register a project with following details like:

- **Select Fund Source:** user needs to select from the drop down whichever is applicable for their engineering works like 1. Central Fund Assistance (CFA) 2. State Fund Assistance (SFA) 3. Local Tourism Works (LTW)
- **Select Scheme:** user needs to select from the drop down whichever is applicable for their engineering works CFA- Swadesh Darshan, Prasad, Hriday, Sagarmala.
- **Select Project :** Here user needs to select either New or Existing. If you are entering a new project you need to

select new else you need to select Existing and add the works under existing project.

- **Work/Project Name:** User needs to enter the project Name under which their engineering works are going. (Ex: Coringa Outside)
- **Main Work Components :** user needs to enter the different work components under the work.
- **Hub Information:** User needs to select their respective HUB/ District and enter the work location.
- **Assign Officer Select Officer:** Select the officer who is working and responsible under the engineering work
- **Work Code :** Work Code will automatically be generated by the system and user does not need to enter this part.
- **Go/ proceeding No :** User needs to enter the GO number which was given officially by the department for the engineering work.
- **Work Schedule :** Sanction Date : Enter the sanction date of the project from the official document.
- **Agreement Date :** Enter the Agreement Date of the project from the official document. Due Date : Enter the Due Date of the project from the official document.
- **Estimated Values :** Capital : Enter capital value. Complimentary : Enter Complimentary Value.
- **Maintenance :** Enter Maintenance Value. Total : Auto calculated. Funds Released / Funds Spent : User needs to enter the below components. Select Financial Year : Capital Complimentary Maintenance Total Status of Works : Balance Amount (Rs. in Lakhs) / Physical Status of Work / Target Date of Completion / Remarks.

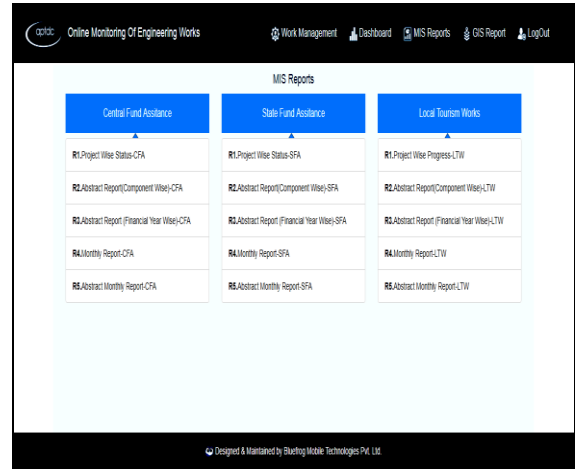
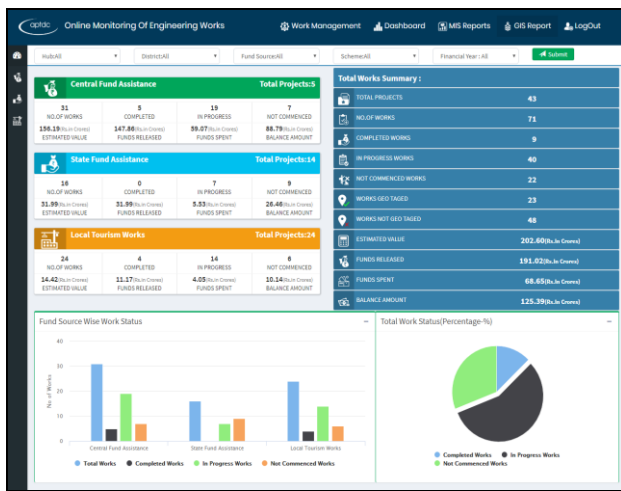
Once all the Project Details are added, he can see the details in this manner

SNo	Project Name	Work Code	District	Place	Update Details
1	Coringa Outside	CFA_KAM_002	East Godavari	Coringa	Update Details
2	Katpalli	CFA_KAM_003	East Godavari	Katpalli	Update Details
3	Hope Island	CFA_KAM_004	East Godavari	Hope Island	Update Details
4	Aduru River Front	CFA_KAM_005	East Godavari	Aduru	Update Details
5	Pasatipudi	CFA_KAM_006	East Godavari	Pasatipudi	Update Details
6	S Yanam Beach Front	CFA_KAM_007	East Godavari	S Yanam	Update Details
7	Development of River Front and Ghats at Amravathi	CFA_VU_001	Guntur	Vijayawada	Update Details
8	BV Palam	CFA_TR_003	Nellore	BV Palam	Update Details
9	Nelapattu Bird Sanctuary	CFA_TR_004	Nellore	Nelapattu Bird Sanctuary	Update Details
10	Migodu Beach	CFA_TR_005	Nellore	Migodu Beach	Update Details

