SGS SGS Forestry	MAIN ASSESSMENT REPORT SUMMARY PAGE		
QUALIFOR Programme	Organisation:	Municipality and	City Association of Rheinland-Pfalz
	Forest Area:		Forests of Regional enz, west side of the river Rhine

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Forest Certification

Public Summary Report

Project Number:	6476-DE
Client:	Municipality and City Association of Rheinland-Pfalz
Country:	Germany
Certified Area:	Participating Municipalities and Cities within the Regional Directorate Koblenz on the west side of the river Rhine; currently Hümmel and Simmern
Main species/products:	Spruce, Oak, Beech, Pine
Annual production:	currently approx. 4 665 m ³ (Hümmel and Simmern)
Assessment date:	7 - 10 December 1998
Certificate Number:	0755 / 6476/0224
Date of Issue:	10 February 1999
Duration:	5 years
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SGS SGS Forestry	MAIN ASSESSMENT REPORT i	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

TABLE OF CONTENTS

SECTION I - PUBLIC SUMMARY REPORT	1
1. INTRODUCTION AND SCOPE	. 1
2. COMPANY BACKGROUND	. 1
 FOREST MANAGEMENT SYSTEM. 3.1. Bio-physical setting. 3.2. History of use. 3.3. Planning process . 3.4. Harvest and regeneration . 3.5. Silviculture	. 2 . 3 . 3 . 5 . 6
 4. SOCIO-ECONOMIC AND ENVIRONMENTAL CONTEXT	. 7 . 9
5. LOCAL STANDARDS 1	12
6. THE ASSESSMENT 1 6.1. Schedule 1 6.2. Team 1 6.3. Peer Reviewers 1 6.4. Process 1 6.5. Sampling 1	13 13 13 13
7. ASSESSMENT RESULTS	17
8. STRENGTHS AND WEAKNESSES	26
9. CERTIFICATION RECOMMENDATION	30

SGS SGS Forestry	MAIN ASSESSMENT REPORT 1	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

SECTION I - PUBLIC SUMMARY REPORT

1. INTRODUCTION AND SCOPE

This report presents the results of an assessment of the forest management operations in communal forests within the Regional Directorate Koblenz in Rheinland-Pfalz, Germany, in the area on the west side of the river Rhine. The assessment is part of a group certification programme initiated by the Municipality and City Association of Rheinland-Pfalz (Gemeinde- und Städtebund Rheinland-Pfalz, hereafter GStB). The assessment of the forest management practices was conducted in those communes which were, as of 30 November 1998, definitely (contract signed) or provisionally (letter of intent) participating in the group certification programme of GStB. The assessment was carried out by QUALIFOR, during the period 7 to 10 December 1998.

The purpose was to assess the operations against the QUALIFOR Group Certification Programme and the requirements of the QUALIFOR Programme, the SGS's forest certification programme accredited by Forest Stewardship Council. This includes all the Forest Stewardship Council's Principles and Criteria (FSC P&C) as well as locally-applicable standards provided by the German FSC working group ("Richtlinien nachhaltiger Forstwirtschaft").

The Assessment covered the group management system of GStB which has control over the provisionally or definitely participating communes and their forest management operations in the following forest areas:

District	Commune	Total Area (ha)	Average Production (m ³)
Honerath	Hümmel ¹⁾	730	2 535
Neupfalz	Ingelheim ²⁾	1 153	5 000
Simmern	Rheinböllen ²⁾	399	2 430
	Erbach ²⁾	48	300
	Simmern ¹⁾	603	2 130
Total		2 933	12 395 ³⁾

¹⁾ At the time of the assessment, these communes have signed the participation agreement for the group certification programme.

²⁾ At the time of the assessment, these communes had signed a letter of intent to participate in the group certification programme.

³⁾ Average production over the last three years.

SGS SGS Forestry	MAIN ASSESSMENT REPORT 2	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

2. COMPANY BACKGROUND

The Municipality and City Association of Rheinland-Pfalz (GStB) is an umbrella association of the communes of Rheinland-Pfalz. Members are all municipalities and cities, as well as asociated communes. GStB is a private association with statutes registered in Mainz.

Besides numerous tasks as representative of the member communes, GStB is also the communal forest owners' association. A total of 1.950 forest owning municipalities and cities are organised within GStB, representing approximately 400.000 ha of forests. In this function, according to its statutes GStB is representing the interests of the communal forest owners with the Bundesland, the Republic and Europe.

The specific matters of communal forest enterprises are dealt with by a forest department at head office in Mainz.

The principles of forest management in Rheinland-Pfalz are prescribed in forest legislation. As concerns forest stewardship and responsibilities, legislation distinguishes between state owned, corporation forests (mainly communes) and privately owned forests.

The stewardship of the communal forests in Rheinland-Pfalz is under jurisdictional and technical control of the state forest administration. The State Forest Administration is subdivided into the Supervisory Forest Authority (Forest Department within the Ministry for the Environment and Forests), Upper Forest Authority (Forestry Directorate; Department 4 within the Regional Directorate of Koblenz) and Lower Forest Authority (Districts). In the communal forests, the Mayor is the forest director, where as the head of the Lower Forest Authorities under which administration the communal forests are, is the technical manager. The operational manager is a ranger, either employed by the state forest authority or the commune. He is subject to technical directives of the forest authority.

In the communal forests the only direct employees are forest workers, and in some cases the rangers (e.g. town of Ingelheim). The stewardship of the communal forests is mainly commissioned by the commune to the Lower and Upper Forest Authority (districts and regional directorate). For some activities in the forest, e.g. harvesting and timber extraction, private contractors are employed.

3. FOREST MANAGEMENT SYSTEM

3.1. Bio-physical setting

The assessed area on the west side of the river Rhine within the Regional Directorate Koblenz is subdivided into natural regions of (from south to north) Soon Forest, Simmern Basin, Hunsrück, Mosel Valley, eastern

SGS SGS Forestry	MAIN ASSESSMENT REPORT 3	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

Hocheifel and Ahreifel. The forests are at altitudes of between 100 m and 700 m a.s.l. Rheinland-Pfalz has a warm-moderate climate with relatively little variation. Average rainfall amounts to 500 to 1.100 mm per year. Most common soil types are Cambisols and "Pseudogleys".

The most common regional vegetation types are Lower Mittelrhein, Ahreifel, eastern Eifelrand, Mittelrhein Basin, eastern Hunsrück-Hochfläche, Simmern Basin, Soon Forest and Soonvorwaldstufe. The predominant forest types are "Flattergras-Hainsimsen-Buchenwald", "Hainsimsen-Buchenwald" and "Perlgras-Buchenwald" (all naturally dominated by beech).

3.2. History of use

The forests of Rheinland-Pfalz were originally naturally dominated by beech and mixed beech and oak forests. They used to cover 90% of the land area of Rheinland-Pfalz.

In the course of industrialisation in the 18th century, a major exploitation of forests for timber and fuelwood occurred and lead to a widespread destruction of forests by overharvesting. This initiated a period of reaforestation with fast growing conifers.

Nowadays, the total forest area in Rheinland-Pfalz covers 42% of the land area. Thereof approximately half of the area is corporately owned (mainly by communes), one fourth is owned by the state, little less than a fourth by private owners and one percent by the republic.

In the assessed area, the total forest area is approximately 97.500 ha. This forest area is owned by more than 500 communes.

In many communes, the forests are still dominated by coniferous stands (mainly spruce, some douglas fir, larch and pine). These stands are growing mostly on unsuitable sites and were struck by heavy windthrows in 1984 and 1990. The amount of damage was at a level which made the planned activities described in the medium term management plans nearly impossible to be implemented.

Following these windthrows the State Forest Administration started a programme to transform the site-unadapted pure conifer stands into more natural broadleaf stands. This programme was included in silvicultural guidelines.

In addition, subsidies were granted for reaforestation of damaged forests. These developments have strongly influenced the forest policy of Rheinland-Pfalz and the forest stewardship of the communal forests.

3.3. Planning process

The communal forests in Rheinland-Pfalz are jurisdictionally controlled and managed by the State Forest Administration.

