MARCH 2015

FOREST SCIENCES CENTRE OF CATALONIA

Best Fit Practices for Reforestation in Lebanon to Enhance Climate Resilience in Remote Hilly Areas

DELIVERABLE TASK 3

DEVELOPMENT OF A DESIGN FOR WEB-BASED REFORESTATION REGISTRY, LINKED TO SEED REGISTRY AND TRACKING SYSTEM

PROFOR PROGRAM

WORLD BANK

In cooperation with FAO

WORLD BANK GROUP PROFOR

Food and Agriculture Organization of the United Nations

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TABLE OF CONTENTS

TABLE OF CONTENTS 2

1. Frame 3
2. Home 6
3. About the registry 8
4. SALMA project 9
5. Lebanon NARP 10
6. Photo gallery 11
7. Links 12
8. How can I participate 13
9. Register as user 15
10. Add new reforestation 16
11. Edit reforestation 19
12. Register municipality 24
13. Register NGO 26
14. Send us a picture 27

1. Frame

1. Upper frame

No	Key Features	Confirmation
1	"Home": link to 2. HOME page	
2	"About the Registry": link to 3. ABOUT THE REGISTRY page	
3	"Salma project": link to 4. SALMA PROJECT page	
4	"Lebanon NARP": link to 5. LEBANON NARP page	
5	"Photo gallery": link to 6. PHOTO GALLERY page	
6	"Links": link to 7. LINKS page	
7	"How can I participate?": link to 8. HOW CAN I PARTICIPATE page	
8	"Arabic": switches to Arabic version of the webpage To go back to English version, a button called "English" will replace the one called "Arabic".	
9	Login / register: opens the LOGIN/REGISTER menu	

2. LOGIN/REGISTER menu

No	Key Features	Confirmation
1	Pop-up menu where the user can register or login	
2	When entering correctly the username and password → the "Login/Register" menu is substituted by "Username", where the user can make consultations and editing based on the permissions: - Webmaster: full control of the webpage - MoA: a username + password will be provided for the MoA users: they will be able to access the internal database with the metadata of all reforestations. No editing is possible - Other users: they will be able to Add new reforestation; Edit reforestation; Register Municipality; Register NGO, Upload reforestation pictures; following the rules explained at "8. HOW CAN I PARTICIPATE" page	
3	Not registered yet? Go to registration menu → link to "9. REGISTER AS USER" page	
4	Username or password forgotten? Type your registered e-mail and we will send you a new access → when introducing a registered e-mail, a message is sent with a link where the user can create a new password	

3. Left menu

No	Key Features	Confirmation
1	SALMA project in a nutshell: Link to a pdf / brochure describing SALMA project, opened in a new window	
2	News and events: list of most relevant news and events related to reforestation in Lebanon. The webmaster will choose the news to show directly, and those going to "More news", depending on relevance and date	

4. Right menu

No	Key Features	Confirmation
1	Photo gallery: automatic slideshow showing selected (relevant) pictures from reforestations, from the reforestation experiences uploaded by the users and further pictures	
2	When clicking on a picture, the slideshow becomes full-screen, with the possibility to go back/forward in the slideshow and showing the caption, author and year. It is also offered a link ("Go to photo gallery"→ 6. PHOTO GALLERY page)	
3	The registry in facts: numbers automatically fed, showing the summary of reforestations registered, total area of the reforestations registered, number of members active, number of municipalities, number of NGOs	
4	# experiences → Link to SEARCH EXPERIENCE menu	
5	# municipalities → Link to a table showing the registered municipalities: name, governorate, district, webpage Only registered users can use this link. If a non-registered user wants to access, a message will pop-up: "Please register or login to access this information" Register → link to REGISTER AS USER Login → link to LOGIN menu	
6	# NGOs → Link to a table showing the registered NGOs: name, post address, e-mail address, webpage, experience and interest on reforestation	

5. Bottom menu

No	Key Features	Confirmation
1	Each logo links to the corresponding webpage	
2	Disclaimer, copyright, webmaster contact: exact wording will be decided by the web page promoters	

POP-UP MENU:

Login: Username:
Password:
Login

Not registered yet? Go to registration menu
Username or password forgotten? Type your registered e-mail and we will send you a new access
e-mail address Submit

(automatic slideshow showing random pictures from the reforestations)

automatically fed, each line leads to a table with the list of experiences, municipalities, NGOs

Link to the SALMA brochure in pdf

2. Home

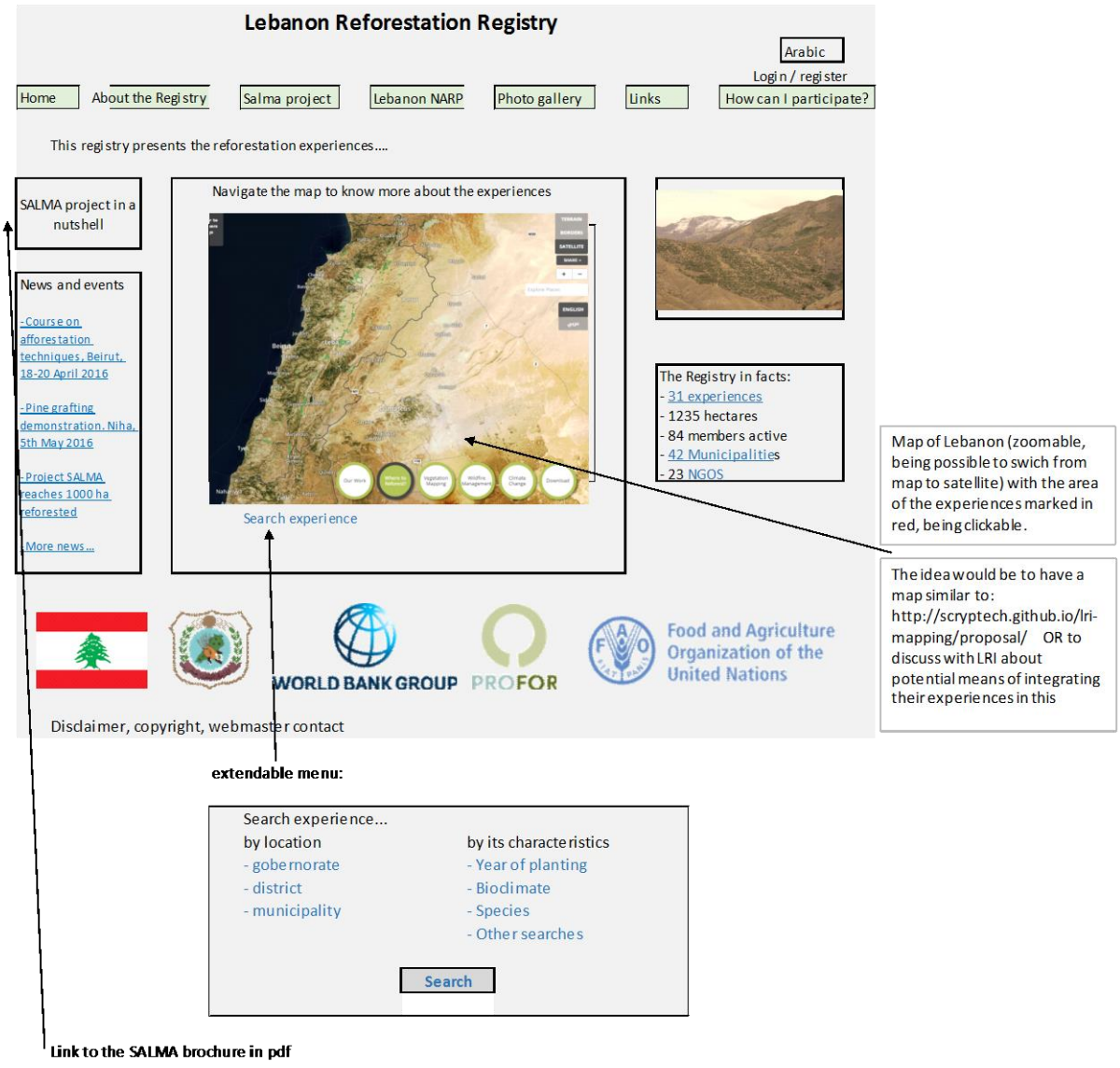
1. Map

No	Key Features	Confirmation
1	Map of Lebanon (zoomable, being possible to switch from map to satellite) with the experiences marked in red, being clickable. It is suggested to have a map similar to: http://scryptech.github.io/lri-mapping/proposal/ OR to discuss with LRI about potential means of integrating their experiences in this registry	
2	When placing the cursor over a reforestation, a menu will open, showing the main features: Municipality, area, year of plantation, species	
3	When clicking on a reforestation, the whole reforestation form is opened in a new window (the same content introduced in "10. ADD NEW REFORESTATION" page)	

