


For the paper in Arabic see pages (231)
Resource (Rser) :An Interregional Curricular Comparative Study. *Association of Arab Universities Journal for Education & Psychology. 11*(1). Damascus, Syria.


References:
Cheikho M. (2013). *The Concept of “Forest” In Forestry Education as a Reference to Renewable Socio-Economic...
professional identity and the rural world changes. Furthermore, the arguments of Colchester et al (2006) about difficulties encountered by rural communities in getting their forestry rights and those of the FAO (2006) and Gorashi (2009) concerning the relation between forest policy and socio-economic conditions support the proposition of introducing new course within Syrian forestry curricula particularly the course of forest legislations and real estate and the course of non-traditional forestry investments. The research result concerning the proposition of initiating forestry databases within educational forestry institution and the introducing of new courses such as forestry data bases and Officialdom and administrative affairs respond to forest policy concerns pronounced by Nahal (2009). Furthermore, the result concerning the introducing of a course on International trends in forestry & ecology rejoins the recommendation of Gorashi (2009) concerning the benefitting of international experiences. The technical assistance presented by the FAO (2007) to the Syrian forestry sector represent itself a logic justification for the educational result proposed through this research concerning the Partnership agreements between Syrian forestry educational institutions and forestry directorate and departments. Finally, the natural-scientist “forest” concept of Syrian forestry curricula described by Cheikho (2013) proves that Syrian forestry educational institutions deal with the forest through a mono-disciplinary approach and neglects its socio-economic dimensions. In contrast, the legislative concept of “forest” is more attached to the socio-economic; political and ecological context. This comparison reveals the existence to some extent of a dichotomy between the Syrian legislative concept of “forest” and that of forestry educational institutions; this confirms the pertinence of educational extrapolations obtained through this research.
1. Forest legislations and real estate.
2. Officialdom and administrative affairs.
3. Non-traditional forestry investments.
5. Forestry data bases.

Finally and concerning the problematic question of this paper, the “forest” concepts held and imposed by the successive Syrian forest laws indicate that “forest” has been officially conceived through a narrow direct economic vision but not through its realistic potentiality as an integrated socio-economic ecosystem. Between protected and unrestricted, Syrian forest has been generally considered in spite of its limited superficial as a valuable economic resource for both authorities and population and has been also managed to rejoins different sociopolitical objectives, ecological concerns and international norms.

6. Implication and discussion: The “forest” concepts of the laws of 1869, 1953, 1953 and 1994 with their narrow economic viewpoint represent exemplars of the simplistic model proposed by Giordan and Souchon (1994); this fact assure the deduction about the possible socio-economic conflicts due to this model. With reference to these conflicts, the research output concerning the protective trend of the law of 1994 confirms the description of this same law by Gorashi (2009). Moreover, the assessment of the law 2007 presented by Gorashi (2009) confirms the obtained result concerning its tendencies towards the traditional protective and the non-traditional forestry investment. The tracking of Syrian forestry legislations transitional conduit proved that the concept of “forest” has changed skin between ecological and economic several times within the last fourteen decades; this result confirms those concluded by Cheikho, Clément (2002) and Cheikho, Clément & Bariteau (1999) concerning the inappropriateness of the simplistic model of forest for socio-economic forestry conflicts resolution. The educational extrapolations of this research concerning Syrian forestry institutions and curricula rejoin the deduction of Simonneaux (1999) concerning the relation between the
1994 has been ecologically appreciated through discovering the deterioration of its surface; it was seen as an endangered patrimony. 4. (2007/1994): Selective adjustment stimulated by international norms: The forest law of 2007, which was “at least” partially arranged to fit international norms and tends, continues with a kind of ambiguity concerning forest policy targets to consider the forest as able to be used as an economic resource through non-traditional investments.

With reference to educational extrapolations, future forest engineers should find a suitable educational ambiance to acquire socio-economic experiences and forestry jurisdictional and administrative skills; producing such ambiance entails institutional and curricular requirements. Concerning educational institutions:

1. Forestry educational institutions need to be kept informed concerning national forest policy and forest law changes.

2. The six legislative common themes should be considered in the forest engineer occupational profile description and curricular revision processes.

3. Forestry educational institutions should update their terminologies and pursuing new forestry tends and ecological norms through establishing communicative channels with interregional and international organizations.

4. Forestry educational institutions should initiate their own forestry databases.

5. Partnership agreements should be held with forestry directorate and departments concerning forestry resources socio-economic assessment, natural reserves management and forestry projects studies implementation; these agreements should notice the remunerated contractual expertise of forestry educational institutions and the semi-contractual implications of future forest engineers through practical assignments, training stages and camping.

Concerning forestry engineering curricula, five new educational courses are proposed to be introduced within Syrian forestry curricula; the proposed courses are:
6. Conclusions:

6.1 Main findings: Concerning the legislative concepts of “Forest”, the targeted forest laws involve six main structural subject matters as common themes: Formal generalities, forest use and real estate, usage licensing, forests conservation, private forests, and penalties.

With reference to forest system constitutive elements, the “forest” concept as per the Ottoman forest law 1869 indicates that the vision behind it represents a pure economic one. The “forest” concept according to the French Protectorate forest law 1935 indicates that the vision behind it is still economic but with slight ecological concerns. The “forest” concept of the forest law of 1953 indicates that the vision residing behind it has reduced the forest into a simple vegetal economic source. The “forest” concept of the forest law of 1994 indicates that the law of 1994 was built through leaning not only on an economic vision but also on a protective trend. To end, the “forest” concept as per the forest law of 2007 indicates that the economic background of law of 2007 tries to put together both the keeping of the traditional protective trend and the non-traditional forestry investment.

The tracking of Syrian forestry legislations transitional conduit indicates that the concept of “forest” has changed skin several times within the last fourteen decades. Generally, four evolitional phases have been identified:

1. (1935/1869): Ecological concerns stimulated by economic degradation: The Syrian forest under the French protectorate has been protected and continued to be seen through an economic vision but with slight ecological concerns.

2. (1953/1935): Economic vision through socio-political concerns: The Syrian forest of the post-independence period has been seen as if it was a profitable taking; it continued to be seen through an economic vision but through socio-political concerns.

3. (1994/1953): Ecological appreciation stimulated by forests surface deterioration: The Syrian forest under the forest law of
assessment, natural reserves management and forestry projects studies implementation; these agreements should notice the remunerated contractual expertise of forestry educational institutions and the semi-contractual implications of future forest engineers through practical assignments, training stages and camping.

Concerning forestry engineering curricula:
1. This research outputs could be didactically translated through the introducing of five new educational courses.
2. Forest legislations & real estate: Through this course future forest engineers could be familiar with forest policy and relative legislative instruments as well as the most important international conventions on environment and natural resources and capable to apply the legal procedures dealing with state and private resources real estate, cadastral affairs, conservation, and law infractions.
2. Officialdom & administrative affairs: This course allows the acquisition of administrative system and public service principles and ethics as well as forest engineer job–related duties and rights towards employer, superior commander, employees and clients in addition to official procedures and formalities.
3. Non–traditional forestry investments: Through this course future forest engineers could learn how to manage natural reserves, botanical gardens and other non–traditional forestry investments such as ecotourism projects and forestry handicrafts small and medium enterprises.
4. International trends in forestry & ecology: This course enables future forest engineers to be aware of the latest forestry trends and international ecological events as well as of the modern innovations in forestry sciences and related terminologies.
5. Forestry data bases: This course allows the acquisition of skills in forestry and ecological data collection methods, documentary works, sampling and surveys, data digital description, and data treatment Techniques.
To put it briefly, it could be conclude that between protected and unrestricted, Syrian forest has been generally considered in spite of its limited superficial as a valuable economic resource for both authorities and population and has been also managed to rejoins different sociopolitical objectives, ecological concerns and international norms.