SGS SGS Forestry	MAIN ASSESSMENT REPORT 4	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

The planning process happens at several levels. Besides the state forest programme and a forest policy document of the State Forest Administration for a long-term strategy of the forest development, the most important planning instruments at the management unit level are the medium-term management plan and the annual plan of operations. As per legislation, a medium-term management plan is required for each individual communal forest.

In the management plan there is a description of the forest including the ownership, forest area structures, forest resources, existing maps, inventory results, forest functions, etc. The medium-term planning prescribes the activities, silvicultural techniques and production goals for each stand. Long-term production goals give the strategy including the planned future species composition and age class distribution.

Management plans have a period of validity of 10 years. The plan consists of four main parts: description of current status, planning and execution in the previous planning period, planning for the subsequent planning period and a summary of the results. As part of the plan, an explanatory report is summarising the most important information (areas, financial results, silviculture including specific descriptions of the main species, allowable cut, etc.).

Silviculture, thinnings, final harvesting and allowable cuts are for groups of main species for the communal forest property for a period of 10 years.

Evaluation of the current status is made in each individual stand (smallest management unit). This includes descriptions of species, species mixture, age, average height, productivity class, ground coverage, crown coverage and damage within each species. The standing volume and anticipated increment are usually calculated on the basis of yield tables. Full inventories or sampling are done in stands where final harvesting is due within the planning period or where high volume and high value trees are of special interest. Trial units managed by scientific institutes, research and trial institutes as well as model units of the planning office are used as test stands for investigating yield levels and development with regards to specific production goals and stand types on given sites.

In communal forests, planning is done by central planning offices in the regional directorate. Plans are developed on the basis of management planning instructions for state and communal forests in Rheinland-Pfalz. The district office informs the forest owner that the renewal of the management plan is due. The communes submit their intentions for planning. These are discussed with the planning office at an opening meeting. After conclusion of field work, representatives of the communes are invited for a final field visit, where main results are presented. The commune decides on the management plan and announces its decision to the Upper Forest Authorities, which is the authority of approval for all

SGS SGS Forestry	MAIN ASSESSMENT REPORT 5	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

management plans. However, the plan can only be rejected if it violates the forest act.

After five years of the planning period, intermediate examinations of the plan can take place upon application by the commune or the Lower Forest Authorities.

The most important monitoring indicators of management planning are species composition, age class composition, timber harvesting goals, species mixture goals. All these are available for each main species.

The annual plans of operation serve as an implementation tool of the medium-term planning. These are the main steering instruments of forest management. The planning period corresponds with the financial year of the commune. The annual plan of operations encompasses working plans and financial plans. The working plans consist of cultivation, thinning, final harvest, coupe marking, but also forest protection measures (e.g. fencing, mechanical and chemical protection against deer). For each planned activity, anticipated costs for personnel and equipment, as well as assortments including volumes and revenues are identified. The financial planning includes a summary of costs and revenues for all activities in the overall management unit. The basis of these plans are activities planned for each stand. The ranger is responsible for establishing the draft plans for volumes, assortment and work. The district office sets up annual plans of operations and budgets and leads the negotiations with the commune.

In the annual plan all activities are listed by management unit and stand in a table. On the opposite side of these tables, which are used in the field, actual activities are recorded. Planning, bookkeeping and proof of activity are recorded and administered centrally in the district office on computer databases. All yields, including pre- and final harvesting, are recorded in assortment overviews in the EDPN software programme (recording and printing of plans and proofs).

Oosts for establishing medium-term management plans are covered by the forest authorities. All costs associated with employing forest workers during planning work are invoiced to the commune. Communes also pay a contribution to the running costs for those rangers that are employed by the state forest authorities. This is based on a hectare estimation, which includes factors such as standard cost of a "model ranger" (calculated mean costs based on experience values), managed forest area and various reductions.

3.4. Harvest and regeneration

Harvesting in communal forests is done mechanically and manually, which means by chainsaw for larger dimensions combined with the use of harvesters (mostly in even-aged single species conifer stands of medium age). In the smaller communes, only a few forest workers are still

SGS SGS Forestry	MAIN ASSESSMENT REPORT 6	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

employed full-time. A large part of the work is sub-contracted to local contractors. Timber extraction especially is usually done by contractors (over the totality of communal forests nearly 100%). Use of harvesters is also usually done by contractors.

The regeneration technique applied is mostly influenced by the long-term production goals of the management plan. In the course of the state-wide programme for converting single-species conifer stands into mixed stands, the silvicultural guidelines have changed a lot. These guidelines are compulsory for state forests and recommended for communes. The current principle for forest regeneration is natural regeneration. However, due to the actual high proportion of single species conifer stands, planting is still required in order to convert these stands into more stable, mixed broadleaf stands. The final decision for natural regeneration or planting (mainly as pre-planting before final harvesting), or admixture to natural regeneration respectively, is based on site maps and production goals in the management plan.

Planting material is partly derived from the communes' own nurseries, but mostly supplied by commercial nurseries. The use of plants is regulated by recommendations for the selection of suitable and controlled origins of forest seeds and plants in the silvicultural guidelines.

3.5. Silviculture

Applied silvicultural techniques are described in detail in regularly updated silvicultural guidelines of the state forest authorities. These guidelines are compulsory for state forests and recommended for communal forests. However, due to the close cooperation of communes and district offices, the influence of the forest authority's forest management goals on decisions in the communal forests by the district office is strong. Despite this, the communes can bring in their goals and requests into the planning process. These have to be considered by the district offices, as long as they are not contravening the law.

There are two very different philosophies in silviculture. Firstly the more traditional system of age classes distribution, secondly, in some communes, for some years a silvicultural system based on the recommendations of "ANW" (working group for natural forest management) has been applied which moves towards stands in a permanent mixture of all age classes.

The silvicultural practices are strongly influenced by the wide-spread evenaged, single species conifer stands and the consequences of the windfalls in 1984 and 1990. Due to the loss of up to 30% of the standing volume during one incident, in many communes hardly any final harvesting is possible. In these communes activities are mainly silviculture and stability supporting thinnings.

SGS SGS Forestry	MAIN ASSESSMENT REPORT 7	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

3.6. Monitoring processes

Monitoring processes are happening at different levels. All activities of forest workers are supervised by rangers in state or commune duty. The rangers are also controlling the work of contractors.

Technically, rangers are under the authority of the district office, regardless of the employing body. District offices are, in general, controlled by inspectors of the regional directorate.

For health and safety issues in the forest, independent safety officers are responsible. To keep their independence, they are directly under the authority of the regional government. The safety officers are mainly on duty in state forests. Their service however is available for communes as well.

The implementation of the management planning and control of activities carried out in communal forests is done centrally by the district offices. All field work and financial records are centrally recorded in the EDPN database in the district office. In this database, volume, assortment and quality data of timber sales of each commune are also managed. Timber sales data is forwarded to the state forest authorities, which produce timber sales statistics for forests in Rheinland-Pfalz.

During the planning process, necessary data for the subsequent planning period are collected by the regional directorate's planning team. Deer damage is evaluated by the rangers in damage and silvicultural surveys. These serve as a basis for the lower hunting authorities to fix the shooting plan within the respective hunting district.

As concerns the management of the group certification programme, GStB is administering information on members in general and uses a specialised computer database for participants of the programme. General and particular information on communal timber sales are supplied by the state forest authorities.

4. SOCIO-ECONOMIC AND ENVIRONMENTAL CONTEXT

4.1. Social aspects

The communal forests in Rheinland-Pfalz are of a high value for most of the communes. Besides the awareness of having a precious resource in the sense of climate protection, protection of infrastructure, landscape and water, as well as for recreation, forests also have a big importance for harvesting wood raw material and the local economy (direct employment and supply for the local timber industry and small businesses).

SGS SGS Forestry	MAIN ASSESSMENT REPORT 8	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

The timber in the forests also represents high assets and used to have, and sometimes still has, a savings bank function, in the sense that investment projects of a commune can be financed by timber sales. These special harvests are still possible today, although, the total allowable cut over the ten year managment plan period can not be exceeded.

The windfall disasters in 1984 and 1990 have caused heavy losses in standing volumes in many communes, not least because of a high proportion of fragile single species conifer stands. Many communes are nowadays in a position where hardly any final harvesting can take place. This because of lack of mature stands, or because of solidarity to prevent timber price collapses during the first years after the 1990 windfalls, where high volumes of water stored timber had to be marketed.