2. Menu "Search experience"

No	Key Features	Confirmation
1	When clicking on "Search experience", a double extendable menu is opened: <u>by location</u> - Governorate - District - Municipality <u>by its characteristics</u> - Year of planting - Bioclimate - Species - Other searches	
2	When clicking "Governorate", a combo box will open with the whole list of governorates; it will be possible to choose none, one or more governorates	
3	When clicking "District", a combo box will open with the whole list of districts under the selected governorate/s; if no governorate is selected, the whole list of districts will be shown. It will be possible to choose none, one or more districts	
4	"Municipality" will work the same way as District	
5	Year of planting: two boxes will open (FROM – TO) where it will be possible to indicate the interval of years considered. It will be possible to select only one year	
6	Bioclimate: the list of bioclimates will open (see the list at "10. ADD NEW REFORESTATION" page); one or more can be selected	
7	Species: the list of species will open (see the list at "10. ADD NEW REFORESTATION" page); one or more can be selected	

8	Other searches: the following list of categories and possible values (string variables) or intervals (integer variables) under "10. ADD NEW REFORESTATION" page: prevalent aim, land owner, promoter, contractor, area, monthly/annual climatic data, meteorological station of reference, soil features, altitude, slope steepness, prevailing aspect/s, prevailing physiographic position, plantation density, number of trees, shrub species, other uses within the site, management of pre-existent vegetation, soil preparation type, pit opening type, techniques against drought type, techniques against weeds type, techniques against browsing damage type, other techniques applied	
9	Button "Search": once that the search categories are selected, a list of all the reforestation experiences meeting the chosen criteria will be shown. The categories to show in this list are: Experience code, governorate, district, municipality, year of plantation, promoter, area, species. A button "See reforestation" will link to the reforestation form, opened in a new window (the same content introduced in the "10. ADD NEW REFORESTATION" page)	

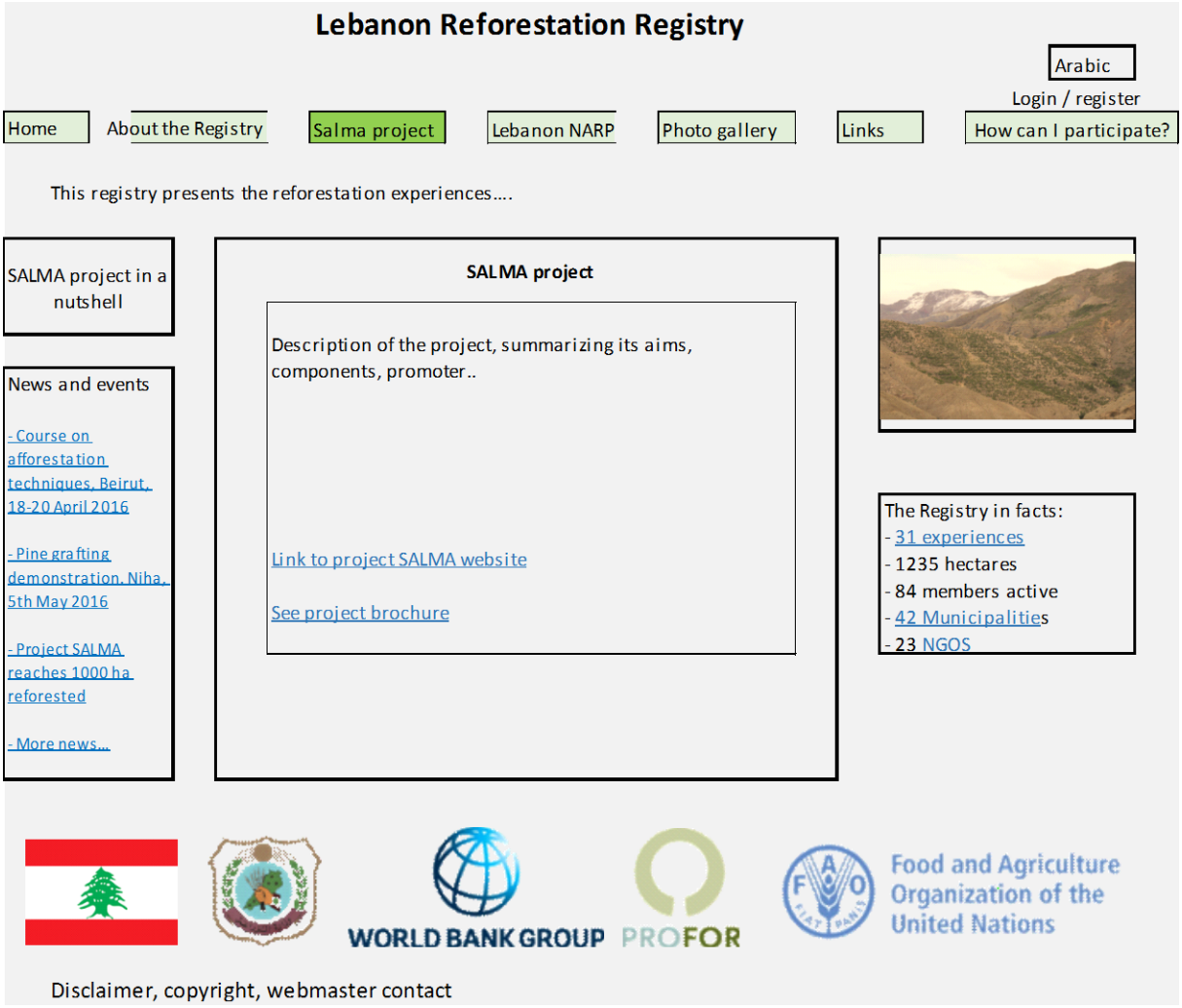


3. About the registry

No	Key Features	Confirmation
1	Paragraph describing the registry, summarizing its aims, content, components, promoter, why it is important…	

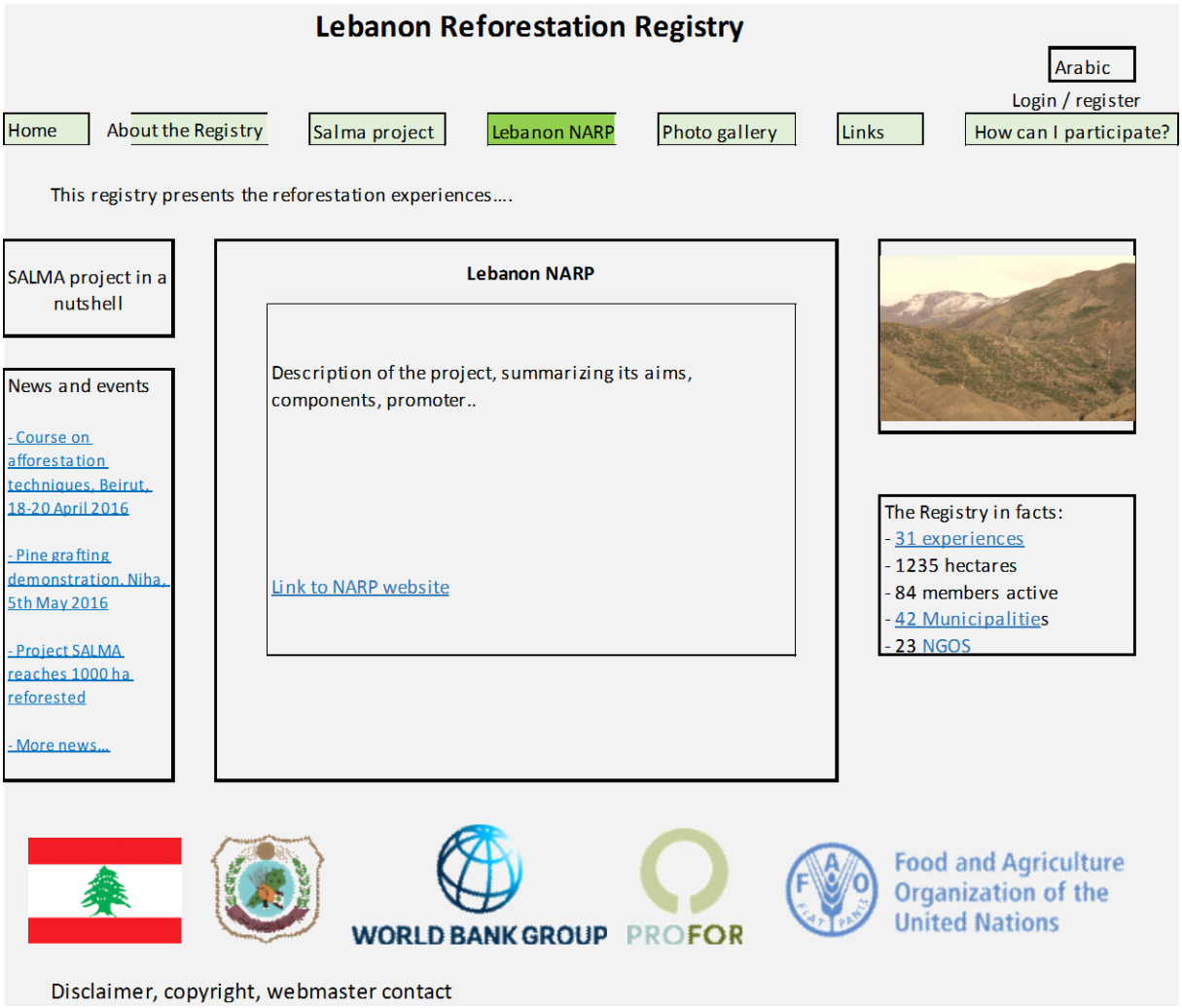
4. SALMA project

No	Key Features	Confirmation
1	Paragraph describing the project, summarizing its aims, content, components, promoter	
2	Link to project SALMA website → link to the site	
3	Project SALMA brochure → open brochure pdf in a new window	