5. 3. Educational implications of legislative “forest” concept: As a response to the third question of this research, the similarity seen through the statistical outputs among targeted forest law translates to some extent stability concerning the implicit economic intent of Syrian “forest” concept for about 138 years; this could permit and justify a number of educational extrapolations and recommendations.

Didactically, Forestry educational institutions should provide a suitable educational ambiance to enable future forest engineers acquiring forestry jurisdictional knowledge, socio-economic experiences and administrative skills. This ambiance should assist them being familiar with innovative and non-traditional forestry investments such as aromatic and medicinal plants, handicrafts and ecotourism. Producing such ambiance involves several requirements at institutional and curricular levels.

Concerning institutional requirements:
1. Forestry educational institutions need to be kept informed about national forest policy and forest law formulation and changes.
2. The six legislative common themes should be considered in the forest engineer occupational profile description and curricular revision processes.
3. Forestry educational institutions should update their terminologies and pursuing new forestry tends and ecological norms through establishing communicative channels with interregional and international organizations.
4. Forestry educational institutions should initiate their own forestry databases.
5. Partnership agreements should be held with forestry directorate and departments concerning forestry resources socio-economic
together both the consistency of traditional protective trends and the forestry investment through non-traditional forestry. To conclude, the forest law of 2007 which was “at least” partially arranged to fit specific international norms and tends continues under an ambiguous forest policy to consider the forest as able to be used as an economic resource through non-traditional investments.

Concisely, the table (6) illuminates the main transitional conduit phases of Syrian forestry legislations and their key elements:

**Table 6**
**Key elements of Syrian forestry legislations transitional conduit.**

<table>
<thead>
<tr>
<th>Evolutional phase</th>
<th>Started with</th>
<th>Forest state of affairs</th>
<th>Results</th>
<th>Ended by</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>The 1st (66 years)</td>
<td>FL 1869</td>
<td>Taxable uses</td>
<td>Pervasive forest degradation</td>
<td>FL 1935</td>
<td>Ecological concern stimulated by economic degradation</td>
</tr>
<tr>
<td>The 2nd (18 years)</td>
<td>FL 1935</td>
<td>Rigorous protection</td>
<td>Protection popular refuse</td>
<td>FL 1953</td>
<td>Economic vision through socio-political concerns</td>
</tr>
<tr>
<td>The 3rd (41 years)</td>
<td>FL 1953</td>
<td>Profitable taking</td>
<td>Endangered forestry patrimony</td>
<td>FL 1994</td>
<td>Ecologically appreciation through discovering forests surface deterioration</td>
</tr>
<tr>
<td>The 4th (13 years)</td>
<td>FL 1994</td>
<td>Repressive protection</td>
<td>Protection and several type of infraction</td>
<td>FL 2007</td>
<td>Selective adjustment stimulated by international norms</td>
</tr>
<tr>
<td>The 5th As yet</td>
<td>FL 2007</td>
<td>In-between economic asset and protection</td>
<td>Ambiguous forestry vision and several type of infraction</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The tracking of Syrian forestry legislations transitional conduit indicates that the “forest” concept has changed skin several times within the last fourteen decades (figure 14).

![Diagram](Image of Figure 14)
**Figure 14**
The projected transitional conduit of the successive Syrian “forest” concepts.
forest law to end this problematical situation. The forest law of 2007, albeit it was considered as an important piece of legislation on the exploitation and protection, has witnessed a noticeable reduction in articles related to usage licensing and an increasing in forests conservation within its content (figure 13); to be precise, the inflexible protective attitude is still represented but under a new title. This observation indicates that, the adjustment carried out by the law of 2007 is far of being deeply connected to the problematic of Syrian forest; it could be due to others factors such as being appropriate to specific international norms.

![Figure 13](attachment:image.jpg)

With the law of 2007, the constitutive elements “Interactions”, “plant” and “Soil” have had been relatively reduced (figure 13); this could not translate neither ecological concerns nor protective attitude. In contrast, those of “Man” and “Animal” have been largely increased; this could mainly due to the number of articles related to economic topics such as ecotourism investments, windbreaks cutting, animal grazing and licensing requirements. But paradoxically, licensing procedures and formalities are still complex and long. In view of that, the legislative adjustment carried out by the forest law of 2007 gives an impression of being selective and non-coherent; this could be due to the absence of a clear forest policy behind it and this why it represents a paradoxical legislative case vis-à-vis different forestry relative concerns. Anyhow, the law of 2007 tries to impose a new economic context through putting
licensing have been largely reduced (figure 12). The forest law of 1994 was very repressive; it imposes firmly its ecological concerns. This law reflects not only the protective incentives stimulated by the deterioration of Syrian forest lands surface but also the appearance of new ecological attitudes and new terminologies within Syrian forestry sector; the noticed increasing in formal generalities translates assures this deduction.

Figure 12
The periodic progress rates of forest concept components (1994/1953)

Concerning the “forest” concept of this period, the constitutive elements “Plant” and “Soil” have been progressed through the content of the forest law of 1994; In contrast, elements “Man” and “Interactions” were in regression (figure 12); this translates the disappearing of most articles related to the regulation of animal grazing in forests. To finish, the Syrian forest under the forest law of 1994 has been ecologically appreciated through discovering the deterioration of its surface; accordingly, it was seen as an endangered patrimony and as a stimulator of ecological concerns.


Syrian forest has been ruled by the law of 1994 for 13 years; during this period, it represented to some extent a paradoxical case; on the one hand, it was declared as protected through very firm legislative articles, but on the other hand and due to the high level of protection inflexibility it has continued to be an object for several type of infraction. This fact imposes the need for a new
of protective procedures as a logical result of refusing their author; on the other hand, the generous and permissive widening of forestry usage rights to recompense public several years of privation.

![Graph showing periodic progress rates of forest concept components (1953/1935).](image)

**Figure 11**
The periodic progress rates of forest concept components (1953/1935).

The “forest” concept of this period is almost deprived of ecological concerns and consecrated to public benefits for the aforesaid reasons. In contrast, legislative articles of this law give an impression of a presence of socio-political incentives behind. In fact, the constitutive elements “Interactions” and “Soil” have been progressed with the endorsement of the forest law of 1953 (figure 11); in contrast, elements such as “Man” and “Animal” were in regression; this translates the disappearing of most restrictions related to the interdiction of animal grazing in forests. To end with, the Syrian forest which was considered by Syrian people as unfairly restricted by the French protectoral authorities has been seen during the post-independence period as if it was a profitable taking; accordingly, it continued to be perceived through an economic vision but through socio-political concerns.


Syrian forest has been ruled by the forest law of 1953 for 41 years; during this period, it was exposed to different deforestation factors. With the forest law of 1994 forests conservation and penalties have been considerably increased; in contrast, legislative articles related forest use and real estate, private forests and Usage
The presence of this new trend indicates that the ecological concerns particularly that related to the “Soil” emerge from the co-existing of a widespread forests degradation cases. Consequently, economic incentives had a stimulatory role in ecological concerns emergence. Indeed, the constitutive elements “Interactions”, “Animal” & “Man” have had a noticeable regression with the appearance of the forest law of 1935 (figure 10); this is mainly due to the reducing of articles related to previous traditions in forest use such as the grazing in forest. In contrast, other elements such as “Soil” and “Plant” have seen an evident progression; this translates in some measure a legislative reaction vis-à-vis specific ecological concerns. To conclude, the Syrian forest under the French protectorate has been protected and continued to be seen through an economic vision but with slight ecological concerns.