3) Dash Board Generation Module

In this module we can find out the dash board for granting the funds for appropriate projects assigned by the corresponding finance departments like central finance assistance or state fund assistance or sometimes local tourism works. For example if the work assigned is state fund assistance then we need to observe the work status details like:

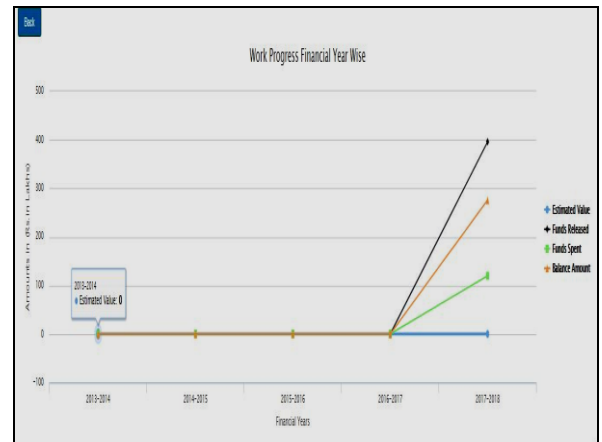
User can access Dash Board from the Tab provided in the top menu of the web site as shown below. User can view all the information from Dash board like funds release, spent, balances. User can also use filter to sort the information required and can also drill down the information required



V. EXPERIMENTAL RESULTS

To show the performance of our proposed algorithm we mainly developed the application in java platform .Here we used JEE as programming interface with HTML, JSP, CSS front end design and we use My-Sql as Back End Database. We also used some advanced cryptography packages to implement the security of our proposed application in an encrypted manner. Here the following application can be represented in a graphically manner to find out the project analysis report accurately and efficiently .They are as follows

Central Fund Assistance Graphical Report



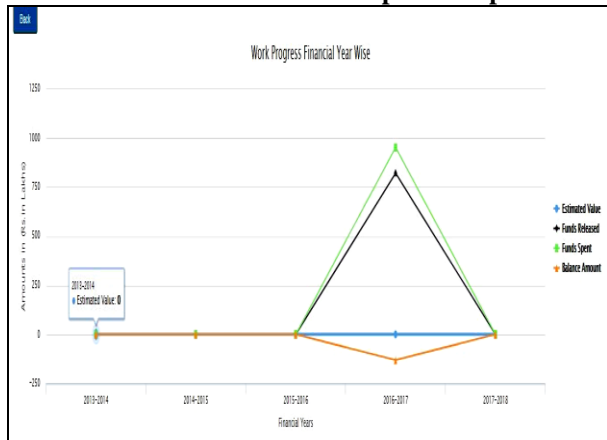
From the above graph we can clearly see some line graph with x and y axis, where the x-axis we can see all the financial years and in the y-axis we can see the amount in lakhs. Here we can see 4 colour lines each is represented for individual classification like estimated value, funds released, funds spend and total balance to be released for that central fund assistance.

4) MIS Report Generation Module

This is the last module in which User can access MIS reports from the Tab provided in the top menu of the web site as shown below. User can view all the MIS Reports by clicking MIS Reports tab on the main menu as show in the above image. MIS Reports are categorized as