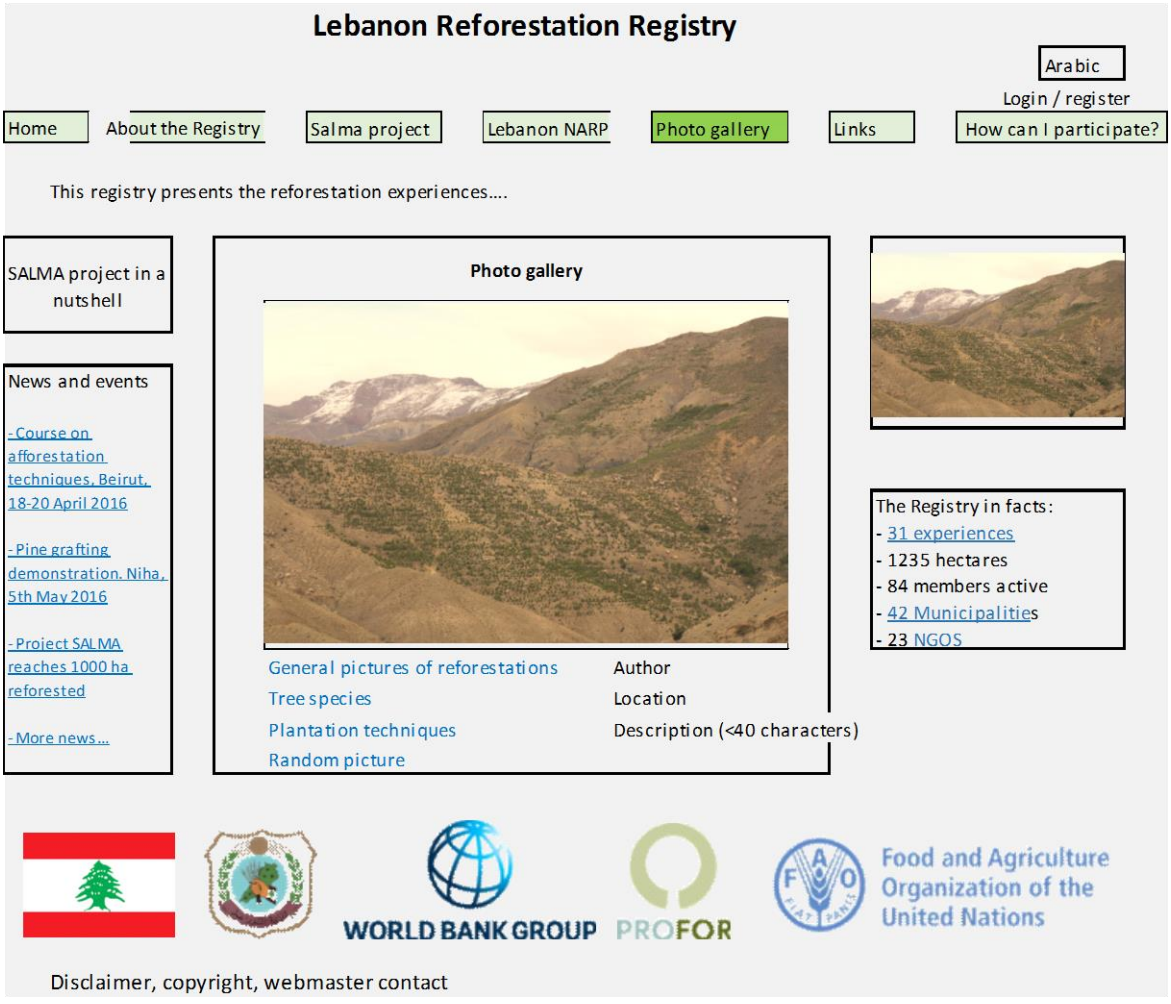
5. Lebanon NARP

No	Key Features	Confirmation
1	Paragraph describing the project, summarizing its aims, components, promoter	
2	Link to NARP website → link to the site	



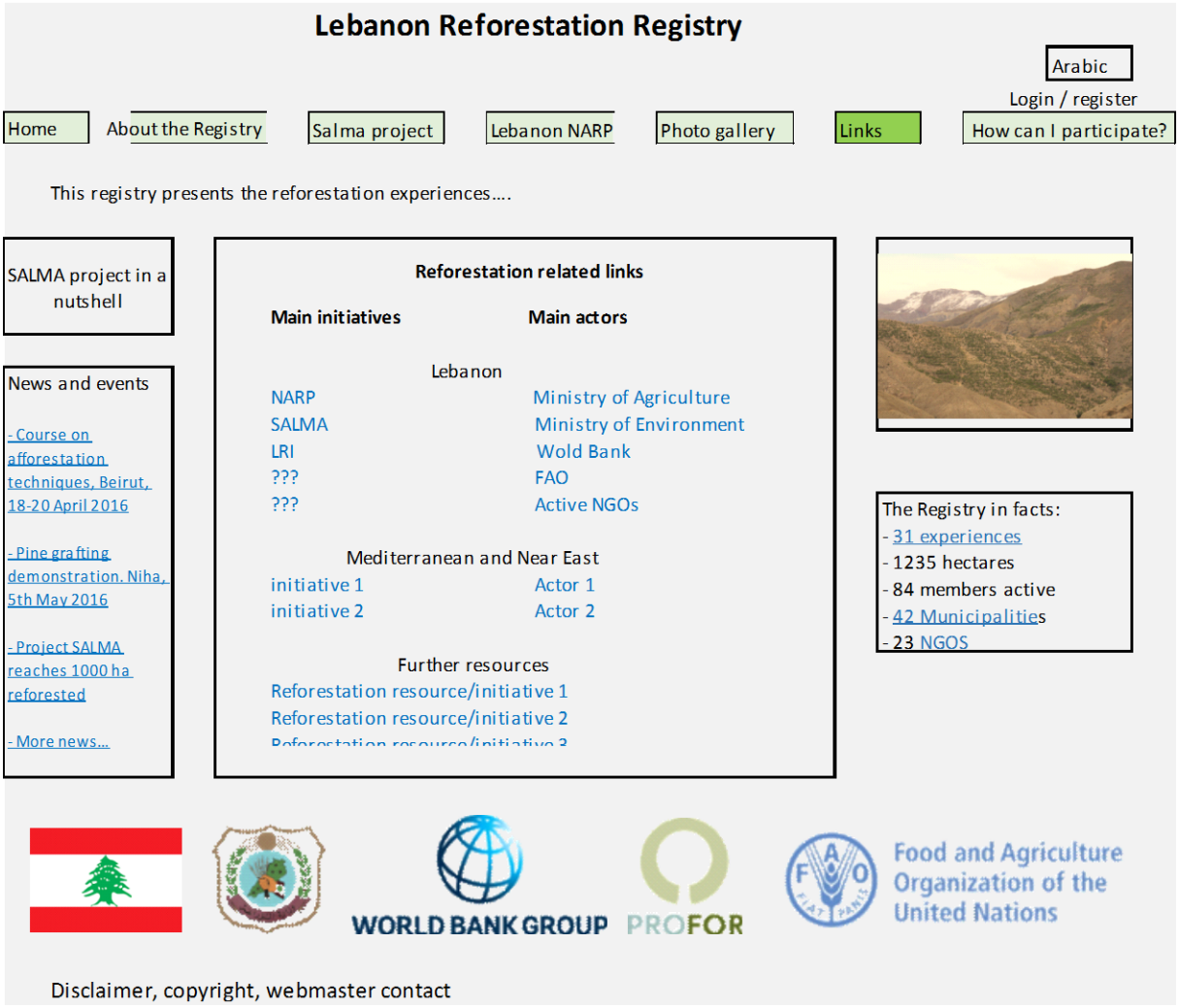
6. Photo gallery

No	Key Features	Confirmation
1	Main picture: automatic slideshow showing selected (relevant) pictures from reforestations, from the reforestation experiences uploaded by the users and further pictures	
2	When clicking on a picture, the slideshow becomes full-screen, with the possibility to go back/forward in the slideshow and showing the caption, author and year	
3	General pictures of reforestations: slideshow showing all pictures labelled as "General pictures of reforestations" (see "14. SEND US A PICTURE" page), with author, location, year, caption	
4	Tree species: slideshow showing all pictures labelled as "Species" (see "14. SEND US A PICTURE" page), with author, location, year, caption	
5	Plantation techniques: slideshow showing all pictures labelled as "Plantation techniques" (see "14. SEND US A PICTURE" page), with author, location, year, caption	
6	Random picture: slideshow randomly showing pictures, with author, location, year, caption	



