

Ex Post-Evaluation Brief China: – Afforestation Jiangxi



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| Programme/Client | Afforestation Jiangxi BMZ, Ref.1997 65 439 | |
| Programme executing agency | Forestry Commission for the province of Jiangxi | |
| Year of sample/ex post evaluation report: 2011*/2011 | | |
| | Appraisal (planned) | Ex post-evaluation (actual) |
| Investment costs (total) | EUR 9.64 million | EUR 12.7 million |
| Counterpart contribution (company) | EUR 3.5 million | EUR 4.11 million |
| Funding, of which budget funds (BMZ) | EUR 6.14 million | EUR 8.59 million |

* random sample

Programme description: The programme is a component of the national forestry protection programme for the upper and middle Yangtze, with the mountainous area around Lake Poyang as specific intervention zone. The predominant measures undertaken were the afforestation of approximately 19,000 hectares and the designation of a further approx. 18,000 hectares as protected forests (with partial replacement planting), with the local population being actively involved. Mixed forest was re-established on approx. 16,000 hectares, with special crops (fruits, nuts, ginkgo, etc.) being planted on approx. 3,000 hectares, and enrichment planting taking place on a further 5,000 hectares approx. These initiatives were complemented by (i) funding for private nurseries to participate in the programme, (ii) forestry protection measures and (iii) the provision of vehicles and equipment, project-related training and consulting services. (Duration: 6 years).

Objectives: The intended objective (outcome) was to create, preserve and sustainably manage, respectively, up to 37,000 hectares of mixed forest in the Poyang region, thereby contributing to resource conservation in the form of reduced soil erosion and improved water balance (overall objective/ impact). The target group was the rural population living in the project area (approx 1.85 million). Since the chief purpose of the afforestation scheme was conservation, poverty reduction was not a primary concern. Nonetheless, careful consideration was given to the interests of the local population as regards income-generating activities, legally securing land usage rights and due participation in the planning process.

Overall rating: 2

The afforestation and forestry protection measures are supporting vital ecological and economic functions that would not have been realised without the project, even though forestry management practices are way below the optimum at present.

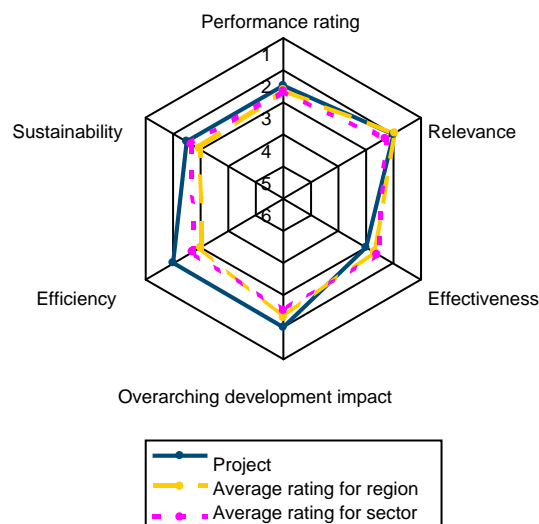
Of note:

In the interest of consistency between stated objectives and actual implementation design, more weight should have been placed on promoting sustainable forestry.

Adequately dimensioned advisory services on forestry management could have helped to embed the new concept of sustainable forestry within both the target group and the administration.

Afforestation with native/ indigenous tree species originating from the region can significantly contribute to maintaining and/ or restoring biodiversity.

Rating by DAC criteria



EVALUATION SUMMARY

This afforestation project, particularly because of its positive ecological effects and the favourable prospects for its sustainability, has been assessed as 'good'. **Rating: 2**

Relevance: The approach adopted addressed a core concern of Chinese forestry policy, namely protecting, rehabilitating and – as far as practicable – expanding the remaining forest cover, an approach which also conformed to the German sector strategy. The underlying intervention logic – curbing or even preventing soil erosion over large areas through improved forest cover – remains valid. Hence the programme was, and still remains, highly relevant.

However, with regard to the goal of operationalising *Sustainable Forestry Management* (SFM) into practice, an attribution gap is evident. The concept adopted could not realistically lead use to those techniques' actual dissemination to the extent anticipated. Firstly, the duration of the project was too short (see also Sustainability); secondly, active support of SFM was not embedded into programme design.

As the chief purpose of the scheme was conservation, poverty reduction was not a primary concern. However, various interventions – like payments for work undertaken, the introduction of specialised crops and trees grown for timber, securing land usage rights and the involvement of local people in the planning process – the programme addressed major issues to help raise awareness of the previously low levels of interest in forestry conservation and sustainable rural development in the region.

In the context of the selected region and thematic approach, donor coordination was not an issue (Sub-rating: 2).

Effectiveness: 99% of the timber-producing plantations, 75% of the orchards and 100% of the protected forests ('mountain closures') visited at the time of evaluation were found to be in a healthy state. Initial woodland management activities (principally weeding) have been carried out properly, but other necessary forest tending measures had not been implemented.