The reinstatement of windblown stands is now practically concluded, eased by subsidies from the state for reafforestation.

Most communes are employing only a few forest workers. A lot of work is carried out by private contractors from the nearby area. In most communes, the work is organised in such a way that for harvesting in lower dimensions and where specialised equipment is used, contractors are employed, whereas the commune's workforce is used for difficult jobs and harvesting in old stands. Smaller communes sometimes set up cooperations with other communes, where a group of forest workers employed by several communes are carrying out the work in rotation for each commune.

Forest workers employed by communes are all professional foresters. Priority requirement for employment by communes or district offices is the capability to fulfill the tasks described in the duty books and job descriptions. Employed contractors are mainly judged on their ability to do the practical specialised work assigned to them.

A comprehensive further training programme of the state forest authorities in the training centre at Hachenburg as well as practical training for new work techniques and technologies in so-called base forest districts are providing continuous training for all forest personnel.

Health and safety at work are regulated through a variety of legislation and collective contracts. State forest workers are subject to safety at work inspections and work medical care. These services are open to communes, however, it has to be contractually regulated and paid for by the commune. Safety officers are checking compliance with accident prevention regulations in state forests.

Private contractors are integrated in health and safety issues by general conditions of business for private contractors.

Currently there is a programme being set up for a quick rescue of casualties, called "rescue chain". The programme includes a

SGS SGS Forestry	MAIN ASSESSMENT REPORT 9	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

communication system with identical maps showing access routes for rescue vehicules, mobile phones and language rules. The programme is now tested in state forests.

The basic social rights of workers are regulated by the implementation of the Social Charter of the European Commission in legislation. Each employee has the right to be organised in a workers union (IG-B.A.U.; union for construction industry, agriculture and environment). Workers' rights are also prescribed in the various collective contracts.

Owners and use rights in the forest are described in real estate registers. Exact boundaries and any changes in boundaries are checked and updated during the management planning process. Use rights are described in the real estate register. In communes, use rights are mostly the right of firewood collection for locals. In addition, in all forests of Rheinland-Pfalz there is the right of free access and for collecting mushrooms and berries at an uncommercial level.

In Rheinland-Pfalz, there is currently a programme for evaluating forest functions. The result of this survey are maps, which are available for pilot projects (e.g. in the context of road and railway line projects) as a trial. Forest function maps and plans will be independent of the type of ownership.

Locally active interest groups are known at district offices by rangers. GStB is keeping a list of stakeholders who have an interest in forests.

Community relations are entertained at several levels of the forest authorities by promoting awareness for functions, effects and stewardship of the forests (e.g. forest weeks in Lahnstein at district level, self-guided teaching trails, excursions and public events in communal forests).

4.2. Environmental aspects

At present, the communal forest of Rheinland-Pfalz are still characterised by the wide-spread single species conifer stands in traditional age class distribution. These stands have not always been established on suitable sites, which means partly on periodically drenched soils. During the storms in 1984 and 1990 many of these stands were struck.

The state forests are similarly characterised. Further threats by insects and new types of forest damage by pollution are challenges, which the state forest authorities try to meet. In order to improve the stability of the forests, various strategies are pursued: establishment of site-matched mixed stands, conversion of single species conifer stands into mixed species broadleaf stands, lime application, forest protection measures (including chemical protection in cases of large areas being completely defoliated by insects) or mitigation of deer damage by means of shooting plans and

SGS SGS Forestry	MAIN ASSESSMENT REPORT 10	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

protection measures (fencing, individual mechanic and chemical protection).

The actual air pollution situation, impacts by acidic substances on the soil as well as actual status of forest health are published annually by the ministry for environment and forests jointly with the forest research station of Rheinland-Pfalz.

The state forest authority has been running a programme for several years, which aims at orienting the species selection to the naturally occurring species. Silvicultural guidelines regularly updated and published by the forest authority are showing clear prescriptions for establishing mixed stands close to nature by site-adapted species choice.

These guidelines being compulsory for state forests, are being implemented. Communes however are not subject to these directives. By close cooperation between communes and forest districts, usually the same overall objectives are pursued and techniques applied in the communal forests as in state forests. With the establishment of management plans by the upper forest authorities, the implementation of the Ministry's intentions in the communal forests is clearly occurring.

The nature conservation authorities from the Ministry for Environment and Forests are responsible for the protection of rare, threatened and endangered species as well as of biotopes. Besides a state forest programme there is also a state conservation programme. Their local implementations are fed into the new management plans. Setting aside and management of conservation areas is within the responsibilities of the conservation authorities. Besides individual protection of rare species (prevention of disturbance, leaving nesting trees, etc.) species protection is mainly done by habitat protection. Larger rare species occurring are for example wild cat and black stork. Red data lists of rare, threatened and endangered species are kept. Biotope maps are available for the whole state area. These are integrated into the maps of the management plans. Specific surveys of occurring species exist in nature parks. The regional directorate is offering training courses in nature conservation and species protection.

In the absence of natural predators, the game species population in Rheinland-Pfalz needs to be regulated by hunting. In communal forests, hunting is either self-governed or leased to private hunters. Regulation of game populations is managed by the lower hunting authorities by producing annual shooting plans, which are based upon annual damage surveys and silvicultural surveys conducted every third year by the forest district office. Silvicultural surveys serve as objective evidence for judging the game damage and the possibilities to pursue the silvicultural objectives without protective measures. However, due partly to very high rents for hunting leases, high financial incomes can result for the communes. At the

SGS SGS Forestry	MAIN ASSESSMENT REPORT 11	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

same time, shooting plans are often not adhered to and the damage to forests by feeding, browsing and peeling can cause high costs for protective measures. Some communes have started to avoid conflicts of interest by changing the nature of leasing contracts (e.g. sanctions in case of non-fulfillment of the shooting plan), or by replacing the hunting lease by self-governed hunting.

Timber harvesting is done by chainsaw in older stands, partly by harvesters in smaller dimensions. Harvesters are mainly used for thinnings in single species conifer stands. Trials were made for harvester use in low dimension broadleaf stands in pilot programmes. Timber extraction is done by forwarders, timberjacks and forest tractors. Forest road networks are largely well established in communal forests. Extraction routes and skid trails are usually established before the first thinning. Distances between extraction routes are partly based on the use of harvesting equipment (e.g. manual or mechanic) and are typically between 20 and 50 metres.

In communal forests hardly any forest reserves or so-called reference sites have been set aside. Stands outside regular operations (so-called "arB" stands) are shown on maps. In these stands, usually no operations take place for economic reasons (low productivity, wet sites, steep slopes, etc.).

According to reports by the state forest authorities, on three quarters of all forest sites of Rheinland-Pfalz, lime application is necessary in order to prevent soil acidification. Also in communal forests, lime application have taken place.

The forest research and trial station of Baden-Württemberg is publishing annual forest protection reports on behalf of Rheinland-Pfalz. Forest health status and prognoses are reported. Abiotic damage, complex diseases, animal damage and fungus diseases are surveyed. For each type of damage, actions in individual stands are recommended. These include on-going observation, informing the research station, immediate removal of harvested timber, traps against rodents, etc.. Large applications of pesticides are only envisaged in the case of calamities, when a decision by the Ministry is required.

In most communal forests, deer damage on young trees by feeding is prevented by chemical repellents applied on individual trees. This is mainly done in order to reduce the fenced-in area.

Chemical protection of harvested timber is not recommended by the research station. Organisational measures and, if required, water storage of timber are preferred. The forest research and trial station of Baden-Württemberg is also annually publishing a list of approved chemicals for forestry.

SGS SGS Forestry	MAIN ASSESSMENT REPORT 12	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

The state forest authority recommends to district offices the use of lowemission fuels and bio-oils in state forests. The additional cost is partly reimbursed through higher chainsaw remuneration.

Exotic species used in the forest of Rheinland-Pfalz are douglas fir, red oak, Japanese larch and Nordmann spruce, of which only douglas fir and at a lower rate red oak are still of commercial value in communal forests.

4.3. Regulations

The regulatory framework of forest management in Rheinland-Pfalz is very dense and complex. The stewardship of communal forests by the lower forest authorities on behalf of the commune is regulated in the state forest act.

