

Rural and Agricultural Development Communication Network Project
(RADCON)

Requirement Specifications
&
Prototype Implementation
for
The Service of the Community Module
Technical Report

TR/RADCON/2006.9/Ismael.1

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Submitted to

Food and Agriculture Organization of the United Nations
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Cairo, Egypt

September 2006

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1. Requirements Specification

1.1 Introduction

This report is the first from a project to develop appropriate information system to support the community services module. The project duration is 6 months, from July 2006 to December 2006. The aim of this project is to investigate how technology can be developed to help rural poor in dealing with NGO.

Associations as NGOs suffering from some problem such as: refrain to deal with NGO, NGO goals are poorly achieved, Less marketing chances and prices for NGO products and Less dependency on NGO as a source of information. This project aims to address these problems by developing and testing an information system to support community service associations.

Further details of the background to the project and the project partners (stakeholders) are given in a report, titled “*Stakeholders Analysis of Rural and Agricultural Development Communication Network*”.

1.1.1 Purpose

This document represents the requirements analysis effort to define technical process requirements for *Associations at the service of community module*. This document is produced prior to detailed design and development of the application. It will be used by the design team as the baseline for establishing systems design and ultimately the development of the system.

1.1.2 Scope

The resulting software product will be the “NGO Supporting System”, which will comprise a number of integrated “web-based systems”.

The overall purpose of the *NGO Supporting System* can be defined as to facilitate the work of Community Service Associations (CSA), helping them to engage with the community and support its services. It will do this by supporting:

- Provision of information and communication between Community Service Associations, and between community service associations and the public (poor people of a very low income in the poor villages, e.g. farmers).

Therefore the system purpose can be defined as to assist and encourage its users to do the following:

Access information

An *NGO Supporting System* needs to provide access to the many information documents originating from NGO along with any supporting material.

Communicate with each other

An *NGO Supporting System* needs to enhance the communication links that the community service associations have. These are the links between:

- The community service associations.
- The community service associations and the community it serves.

1.1.3 Problem Definition

Dealing with NGO suffering form some problems, that can be conclude in the following points:

- Refrain to deal with NGO
- Distrust NGO intention
- NGO goals are poorly achieved
- Under estimation of NGO capabilities
- Low utilization of village potentials
- Minority/elite monopoly of NGO services
- Less marketing chances and prices for NGO products
- Low participation in NGO activities
- Limited group participation
- Lack group communication chances
- Low quality of NGO services
- Less dependency on NGO as a source of information
- Poor utilization of NGO capabilities

1.1.4 Module Objectives

The overall success criteria reflect the needs of the community service associations, the communities they represent and the funders of the project, from the perspectives of the NGOs participating in the project. The following criteria can be represent the benefits sought:

- Increase the rates of dealing with NGO.
- Gain more trust of NGO intention.
- Help NGO to achieve its goals.
- Understand the true limits of NGO capabilities.
- Increase efficiency of village potentials utilization.
- Increase equity of benefiting from NGO services.
- Increase marketing chances and prices for NGO products.
- Raise the level of participation in NGO activities.
- Widen the chances of group participation.
- Increase group communication chances.
- Raise the quality of NGO services.
- Increase reliability on NGO's information.
- Raise the level of utilization of NGO capabilities.

1.2 Requirements

1.2.1 Requirements Analysis

The analysis reported in this section is structured to address the following questions:

1. What are the activities could the system realistically support?
2. Why do these activities need to be enhanced using the system?

However, it should be noted that it is difficult to generalize about the actual activities of community service associations and there is no definitive definition of their roles, activities and methods. The result is that we can only give a general description of what community service associations actually do based on requirements gathered to date, and should expect to find variance in methods and roles at the level of the individual association.

1.2.1.1 Activities the system should support & why

This section addresses questions 1 and 2 above - what are the activities could the system realistically support, and why these activities need to be enhanced using the system.

Most community service associations viewed Increase the rates of dealing with NGO, Raise the level of participation in NGO activities, and Raise the quality of NGO services as their most important tasks. Many felt that Increase marketing chances and prices for NGO products was also highly important as a community service association's task.

However, there was also consensus that communication in general was seen to be problematic, between the community service associations and the community. Communication was the most commonly given response by community service associations and community to the question "What is the most difficult activity?". There is a need to improve communication between the community service associations and community.

Support information dissemination and communication links

Providing mechanisms to raise awareness of community service association's activities and "success stories" about their achievements is one way to improve communications with the community. Typically, such achievements are not regularly publicized, and in general it was felt that the community do not pay much attention to publicity material provided by the community service associations.