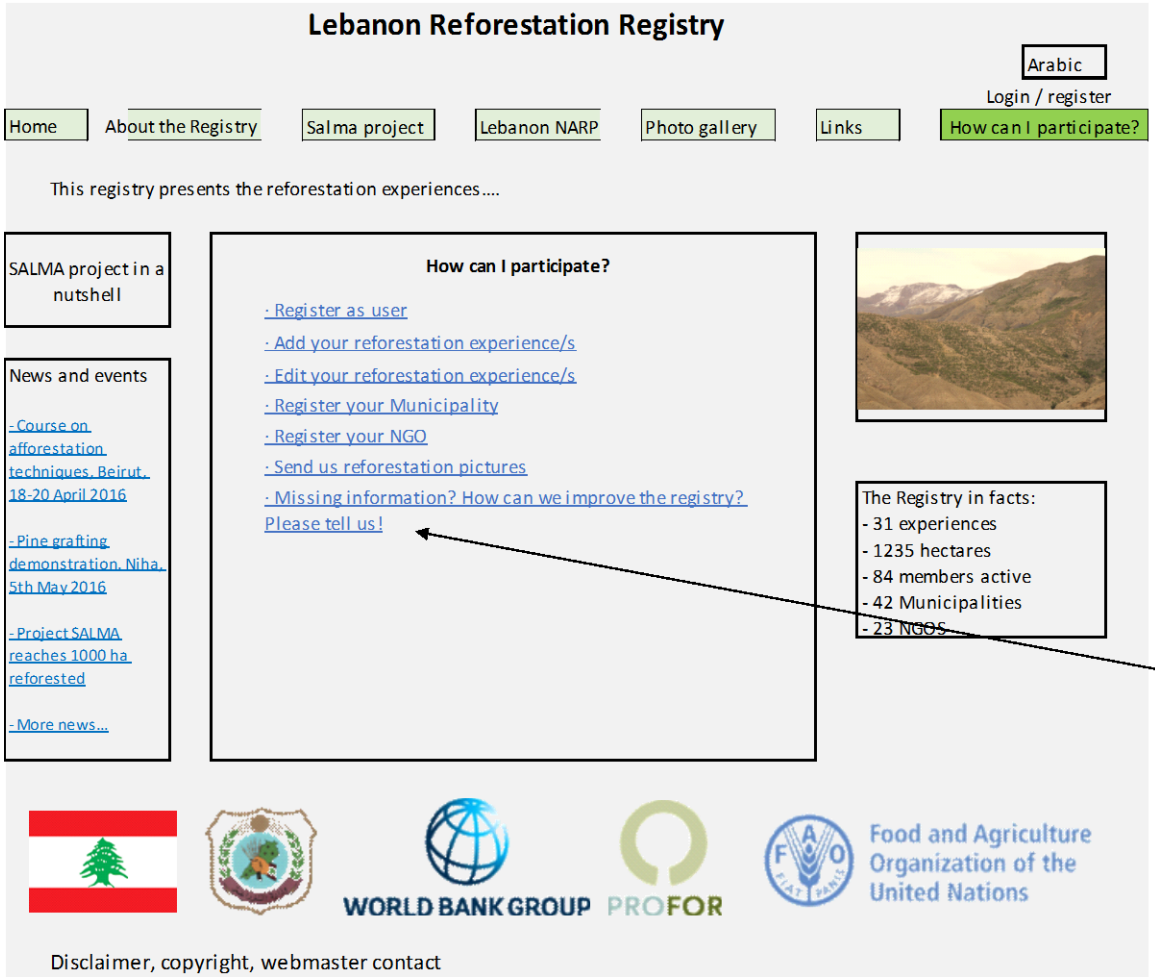
7. Links

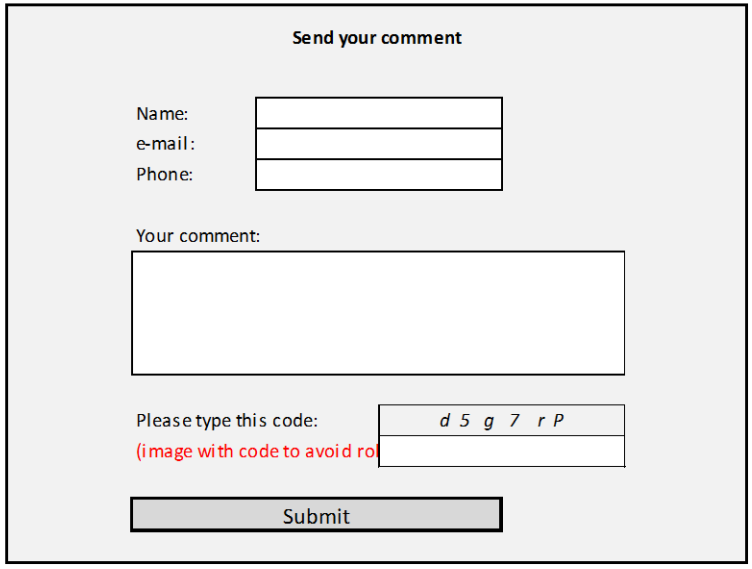
No	Key Features	Confirmation
1	List of the main initiatives and actors in Lebanon, Near/Middle East and further resources. Each name should link to the corresponding webpage	



8. How can I participate

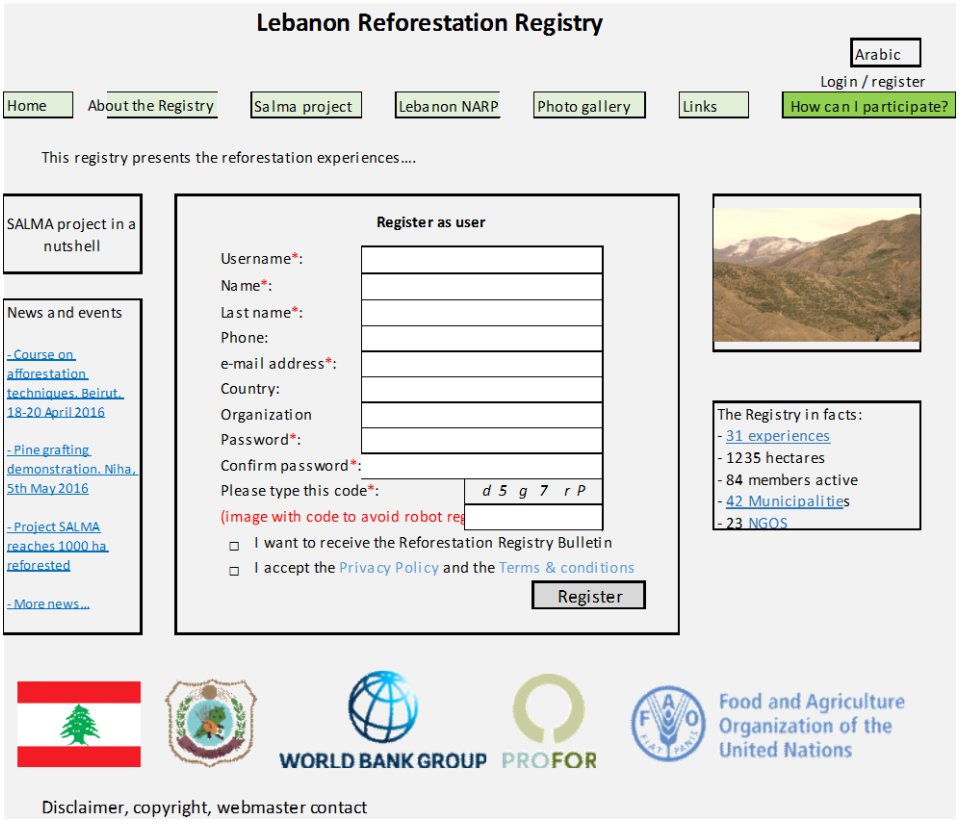
No	Key Features	Confirmation
1	Register as user: link to "9. REGISTER AS USER" page	
2	Add your reforestation experience/s: link to "10. ADD REFORESTATION" page	
3	Edit your reforestation experience/s: link to "11. EDIT REFORESTATION" page	
4	Register your municipality: link to "12. REGISTER MUNICIPALITY" page	
5	Register your NGO: link to "13. REGISTER NGO" page	
6	Send us reforestation pictures: link to "14. SEND US A PICTURE" page	
7	Missing information? How can we improve the registry? Please tell us!: pop-up menu with the following fields: Name, e-mail, phone, comment, submit, filter against robots The message submitted will arrive to the webmaster	