Besides the forest law and the forest ordinance for the implementation of the forest law, the most important groups of legislation are dealing with the following legal aspects:

- immission prevention
- hunting
- regulations on legally prescribed fees
- nature conservation
- spatial planning
- plants and forest protection
- traffic

Besides that, regulations on education and further training, labour rights and health and safety at work are described in a variety of collective contracts and general conditions of business for private contractors.

In the forestry sector, rangers have forest policing functions. They are sworn as special constables of the public prosecutor.

5. LOCAL STANDARDS

The local standard used for the assessment was provided by the German FSC working group (directions for sustainable forest management - German FSC Standard), which was available as a draft, dated 24 August 1998. Participants in the GStB group certification programme have committed themselves to adhere to these standards, a copy of which is in appendix III.

SGS SGS Forestry	MAIN ASSESSMENT REPORT 13	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

6. THE ASSESSMENT

6.1. Schedule

The Assessment was preceded by a pre-assessment by QUALIFOR during 6th to 14th October 1998. This examined the management systems of the group and the communal forests in Rheinland-Pfalz and identified any gaps that might preclude certification. The Ministry in Mainz, the regional directorate and three selected forest districts were the central contacts, where management systems were discussed mainly with heads of district offices in their role as responsible technical managers for communal forests and with rangers as operational managers. Information gathered was used to plan the main assessment. Key stakeholders were identified.

The pre-assessment was conducted jointly with IMO (Institute for Market Ecology, Sulgen, Switzerland) which was commissioned by GStB to carry out the group certification programme in the regional directorate of Koblenz on the right hand side of the river Rhine.

The main assessment was carried out during the period of 7^{th} to 10^{th} December 1998. A detailed schedule is shown in Appendix I of the full report.

6.2. Team

- <u>Lead Assessor and Team Leader</u>: QUALIFOR lead assessor, SGS International Certification Services AG, Zürich/Switzerland. Forester with academic degree and 11 years of professional experience, thereof four years in forest management assessments
- <u>Local Specialist</u>: Assessor of the forest service, Müllheim/Germany with more than fifteen years experience in planning, harvesting and forest equipment

Curricula vitae are provided in Appendix II of the full report.

6.3. Peer Reviewers

Three independent specialists were selected to review this report. They include a Swiss university professor in forestry, a forest researcher specialising in ecology and forest site science and one from academia (head of forest district with experience in regional directorates and federal authorities).

6.4. Process

The Main Assessment was conducted in the steps outlined below.

SGS SGS Forestry	MAIN ASSESSMENT REPORT 14	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

6.4.1. Preparation

Using the results from the pre-assessment and the local standard, a checklist was prepared from the generic QUALIFOR checklist.

6.4.2. Stakeholder notification

A wide range of stakeholders were contacted by letter to inform them of the planned assessment and ask for their views on relevant forest management issues. These included environmental interest groups, local government agencies and forestry authorities, forest user groups, workers' unions and the German FSC working group (see Appendix V of full report).

6.4.3. Opening meeting

An opening meeting was held at GStB head offices in Mainz. The scope of the assessment was explained and schedules were determined (see Appendix I of full report for attendance sheets).

6.4.4. Management system of the group entity

The group management system of GStB as group entity was evaluated at head offices in Mainz for fulfillment of the FSC requirements for group certification.

6.4.5. Document review

A review of the main forest management documentation was conducted to evaluate the adequacy of coverage of the QUALIFOR Programme requirements. This involved examination of legislation, policies, management plans, systems, procedures, instructions and controls. A large proportion of these documents had already been identified and examined during the pre-assessment.

6.4.6. Field assessments

Field assessments aimed to determine how closely activities in the field complied with documented management systems, the QUALIFOR Programme requirements and the German FSC standard. Interviews with representatives of the forest district offices involved, rangers and commune representatives were conducted to determine their familiarity with, and their application of, policies, procedures and practices that are relevant to their activities. A sample of forests from the provisionally or definitely participating communes, was visited. Within the communes a number of randomly-selected sites were visited to evaluate whether practices met the required performance levels.

Due to weather conditions during the assessment (heavy snowfall at all altitudes) harvesting and other operations in the forests were stopped for safety reasons. Therefore no direct interviews could be made with forest

SGS SGS Forestry	MAIN ASSESSMENT REPORT 15	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

workers and private contractors. These will be rescheduled on subsequent surveillance visits.

6.4.7. Stakeholder interviews

Based on the information letter sent to a total of 31 individuals and stakeholder groups, six replies were received. The full checklist was sent for comments. The final checklist was adapted and updated based on received comments. During the field assessment, no personal meetings were held with stakeholders. However, the German FSC Working Group was closely involved and regularly updated on progress of the project.

6.4.8. Summing up and closing meeting

At the conclusion of the field assessment, findings were presented to GStB management at a closing meeting. Any areas of non-conformance with the QUALIFOR Programme were raised as one of two types of Corrective Action Request (CAR):

- **Major CARs** which must be addressed and re-assessed before certification can proceed
- **Minor CARs** which do not preclude certification, but must be addressed within an agreed time frame, and will be checked at subsequent surveillance visits

6.5. Sampling

Field visits were carried in four out of five participating communes. Due to the small number of participating communes, these field visits focused on the four largest communal forests. The municipality of Bad Breisig in Ahrweiler district could not be visited due to the very short notice of participation. At the time of the assessment, the following communes were reported as participants:

District	Commune	Forest area (ha)	Status of participation agreement
Honerath	Hümmel	730	signed
Neupfalz	Ingelheim	1'153	provisional participation
Simmern	Rheinböllen	399	provisional participation
	Erbach	48	provisional participation
	Simmern	603	signed
Total		2'933	

SGS SGS Forestry	MAIN ASSESSMENT REPORT 16	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

Field visits were conducted in Hümmel, Simmern, Rheinböllen and Ingelheim. The certification recommendation only includes those communes, which have signed the participation agreement. All communes within the assessed area scope, who will be signing the participation agreement after issuance of the certificate, will be evaluated against internal guidelines by GStB and, in case of positive outcome, will be considered as certified. An assessment by the certification body will be done on the basis of sampling during future surveillance visits.

The following sites were visited during the assessment:

Hümmel: Old stand of beech; douglas fir stand (39-44 years) after thinning by contractor; mixed spruce and douglas stand (46 years) with future tree and negative selection; various cultivation and natural regeneration sites.

Simmern: Spruce stand at medium age with extraction routes; planted beech with natural birch regeneration as pre-stand; mixed beech and old stand of oak with natural beech regeneration.

Rheinböllen: Spruce stand at medium to old age, including marking of extraction routes and future trees; old stand of beech with natural beech regeneration, planned single tree harvesting; old stand of beech with natural beech regeneration and marking of protected woodpecker trees; Beech thinning for promotion of natural regeneration, fire wood extraction by local residents (crown material was pre-extracted to skidding trail by commune in order to prevent driving into the stand by firewood collectors).

Ingelheim: Nest planting with oak and beech in windfall area; medium age stand of beech, thinned by harvester; former coppices and coppices with stands with natural regeneration.

Due to weather conditions during the field visits (heavy snowfall), all forest operations by own forest workers and by contractors were cancelled. Therefore only sites could be visited, where operations are currently ongoing. However, no direct interviews could be made with forest workers. These will be rescheduled during future surveillance visits.

7. ASSESSMENT RESULTS

Detailed assessment findings are included in the full report. For each QUALIFOR requirement, these show the related findings, and any observations or corrective actions raised.

The main issues are discussed below. They focus on the requirements of the FSC guidelines for group certification programmes and of the German FSC standard.

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SGS SGS Forestry	MAIN ASSESSMENT REPORT 17	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

7.1. Findings related to the requirements for group certification programmes

The City and Municipality Association of Rheinland-Pfalz is acting as group co-ordinator for its forest owning members. Certification of forest management practices of the communes thus involves less costs for individual communes than if each were certified individually.

GStB has so far done a lot of development and information work at communes and forest district offices. The basis of participation in the group certification programme is a voluntary commitment, which a commune enters into with GStB. An integrated part of this agreement are "Rules for Good Management", to which each commune is committed to adhere once they join.