1. Central Fund Assistance (CFA)
2. State Fund Assistance (SFA)
3. Local Tourism Works (LTW)

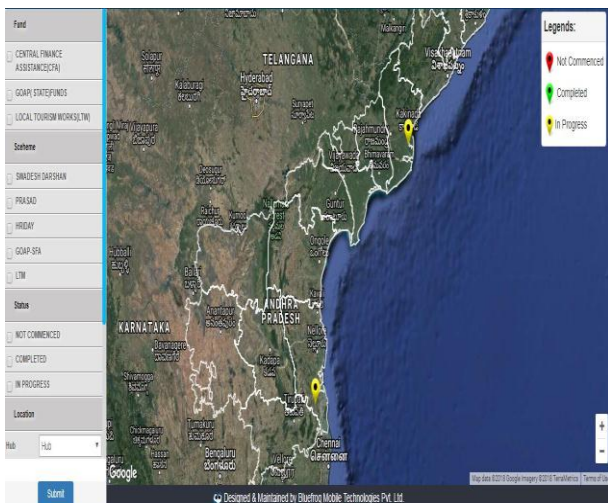
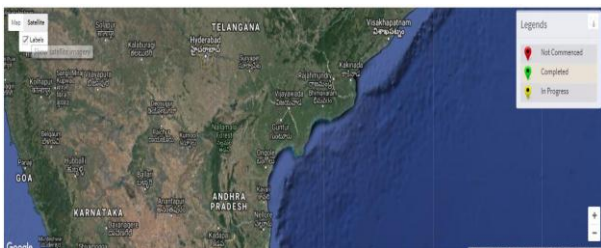
State Fund Assistance Graphical Report



From the above graph we can clearly see some line graph with x and y axis, where the x-axis we can see all the financial years and in the y-axis we can see the amount in lakhs. Here we can see 4 colour lines each is represented for individual classification like estimated value, funds released, funds spend and total balance to be released for that central fund assistance.

GIS Graph Reports

The web portal shall also display the status and progress of various / selected schemes on google maps with relevant pointers /legends and indicators. Multi-layered GIS shall be enabled for different Schemes



VI. CONCLUSION

In this paper, we for the first time implemented a secure **Online Monitoring of Engineering Works by A.P Tourism Development Corporation** which is done with online entry of these works and maintenance of their budget. In the existing day's all the work is processed manually which is a big problem in generating accurate and efficient results, but now we designed an online application which reduces a lot of manual effort and increased the performance in terms of accurate results. By conducting various experiments on our proposed application, we finally came to a conclusion that our proposed method is best in giving security and effective results for monitoring the engineering works which is performed by the govt of AP.

VII. REFERENCES

- [1]. Rachel Sugar (19 December 2016). "More tourists visited NYC in 2016 than ever before". Vox Media. Retrieved 24 April 2018.
- [2]. "tourism". Oxford English Dictionary (3rd ed.). Oxford University Press. September 2005. (Subscription or UK public library membership required).
- [3]. "UNWTO technical manual: Collection of Tourism Expenditure Statistics" (PDF). World Tourism Organization. 1995. p. 10. Archived from the original (PDF) on 22 September 2010. Retrieved 26 March 2009.
- [4]. "The Growing Importance of Tourism in the Global Economy and International Affairs". journal.georgetown.edu. Retrieved 9 April 2017.
- [5]. "International tourism challenged by deteriorating global economy" (PDF). UNWTO World Tourism Barometer. World Tourism Organization. 7 (1). January 2009. Archived from the original (PDF) on 17 October 2013. Retrieved 17 November 2011.
- [6]. Manila Declaration on World Tourism (PDF). World Tourism Conference, Manila, Philippines. 10 October 1980. pp. 1–4. Archived from the original (PDF) on 20 November 2012.
- [7]. "2012 Tourism Highlights" (PDF). UNWTO. June 2012. Archived from the original (PDF) on 9 July 2012. Retrieved 17 June 2012.
- [8]. Theobald, William F. (1998). Global Tourism (2nd ed.). Oxford [England]: Butterworth–Heinemann. pp. 6–7. ISBN 0-7506-4022-7. OCLC 40330075.
- [9]. Spode, Hasso (1998). "Geschichte der Tourismuswissenschaft". In Haedrich, Günther. Tourismus-management: Tourismus-marketing Und Fremdenverkehrsplanung (in German). Berlin: [u.a.] de Gruyter. ISBN 3-11-015185-5. OCLC 243881885.
- [10]. "Recommendations on Tourism Statistics" (PDF). Statistical Papers. M. New York: United Nations (83): 5. 1994. Retrieved 12 July 2010.
- [11]. "Member States – Regional Programme for Europe".
- [12]. "Global Destination Cities Index" (PDF). Mastercard. 2016.
- [13]. "MasterCard 2015 Global Destination Cities Index" (PDF). MasterCard. June 2015. Retrieved 5 July 2015.
- [14]. "World's most visited cities". CNN. 3 March 2015.
- [15]. "Top 100 City Destinations Ranking". Euromonitor International. 27 January 2015.