Lebanon Reforestation Registry
Arabic
Login / register
Home
About the Registry
Salma project
Lebanon NARP
Photo gallery
Links
How can I participate?
This registry presents the reforestation experiences....
SALMA project in a nutshell
News and events
- Course on afforestation techniques, Beirut, 18-20 April 2016
- Pine grafting demonstration, Niha, 5th May 2016
- Project SALMA reaches 1000 ha reforested
- More news...
How can I participate?
· Register as user
· Add your reforestation experience/s
· Edit your reforestation experience/s
· Register your Municipality
· Register your NGO
· Send us reforestation pictures
· Missing information? How can we improve the registry? Please tell us!
The Registry in facts:
- 31 experiences
- 1235 hectares
- 84 members active
- 42 Municipalities
- 23 NGOS
WORLD BANK GROUP
PROFOR
Food and Agriculture Organization of the United Nations
Disclaimer, copyright, webmaster contact


Send your comment
Name:
e-mail:
Phone:
Your comment:
Please type this code:
d 5 g 7 r P
(image with code to avoid ro
Submit

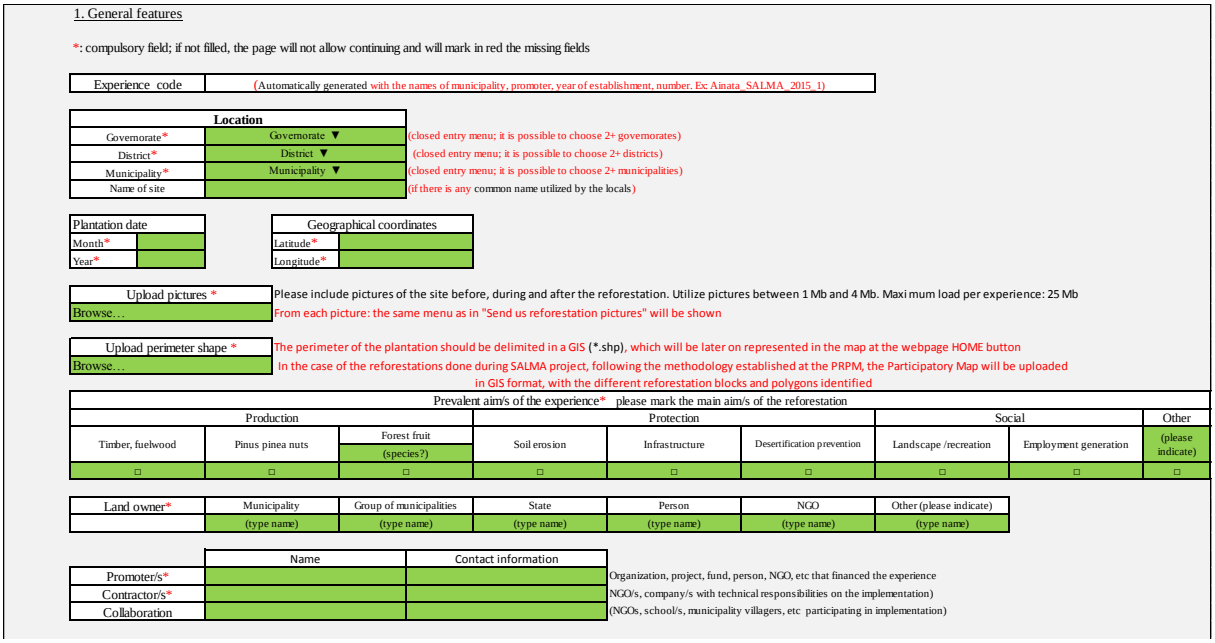
9. Register as user

	Key Features	Confirmation
1	Username: limited to 10 characters. Compulsory field. There cannot be 2 users with the same username	
2	Name: limited to 10 characters, compulsory field	
3	Last name: limited to 10 characters, compulsory field	
4	Phone: limited to 15 characters	
5	E-mail address: limited to 20 characters; it is compulsory that its composition is: text@text.text. Compulsory field	
6	Country: extendable menu, with Lebanon on the top, and all other countries ordered alphabetically	
7	Organization: limited to 15 characters	
8	Password: at least 6 characters. Compulsory field	
9	Confirm password: if different from "Password", an alert should appear. Compulsory field	
10	Anti-robot code: users must type the same code shown. Compulsory field	
11	Bullet to request Reforestation Registry Bulletin: if marked, the e-mail address will be incorporated to a diffusion list	
12	Bullet to confirm the acceptance of Privacy policy (link to privacy policy) and Terms & Conditions (link to T&C). Compulsory field	



10. Add new reforestation

No	Key Features	Confirmation
1	Only registered users can access this menu	
2	Access to new experience form → link to a new tab where the user can add a reforestation experience	
3	Features of the form: please see the content and instructions below: - Green box: editable / clickable. A maximum number of characters must be indicated - Red text: instructions for the web programmer (not to be shown at the final display of the web)	



1. General features

*: compulsory field; if not filled, the page will not allow continuing and will mark in red the missing fields

Experience code	(Automatically generated with the names of municipality, promoter, year of establishment, number. Ex: Ainata_SALMA_2015_1)

Location		
Governorate*	Governorate ▼	(closed entry menu; it is possible to choose 2+ governorates)
District*	District ▼	(closed entry menu; it is possible to choose 2+ districts)
Municipality*	Municipality ▼	(closed entry menu; it is possible to choose 2+ municipalities)
Name of site		(if there is any common name utilized by the locals)

Plantation date		Geographical coordinates	
Month*		Latitude*	
Year*		Longitude*	

Upload pictures * — Please include pictures of the site before, during and after the reforestation. Utilize pictures between 1 Mb and 4 Mb. Maximum load per experience: 25 Mb
Browse… — From each picture: the same menu as in "Send us reforestation pictures" will be shown

Upload perimeter shape * — The perimeter of the plantation should be delimited in a GIS (*.shp), which will be later on represented in the map at the webpage HOME button
Browse… — In the case of the reforestations done during SALMA project, following the methodology established at the PRPM, the Participatory Map will be uploaded in GIS format, with the different reforestation blocks and polygons identified

Prevalent aim/s of the experience* please mark the main aim/s of the reforestation								
Production			Protection			Social		Other
Timber, fuelwood	Pinus pinea nuts	Forest fruit (species?)	Soil erosion	Infrastructure	Desertification prevention	Landscape /recreation	Employment generation	(please indicate)
□	□	□	□	□	□	□	□	□

Land owner*	Municipality	Group of municipalities	State	Person	NGO	Other (please indicate)
	(type name)	(type name)	(type name)	(type name)	(type name)	(type name)

	Name	Contact information	
Promoter/s*			Organization, project, fund, person, NGO, etc that financed the experience
Contractor/s*			NGO/s, company/s with technical responsibilities on the implementation)
Collaboration			(NGOs, school/s, municipality villagers, etc participating in implementation)

2. Site description

Area*		ha

Bioclimatic area *			
Mediterranean		**Presteppic / others**	
Thermomediterranean	□	Hammada Eigii	□
Eumediterranean	□	Presteppic Mediterranean	□
Supramediterranean	□	Presteppic	□
Montane Mediterranean	□	Presteppic Montane	□
Oromediterranean	□	Presteppic Oromediterranean	□
		Other	Please indicate

Please check the classification of bioclimates here: http://scryptech.github.io/lri-mapping/vegetation/

Monthly / Annual climatic data													
Average	JAN	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DEC	YEAR*
Precipitation													
Avg min													
Avg													
Avg max													

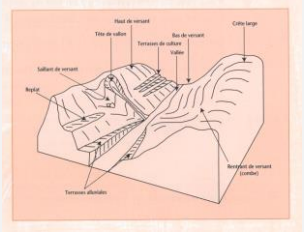
Meteorological station of reference:		Years of observations:	