GStB as group entity, forest owning communes and the state forest administration (Upper and Lower Forest Authorities) are cooperating as three partners. GStB is taking the responsibility towards the certification body to control the fulfillment of the requirements by each commune. Each interested individual commune is signing a participation agreement containing a commitment for sustainable forest management in the spirit of the Forest Stewardship Council. This agreement governs the obligations and rights of the municipality or the city respectively, the payable fees, the withdrawal from the group, the expusiion from the group in case of severe violation against the requirements without adequate corrective action, and data collection and management. An integral part of the agreement are the "Directions for Sustainable Forest Management" - German FSC Standards and the "Rules for Good Management". These rules are interpreting the German FSC standards in those aspects where practical implementation is unclear.

Through the technical management of the communal forests by the district offices and the operational management by rangers, the relationship between GStB and state forest authorities needs to be regulated. The lower forest authorities are covering most of the practical activities in their regular work in the forest as well as the required control functions in the participating communes. The assigned roles of the group certification programme are described in a written confirmation of the state forest administration for the cooperation with GStB. At the time of the assessment however, this confirmation has only been made verbally. A Minor Corrective Action Request (no. 011) requires, that this confirmation has to be formally approved and signed. The practical consequences for the district offices in the context of the stewardship of the forests as well as required monitoring activities are described in "Guidelines on the FSC Group Certification". Again, detailed arrangements with the district offices still need to be formalised (Minor CAR no. 002).

SGS SGS Forestry	MAIN ASSESSMENT REPORT 18	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

The fulfillment of the FSC guidelines for group certification programmes are described by GStB in a documented management system. This consists of:

- Description of the group management system (identity of the group entity, scope of the group certification programme, relationship between GStB and the upper and lower forest authorities)
- Group Policy (incentives for a group management programme, objectives and rules for good forest management practices, definition of a forest policy by each commune)
- Group administration (description of head offices, administration of participants, document control, approval and amendments of the management system)
- Participation rules (basis of participation, application procedure, withdrawal and expulsion procedure)
- internal auditing (procedure in case of detected non-conformances, control inspections and procedure for corrective actions)
- control of internal chain of custody (use of timber sales and marketing data generated by the state forest authorities, control of use of the certificate number and the FSC Logo)
- communication systems (internal information to interested communes, promotion of communication between communes, communication with state forest authorities, public relations, handling of external complaints).

At the time of the assessment, the management system was still under development. Although the core elements of the system, responsibilities, rights and obligations by participants as well as the relation with the forest authorities are determined, there are still gaps in the participants' administration (Minor CAR no. 012) and the procedure in case of non-conformances with the standard (detection of non-conformance; planning, implementing and checking corrective actions by the concerned commune; Minor CAR no. 003).

7.2. Findings related to the general QUALIFOR Programme

7.2.1. Policy

The stewardship of communal forests in Rheinland-Pfalz is mainly influenced by the lower forest authorities (forest districts). With the technical management by the district office, the operational management by mostly state employed rangers and the planning activities by the central planning office at the regional directorate in Koblenz, a forest management is resulting, which is oriented very much on the practices of the state forest authorities in state forests. The basic rules for silviculture

SGS SGS Forestry	MAIN ASSESSM	ENT REPORT 19
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

(species selection, regeneration technique) as well as for health and safety issues are in general only binding for state forests, however, they are mostly also implemented in communal forests. Despite this, communes have opportunities to bring in their own objectives into the long- and medium-term plan as well as into the annual plan of operations, as long as these do not violate forest legislation. Thus, the state forest authorities can only deny approval of management plans, if legislative requirements are not adhered to.

The rangers in their role as operational managers of communal forests are carrying out forest police and authoritative functions. This applies for state employed as well as for commune employed rangers. Control over the activities of rangers is guaranteed by heads of district offices, who in turn are supervised by area inspectors of the regional directorate in Koblenz.

The forest police function of the rangers allows for an adequate control of illegal activities and harvesting in the forests.

All legally prescribed fees and taxes (estate tax, value added tax from timber sales, management costs of rangers, compulsory forest fire insurance, timber sales promotion fund and any other fees) are listed in the annual budgets of the communes and provisions for payment are made.

International agreements signed by the federal government are usually implemented by respective legislation (e.g. social and workers' rights in the Social Charter of the European Commission) or specific programmes, such as FFH (flora, fauna, habitat).

GStB is recommending its participating communes to establish a forest policy specifically for thier commune, which is based on the forest policy document of the state forest authorities. This policy is a framework for objectives and targets for the management of state forests, which is aiming at multifunctional forests with stable, multi-storey mixed stands managed in a close to nature way.

7.2.2. Forest Management Plan

Forest management planning is very detailed and comprehensive. An identical planning process for all management units is guaranteed by the central planning office in the regional directorate in Koblenz. This has been a tradition now for many years. Communes can bring in their concerns and objectives at the establishment of the plans. These must be respected as long as they are within the regulatory framework.

The management plans are established according to the Guidelines for Forest Management Plans by the state forest authorities. They include evaluation of the current status, planning and implementation in the previous ten year planning period, planning for the next ten year period (among others cutting cycles, production goals, conservation goals,

SGS SGS Forestry	MAIN ASSESSME	ENT REPORT 20
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

measures for each individual stand, silviculture, thinnings, harvesting, regeneration and overall plan with allowable cuts for each species group).

The annual plans of operation include activities determined by both the district office and the commune for each individual stand. They include in general planning of work, equipment and personnel, as well as measures for silviculture, thinnings, final harvesting and regeneration. A financial plan is derived from this information and goes into the financial planning of the overall commune.

Long-term production goals are prescribed in the management plan. Examination of various management plans during the assessment showed in general the establishment of broadleaf stands of various types. This development is supported by the big windfall damages involving heavy losses on the one hand. On the other hand, regularly updated silvicultural guidelines of the state forest authorities are providing information on more natural forest management. However, for the participating communes and all future participants, it will be essential to set explicit targets for production goals in future plans, based on avoidance of planting of conifers and natural regeneration of conifers only on suitable sites including additional planting of broadleaf species (Minor CAR no. 009).

Descriptions of the current status of each stand are very detailed and provide information on species mixture, age, productivity class, soil coverage and crown coverage. The increment is calculated based on growth tables and Bitterlich sampling. For each stand, damage is evaluated. In two out of four communes assessed, the forests are managed according to the guidelines of the working group for natural forest management (ANW) and these are members of the organisation. Mostly in these two communes, it was reported that data collection and available information regarding natural condition, site adaptation, growth dynamics and dead wood are not sufficient for short- and medium-term planning. Minor CAR no. 008 is requiring that for future inventories conducted in the course of management planning, the communes should give details for data needed for setting long- and medium-term production goals. These data should also provide baseline information on reserves (so-called reference sites). There is also no data available on standing and lying dead trees. Minor CAR no. 006 requires GStB as the group entity to show in their participants' database, which dead wood strategy and management each participating commune is following.

Forest functions are described for each stand in the management plan. A detailed state-wide forest function map and a forest function plan dervied from this is currently being developped.

The internal monitoring systems of the forest authorities in state and commune forests are very detailed and comprehensive. Implementation of management plans and respective proofs are recorded by rangers for

SGS SGS Forestry	MAIN ASSESSM	ENT REPORT 21
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

each stand. This information flows into the computer database at each district office. It is also the basis for the next annual plan of operations and not least serves as a detailed history of activities as a baseline for the next renewal of the management plan.

Ten year management plans, annual plans of operations and monitoring results are not available in full for the public. However, the planning process for the renewal of the management plan is done in close cooperation with the communal authorities. Activities planned in the annual plans of operations are described in the communal work and financial plans which in turn flow into the communal budgets. In the future, it should be considered, whether explanatory reports of the management plans, which are basically a summary of the condition of the forest and the planned activities and operations, could be made publicly available upon request.

7.2.3. Social Elements

The forests of Rheinland-Pfalz are publicly accessible regardless of the ownership. Further rights need to be recorded in the land registers, otherwise they would be uncertain. In one commune it was reported that the seller of woodland tried to claim use rights after its sale. These claims, however, were rejected by the court.

In the assessed communes there are also firewood collection rights. The firewood is prepared for collection by the forest workers or sub-contractors.

During management planning, forest ownership boundaries and any changes of those are verified. Objective evidence has been seen in the management plans.