Current communication methods used by community service associations to raise awareness within the community and disseminate information vary, but commonly include a regular newsletter and use of the local press. The system should add to these delivery mechanisms by providing communication network between associations and community.

1.2.2 Module Description

This module will focus on creating a web-based system that covers the following components:

- **Rural development NGO & smallholder NGO:** A directory of NGO associations available in the target areas, its objectives and activities. This directory could be include the following elements:
 - Association name
 - Association activity
 - Association land type
 - Land area
 - Crops planted
 - Crop type
 - Export facilities
 - Training
 - Membership number
 - Association objectives
 - Membership
 - Contact Official
 - Contact information
- **Donors:** a directory to provide comprehensive, useful and updated information about Donors and Assistance Providers to Egyptian NGOs and other interested parties. This contains the donors name and its website.
- **Success Stories:** a directory of success stories, that give the chance to the reader to see, hear and feel through the experience of another person. Success stories tell the reader how the associations can help the community people to solve their problems and improve their life.

1.2.3 User Characteristics

This section profiles the users in terms of their roles and IT skills and experience. The users of the system are categorized as *end-users* and, administrator user as follows:

End-users may be in one or more of the following categories:

- Public Users.
- Authorized Users (members of community service associations).

Public users mean the people how can get benefits from the system such as, exporters. This user well interact with the system through using Internet, to get the services that introduced by the NGOs.

An “*Authorized Users*” means an end-user who is a member of the identified community service associations, and who has successfully logged in. *Authorized Users* will normally be able to access the website of their own community service associations as an “authorized user” and other community service associations as an end-user.

Authorized Users will need to be able to easily:

- Insert new content, in text and other formats.
- Update existing content, in text and other formats.
- Delete the existing content.

Administrator user performing a *System administrator* role. The administrator's role would be to:

- Manage user accounts, i.e. register Public Users as *Authorized Users*.
- Publish the inserted data.

End-users may be assumed to don't have IT skills and experience. *Authorized Users* should be assumed to be relatively experienced users of Internet applications.

1.2.4 General Functional Requirements

1.2.4.1 System Setup

This task involves the *System Administrator role*, this role will encompass:

- Creating and distributing system login identifiers and passwords to the authorized members of the community service association.
- Creating and editing the text of Conditions of Use.
- Identifying a contact email address for the system.

1.2.4.2 Members Registration and Logon

Authorized members may login with a username and password. The *system administrator* role will include registering the details of association members and distributing details of usernames and passwords accordingly. There will be a facility for end-users to change their password. Also, passwords will be stored in encrypted form.

1.2.4.3 Member Login and Authentication

Members will be assigned a login id and password, communicated to them by the System Administrator.

1.2.5 Queries and reports

1.2.5.1 Public user

- Q1: select all smallholder NGOs.
- Q2: select all Donors.
- Q3: select all Success stories.
- Q4: select the detailed information of a specific smallholder NGO.
- Q5: select the detailed information of a specific donor.
- Q6: select the detailed information of a specific success story.
- Q7: search for NGOs with different criteria such as, association name, association activity, crops planted, crop type, etc...
- Q8: search for Donors with different criteria such as, donor name, funded activity etc...
- Q9: search for success stories with different criteria such as, story name, problem description, problem reasons, etc...

1.2.5.2 Authorized user

- Q1: insert and update its NGOs data
- Q2: insert and update its success stories data
- Q3: change user password

1.2.5.3 Administrator

- Q1: create a new authorized user
- Q2: publish NGOs data.
- Q3: publish success stories data.
- Q4: update NGO data
- Q5: update success stories data
- Q6: delete NGO
- Q7: delete success stories
- Q8: delete authorized user
- Q9: update authorized user account
- Q10: change his password
- Q11: insert new donor
- Q12: update donor
- Q13: delete donor

1.3 Product Perspective

This section is intended to document operational characteristics (Software Specification) of the *NGO Supporting System*.

1.3.1 System Interfaces

The system will run as a web server application.

1.3.2 User Interfaces

All user interfaces to the system will be provided via standard web browsers. It will be possible for a user to perform all system functions using MS Internet Explorer.

1.3.3 Operating System

Server software will run on a MS Windows XP platform.

1.3.4 Database

The system will use standard database protocols and SQL for data storage and retrieval.

1.3.5 Availability

The system should be available on a 24hr x 7-day basis.