5.2.2. The 2nd evolutorial phase (1953/1935): Economic vision through socio-political concerns.

Syrian forest has been ruled by the forest law of 1935 for 18 years; during this period, it was rigorously protected. After the independence, the forest Law of 1953 has been promulgated as a response to the colonial forest law. Therefore, subjects such as forests conservation and penalties have been considerably reduced. On the contrary, permissive legislative articles such as those of private forests and usage licensing have been largely increased. These big changes translate; on the one hand, the absolute refusing
Considering the result of the structural legislative subject matters analysis which indicates the dominance of penalties and Forest use and real estate, in addition to that obtained through the constitutive elements analysis which indicates the dominance of the elements “Interactions”, “Plant” and “Man”, it is reasonable to conclude that during the last fourteen decades, the concept of “forest” has been officially conceived through a narrow direct economic vision but not through the realistic potentiality of the forest as an integrated socio-economic ecosystem.

5.2. Transitional conduit of legislative “forest” concepts: The purpose of analyzing the transitional conduit of Syrian forestry legislations, which represents the second question of this research, is to understand the interactive relations between forest laws and changeable social, economic, technical and politic contexts. To attain this object, periodic progression percentages of the targeted forest laws common themes presence have been calculated to identify legislative changing rates. The analysis outputs indicate several evolutorial phases:

5.2.1. The 1st evolutorial phase (1935/1869): Ecological concerns stimulated by economic degradation.

Syrian forest has been ruled by the Ottoman law for 66 years; during this period, it has been degraded in quality and quantity because it has been taxably used as a source of wood, charcoal and animal grazing. As a response to this level of degradation, the content of the law of 1935 has slightly reduced the number of articles about forest use and real estate and penalties and considerably increased the number of those related to private forests; this translates in fact a new trend towards forests in Syria.
making, animals feeding and grazing, fruits and seeds collecting, medicinal plants picking, mushrooms, etc.

Figure 9
The “forest” concept constitutive elements of the five targeted forest laws

The presence of the other three constitutive elements is not only moderate in comparison with the “Interactions” and “Plant” but in some case it is totally absent such as the element of “Animal” in the law of 1953 (figure 9); the presence of the constitutive element “Man” is relatively higher than those of the constitutive elements “Animal” and “Soil”; this could be due to the legislative nature of the analyzed corpus contents such as articles related to law infractions, responsibilities and punishments.

Ecologically and despite their importance within the forest ecosystem, the constitutive elements “Soil” and “Animal” seem to be partially neglected by Syrian forest laws; therefore, their presence percentages could be mostly connected to others activities and affairs of the element “Man” such cadastral matters or livestock breeding and grazing.
The “forest” concept constituents of the forest law of 2007 (%)

By the same token, the diagram line of the “forest” constitutive elements of this law shows an evident dominance of “Plant” and “Interactions”; this translates despite its desired innovative character, the replication of traditional legislative costumes which consider the vegetal part of forests as a mere economic source. Consequently, it is reasonable to say that the economic background of law of 2007 tries to put together both the keeping of the traditional protective trend and the non-traditional forestry investment.

5.1.8. “Forest” concepts synchronization: The social function of any forest law is to regulate relationships between forests and their users; therefore, the presence of the constitutive element “Interactions” within the content of all targeted forest laws with a high rate could be considered as completely logical. With reference to the remaining other constitutive elements, the “Plant” has the most important presence in the analyzed corpus (figure 9); this could mean that for more than a century and a quarter the implicit concept of “forest” behind the formulation of Syrian forest laws was mainly botanical; forest was managed as an economic source mainly for vegetal part exploitation such as woodcuts, charcoal
The “forest” concept constituents of the forest law of 1994 (%)

Similarly, the diagram line of the “forest” constitutive elements of this law shows an evident dominance of “Plant” and “Interactions”; this confirms the belief about the economic vision of this forest law towards forests. In view of that, it is reasonable to say that the law of 1994 was built through leaning not only on an economic vision but also on a protective trend.

5. 1. 7. The “forest” concept as per the forest law of 2007: Similarly to that of 1994, the forest law of 2007 has been consecrated with 72% of its content to emphasize penalties (figure 8), forest use and real estate and private forests. The usage licensing, and despite considering it through this law, it was considered under a protective title. The subject of forests conservation has been to some extent enhanced to represent a modernizing feature of this law.
Moreover, the analysis of the constitutive elements of the “forest” concept shows that this law content is largely dominated by “Interactions” and “Plant” (figure 6); this reflects in fact the importance given to vegetal forestry products by this law makers. Ecologically, the constitutive element “Soil” was present within this law through some articles related to cadastral affairs but in contrast, the constitutive element “Animal” was totally ignored. As a result, it is reasonable to say that the vision residing behind the forest concept imposed by the forest law of 1953 has reduced the forest into a simple vegetal economic source.

5. 1. 6. The “forest” concept as per the forest law of 1994: The forest law of 1994 has been consecrated with 73% of its content to emphasize penalties, forest use and real estate and private forests (figure 7). The subject of usage licensing has been restored by this law under a protective title. Furthermore, this law has revealed some ecological aspects through encouraging forests conservation.
Concerning usage licensing, this law could be considered with reference to Syrian forest history as a pioneer; it has officially introduced this subject through thirteen particular articles and this enhances the feeling about its economic vision towards forests. Furthermore, the constitutive elements diagram line of this law shows an evident dominance of “Plant”, “Interactions”, and “Man” (figure 5); this rejoins the previous belief about its economic vision towards forests. Accordingly, it is reasonable to say that the vision behind the forest law of 1935 is still an economic one.

5.1.5 The “forest” concept as per the forest law of 1953: Despite the fact that the forest law of 1953 has to some extent emphasized usage licensing as a response to the repression of the previous colonial forest law, 68% of its content has been consecrated to forest use and real estate, private forests and penalties.
The “forest” concept constituents of the Ottoman forest law (%).

The Ottoman forest law is very poor concerning ecological and socio-economic aspects; it neglects completely subjects such as forests conservation. Its concept of “forest” is dominated by the elements “Interactions”, “Plant” and “Man” with about 89% (figure 4). It is clear that the vision behind the forest law of 1869 is a pure economic one.

5. 1. 4. The “forest” concept as per the French Protectorate forest law 1935: The protectoral French forests law has consecrated 80% of its content to point out structural legislative subject matters of private forests, forest use and real estate and penalties (figure 5). In contrast, 5% only of its content has been consecrated to deal with forests conservation. Compared to the ottoman law, this law has very slightly mentioned some ecological aspects of forests such as their role in soil erosions preventing.
cases of a proximity among the targeted forest laws (table 5); between law of 1869 and those of 1935 and 1953; between law of 1935 and those of 1953 and 1994; between law of 1953 and that of 2007; and between the law of 1994 and that of 2007. But the high level of statistical proximity is present between the forest law of 1935 and that of 2007; and also between the forest law of 1953 and that of 1994.

Table 5
The targeted forest laws proximity matrix as to the forest system constitutive elements.

<table>
<thead>
<tr>
<th></th>
<th>FL 1869</th>
<th>FL 1935</th>
<th>FL 1953</th>
<th>FL 1994</th>
<th>FL 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL 1869</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL 1935</td>
<td>0.867*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL 1953</td>
<td>0.833*</td>
<td>0.865*</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL 1994</td>
<td>0.714</td>
<td>0.891*</td>
<td>0.955**</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>FL 2007</td>
<td>0.787</td>
<td>0.987**</td>
<td>0.809*</td>
<td>0.882*</td>
<td>1.000</td>
</tr>
</tbody>
</table>

*. Correlation is significant at the 0.05 level. **. Correlation is significant at the 0.01 level.