All forest workers employed by communes are trained professional foresters. In case of contractor employment, the rangers apply rules where the contractor and his employees need to demonstrate the ability to provide the quality of work required. The quality requirements are prescribed in the contracts between the commune and the contractor (e.g. protection of valuable forest plants, taking over responsibility for, and remedying action in case of, damage caused). However, there are no specific training and educational requirements for contractors. Several working sites visited in the assessed communes, where harvesting and thinning operations are carried out, showed a remarkably low level of damage by felling and extraction of timber. Extraction routes used by the contractors showed deep tracks from tractors. Reinstatement of such routes is contractually required.

In several communes it was reported, that taking into consideration the current weather conditions, some commune employees were temporarily sent to the communal employment office. Mainly in small communes, there

SGS SGS Forestry	MAIN ASSESSM	ENT REPORT 22
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

are usually no possibilities for other jobs within the commune. In some cases, several small communes form a cooperation for forest workers, employed by all communes and working in the commune forests in rotation.

In statistics published by the state forest authorities the tendency for increased use of private contractors in thinnings and for timber extraction is clearly noticeable. In the last few years the portion of sub-contracting of these activities has risen to more than 80%. This is mainly due to the use of specialised machinery, which seem to be used more efficiently by contractors.

Due to the bad weather conditions during the assessment, no direct interviews could be made with forest workers and contractors. This will be rescheduled during subsequent surveillance visits. It was reported by rangers that forest workers are very well organised through the workers' union.

The state forest authorities are providing a comprehensive education and further training programme in their own training centre at Hachenburg. This programme is open to all employees and contractors. Participation is supported by rangers. Further training opportunities are also provided by professional corporations and so-called base district offices (mostly technical training).

The use of protective clothing is compulsory for all forest workers and contractors and is checked by rangers on their regular inspections. Formal monitoring of adherence to the accident prevention regulations by safety officers of the regional government is currently only practiced in state forests, however, communes have the possibility to participate in this service. As of the year 2001, all communes either have to employ safety officers or participate in the state scheme. Minor CAR 001 is requiring GStB to include in their good management practices the requirement to make this an obligation for communes participating in the group certification programme.

7.2.4. Optimising Benefits from the Forest

After the huge damages caused by the windfalls of 1984 and 1990, many communes have included in their long-term planning production goals to convert their forests into more stable mixed broadleaf stands. Two out of the four assessed communes are members of the working group for natural forest management and are consequently implementing a strategy for using natural dynamics and processes. This also involves less work for cultivating juvenile forests.

All communes actively try to achieve multi-storeyed stands and harvesting of target diameters instead of ages. This strategy aims at a production of more different species and dimensions.

SGS SGS Forestry	MAIN ASSESSMI	ENT REPORT 23
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

Prevention of damage to the stand by harvesting activities is mainly promoted by employment of skilled workers and contractors, as well as in individual cases mechanical protection of trees or technical means (e.g. brash mats during harvesting). In one commune it was reported, that in addition to medium-aged conifer stands, harvesters have been used in trials for thinnings in broadleaf stands. This measure was taken in order to cut harvesting costs and avoid damage to the remaining stand. However, there are no documented procedures nor requirements for these pilot tests, and impacts on soils, stands and extraction routes have not been systematically assessed. Minor CAR no. 005 requires that these trials have to be documented and an evaluation against traditional harvesting techniques needs to be conducted.

In lower dimensions, occasionally horses are used for extraction, provided they are available. In one commune a horse keeper from the nearby Belgium border was employed.

The average harvesting rate over the last three years in all assessed communes has shown a yield level which is clearly below the allowable cut prescribed in the management plan. This is mainly caused by the losses of high dimension during the windfall incidents. Only little final harvesting can currently take place.

In the communal forests, the main product is timber. Timber scaling is done by the rangers and timber sales mostly carried out by the district office. In case of contracted harvesting of standing volumes, the contractor is scaling the timber, and the ranger is cross-checking samples. Official timber lists for sales are however, always prepared by the district office. Timber sales data are collected for each commune at the district office and fed into the central database of the state forest administration.

Hunting is practiced in all forests of Rheinland-Pfalz. A commune can have several districts, manage a self-governed district or set up a hunting corporation with other communes. By leasing of hunting districts, communes can sometimes have very high revenues from the rent. Although impact surveys carried out annually by rangers and silvicultural surveys conducted every three years are the basis of the shooting plans established by the lower hunting authorities, which have to be fulfilled, in most assessed communes the level of game damage was very high, or the portion of fenced-in forest areas was very high respectively. For further comments related to game damage see the next section.

7.2.5. Environmental Impact

In the assessed communes, harvesting was exclusively done of individual trees, groups or small areas. However, for the above mentioned reasons, there are currently only few final harvestings.

SGS SGS Forestry	MAIN ASSESSME	ENT REPORT 24
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

Even today, most communal forests are dominated by single species, even-aged conifer stands. In the long-term production goals, there is a clear tendency to lower the portion of coniferous species considerably. However, these objectives have been set in the management plans of all communes up to ten years ago by the planning teams. Minor CAR no. 009 requires that in the next medium-term plan, site-unadapted species shall not be the main species in the overall management unit (i.e. the commune). Planting of single species conifer stands shall no longer be allowed for communes participating in the group certification programme. Existing natural regeneration of coniferous species shall only be left on suitable sites and only be allowed if additional planting of broadleaf species is made.

In general, in all assessed communes natural regeneration is applied. Exceptions of this rule are single species conifer stands on unsuitable sites, where additional planting of beech is made. On larger windfall areas, oak has been planted in sometimes extensive areas.

From all of the once planted exotic species in communal forests, only douglas fir (total area of up to 5%) and red oak (total area of approximately 1%) are of commercial value. Only in one commune with a managed forest area of 44 ha, the long-term production goals in the current management plan are still aiming at a portion of coniferous species of considerably more than 50%. This strategy needs to be adapted in the sense of Minor CAR no. 009.

Extraction routes are usually established before the first thinning at the latest. They are marked by the ranger and mostly built by the contractor doing the thinning. Distances between extraction routes vary a lot. If harvesters are used the extraction route network is typically laid out in distances of 20 m, with the intention to close every second route. However, there were also distances of up to 50 m seen.

Driving tractors and other harvesting machinery into stands has not been observed in any commune. However, in one commune it was reported that in order to prevent private firewood collectors from driving into the stands, the crown material in a harvested site was brought to the extraction route, where the tractor was driving into the stand to a distance of approximately 10 m on either side of the extraction route on frozen and snow-covered soil. The observed example in the forest did not show any evidence of damage to the soil. However, this practice should be investigated and alternatives sought.

On one occasion in a commune, the top soil has been mechanically worked in small areas around nest planting sites in windfall areas. Drainage systems are not maintained anymore. In one commune, suitable forest sites are investigated for groundwater enrichments for drinking water capturing.

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SGS SGS Forestry	MAIN ASSESSM	ENT REPORT 25
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

In general, in all visited communes dead trees are left, unless there are safety concerns. Woodpecker trees are partly marked with paint for better visibility during harvesting. Timber without commercial value is usually left in the stand. However, none of the communes have an active dead timber management. There is also a lack of baseline data on volume or quantities respectively, of dead timber (see in section 7.2.2 Management Plans).

In the management plans, protected sites are indicated (e.g. burial mounds, landmark trees, solitary rocks). There are no active protection measures though, but rather passive prevention of damage during harvesting and extraction operations.

Among all assessed communes, only the town of Ingelheim falls under the requirement for setting aside reference areas. So far, no preparations have been made. Minor CAR no. 007 requires, that in all participating communes evaluations for identification of potential reference sites should be made. For the town of Ingelheim, this is mandatory.

Pesticides are currently not applied in any commune. To prevent pesticides application on temporary log yards, mechanical measures (debarking) or organisational measures (e.g. just-in-time supply) are preferred. Chemical substances are used as game repellents. The quantities of chemicals used (e.g. FCH 909, Arcotal) are approximately 50 litres per year in one commune. The applied chemicals are listed in the "information on approved pesticides in forestry", published by the forest research and trial institute of Baden-Württemberg.