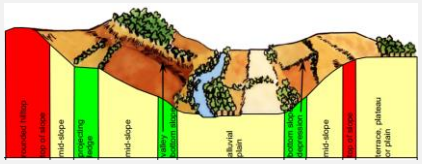
Soil features				
Major soil		pH	
Substrate		Soil depth	
Texture		% Sand	% Silt	% Clay
Classification				
Stoniness	▼ (inappreciable, low, medium, high, very high)			
Other soil features: gypsum, active				

Altitude range* (meters over sea level)			Min	Average*	Max
Slope steepness range* (%)			Min	Average*	Max
Prevailing aspect/s	N	NE	E	SE	S	SW	W	NW

Prevailing physiographic position/s*

it should be possible to choose one or more physiographic positions based on a scheme like one of those shown , or simply with a text box: plateau, crest, upper slope, mid slope, lower slope and valley bottom





Main pre-existent vegetation		
Species common name	Species Latin name	Average cover (%)

3. General description of the experience

Plantation spacing e.g. 3x3; 6x3			Plantation density*		Total number of trees planted*	
	X			trees/ha		trees

(Plantation density is filled automatically when typing spacing; it can be entered manually otherwise)
Total number of trees is calculated based on area and density. The user can correct the value if needed

Tree species						
Common name* (filled automatically when choosing latin name)	Latin name* (filled automatically when choosing common name)	Number of trees	% of trees	Provenance	Format	Size (height in cm)	Age at planting time
▼ (list with 40-50 most common species; it should be possible to add further species)	▼ (list with 40-50 most common species; it should be possible to add further species)				▼ (bare root; containerized, seed)		
▼ (list with 40-50 most common species; it should be possible to add further species)	▼ (list with 40-50 most common species; it should be possible to add further species)				▼ (bare root; containerized, seed)		
▼ (list with 40-50 most common species; it should be possible to add further species)	▼ (list with 40-50 most common species; it should be possible to add further species)				▼ (bare root; containerized, seed)		
▼ (list with 40-50 most common species; it should be possible to add further species)	▼ (list with 40-50 most common species; it should be possible to add further species)				▼ (bare root; containerized, seed)		
+Add species							

(% of trees is filled automatically when entering the number of trees; the user can correct the value if needed)

Shrub species							
Common name* (filled automatically when choosing latin name)	Latin name* (filled automatically when choosing common name)	Number of shrubs	% of shrubs	Provenance	Format	Size (height in cm)	Age at planting time
▼ (list with 20-30 most common species; it should be possible to add further species)	▼ (list with 20-30 most common species; it should be possible to add further species)				▼ (bare root; containerized, seed)		
▼ (list with 20-30 most common species; it should be possible to add further species)	▼ (list with 20-30 most common species; it should be possible to add further species)				▼ (bare root; containerized, seed)		
▼ (list with 20-30 most common species; it should be possible to add further species)	▼ (list with 20-30 most common species; it should be possible to add further species)				▼ (bare root; containerized, seed)		
▼ (list with 20-30 most common species; it should be possible to add further species)	▼ (list with 20-30 most common species; it should be possible to add further species)				▼ (bare root; containerized, seed)		
+Add species							

(% of shrubs is filled automatically when entering the number of trees; the user can correct the value if needed)

Other uses within the site (e.g. beekeeping, medicinal and aromatic plants…)

4. Site preparation and plantation techniques

Management of pre-existent vegetation				
Burning	Mechanical weeding	Chemical weeding	Other (please indicate)	No treatment
□	□	□	□	□

Soil preparation*					
Terracing	Linear sub-soiling	Crossed sub-soiling	Ridge ploughing	Other	No treatment
□	□	□	□	□	□
width in m	depth in cm	depth in cm	ridge size	indicate	

Pit opening* (please indicate pit size in cm)															
Backhoe excavator			Manual			Tractor operated drill			Hand operated drill			Other (please indicate)			
Depth	Width	Width	Depth	Width	Width	Depth	Width	Width	Depth	Width	Width	Technique	Depth	Width	Width

Techniques against drought*											
Irrigation by drippers		Irrigation by reservoir+hose		Irrigation by tanker + hose		Soil conditioners		Other (please describe)		No treatment	
Litres / tree		Litres / tree		Litres / tree		Type					
Times / year		Times / year		Times / year		Dose/tree					
# of years		# of years		# of years							

Techniques against weeds*											
Mechanical weeding		Manual weeding		Chemical weeding		Mulching		Other (please describe)		No treatment	
Equipment		Equipment		Equipment,		Type					
Times / year		Times / year		Times / year		Size (cm2)					
# of years		# of years		# of years							

Techniques against browsing damage*									
Perimetral fence		Individual shelters		Legal prohibition / guarding (describe)		Other (please describe)		No treatment	
Type		Type							
Height		Height							

Other techniques applied (e.g. fertilization, dry wells, use of nurse species, fog traps…)

5. Monitoring and results

Monitoring summary						
Date		Variables measured				
Year	Month	Survival	Diameter	Height	Add variables (edit)	Add variable…
		□	□	□		
		□	□	□		
		□	□	□		
Add measurement…						

this field adds a new column

this field adds a new line

Results for species 1					
Year	Month	Survival	Diameter	Height	Further variables
Add measurement…					

Results for species 2					
Year	Month	Survival	Diameter	Height	Further variables
Add measurement…					

Results for species n					
Year	Month	Survival	Diameter	Height	Further variables
Add measurement…					

species 1 --> automatically created when indicating utilized species

Additional variables: automatically created when indicating more variables

species 2 --> automatically created when indicating utilized species

Additional variables: automatically created when indicating more variables

species n --> automatically filled with the description of the plantation

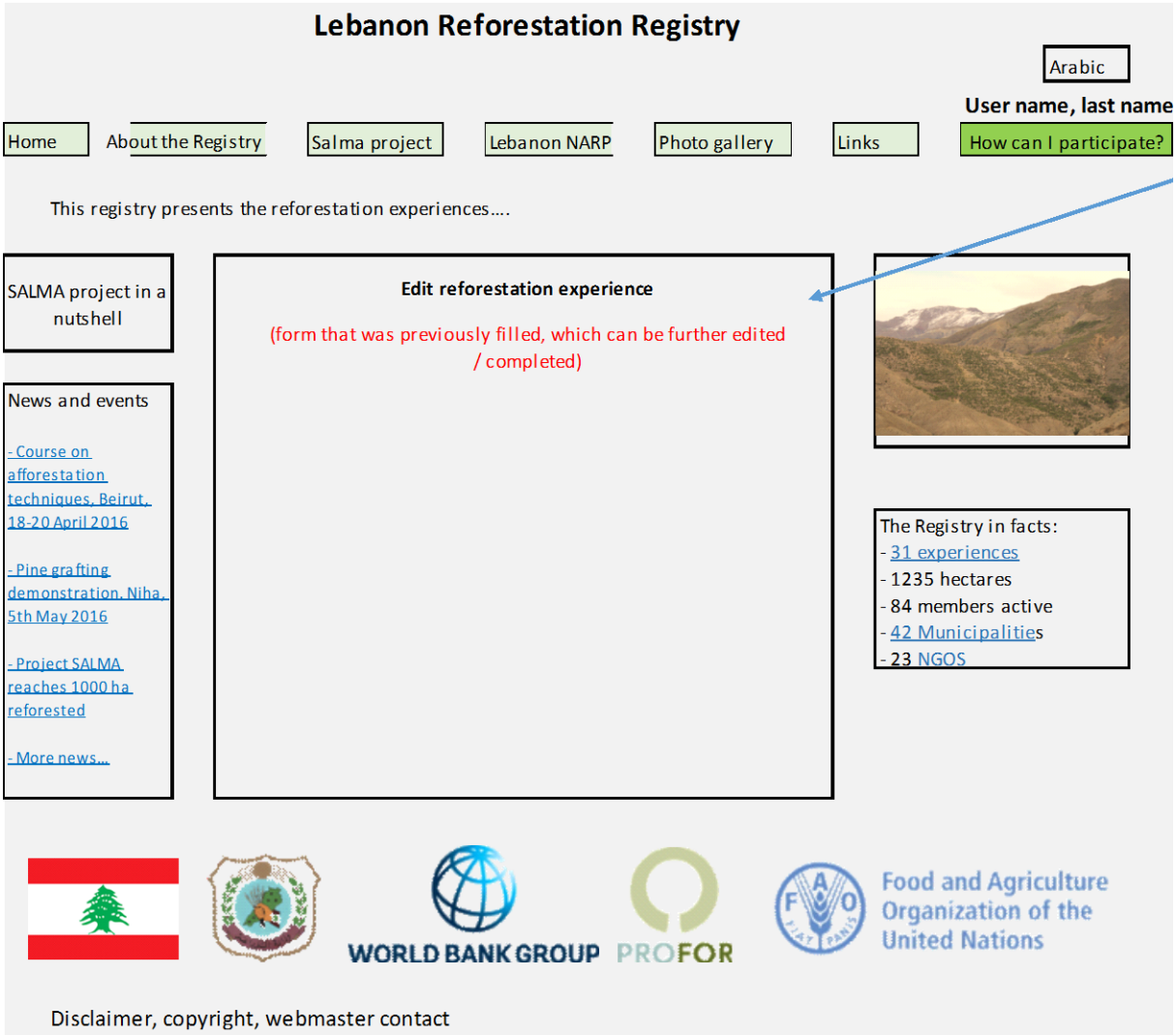
The program opens as many tables as the species used