As a result, several cases of statistical proximity could be seen among the targeted forest laws; accordingly, it could be reasonable to say that the targeted forest laws contents have statistically a high level of resemblance with reference to the forest system constitutive elements.

Considering the results of both the analysis of the structural legislative subject matters (table 2) and that of the constitutive elements (table 4), the “forest” concept of each studied forest law could be revealed as follows:

5. 1. 3. The “forest” concept as per the Ottoman forest law 1869: In view of results of the structural legislative subject matters and the forest constitutive elements analyses, the Ottoman forest law has consecrated 98% of its legislative content to point out two main subject matters; the first concerns penalties and juridical judgments’ procedures; the second concerns forest use and real estate (figure 4).
For instance, the concept-chart of the forest law of 1869 is largely dominated by the subject of penalties and that of forest use and real estate. In contrast, the theme of forests conservation is absent, and the resting two themes have a limited presence. Accordingly, the forest law of 1869 considers the forest as an economical source should be protected.

5.1.2. The constitutive elements of the forest system: The application of the classification criterions of Cheikho (2002) on the aforesaid five legislative documents has produced a table of presence percentages of the five constitutive elements of the forest system within each one of the targeted forest laws (table 4).

<table>
<thead>
<tr>
<th></th>
<th>Interactions</th>
<th>Plant</th>
<th>Animal</th>
<th>Soil</th>
<th>Man</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL 1869</td>
<td>43</td>
<td>24</td>
<td>7</td>
<td>4</td>
<td>22</td>
</tr>
<tr>
<td>FL 1935</td>
<td>34</td>
<td>34</td>
<td>4</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>FL 1953</td>
<td>51</td>
<td>30</td>
<td>0</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>FL 1994</td>
<td>42</td>
<td>38</td>
<td>1</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>FL 2007</td>
<td>31</td>
<td>37</td>
<td>5</td>
<td>10</td>
<td>17</td>
</tr>
</tbody>
</table>

With reference to the five constitutive elements of the forest system, a statistical analysis has been done on the procured data to assess the proximity among the five forest laws. The obtained statistical proximity matrix indicates that there is statistically several
that the forest law of 1953 was carried out as a response to a preceding colonial law; therefore the independent Syrian authorities have deliberately abolished most interdiction legislative articles of the law of 1935 to be replaced with others more permissive.

The diagram line of private forests has a progressive ascended trend till 1953 and then a descended trend with the law of 1994 and finally a slightly rising trend again with the law of 2007. Quantitatively, the graduated scale shows that the law of 1953 is the most concerned by this theme.

Concerning penalties, the diagram line has a descendant trend till 1953 and then it changes direction to be severely ascended with the laws of 1994 where it continues almost steady with the forest law of 2007. Interestingly, the graduated scale of related legislative articles of translates an existence of a contradictory case between private forests and penalties; it deserves to be deeply studied because it could translate the social vision and the forest policy behind forest laws formulation. Evidently, the law of 1869 occupies the head of the list concerning penalties while that of 1953 comes in the last position. In contrast, the law of 1953 ascends the first rank concerning private forests while that of 1869 derives towards the last position (figure 2).

The flowchart of these themes values shows that the statistical observed resemblance among the targeted forest laws is generally due to; the representation of the sixth common themes as structural subject maters in all studied laws; and the proximity among the common themes presence rates of different forest laws (figure 3). The presence rates of these common themes participate, to some extent, in the identification of the concept of “forest” of each studied forest law.
Starting with 1869, the diagram line related to the forest use and real estate seems to have a progressive descended trend over time; this translates the successive reduce in importance of organizational practices needs for forestry sector vis-à-vis other forestry preoccupations. Quantitatively, the graduated scale of related legislative articles indicates that the most concerned by this theme is the law of 1860 and that of 1935.

With reference to usage licensing, the diagram line has a rising trend till 1953 and then it changes direction to be severely descended with the laws of 1994 and 2007 respectively. This could be explained by the fact that the forest law of 1935 was formulated by the French as a reformative law vis-à-vis the ottoman forest law of 1869 which was considered as repressive towards forests users; correspondingly and for a similar justification, the law of 1953 has focused on forests local users’ needs, interests and benefits. But with the arrival of new ecological attitudes and concerns within Syrian milieu in addition to the appearance of quantitative and qualitative data on Syrian forests degradation, Syrian authorities have begun to restrict forestry usage rights since 1994. With reference to the number of legislative articles related to this theme, the graduated scale shows that the post-independence forest laws particularly that of 1953 are the most concerned by this subject.

Concerning forests conservation, the diagram line has a risen curve with the French law. In contrast to the last theme, it has a descended trend with the law of 1953 and an ascended trend with the forest laws of 1994 and 2007 respectively for the same aforesaid reasons; the graduated scale of related legislative articles indicates that the law of 2007 is the most concerned by this theme. The paradoxical case of the law of 1953 could be explained by the fact
subject matters percentages were recalculated and represented within diagrams (figure 2) in order to observe their behaviors with reference to each analyzed forest law.

Figure 2
Comparative development of forest laws structural legislative subject matters (%)

Concerning the formal generalities, the diagram line has a rising trend over time; this means not only the emergence of new scientific and technical terminologies within forestry sector, but it reflects the communicative feedback of Syrian forestry sector towards the logic multidimensional social development happening over more than 138 years.
5. 1. 1. 5. Private forests (private forests management and exploitation).
5. 1. 1. 6. Penalties (forests protection, Law infractions, responsibilities and punishments).

These six common themes were represented at different rates within the studied forest laws; the table (2) clarifies their presence percentages within each analyzed law:

Table 2
The targeted forest laws structural subject matters presence rates.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal generalities</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Forest use and real estate</td>
<td>44</td>
<td>27</td>
<td>26</td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td>Usage licensing</td>
<td>0</td>
<td>9</td>
<td>24</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>Forests conservation</td>
<td>0</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Private forests</td>
<td>4</td>
<td>18</td>
<td>25</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Penalties</td>
<td>50</td>
<td>35</td>
<td>17</td>
<td>44</td>
<td>43</td>
</tr>
</tbody>
</table>

The procurement of these data has endorsed the elaboration of a statistical analysis concerning the assessment of proximity among the studied forest laws. As a result, the proximity matrix (table 3) indicates that there is a high level of significance concerning statistical proximity between the forest law of 1869 and that of 1935; and also between the forest law of 1994 and those of 2007 and 1935.

Table 3
The targeted forest laws proximity matrix with reference to structural subject matters.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>FL. 1869</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL. 1935</td>
<td>0.935**</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL. 1953</td>
<td>0.358</td>
<td>0.537</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>FL. 1994</td>
<td>0.830*</td>
<td>0.872*</td>
<td>0.297</td>
<td>1.000</td>
</tr>
<tr>
<td>FL. 2007</td>
<td>0.829*</td>
<td>0.864*</td>
<td>0.172</td>
<td>0.983**</td>
</tr>
</tbody>
</table>

*, Correlation is significant at the 0.05 level. **, Correlation is significant at the 0.01 level.

According to the proximity matrix outputs (table 3), it could be reasonable to say that there is statistically several real case of resemblance among the targeted forest laws with reference to their constitutive articles; the unique dissimilarity exception is related to the forest law of 1953. Expressively, the structural legislative
Table 1  
The “forest” concept analytic method.