Protective measures against deer damage by feeding, peeling and browsing are individual protection, but also large scale fencing. In some communes, cultivation of natural regeneration or planted areas is nearly impossible without fences. This appears to be clear evidence that shooting plans were not fulfilled. Due to very high hunting leases in some cases, conflicts of interest can arise, especially in core areas of red deer. GStB has tried to meet solutions to the deer problem by drafting a standard hunting lease contract, which includes instruments such as the obligation of body evidence. One commune has introduced provisions for fines in the case where fulfillment of the shooting plan of less than 85%. In this commune, new annual damage could be reduced from 22% to 4% within one year. In another commune, the hunting lease system has been replaced and self-governed hunting introduced.

Silvicultural surveys are an objective instrument to adapt shooting plans to the actual damage level. These evaluate endangering levels of juvenile forests without protective measures. Minor CARs no. 004 and 010 require, that hunting leaseholders are made aware of the group certification and its obligation, that communes adapt there hunting lease contracts at the next possible occasion and sanctions in case of non-fulfillment of the shooting

SGS SGS Forestry	MAIN ASSESSME	ENT REPORT 26
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

plan are introduced, and that there is evidence that fences are reduced (e.g. verifiable with a fence register).

7.3. Issues raised by Stakeholders

The following points have been raised by stakeholders during the consultation process:

One organisation (Pollichia; Association for Nature Research and Conservation) had general observations regarding the German standard. These observations were forwarded to the German FSC working group for further consideration and to GStB for information. The Ecological Hunting Association of Rheinland-Pfalz made aware of the need for special consideration of problemes related to the forest/deer issue. This issue was discussed with a representative of the association by telephone. Considerations taken during the assessment are described in the assessment results.

All other stakeholders informed did not raise any issues.

8. STRENGTHS AND WEAKNESSES

8.1. Strengths

With the group certification programme, the Municipality and City Association of Rheinland-Pfalz has started a process, which had already been initiated by some individual communes, but not pursued because of cost reasons.

Experiences encountered during the storm incidents of 1984 and 1990 have resulted in changed strategies and objectives towards a more natural silviculture in most communes. In the assessed communes, tremendous efforts were made since, to select species and design stand structures in a more natural way, especially as regards the reduction of conifer species.

The commitment and motivation of all rangers is worth particular mention. Discussions with mayors and representatives of the communes have shown that the communes are supporting a more natural stewardship of their forests and are partly going beyond the recommendations of the state forest authorities by a management towards permanent multi-storey forests.

8.2. Weaknesses

A total of 12 Minor Corrective Action Requests (CARs), as described below, were raised. In the following table the requirement number refers to the indicator used in the QUALIFOR Programme to test each criterion

SGS SGS Forestry	MAIN ASSESSME	ENT REPORT 27
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

from either the FSC P&C and the FSC guidelines for group certification respectively.

CAR No	QUALIFOR requirement	Description
	· (FSC P&C)	
1.	4.2.4/4.2.5	Checking compliance of accident prevention requirements by safety officers is done in state forests. As of 2001, communes are required to build own posts or to participate in the state scheme. In the rules of good management, the requirement for this obligation is missing.
2.	8.1.1	The internal monitoring of the group certification system is mainly based on the activities of the Lower Forest Authorities. The actually involved monitoring activities and requirements for control and documentation however are not definitely agreed with the Lower Forest Authorities.
3.	GCP Requirem. 4.3	In case of discovered non-conformances with the standard in a commune, corrective actions are to be initiated, implemented and their effectiveness checked. The procedure for raising, implementing and verifiying corrective action requests is not sufficiently documented.
4.	6.2.7 - 6.2.9	Deer damage is precluding natural regeneration from growing in some communes in red deer areas without protective measures. There is a lack of documented evidence that hunting leaseholders have been made aware of the certification programme and its requirements in detail, and the fulfillment of the shooting plan is absolutely mandatory. In addition there is a lack of instruments such as fines in case of non-fulfillment of the shooting plan and producing body evidence.
5.	6.5.2	In one commune, pilot trials are made with harvesters in small dimension broadleaf stands. However, there are no documented procedures for their use as well as for evaluation of damage caused to the remaining stand and to the soil.
6.	7.1.3	There are individual objectives for standing and on-the- ground dead timber by rangers. However, there is a lack of information in the participants' database on dead timber strategy and management of each participating commune.
7.	6.4.2	So far, in none of the participating communes, reference areas have been set aside. According to the German standard, these must be defined within the next five years. An evaluation of potential reference areas is

SGS SGS Forestry	MAIN ASSESSME	ENT REPORT 28
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

CAR No	QUALIFOR requirement (FSC P&C)	Description
		missing.
8.	7.2.2/7.2.4/7.2.5	Achievement of objectives in the management plans and amendments towards the end of the planning period are not systematic. Important indicators, such as for site correspondence, natural state, dead timber and reference areas are missing.
9.	9.2.2	Most communal forests are dominated by site- unadapted species, mostly conifers. In the next medium-term plans, clear, long-term objectives must be set, such as: site-unadapted species must not be the main species, no plantings of single species conifer stands are established, natural regeneration of coniferous species is only used on suitable sites and including additional planting of broadleaf species.
10.	6.2.7	Regeneration without fencing is in most communal forests coupled with a high level of deer damage. There is evidence that fences are reduced, however there is a lack of information on the actual area fenced-in and efforts to continuously reduce the fenced area (e.g. fence register).
11.	GCP requirem. 4.2	A confirmation for cooperation of the State Forest Authorities with GStB has only been made verbally. A documented agreement is missing.
12.	GCP requirem. 3.2	A comprehensive participants' register with data on the individual communes and their forest management sytems is still in a conceptual phase.

Explanations to CARs:

No. 001: Conformance to accident prevention regulations in the communes is currently controlled by the rangers during their regular inspections. By participating in the state scheme with independent safety officers directly reporting to the regional government, a more neutral control by specifically trained personnel could be guaranteed. In addition, a participation in the "resucue chain forestry" now being implemented in state forests could at least reduce consequences of accidents. The CAR aims at committing the communes voluntarily before its obligation starts in 2001.

No. 002: In the group certification programme of GStB, it should be benefitted as much as possible by the existing structure of the Upper and Lower Forest Authorities in order to prevent overlaps. This requires

SGS SGS Forestry	MAIN ASSESSME	ENT REPORT 29
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

however, an active cooperation with and agreement by the State Forest Authorities. This must be documented and must define communication avenues between communes, Lower Forest Authorities and GStB.

No. 003: The group entity must evaluate conformance with the standard and takes the collective responsibility. In cases of identified non-conformances, GStB must define procedures how these non-conformances are detected (e.g. by Lower Forest Authorities), how reporting works, how corrective actions are defined, implemented and their effectiveness checked.

No. 004: A high level of damage caused by deer, especially in red deer core ares, violates the regulatory requirement that forests have higher priority than game. High incomes from hunting leases are offset by the high costs for protective measures and mostly not quantified reductions in productivity. Hunting leaseholders must be made aware of conditions required for natural forest management and clarify their acceptance of the obligation to meet the shooting plans. This could be implemented by introducing sanctions and especially by revised hunting lease contracts including clear corrective actions in case of non-fulfillment of the shooting plan.

No. 005: Pilot trials with harvesters in small dimension broadleaf stands in one commune, initiated partly for cost reasons and also in an attempt to find a less damaging technique shall only be conducted based on written procedures. Advantages and disadvantages shall be systematically assessed and evaluated (e.g. cost reductions, damage reduction, more dense extraction route network, soil compaction on larger forest area, etc.). This allows a more objective validation of the planned operation.

No. 006: Ranger specific strategies and philosophies on dead timber should be harmonised and with regards to a dead timber management within the participating communes included in the participants' administration database of the group entity.

No. 007: Of the participating communes, only one falls under the reference area rule (more than 1.000 ha of forest). For this commune, a short-term evaluation of potential areas is compulsory. Reference areas must be set aside within the next five years. With the potential for an area of up to 400.000 ha in the group scheme, which are managed by communes in Rheinland-Pfalz, all communes should conduct an evaluation of potentially suitable reference site within their management unit.