Results of research activities performed						
Treatment	Year	Month	Survival	Diameter	Height	Further variables
Add treatment						

Add experience

11. Edit reforestation

No	Key Features	Confirmation
1	Only registered users can access this menu	
2	When a user has registered 2 or more experiences, he/she will be able to choose the one he wants to be edited	
3	The last saved version of the Form is shown. Data can be edited, always respecting the rules (compulsory fields) indicated in the form	



Data will be pre-filled with the information introduced when adding the reforestation

Form "Edit experience" (scroll-down menu)

Green boxes: editable / clickable fields

1. General features

*: compulsory field; if not filled, the page will not allow continuing and will mark in red the missing fields

Experience code	(Automatically generated with the names of municipality, promoter, year of establishment, number. Ex: Ainata_SALMA_2015_1)

Location		
Governorate*	Governorate ▼	(closed entry menu; it is possible to choose 2+ governorates)
District*	District ▼	(closed entry menu; it is possible to choose 2+ districts)
Municipality*	Municipality ▼	(closed entry menu; it is possible to choose 2+ municipalities)
Name of site		(if there is any common name utilized by the locals)

Plantation date	
Month*	
Year*	

Geographical coordinates	
Latitude*	
Longitude*	

Upload pictures *
Browse…

Please include pictures of the site before, during and after the reforestation. Utilize pictures between 1 Mb and 4 Mb. Maximum load per experience: 25 Mb

From each picture: the same menu as in "Send us reforestation pictures" will be shown

Upload perimeter shape *
Browse…

The perimeter of the plantation should be delimited in a GIS (*.shp), which will be later on represented in the map at the webpage HOME button

In the case of the reforestations done during SALMA project, following the methodology established at the PRPM, the Participatory Map will be uploaded in GIS format, with the different reforestation blocks and polygons identified

Prevalent aim/s of the experience* please mark the main aim/s of the reforestation								
Production			Protection			Social		Other
Timber, fuelwood	Pinus pinea nuts	Forest fruit (species?)	Soil erosion	Infrastructure	Desertification prevention	Landscape /recreation	Employment generation	(please indicate)
☐	☐	☐	☐	☐	☐	☐	☐	☐

Land owner*	Municipality	Group of municipalities	State	Person	NGO	Other (please indicate)
	(type name)	(type name)	(type name)	(type name)	(type name)	(type name)

	Name	Contact information	
Promoter/s*			Organization, project, fund, person, NGO, etc that financed the experience
Contractor/s*			NGO/s, company/s with technical responsibilities on the implementation)
Collaboration			(NGOs, school/s, municipality villagers, etc participating in implementation)

2. Site description

Area*		ha

Bioclimatic area *			
Mediterranean		**Presteppic / others**	
Thermomediterranean	□	Hammada Eigii	□
Eumediterranean	□	Presteppic Mediterranean	□
Supramediterranean	□	Presteppic	□
Montane Mediterranean	□	Presteppic Montane	□
Oromediterranean	□	Presteppic Oromediterranean	□
		Other	Please indicate

Please check the classification of bioclimates here: http://scryptech.github.io/lri-mapping/vegetation/

Monthly / Annual climatic data													
Average climate data	JAN	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEP	OCT	NOV	DEC	YEAR*
Precipitation (mm)													
Avg min													
Avg temperature (ºC)													
Avg max temperature (ºC)													

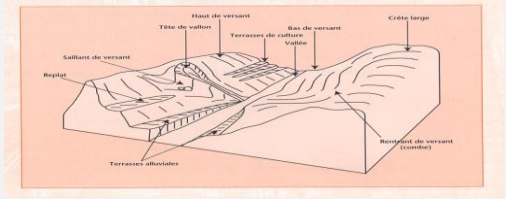
Meteorological station of reference:		Years of observations:	

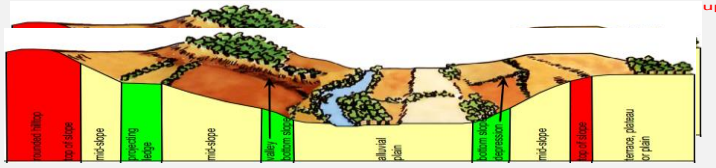
Soil features				
Major soil			pH	
Substrate			Soil depth	
Texture		% Sand	% Silt	% Clay
Classification				
Stoniness	▼ (inappreciable, low, medium, high, very high)			
Other soil features: gypsum, active				

Altitude range* (meters over sea level)			Min	Average*	Max			
Slope steepness range* (%)			Min	Average*	Max			
Prevailing aspect/s	N	NE	E	SE	S	SW	W	NW

Prevailing physiographic position/s*

it should be possible to choose one or more physiographic positions based on a scheme like one of those shown , or simply with upper slope, mid slope, lower slope and valley bottom





Main pre-existent vegetation		
Species common name	Species Latin name	Average cover (%)

3. General description of the experience

Plantation spacing e.g. 3x3; 6x3			Plantation density*		Total number of trees planted*	
	X			trees/ha		trees

(Plantation density is filled automatically when typing spacing; it can be entered manually otherwise)
Total number of trees is calculated based on area and density. The user can correct the value if needed

Tree species

Common name* (filled automatically when choosing latin name)	Latin name* (filled automatically when choosing common name)	Number of trees	% of trees	Provenance	Format	Size (height in cm)	Age at planting time
(list with 40-50 most common species; it should be possible to add further species)	(list with 40-50 most common species; it should be possible to add further species)				(bare root; containerized, seed)		
(list with 40-50 most common species; it should be possible to add further species)	(list with 40-50 most common species; it should be possible to add further species)				(bare root; containerized, seed)		
(list with 40-50 most common species; it should be possible to add further species)	(list with 40-50 most common species; it should be possible to add further species)				(bare root; containerized, seed)		
(list with 40-50 most common species; it should be possible to add further species)	(list with 40-50 most common species; it should be possible to add further species)				(bare root; containerized, seed)		
+Add species							

(% of trees is filled automatically when entering the number of trees; the user can correct the value if needed)

Shrub species

Common name* (filled automatically when choosing latin name)	Latin name* (filled automatically when choosing common name)	Number of shrubs	% of shrubs	Provenance	Format	Size (height in cm)	Age at planting time
(list with 20-30 most common species; it should be possible to add further species)	(list with 20-30 most common species; it should be possible to add further species)				(bare root; containerized, seed)		
(list with 20-30 most common species; it should be possible to add further species)	(list with 20-30 most common species; it should be possible to add further species)				(bare root; containerized, seed)		
(list with 20-30 most common species; it should be possible to add further species)	(list with 20-30 most common species; it should be possible to add further species)				(bare root; containerized, seed)		
(list with 20-30 most common species; it should be possible to add further species)	(list with 20-30 most common species; it should be possible to add further species)				(bare root; containerized, seed)		
+Add species							

(% of shrubs is filled automatically when entering the number of trees; the user can correct the value if needed)

Other uses within the site (e.g. beekeeping, medicinal and aromatic plants…)

4. Site preparation and plantation techniques

Management of pre-existent vegetation

Burning	Mechanical weeding	Chemical weeding	Other (please indicate)	No treatment
□	□	□	□	□

Soil preparation*

Terracing	Linear sub-soiling	Crossed sub-soiling	Ridge ploughing	Other	No treatment
□	□	□	□	□	□
width in m	depth in cm	depth in cm	ridge size	indicate	

Pit opening* (please indicate pit size in cm)

Backhoe excavator			Manual			Tractor operated drill			Hand operated drill			Other (please indicate)			
Depth	Width	Width	Depth	Width	Width	Depth	Width	Width	Depth	Width	Width	Technique	Depth	Width	Width

Techniques against drought*

Irrigation by drippers		Irrigation by reservoir+hose		Irrigation by tanker + hose		Soil conditioners		Other (please describe)	No treatment
Litres / tree		Litres / tree		Litres / tree		Type			
Times / year		Times / year		Times / year		Dose/tree			
# of years		# of years		# of years					

Techniques against weeds*

Mechanical weeding		Manual weeding		Chemical weeding		Mulching		Other (please describe)	No treatment
Equipment		Equipment		Equipment, product		Type			
Times / year		Times / year		Times / year		Size (cm2)			
# of years		# of years		# of years					