<table>
<thead>
<tr>
<th>Articles contents</th>
<th>Man</th>
<th>Plant</th>
<th>Animal</th>
<th>Soil</th>
<th>Interactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>The forest is the floral community growing within the forest ecosystem. (Ar. 1, FL. 2007).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific use system for eco-tourism in state forest should be issued by a Ministerial order (Ar. 3-b, FL. 2007).</td>
<td>+</td>
<td>+</td>
<td></td>
<td></td>
<td>+++</td>
</tr>
</tbody>
</table>

The inter-reliability of rater was established through carrying out two intervallic content analyses of the analyzed corpus by the researcher himself, this repetitive work was necessary to insure the consistency of analytical procedures before the implementation of quantitative analysis. To satisfy the needs of this research, the quantification outputs were statistically analyzed by using IBM SPSS statistics 20 and Microsoft Excel 2010.

5. Results:

5.1. “Forest” concept of each targeted forest law: Rejoining the first question of this research, a qualitative, and a quantitative analysis have been elaborated to identify the structural subject matters and the constitutive elements of the forest system of each analyzed forest law.

5.1.1. The structural subject matters of targeted laws: Seeing the inequality of constitutive articles number of targeted laws, the components of each law were redistributed within common thematic categories; this redistribution will be very useful to have a comparative assessment. As a result, six main common structural subject matters were identified:

5.1.1.1. Formal generalities (introductory definitions and closing general sentences).
5.1.1.2. Forest use and real estate (state forests exploitation, delimitation, and sites checkup).
5.1.1.3. Usage licensing (usage rights and license providing).
5.1.1.4. Forests conservation (protection zones and reserve Initiation, gardens plantations).
4. 1. 2. What “forest” concept transitional conduit could be seen following 1869?

4. 1. 3. What are the educational extrapolations of the successive forest laws’ “forest” concepts?

The importance of this research resides in the historical tracking of the evolution of the Syrian collective understanding concerning forest as a concept. The analysis of successive forest laws could allow the understanding of advantages and inconvenient aspects of each one of them; and this could divulge and elucidate obstacles and difficulties that the development of Syrian forest has encountered at professional, technical and socio-economic level. The outputs of this study could be useful for a future forest policy development and also for a better understanding of the stimulator root of actual Syrian forestry educational system.

4. 2. Procedures: The legislative documents of the five versions of the forest law which were adopted and applied in Syria after 1869 have been collected to form this research data source. These five legislative documents were qualitatively and quantitatively described and meaningfully analyzed. The analyzable data were collected through the application of the classification criterions adopted by Cheikho (2002) as a diagnostic tool for the schematization and modeling of concepts about Mediterranean forest. The logic of this analytical method relies on the approving of “Plant, Soil, Animal, Man and their Interactions” as the five essential constitutive elements of any forest (table1); in fact, considering the “Man” as an intrinsic constitutive element of the forest system represents not only a strong point of this tool but also makes of it the most suitable method for the treatment of this research data. So, this analytical method was used as a content analysis tool; here is an example:
Ecologically and according to the Food and Agriculture Organization of the United Nations (FAO) resources assessment, the Syrian natural and man-made forest land is only about 461,000 hectares representing 2.6% of the total land area of Syria. The FAO (2007) has justified the technical assistance presented to the Syrian forestry sector through focusing not only on the downward state of forest lands in Syria, but also on the weakness of Syrian forestry sector concerning policy, legal and institutional framework.

In view of the aforesaid legislative and educational reciprocal feedbacks (figure 1) and seeing the actual degraded situation of Syrian natural forests; bearing in mind that the rehabilitation of this degraded lands intending transform them into real forests could takes several decades of laborious and costly work, the questioning about the previous Syrian forest laws, their evolution, their implications, and their concepts of forest is pertinent.

4. 1. Objectives: Accordingly and rejoining the above-mentioned both didactic and ecologic logics, the problematic question of this paper could be formulated as follows:

What “forest” concepts were held and imposed by Syrian forest laws after 1869?

In view of that, the research objectives were developed as follows:

4. 1. 1. What is the “forest” concept of each one of the targeted forest laws?
sustainable development as a national priority policy issue. Furthermore, Gorashi (2009) has clearly mentioned the importance of developing a set of baseline data and capacity building and benefitting of international experiences through external technical assistance for adjusting Syrian forest policy.

4. Research Context and Procedures:

Forest policy in any country translates a wide range of views, ideas, opinions and beliefs of decision-makers, forestry directorates and regional forestry departments, local communities and forest neighbors, different stakeholders, privat sectors, wood merchants, forestry crops merchants, and international organizations, etc.; it represents as a collective intelligence a social vision of a given country’s forest (figure 1). In fact, Forest policy, as a social and a cross-sectorial product plays at national level the role of architect concerning the forming of forests’ characteristic features. This role could be seen through the forest law which represents a practical tool of forest policy application.

Didactically, the forest law embodies, at legislative level, not only the direct regulator of the entire forestry sector’s activities, but it represents also an indirect stimulator for forestry educational institutions concerning forest engineers training process; actually, forestry curricula developing and reviewing process is very jointly connected to the occupational profile of forest engineer identified and imposed by forestry sector’s human resources directorates (figure 1). Therefore, the good understanding of forest concept as per forest law is crucial for professors, trainers, curricula designers working within forestry educational institutions; this could be very helpful for them not only for the elaboration of a pertinent forestry curricula which should rejoin national forest policy objectives, but also for being able to provide forestry sector with a well-qualified and high-trained staffs.
including microorganisms). Furthermore, The FAO has highlighted the importance of considering soil indicators in forest policy; the decision to apply fertilizers should be based on soil analysis and fertilizer should be applied in an amount to meet the need only.

3. 4. Forest policy and Syrian context: According to Nahal (2009), the national forest policy determines the main objectives and priorities of the forest resource development. For him, it is concerned with the manner in which forests and tree resources should be managed to serve the needs of people and meet society's demand for the goods and services that forests and forestry can provide, as well as with regard for the non-material values that forests and trees represent. Seeing its possible implications and multidimensional impacts, the forest policy declaration requires a governmental effort. Nahal (2009) thinks that the national forest policy reflects the view of the government concerning the importance of the forest resource and its economic, ecological, social, cultural and aesthetic values. Similarly, the FAO (2006) has considered that the successful planted forest management requires that governments formulate policy, legal, regulatory and strategic planning frameworks providing enabling conditions, integrated decision-making and multi-stakeholder approaches in planted forest investment.

To end with, a national forest policy is a governmental ratified time-limited framework of ecological and socio-economic principles, values and outlooks towards national forestry resources usage, management, sustainability and conservation for the benefit of a given society in line with international norms.

Concerning the Syrian context, Gorashi (2009) has concluded that Syria has not developed yet criteria and indicators for sustainable forest management; he Justified Syrian need for forest policy legislative reform through emphasizing the high rate of population growth as well as the increasing of socio-economic demands for forestry outputs and the declining of forest cover; therefore, he considered forests protection, conservation and
legislations. Seeing the high level of forest ecosystem complexity, human societies have not succeeded yet to formulate a perfect forest law to fulfill this level of complexity. Colchester et al. (2006) has mentioned the dramatic growth of international concern regarding illegal forestry activities through the last five years; these illegal forestry activities could be due to the fact that for various reasons forest laws in many countries limit forest-dependent communities’ rights of forests ownership, access and use.

Concerning the contradiction between forest laws and livelihoods, Colchester et al. (2006) indicates that unfair and unrealistic forest laws entail not only illegality, but they may also provoke resistance by poor people when they are applied and enforced. This argument rejoins that of the FAO (2006) which considers that; socio–cultural–economic baselines and impact assessments should identify and assess the importance of indigenous community rights and interests; the effective participation of these communities and the rights of the poorest of them including women should be formally recognized and conflict resolution mechanisms should be established. For other researcher, the formulating of a fair forest law necessitates the anticipating of a pertinent forest policy; Gorashi (2009) believes that a realistic forest policy should respond to socio–economic and environmental conditions of the country.

3. 3. Forest policy and ecological concerns: Ecological concerns are omnipresent in forestry sector; forest policy and its relative legislations could not achieve their goals without considering these concerns. This fact is deeply described through several relative scientific works; for instance and concerning possible ecological impacts of establishing planted forests on other land uses, the FAO (2006) has mentioned that the challenges are a mixture of both policy–and technology–related environmental and socio–economic considerations and options for integrated management; the planted Forests’ responsible management guidelines which were proposed by the FAO have considered not only the maintenance of water cycle sustainability, but also biological diversity (flora and fauna
this model is unfortunately still adopted within several forestry educational systems over the world. Cheikho (2013) has classified the “forest” concept of Syrian forestry curricula within the model of natural-scientist “forest”; according to him, porters of this conceptual model translate educationally the “forest” concept through a mono-disciplinary scientific approach and almost neglect socio-economic dimensions. Didactically speaking, several research works (Cheikho, Clément, 2002; Cheikho, Clément & Bariteau, 1999) have demonstrated that socio-economic forestry conflicts could not be resolved through a simplistic model of forest. Accordingly, the reviewing of forestry curricula should be very jointly connected to the occupational profile of forest engineer imposed by forestry sector’ human resources departments; taking into consideration that forestry sector is administratively ruled by the forest law; national forest policy and relative legislations represent an indirect stimulator for forestry curricula reshaping process. This deduction rejoins that of Simonneaux (1999) concerning the relation between the professional identity and the rural world changes; she noticed that teachers of technology, in agricultural education systems, believe that their professional identity is troubled by the changes in the rural world. Along with this logic, socio-economic and politic context could have a determinative influence on forestry training attitude and relative curricula contents. As a result, forestry educational institutions find themselves unavoidably forced to discern the socio-politic concept of forest for readjusting their educational concept of forest.

3. 2. Forest complexity-responsiveness and socio-legislative context: The complexity and the unavoidable responsiveness of the forest ecosystem are imposed at ecological and socio-economic levels. Through its unavoidable responsiveness, forests have permanently and mutually negative or positive impacts vis-à-vis their environmental, socio-economic, legislative and socio-politic milieus; unfortunately, a number of these impacts are irreversible. Human societies have confronted for a long time this fact through trying reducing negative impacts on forests by using a set of specific
But due to its repressive and punitive nature, the efficiency of this law was limited; it focuses on prohibitions, restrictions and penalties, while other subjects were ignored, neglected or inadequately addressed. It encloses 57 articles under seven chapters in four parts. The 1st part identifies forests and forest trees species. The 2nd part deals with state forests, exploitation, crops sale and transport, investing rights and protection. The 3rd part is devoted to the private forests and the 4th part describes law infractions and related punishments. Gorashi (2009) has found this law as inelastic in terms of implementation due to its heavy content which involves articles of a regulatory nature that ought to be left to subsidiary legislation.

The current Syrian forest law is that ratified by the legislative decree number 25 of 2007. It consists of 66 articles classified under thirteen chapters. The 1st includes methodical definitions. The 2nd, the 3rd and the 4th deal with state forests exploitation, crops selling, storing, transport, and investment zones checkup. The 5th clarifies state forests usage rights and licensing conditions. The 7th and the 8th deal with the state forests protection zones, protected areas, natural reserves, and botanic gardens. The 9th and the 10th are devoted to eco-tourism, participatory management, and durability. The 11th clarifies private forests management and investments. The 12th identifies law infractions and related punishments, and finally the 13th contains general sentences. According to Gorashi (2009), this law has been considered as an important piece of legislation concerning forests exploitation and protection. But, despite it clarifies, through its executive regulations, the licensing conditions of grazing, forest product exploitation, usage rights, etc., licensing procedures and formalities are still difficult and long.

3. Theoretical Framework:
3. 1. Forestry education and statutory concept of forest: The term of “forest” was represented in some educational publications, such as that of Giordan and Souchon (1994), through a simplistic model with three main elements: Trees, wildlife and soil; despite its scientific defectiveness and socio-economic conflicts provocation,
Forest statute during the French protectorate: During this period and despite the retreat of the Ottoman Empire in 1918 and the transformation of Syria into a French protectorate, Syrian forests continued to be ruled by the Ottoman forests regulation of 1869 till 1935 when the French high emissary has ratified the French forests law through the decision itemized “226/LR”. The French law encloses 154 articles classified under fourteen chapters and ten sections in four parts. The 1st part identifies forests system, its’ components and forests concerned by this law. The 2nd part deals with the state forests administrations and management such as forests delimitation, borders identification procedures, exploitation, forestry crops, renting, transport, allowance, and selling at auction. The 3rd part covers legal matters concerning private forests and other national sectors and organizations, communities, villages, and individuals. To end, the 4th part is reserved to forests protection as well as to the forest police affairs.

Forest statute after the independence of Syria: Following the country independence in 1946, Syrian forestry sector has witnessed a development of nationally-inspired legislation. The first independent forest law is that is sued by the legislative decree number 66 of 1953; its preface has considered that the French forest law of 1935 meets colonial needs and disrespects Syrian values and norms concerning country’s forests conservation. Actually, the forestry law of 1953 was formulated to be attentive to forests local users’ needs, concerns and rights as well as the public benefits. It contains 115 articles listed within nine chapters in seven parts. The 1st part identifies forests and forestry products. The 2nd part identifies the state forests exploitation, crop sale, transport, storing, and investing rights, etc. The 3rd part covers private forests and related exploitation procedures. The 4th and the 5th parts deal with protection zones initiating, forests delimitation and borders defining. The 6th and the 7th parts include forests protection, infractions and related responsibilities and punishments.

Subsequently, forest law number 7 of 1994 was issued to somewhat guarantee local communities and forest neighbors rights.
“Al-hema”, the Kuwaiti Fiqh encyclopedia (1983–2006) has regrouped a number of directive clauses; here are brief examples:

1. The protected area should be delimited and announced by the head of authorities.
2. The protection announcement should be in the benefit of the widest public possible with a particular preference for state’ administrations, armed forces, and the poorest inhabitants’ needs.
3. The public protected areas are not able to be transformed into a private property for anyone and the protection should be done for enhancing free benefits.
4. The superficial protected areas should be delimited to preserve the benefit of forests neighbors; the non-inhabited zones and the far mountains and valleys are preferred to be chosen as protected areas.
5. The authority should not make people pay for using forests and rangelands as feeds’ sources for their livestock grazing.
6. The authority should recruit keepers for controlling the utilization of protected areas.
7. Cautionary should be declared concerning the expected punishments for the non-respecting and intended violations of protected areas.
8. The rehabilitation of degraded public protected areas does not mean transforming them into a private property.