No. 008: Especially in communes that are operating according to ANW, there is evidence that the baseline data from inventories of the planning office are not sufficient to conduct monitoring activities on the development of the stands towards permanent multi-storey forests. The CAR suggests that participating communes provide information to the

SGS SGS Forestry	MAIN ASSESSMI	ENT REPORT 30
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

planning office, which data are important to the commune and which should be considered for the renewal of the management plan. This includes indicators such as site correspondence, natural state, dead timber, multi-storey stands, observations in reference sites, etc.

No. 009: In all assessed communes, objectives towards more natural forest stewardship with muti-storey mixed broadleaf stands have been set. The long-term species selection and composition however should be defined in an individual strategy for each commune. Species selection shall be objectively oriented towards the natural forest vegetation types. The allowed admixture of suitable species not included in the natural vegetation type including exotic species still needs a more detailed definition by the standards committee of the German FSC working group. The CAR has been rated minor, because conversion into multiy-storey, mixed broadleaf stands is a very long-term process and communes have already adapted their long-term production goals.

No. 010: In some communes the fenced area as protection against deer damage is remarkably high (up to 15%). Besides other strategies to reduce deer damage (see CAR no. 004), a fence register is an important indicator for improvement of the damage situation. A reduction of fenced areas can be recorded and proved.

No. 011: The management of communal forests by the Lower Forest Authorities, the centralised forest management planning process, the communication and training systems of the state forest authorities and the timber sales data are all services to GStB provided by the forest authorities, which the group entity is using. This cooperation must be confirmed by the Upper Forest Authorities, which has only been done verbally.

No. 012: Administration of participating communes is being set up by GStB with a computer based participants database. This is only in a conceptual phase. Considering the small quantity of participants, the participants administration is simple. Thus the CAR has been considered as minor.

Reference is also made to section 9. Certification Recommendation - Issues raised by Peer Reviewers.

Issues raised by Peer Reviewers	
Issue raised Response	
Because of bad weather,	Weather conditions changed in the night

9. CERTIFICATION RECOMMENDATION

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SGS SGS Forestry	MAIN ASSESSMI	ENT REPORT 31
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

the moment of field evaluation was not appropriate	before the main assessment. It did not appear appropriate to abort the assessment. However, issues not covered in detail during the main assessment (e.g. interviews with forest workers and private contractors and their environmental awareness, training needs and programmes, etc.) will be specifically considered during surveillance visits (as described in the full report).
Interventions stated by interested groups and representative bodies are not quoted and dealt with in sufficient detail; what is the consequence of the intervention of Pollichia society; what does it mean that much importance must be attached to forest-wildlife problems	Issues raised by stakeholders will be described in more detail in the final report. Pollichia's interventions were referring to core elements of the draft German standards. In our view, it is up to the standards committee of the German FSC working group to include those comments into the redrafted version of the German standards. The deer damage situation in the forests of Rheinland-Pfalz is not satisfactory. With two CARs both related to improvements of the situation, instruments are provided to start a process which, by its nature needs a long time. Surveillance visits will focus among others on the hunting and deer damage issue
Issues related to CARs raised	
CAR no. 002 (may be considered as Major)	CAR no. 002 was considered as minor because at the time of the assessment, there was a verbal agreement by the State Forest Authorities. In the meantime, more detailed analysis raised concerns by some members of the Authorities (technical concerns as regards on-line access to the databases, general concerns as regards additional work of the Lower Forest Authorities). This change of the situation has been discussed with GStB. In the absence of the written agreement, the Minor CAR is upgraded to a Major CAR (Minor CAR no. 002 is deleted and a new CAR no. 013 is raised).

SGS SGS Forestry	MAIN ASSESSME	ENT REPORT 32
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

CAR no. 003 (may be considered as Major)	CAR no. 003 was considered as minor, because this issue was considered in the drafted management system, which is being implemented. At present, the group is still sufficiently small to ensure control over the participants. The CAR requires a more detailed procedure and progress will be checked at surveillance visits.
CAR no. 006 (replacing personal standards by binding objective standards)	It is not clear in detail, what the German FSC standard requires for dead timber management. It was the assessment teams' view, that dead timber management is made passively by most rangers. By assessing and recording dead timber management systems, an overview is gained, which can then lead to a common dead timber management. At subsequent surveillances, the developments in dead timber management will be of special consideration
CAR no. 007 (registration of reference areas does not imply necesseraly their setting up)	The German FSC standard requires that reference areas have to be set aside within the next five years in communes managing more than 1.000 ha of forest. This requirement has been made clear by GStB in relevant documentation and reference to the German FSC standard. The CAR aims at a first step. Progress will be monitored on surveillance visits.
CAR no 008, 009, 010 (too short term)	Full compliance with the QUALIFOR requirements is indeed a very long-term process. The CARs aim at starting a process towards defining indicators for monitoring set management objectives, conversion of single species conifer stands into mixed broadleaf stands and reduction of fenced areas. Concepts and procedures to start this process will be assessed at surveillance visits. The long-term results can only be judged in the near to far future.
CAR 012 (probably too weak to	The participants database is only one aspect of the group management policy and system. It is only a summary of information

SGS SGS Forestry	MAIN ASSESSMI	ENT REPORT 33
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

establish group policy and management)	on the group participants' activities. The core elements of the system are the managment system manual itself, the "Good Management Practices" and various documents published by GStB to communicate its policy for sustainable forest management.
Request for additional CARs	
Guidelines and thresholds required for forest operations, bringing together available rules and state-of-the-art knowledge in a single "environmental standards" document	In the "Good Management Practices", GStB is trying to define quantified indicators for good management. However, this process is at the very beginning and these practices are in a process of constant adaptation. It is suggested that these practices serve as environmental standards and no additional CAR will be raised at this stage. However, the development of these practices will be further assessed on surveillance visits and additional CARs may be raised if deemed necessary.
Guidelines for pre- qualification of contractors	The observed level of work quality of and low level of damage caused by contractors was very good. Therefore there is no evidence that an additional CAR is required. However, on subsequent surveillance visits, this issue will be followed up.
General issues related to certification progress	
There is a need for comprehensive objective oriented standards systems which includes three hierarchical levels (resource management, ecosystem function, production system) and concepts for integration of begin-of-pipe aspects as for example eco-efficiency described by WBCSD. On the operational level,	The comment is clearly focussing on aspects of forests and forest management which need to be adressed by scientists and researchers. Whilst the FSC P&C are situated at the global level, where these aspects are dealt with, the operational level with its required threshold values is the field of discussions of national FSC Working Groups. This issue should therefor be discussed in this forum. The request will be forwarded to the active Working Groups for consideration.

SGS SGS Forestry	MAIN ASSESSM	ENT REPORT 34
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine

environmental and social standards need to be established.	
Currently assessed area of 4.000 ha appears to be too small with regards to the represented total forest area of 400.000 ha	The sampling is only based on those communes that have signed an participation agreement with GStB or have signed a provisional agreement. The total area of forests managed within the scope of this programme (west side of the river Rhine within Regional Directorate of Koblenz) is 100.000 ha. Only those communes will be assessed and can benefit from the certificate, who have signed or will sign in the future, the participation agreement.

CAR no. 013: Minor CAR no. 002 has been replaced by Major CAR no. 013. Due to changing circumstances an agreement of the Upper Forest Authorities for cooperating with and providing services requested by GStB is still pending. Monitoring activities carried out by the Lower Forest Authorities are crucial to this Group Certification Scheme and therefor need a written confirmation by the Authorities.

There being one Major Corrective Action Request, the Municipality and City Association of Rheinland-Pfalz (GStB) cannot be recommended for certification of the group management and forest management of selected communal forests at this stage. Once the Major CAR is closed out, a certiciate will be awarded.

The outstanding Minor Corrective Action Requests do not preclude certification, but GStB is required to take the agreed actions within the agreed timeframe. These will be verified by QUALIFOR or its representative at the first surveillance visits. If satisfactory actions have been taken the CARs will be 'closed out' (verification of corrective actions); otherwise Minor CARs will be raised to Major CARs.

Prepared:		Checked:
Name:	Guido Fuchs	Dr Ruth Nussbaum
Date:	3 February 1999	

SGS SGS SGS Forestry	MAIN ASSESSMENT REPORT 35	
QUALIFOR Programme	Organisation:	Municipality and City Association of Rheinland-Pfalz
	Forest Area:	Communal Forests of Regional Directorate Koblenz, west side of the river Rhine