Thus, the first indicator, according to which 70% of forest plants should be in a healthy state and properly tended three years after the final planting, can be considered to have been fully achieved.

The second indicator – whereby the local workforce should have received the contractually agreed remuneration – actually refers to the output level, i.e. not the outcome to be discussed hereunder. It has nonetheless been met, with all interviewees confirming to have received their agreed pay. In this context, the participation of forest farmers in training

activities is considered an important additional measure for involving the local population. All forest farmers interviewed have participated in several training sessions.

As indicators of Sustainable Forestry Management (the second part of the programme objective), the above parameters are only meaningful to a partial extent. With regard to 'forest sustainability' in terms of a secure yield potential for future generations, the programme has been highly successful. The scope for utilisation has increased dramatically: firstly through the afforestation of previously open, barren areas, and secondly through upgrading degraded residual forest through forest closure. Considering actual sustainable management in an operational sense, the improved economic potential remains unexploited and the long-term potential for higher forestry stocks is yet to be realised. This is underscored by the fact that none of the plantations or mountain closures has yet been thinned.

Thinning activities have not been undertaken as thinning costs for the first bout exceeded the income received, and some farmers therefore wanted to postpone the process. Besides, applying for a logging permit is also a complicated procedure, and the farmers were deliberately not assisted by the forestry authorities in submitting their applications: forestry officials are concerned that forest owners might not properly carry out the necessary forest tending measures and would therefore do the forest more harm than good; this is compounded by the forestry service's still limited practical experience with sustainable forestry management, which further limits its capacity to provide support. Achievement of the economic management objective is therefore not yet assured.

Although the SFM concept was embedded into the operational approach for small-scale farmers and within the provincial forestry administration, the forestry management plans needed for its practical implementation are yet to be drafted. A sustainable forestry implementation plan could have been developed under the project, but in retrospect, in China at that point the time was not yet ripe for such ideas.

The provincial administration expects that, under a national forest tending programme due to commence in 2014, higher grants will be paid to the farmers for thinning their afforested areas. This would increase the amount of thinning work undertaken and have a positive effect on the quality of forest management and on forest stocks in general. Higher grants are very likely to contribute to more initial thinning, but the long-term effects of this programme are currently difficult to assess (Sub-rating: 3).

Efficiency: Almost all the physical targets have been attained or even exceeded. Over a term of six years, more than 37,000 hectares have been afforested, which is 7,000 hectares more than originally planned. The four-year follow-up support programme was financed out of remaining programmes funds and currency exchange gains.

The cost structures of the different models of afforestation (timber, special crops, forestry conservation measures / mountain closures and enrichment plantings) are appropriate and

– compared with similar projects and afforestation rates – clearly in the lower part of the range.

From an economic point of view, the afforestation and forest conservation areas are able to generate long-term profits which could achieve an internal rate of return of more than 10%, with the more productive forests even achieving more than 20%. However, this presupposes a professional standard of forest management (including thinning); which so far is only being practised at a rudimentary level (see above). Tree crops (esp. fruit) are already generating substantial returns.

The afforestation grants for farmers in the first and third year of the project offered only short-term economic benefits, as the costs associated with afforestation were not fully covered. Based on final use prices, our long-term calculations for the timber plantations project net earnings up to around RMB 165,000 (equivalent to approx. EUR 19,000) per hectare. The tree crops are yielding good returns, representing an additional gross income between RMB 20,000 and 50,000 per hectare per year. In some cases, earnings still do not cover the farmers' initial expenses. Since 2007, the provincial forestry administration has been supporting farmers with the establishment of cooperatives, which enables them to pool marketing efforts for their products.

In some districts, up to 50% of the areas afforested as part of the programme have subsequently (i.e. after completion) been reclassified by the state as non-commercial forest. This means that the farmers in these areas will not be able to harvest timber as originally forecast. The annual compensation grants paid out by the state to those farmers are considered low.

One of the objectives was to mitigate the effects of soil erosion. In principle, there are civil engineering options such as slope control structures that offer an alternative to afforestation, but such solutions are far more costly. Unlike forest cover, they do not generate additional sources of income nor entail positive environmental benefits (water balance, biological diversity), which are definite advantages, but difficult to quantify in monetary terms. In summary, efficiency is rated as good (Sub-rating: 2).

Overarching developmental impact: The favourable framework created by China's forestry conservation policy has provided a strong boost to afforestation initiatives.

At project appraisal, no indicators were set for the overall objective; the overall objective is deemed to have been achieved upon realising the programme objective. Some reservations apply in terms of forest management, as essential forest tending activities required for the forests' health, have not yet been carried out (see also Effectiveness).

The absence of sufficient data on soil erosion and water balance in the province means that the contribution to these overarching objectives cannot be statistically validated. In

addition, a drought period prevailing at the time of evaluation prevented the compilation of meaningful data on water retention capacity.