Forest statute during the Ottoman era: In 1516, Syria became a part of the Ottoman Empire. As a result, the Syrian forest came under the jurisdiction of the Turkish forest administration. The Ottoman law which called as “forests regulations” was issued in 1869; it intended to regulate the situation of state and private forests and to exploit common land property for the benefit of the State Treasury. This law encloses 52 articles classified under four chapters in two parts. The 1st part identifies state and private forests covered by this law as well as the woodcut zones. The 2nd part describes law infractions, forest violations, juridical judgments’ procedures, and imminent punishments in addition to a posterior decree concerning the tracking down of forest fire makers.
7th millennium BC other crops had been domesticated such as the barley, the chickpea and the lentil; at the same period several animal species had been domesticated such as the dog (14000 BC), the goat (7500 BC), the pork (7200 BC), the sheep (7000 BC), the bovine (6400 BC) and the donkey (3500 BC). Concerning Syrian forest, Cheikho (1993 & 2002) has mentioned that a big part of Syrian forests had been destroyed through the expansion of agricultural practices and other human activities; the practice of forests cutting had begun in 3500 BC. For him, through the last millennium, northern forests of Syria were the subject of eleven successive military invasions; accordingly, and on account of the use of fire in wars, forests were strongly degraded. However, these kind of human’ activities are still unfortunately present in our time.

Forest statute after the Arab Muslim conquest: The reading of Syrian chronology indicates that with the Arab Muslim conquest on 635 Syrian forests come to be for several centuries under successive Islamic authorities; the Omayyad state, the Abbasid state, the Seljuq empire, the Egyptian rule, the Ayyubid dynasts, and the Mameluke Sultanate which was ended by the Mongol invasion on 1260 and the Tamurlane dominion on 1400. During this period, forests were considered as a public property lands and ruled according to the Islamic Sharia principles which include a kind of a civil codes diffused within wide-ranging religious rules. According to the Sharia principles, forests and rangelands were classified within what were called “Al-hema” which means the protected areas; these protected areas should be announced by the head of the state – particularly in the best interests of the state and the poor people benefits – as free public zones for specific and limited uses such as limited wood cutting for fabricating agricultural tools, houses building and livestock grazing. According to the Islamic Sharia logic, people are actually solicited to activate their religious self-discipline to avoid causing any damages to trees and protected areas while they make use of them. With reference to the Islamic Sharia’ instructions concerning the management of protected areas
1. Introduction:

With complexity and unavoidable responsiveness, forests have forever influenced (and been influenced by) people particularly their neighbors; forests have been thus considered as a source of several kind of conflicts. For human societies, these natural economic resources need to be controlled, fairly used, managed, and protected; therefore, specific rules and regulations have been gradually established by these societies to form with time forest laws.

By the same token; Syrian forests have witnessed the emergence of several successive forest laws within variant social, economic, and political contexts. Despite the fact that Syrian forestry sector has permanently tried updating its legal and institutional frameworks, there are who thinks that Syria has not developed yet criteria and indicators for sustainable forest management such as Gorashi (2009). Taking this notice into consideration and seeing the actual degraded situation of Syrian forest, the questioning about Syrian concept of forest, its originator philosophies, backgrounds, and evolution as well as its educational feedbacks could be considered as vital for the development of future forest engineers training process; indeed, the legislative concept of forest represents a fundamental reference for forestry education and training. Along with this logic, forestry legislations represent a real way to identify the Syrian concept of “forest”; starting with 1869, Syrian society has witnessed the endorsement of several forest laws within diverse socio-economic contexts and under different political authorities.

2. Historical Framework of Syrian Forest:

The region of the Near-east, in which Syria is located, represents the cradle of humanity; it represents one of the oldest human habitations on earth. The referenced studies of Mazoyer and Roudart (1998) have shown this fact through citing several historical events; the agricultural traditions in this region go up to about 9500 years ago; the period during which the wheat had been known and cultivated. These studies have revealed that during the
Forest Concept Evolution as per 138 Years of Syrian Forest Legislations and its Educational Extrapolations.

Dr. Mohamad Cheikho

Assistant professor in Department of curricula and methods of instruction
Faculty of Education
Damascus University

Abstract

Socially, forestry educational institutions are responsible of providing their societies with the well-qualified forest engineers. Being able to perfectly assume this responsibility, forestry curricula need to be constantly updated along with technique, socio-economic, politic, and legislative novelties. Along with this logic, forestry legislations represent a fundamental reference for forestry education upgrading. This research tries to illuminate some elements about the “forest” concept evolution of Syrian forestry legislations and their educational extrapolations. The corpus of this research consists of the five forest laws adopted and applied in Syria following 1869; the related legislative documents have been collected, described and meaningfully analyzed. Concerning the problematic question of this paper, the “forest” has been officially conceived through a narrow direct economic vision but not through its realistic potentiality as an integrated socio-economic ecosystem. Through this paper, six main structural subject matters were identified within the targeted forest laws as common themes. The tracking of Syrian forestry legislations transitional conduit through the last fourteen decades identifies four main evolutional phases. Educationally, this research has endorsed institutional and curricular recommendations; five new educational courses are proposed to be introduced within Syrian forestry curricula.

Key words: Forestry; concept; legislation; forest law; Syrian; French; Ottoman; curricula.
Educational supervisors' practice of power sources in Dafar governorate in the Sultanate of Oman from the point of view of the first teachers.

Dr. Mohammed Suleiman Algaraidih
Associate professor at the Faculty of Education and science
Nazwa University
Sultanate of Oman

Dr. Masoud Al Awaud
Assistant professor in College Applied Sciences
Sultanate of Oman

Abstract

This study aimed at identifying the degree of educational supervisors' practice of power sources in Dafar governorate in the Sultanate of Oman from the point of view of the first teachers. To achieve the study's objectives, a questionnaire consisting of 33 items was administrated to 70 assistant principal and first teachers. To answer the study questions means, standard deviation, and T-test were used. Results showed that the degree of educational supervisors' practice of power sources in Dafar governorate in the Sultanate of Oman from the point of view of the first teachers was high at the following: Character, Mental stimulation, law power, expert power, reward power, and coercion. In addition, no statistical differences were found in the degree of educational supervisors' practice of power sources in Dafar governorate in the Sultanate of Oman at the level of $\alpha = 0.05$ due to the effect of educational qualification, gender, and experience.

In the light of the study findings, the researcher would like to recommend that educational supervisors motivate teachers by material and moral incentives. Also, the supervisors shall work to fulfill diverse personal needs as well as organizing educational programs for supervisors to develop their skills to practice the power of experience so as not to be confined with the power of law.

Key words: power sources, Educational supervisor.

For the paper in Arabic see pages (207 - 230)
Problems of Students with disability at Damascus University from their point of view.

Dr. Alia Alrefaay
Assistant professor in Department of Special Education
Faculty of Education
Damascus university
Syria

Abstract

The goal of the current research is to identify problems of students with disabilities at Damascus University and to find out how different these problems according to sex, specialization, the type of disability, and the severity. The sample search consisted of forty-two students, the disabled enrolled at the University of Damascus in the academic year 2015-2016. To achieve the aim of the research the researcher designed a scale which consisted of 91 statements.

The results showed that the economic problems were in the first place, followed by academic problems, then administrative problems ranked third. Environmental problems got the fourth rank. Social problems got the fifth rank and, psychological problems got the last rank. The results showed that there were no significant differences between the average sample estimate in accordance with the sex variable and the type of disability, while there are differences in the average sample estimate according to the variable of jurisdiction in favour of students with literary disciplines, and in accordance with the severity of the disability variable in favour of students with severe disabilities.

Key words: students with disabilities, problems, universities of Higher Education.

For the paper in Arabic see pages (167 - 206)
The Extent of Using Education Techniques among the Students of Physical Education at Al al-Bayt University.

Dr. Ismaiel sood Al-oon

Associate professor in Faculty of Educational Sciences
Al al-Bayt University
Jordan

Abstract

The study aimed at identifying the extent of using the education techniques among the students of physical education at Al al-Bayt University. The study population consisted of all the students of physical education amounting to (617) male and female students. The study sample consisted of (125) male and female students in physical education at Al al-Bayt University who were randomly chosen by 20% of the total community.