Techniques against browsing damage*

Perimetral fence		Individual shelters		Legal prohibition / guarding (describe)	Other (please describe)	No treatment
Type		Type				
Height		Height				

Other techniques applied (e.g. fertilization, dry wells, use of nurse species, fog traps…)

5. Monitoring and results

Monitoring summary						
Date		Variables measured				
Year	Month	Survival	Diameter	Height	Add variables (edit)	Add variable...
		☐	☐	☐		
		☐	☐	☐		
		☐	☐	☐		
Add measurement...						

this field adds a new column

this field adds a new line

Results for species 1					
Year	Month	Survival	Diameter	Height	Further variables
Add measurement...					

species 1 --> automatically created when indicating utilized species

Additional variables: automatically created when indicating more variables

Results for species 2					
Year	Month	Survival	Diameter	Height	Further variables
Add measurement...					

species 2 --> automatically created when indicating utilized species

Additional variables: automatically created when indicating more variables

Results for species n					
Year	Month	Survival	Diameter	Height	Further variables
Add measurement...					

species n --> automatically filled with the description of the plantation

The program opens as many tables as the species used

Results of research activities performed						
Treatment	Year	Month	Survival	Diameter	Height	Further variables
Add treatment						

Update experience

12. Register municipality

No	Key Features	Confirmation
1	Only registered users can access this menu	
2	Name of municipality: compulsory field. Extendable menu with the whole list of municipalities	
3	Governorate: compulsory field. Filled automatically when choosing the municipality	
4	District: compulsory field. Filled automatically when choosing the municipality	
5	Contact person name: compulsory field. Limited to 15 characters	
6	Contact person e-mail: compulsory field. It must have the format text@text.text. Limited to 20 characters	
7	Town hall post address: compulsory field. Limited to 25 characters	
8	Town hall phone: compulsory field. Limited to 15 characters	
9	Web page: optional field. Limited to 15 characters	
10	Willing to reforest? → selectable bullet of compulsory selection. If YES is chosen, the next field (approximate area) is open for edition. If NO is chosen, the next field (approximate area) is not editable	
11	Approximate area: filled as mentioned above	
12	Register: the municipality is registered into the system, subjected to validation by the webmaster, which might contact the town hall to confirm that the representative of the municipality is the authorized person	

Lebanon Reforestation Registry

Arabic

User name, last name

Home | About the Registry | Salma project | Lebanon NARP | Photo gallery | Links | How can I participate?

This registry presents the reforestation experiences....

SALMA project in a nutshell

News and events

- Course on afforestation techniques, Beirut, 18-20 April 2016
- Pine grafting demonstration. Niha, 5th May 2016
- Project SALMA reaches 1000 ha reforested
- More news...

Register your Municipality

Name of Municipality*	
Governorate*	
District*	
Contact person name*	
Contact person e-mail*	
Town hall post address*	
Town hall phone*	
Web page	

Willing to reforest?* ☐ YES ☐ NO

Approximate area _____ ha

Register

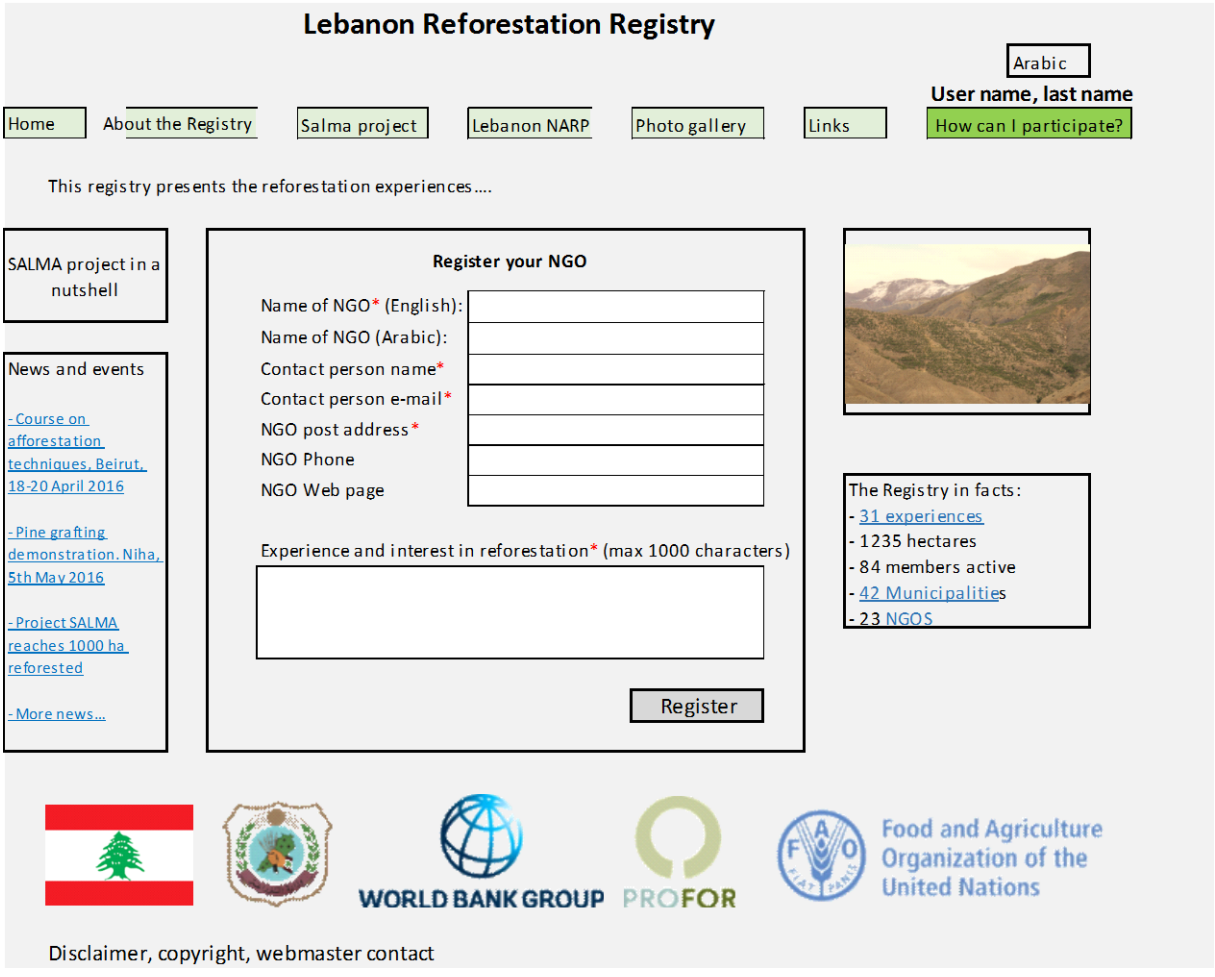
The Registry in facts:
- 31 experiences
- 1235 hectares
- 84 members active
- 42 Municipalities
- 23 NGOS

WORLD BANK GROUP PROFOR Food and Agriculture Organization of the United Nations

Disclaimer, copyright, webmaster contact

13. Register NGO

No	Key Features	Confirmation
1	Only registered users can access this menu	
2	Name of NGO (English): compulsory field. Limited to 15 characters	
3	Name of NGO (Arabic). Limited to 15 characters	
4	Contact person name: compulsory field. Limited to 15 characters	
5	Contact person e-mail: compulsory field; entered as text@text.text. Limited to 20 characters	
6	NGO Post address: compulsory field. Limited to 25 characters	
7	NGO phone. Limited to 10 characters	
8	NGO web page. Limited to 15 characters	
9	Experience and interest in reforestation: compulsory field, limited to 1000 characters)	
10	Register: the NGO is registered into the system, subjected to validation by the webmaster, which might contact the NGO to confirm that the appointed contact person is a valid representative	



14. Send us a picture

No	Key Features	Confirmation
1	Only registered users can access this menu	
2	Author: name of the author of the picture. Limited to 15 characters	
3	Location of picture: where it was taken. Limited to 15 characters	
4	Year: when it was taken.	
5	This picture depicts… it is possible to choose one bullet (general image of a reforestation, species, plantation techniques). If choosing Species, the field "Indicate species here" must be edited. If choosing "Plantation techniques", the field "Indicate techniques here" must be edited	
6	Caption: a brief description of the picture, limited to 40 characters	
7	Bullet where the person must confirm that the picture does not raise intellectual property rights issues and accepts T&C (to be defined)	
8	Browse: menu to upload a picture, indicating maximum size	
9	Send: the picture integrates the database of pictures of the registry, upon approval by the webmaster of the picture relevance and adequate labelling (general reforestation, species, techniques). The best pictures are selected to be shown at the automatic slideshow provided at the webpage	