2. Prototype Implementation

2.1 Community Services Prototype Components

The prototype can be classified into three subsystems: association, donors and success stories. Each subsystem has two major components: front-end functions (browsing and searching) and back-end functions (data entry and administrative functions). Each function is briefly described below, and screen shots of the user interface are presented.

2.1.1 Front-end

In this section we describe the front-end pages. A user can logs in without a user name or password. The home page provides point-and-click access to the major components described previously, as illustrated in the following figure.

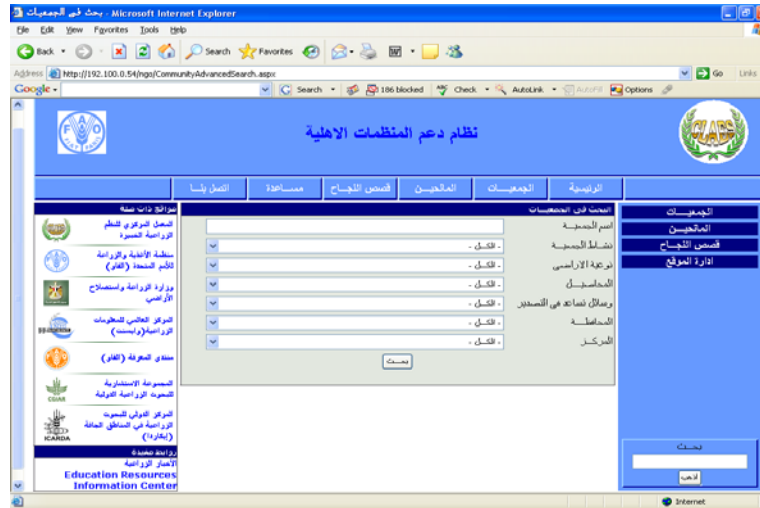


Firstly, we can execute a quick search, that can search in the three subsystems (association, donors, success stories). For example, if we search by the word "تنمية", we will get the following result:

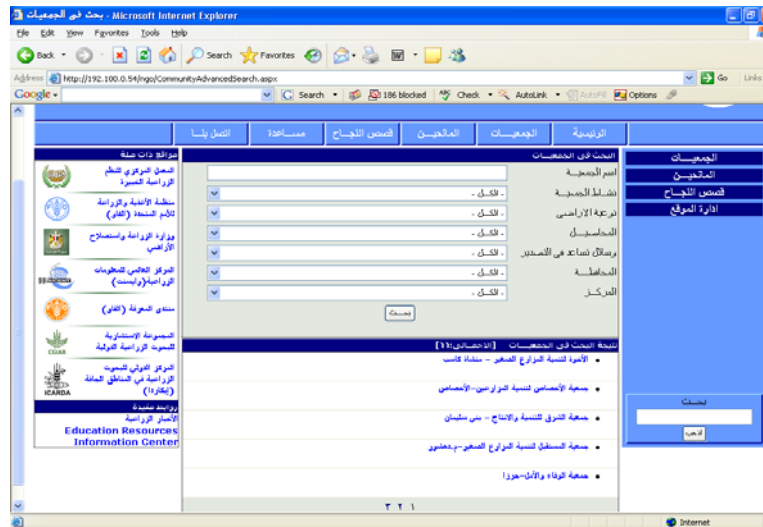


2.1.1.1 Association subsystem

If we select the association button, system will give an advanced search, that work along different categories, such as association name, association activities, crop name and governorate.



If we select search without entering any criteria to search, system will retrieve all associations that available in the google system, as illustrated in the following figure:



It is worth notice that, the search result will be divided into pages, where each page contains five associations.

If we select any association, system will display the association data, as illustrated in the following figure:



2.1.1.2 Donors Subsystem

If we select the donors' button, system will give an advanced search, that work along different categories, such as donors name and funded activities.



If we select search without entering any criteria to search, system will retrieve all donors that available in the system, as illustrated in the following figure:



It is worth notice that, the search result will be divided into pages, where each page contain five donors.

If we select any donor, system will display the donor data, as illustrated in the following figure:



2.1.1.3 Success Stories Subsystem

If we select the success stories' button, system will give an advanced search, that work along different categories, such as story title, story owner name and problem description.