The results revealed that the level of using the education techniques among the students of physical education at Al al-Bayt University was high. In addition, there were statistically significant differences at the level of ($\alpha \leq 0.05$) in the viewpoints of the sample members regarding the extent of using the education techniques among the students of the physical education at Al al-Bayt University according to the variables of gender and the registered hours of the students (less than 66 hours, 66 hours and above). In light of the results of the study, the researcher recommended many points, including enhancing the students' skills in using the education techniques among the students of physical education, and paying attention to the application of modern teaching methods at the university.

Key words: Education techniques, Students of Physical Education, Al al-Bayt University.

For the paper in Arabic see pages (145 - 166)
The extent to which academic accreditation standards were implemented in College of Education in Sultan Qaboos University as perceived by faculty members and postgraduate students.

Dr. Abdulhameed S. Hassan  
Associate professor in Department of Psychology  
Sultan Qaboos University

Dr. Bakkar S. Bakkar  
Assistant professor in Department of Psychology  
Sultan Qaboos University

Abstract

The purpose of this study was to assess the extent to which accreditation standards were implemented in College of Education in Sultan Qaboos University from the viewpoints of faculty members and postgraduate students. The sample of the study consisted of 151 faculty members and 286 postgraduate students. To achieve the study goals, a scale on components of activating accreditation standards was developed and administered to the participants.

The findings revealed that there were no significant differences due to independent variables: gender and profession in perceiving the extent to which accreditation standards are being implemented and activated, as well as interaction between gender and profession did not have any significant effect. The findings also indicated that factor analysis yielded four factors contributing to account for the variance in activating and developing the outcomes adopted by NCATE committee during accreditation stage.

Key words: Accreditation Standards, College of Education, Faculty members, Postgraduate students.

For the paper in Arabic see pages (121 - 144)
Bullying Among Al al-Bayt University Students as Viewed by the Students and Its Relationship with Certain Variables.

Dr. Taiseer Al-Khawaldeh
Professor in Faculty of Educational Sciences
Al al-Bayt University
Jordan

Dr. Salh Shrfat
Associate professor in Faculty of Educational Sciences
Al al-Bayt University
Jordan

Dr. Mahmod Migdadi
Associate professor in Faculty of Educational Sciences
Al al-Bayt University
Jordan

Abstract

This study aimed at identifying the bullying level of the students of Al al-Bayt University as viewed by the students. It further aimed at underlining the differences in the bullying levels according to the gender, faculty, place of residence and GPA. To achieve the objective of the study, the researcher constructed a questionnaire which consisted of (36) items. The validity and reliability of the instrument were verified. The study sample included (300) male and female students.

The most significant result was that the bullying level of Al al-Bayt university students was generally low on all the domains. The results further indicated that there were statistically significant differences among the students' responses means attributed to the gender variable, in favor of the males, and to faculty variable, in favor of the females. The results also showed that there were statistically significant differences attributed to the residence place, in favor of the city residents; and to the accumulative average, in favor of the students with higher averages.

Key words: Bullying, students, Al al- Bayt University.

For the paper in Arabic see pages (81 - 120)
Professional Development Needs for Math Teachers in light of KSA Vision 2030 Requirements.

Dr. Hashem Saeed Al Shaikhy.

Associate Professor of Curricula and Teaching Methods of Mathematics
Faculty of Education
King Faisal University in Al-Ahsa
Kingdom of Saudi Arabia

Abstract

The study aimed at identifying the educational and cultural professional development needs for math teachers in the public education stages in light of the requirements of Saudi Arabia Vision 2030.

To achieve the study's objectives, the researcher analyzed the Kingdom's vision 2030, prepared a questionnaire in light of the analysis results, and then applied the questionnaire to the study sample which consisted of (735) male and female teachers.

The study achieved the conclusion that there were several educational and cultural professional development needs for math teachers, and that the average of these needs was considerable in both educational and cultural fields. In addition, the study also revealed that there were no statistically-significant differences in identifying the educational and cultural needs that are attributable to gender variable (male teacher, female teacher), while there were statistically-significant differences in identifying them that are attributable to educational stage variable (primary, intermediary, secondary) in favor of the secondary education stage versus the primary education stage. Regarding the interaction between gender and education stage variables, there were no differences in identifying those needs that are attributable to the interaction between them.

Key words: professional development- educational needs- cultural needs- Math teachers- KSA vision 2030- on-the-job training.

For the paper in Arabic see pages (39 - 80)
The Degree of Post Basic Education Students' Knowledge about Social Dimension Indicators of Sustainable Development.

Dr. Ahmed Hamad Hamadan Al-Rabaani

Associate professor in Faculty of Education
Oman Studies Center
Qaboos University

Abstract

The study aimed at investigating the degree of post basic education students' knowledge about social dimension indicators of sustainable development. A random sample consisted of (1224) males and females students were selected from grade 12 from four governorates: Muscat, Al-Batinah, Al-Dakilah, Al-Sharqia. Data was collected by using a knowledge test which consisted of (26) questions. The validity and reliability of the test were examined.

The findings revealed that post basic education students' had low level of knowledge about social dimension indicators of sustainable development. The results also showed that there were significant differences in students' knowledge with respect to gender in favor of female students. The results also revealed that there were no significant differences (α = 0.05) in students' knowledge of social dimensions indicators of sustainable development due to their province except in population domain in favor of Al-Dakilah. The researcher recommended enhancing the level of students' knowledge about indicators of social dimensions and suggested further studies in the field.

Key word: sustainable development, social dimension indicators, post basic education students, Oman.

For the paper in Arabic see pages (15 - 38)
## CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Author(s)</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Degree of Post Basic Education Students' Knowledge about Social Dimension Indicators of Sustainable Development.</td>
<td>Dr. Ahmed Al-Rabaani</td>
<td>1</td>
</tr>
<tr>
<td>Professional Development Needs for Math Teachers in light of KSA Vision 2030 Requirements.</td>
<td>Dr. Hashem Al Shaikhy.</td>
<td>2</td>
</tr>
<tr>
<td>Bullying Among Al al-Bayt University Students as Viewed by the Students and Its Relationship with Certain Variables.</td>
<td>Dr. Mahmod Migdadi, Dr. Salh Shrfat, Dr. Taiseer Al-Khawaldeh</td>
<td>3</td>
</tr>
<tr>
<td>The extent to which academic accreditation standards were implemented in College of Education in Sultan Qaboos University as perceived by faculty members and postgraduate students.</td>
<td>Dr. Abdulhameed Hassan, Dr. Bakkar Bakkar</td>
<td>4</td>
</tr>
<tr>
<td>The Extent of Using Education Techniques among the Students of Physical Education at Al al-Bayt University.</td>
<td>Dr. Ismaiel sood Al-oon</td>
<td>5</td>
</tr>
<tr>
<td>Problems of Students with disability at Damascus University from their point of view.</td>
<td>Dr. Alia Alrefaay</td>
<td>6</td>
</tr>
<tr>
<td>Educational supervisors' practice of power sources in Dafar governorate in the Sultanate of Oman from the point of view of the first teachers.</td>
<td>Dr. Mohammed Algaraidih, Dr. masoud al awaud</td>
<td>7</td>
</tr>
<tr>
<td>Forest Concept Evolution as per 138 Years of Syrian Forest Legislations and its Educational Extrapolations.</td>
<td>Dr. Mohamad Cheikho</td>
<td>8</td>
</tr>
</tbody>
</table>
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