Based on the following facts, however, it can be reasonably assumed that the programme could significantly contribute to solving the core problems identified at the time of the programme appraisal:

- The percentage increase in afforested area and in forest cover generally (up to 7%) and the conversion of fallow land into forest have had a positive effect on soil erosion, water retention and groundwater supplies in the project area.
- The indigenous tree species used in the project and the natural methods used in the rehabilitation of degraded forests are contributing to a decrease in soil erosion.
- The extent of crown closure (measured at 70% - 90%) together with the quantity of leaf litter observed are slowing run-off and thereby reducing soil erosion.
- The presence of certain insect species which are dependent on good water quality, taken together with statements from farmers participating in the survey, indicate that water quality in the project area has improved following afforestation.
- Biological diversity in the project region has visibly increased, especially in the mixed forest plantations and forest protection areas (mountain closures).

The land usage certificates that have been issued since 2004 as part of the programme safeguard land tenure rights for the local farmers and offer them long-term prospects of receiving support services for the afforested land. In some districts, forest farmers (especially itinerant workers) have sold their land usage certificates, and thus their forest areas (mainly for special crops and timber), to third parties, e.g. other farmers, local businessmen, paper mill operators. Some of the certificates also serve as collateral for bank loans. This is judged as contribution to a developing the land and property market – even to the financial sector, and consequently to regional economic development. It is currently difficult to assess how such developments will influence the sustainable management of forest land (Sub-rating: 2).

Sustainability: With respect to the environmental benefits expected from the programme (erosion control, water balance, biological diversity), those can be judged as having been secured for the long term. As already mentioned, the concept of SFM appears to be formally established; however, various maintenance activities (especially thinning) must be carried out at regular intervals, in addition to further SFM training for forest farmers to assure the sustained quality of forestry stocks. Grants for thinning are due materialise in 2014 with the commencement of the national forest tending programme, but it is as yet uncertain to what extent these will remedy the situation.

The protected status of the *mountain closures* is respected by the population; with no signs of illegal logging.

Broadly speaking, the staff of the Jiangxi forestry service can be classified as 'qualified for their work'. The technical staff who received training under the project continue to be employed by the provincial government and to support the local forest farmers. The participatory approach to planning adopted for the project was also used by the programme executing agency to implement the '*Land Conversion Project*', a national afforestation programme in Jiangxi Province. On this basis, we consider this approach sufficiently established for future similar programmes in Jiangxi.

More than 30,000 forest farmers have been trained in afforestation and weeding. However, the future success of SFM – besides the grants regarded as necessary to enhance initial thinning – is dependent on also providing further advanced SFM training programmes, which should be provided by the provincial forestry administration. These are issues which in principle could have been addressed by the programme; in retrospect, the time may not yet have been ripe. The socio-economic and environmental monitoring that was supposed to have been an element of operationalising SFM has so far not taken place.

In any event, the newly established plantations and mountain closures would continue to serve an ecological and economic purpose even without commercial exploitation - probably not at an optimal level, but certainly much better than prior to or without the programme, respectively (Sub-rating: 2).

Notes on the methods used to evaluate project success (project rating)

Projects (and programmes) are evaluated on a six-point scale, the criteria being relevance, effectiveness, efficiency and overarching developmental impact. The ratings are also used to arrive at a final assessment of a project's overall developmental efficacy. The scale is as follows:

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| 1 | Very good result that clearly exceeds expectations |
| 2 | Good result, fully in line with expectations and without any significant shortcomings |
| 3 | Satisfactory result – project falls short of expectations but the positive results dominate |
| 4 | Unsatisfactory result – significantly below expectations, with negative results dominating despite discernible positive results |
| 5 | Clearly inadequate result – despite some positive partial results, the negative results clearly dominate |
| 6 | The project has no impact or the situation has actually deteriorated |

Ratings 1-3 denote a positive or successful assessment while ratings 4-6 denote a not positive or unsuccessful assessment

Sustainability is evaluated according to the following four-point scale:

Sustainability level 1 (very good sustainability) The developmental efficacy of the project (positive to date) is very likely to continue undiminished or even increase.

Sustainability level 2 (good sustainability): The developmental efficacy of the project (positive to date) is very likely to decline only minimally but remain positive overall. (This is what can normally be expected).

Sustainability level 3 (satisfactory sustainability): The developmental efficacy of the project (positive to date) is very likely to decline significantly but remain positive overall. This rating is also assigned if the sustainability of a project is considered inadequate up to the time of the ex post evaluation but is very likely to evolve positively so that the project will ultimately achieve positive developmental efficacy.

Sustainability level 4 (inadequate sustainability): The developmental efficacy of the project is inadequate up to the time of the ex post evaluation and is very unlikely to improve. This rating is also assigned if the sustainability that has been positively evaluated to date is very likely to deteriorate severely and no longer meet the level 3 criteria.

The overall rating on the six-point scale is compiled from a weighting of all five individual criteria as appropriate to the project in question. Ratings 1-3 of the overall rating denote a "successful" project while ratings 4-6 denote an "unsuccessful" project. It should be noted that a project can generally be considered developmentally "successful" only if the achievement of the project objective ("effectiveness"), the impact on the overall objective ("overarching developmental impact") and the sustainability are rated at least "satisfactory" (rating 3).