If we select search without entering any criteria to search, system will retrieve all success stories that available in the system, as illustrated in the following figure:



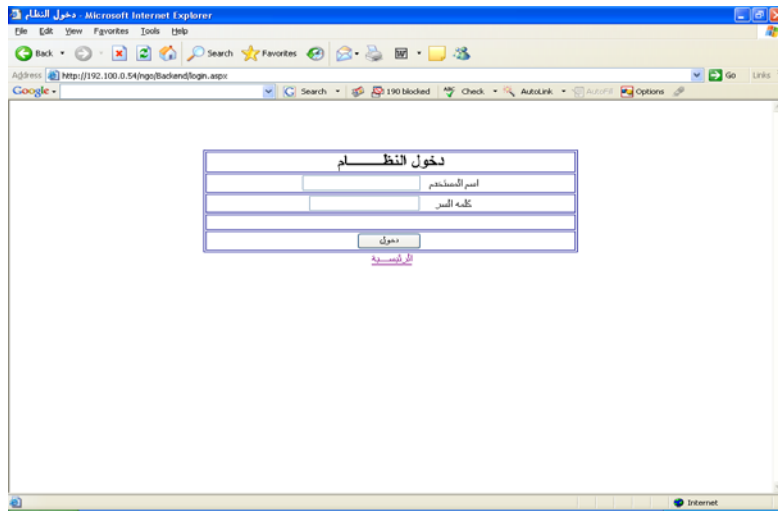
It is worth notice that, the search result will be divided into pages, where each page contain five stories.

If we select any story, system will display the story data, as illustrated in the following figure:



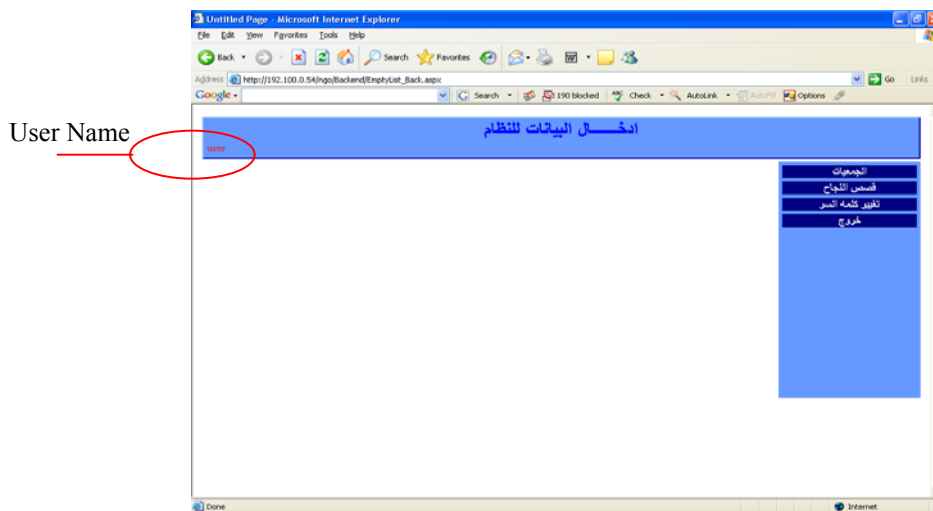
2.1.2 Back-end

In this section we describe the back-end pages. A user can logs in with a user name and password. From home page select “ادارة الموقع”, system will display the following page:



2.1.2.1 Data Entry User

System will direct the user to the suitable page based on the entered user name i.e. if the user name for data entry user, system will display the following page:

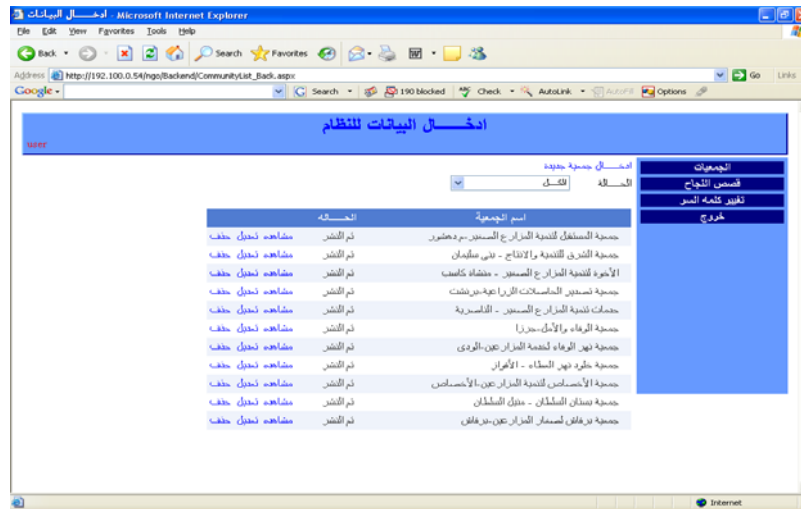


2.1.2.1.1 Associations Subsystem

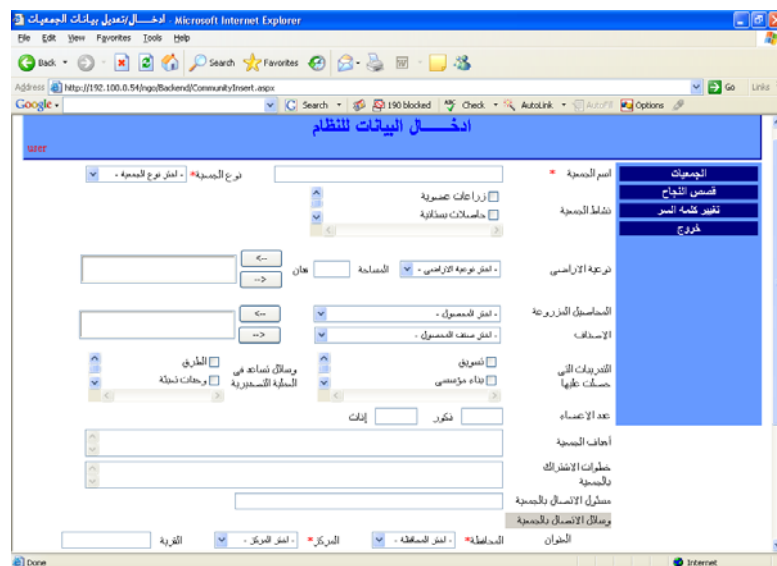
If we select associations' subsystem, system will display all associations that available in the system and the status of each association (approved or unapproved), with the following abilities:

- Insert new association,
- Select an association to display its content,
- Update the association data,
- Delete association,
- Search based on the association status.

As illustrated in the following figure:



To insert a new association select “ادخال جمعية جديدة” as illustrated in the following figure:



2.1.2.1.2 Success Stories

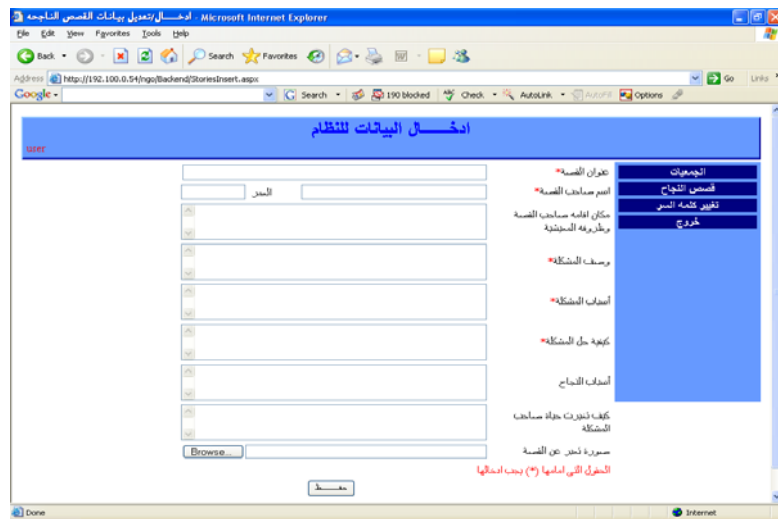
If we select success stories, system will display all stories that available in the system and the status of each story (approved or unapproved), with the following abilities:

- Insert new story,
- Select a story to display its content,
- Update the story data,
- Delete story,
- Search based on the story status.

As illustrated in the following figure:

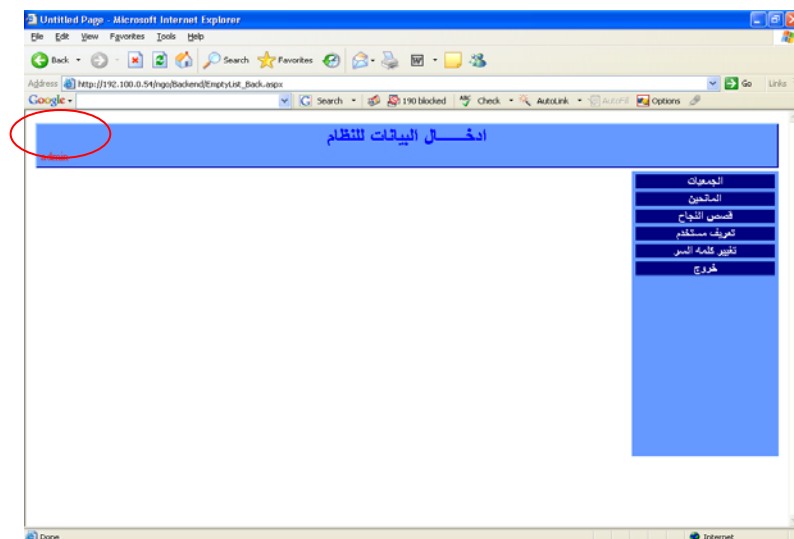


To insert a new story select “ادخال قصة جديدة” as illustrated in the following figure:



2.1.2.2 Administrator User

If the user name for administrator user, system will display the following page:

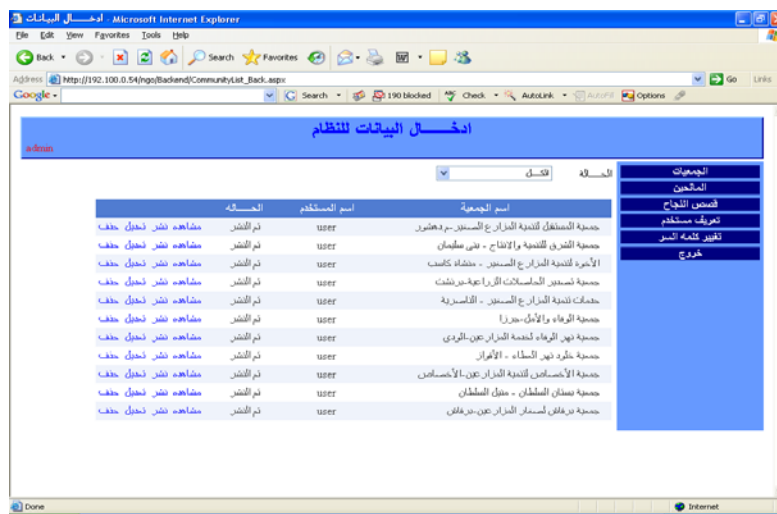


2.1.2.2.1 Associations Subsystem

If we select association, system will display all associations that available in the system and the status of each association (approved or unapproved) and the user name who insert this association, with the following abilities:

- Publishing association data, (review and suggestions for improvement)
- Select an association to display its content,
- Update the association data,
- Delete association,
- Search based on the association status.

As illustrated in the following figure:



2.1.2.2.2 Donors Subsystem

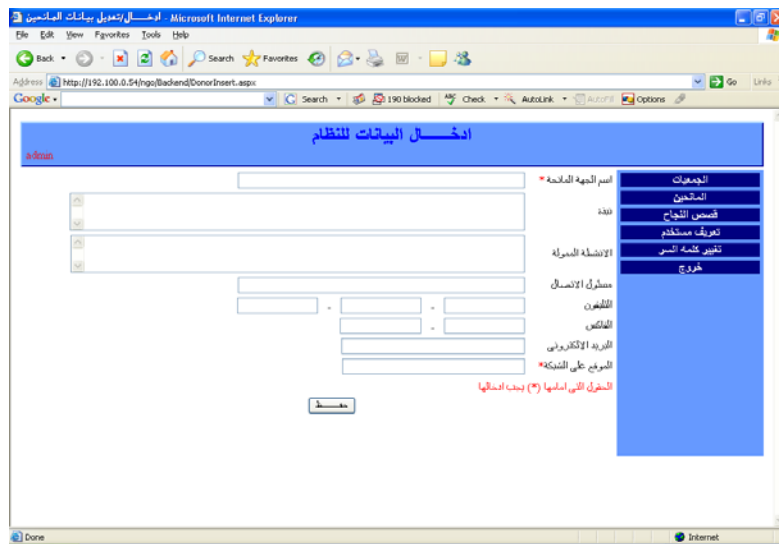
If we select donors, system will display all donors that available in the system, with the following abilities:

- Insert new donor,
- Select a donor to display its content,
- Update the donor data,
- Delete donor.

As illustrated in the following figure:



To insert a new donor select “ادخال مانح جديدة” as illustrated in the following figure:



2.1.2.2.3 Success Stories Subsystem

If we select success stories, system will display all stories that available in the system and the status of each story (approved or unapproved), and the user name who insert this story, with the following abilities:

- Publishing story data, (review and suggestions for improvement)
- Select a story to display its content,
- Update the story data,
- Delete story,
- Search based on the story status.

As illustrated in the following figure:

