

Executive summary

Indonesia and the Netherlands have worked together on scientific research for centuries. The two countries' shared past is reflected in unique archives, extensive collections and large quantities of data and resources in both countries. In 1992 the Dutch and Indonesian governments signed agreements to stimulate educational and scientific collaboration and exchanges. In 1994 a programme of collaboration started which was called the Programme Scientific Cooperation Netherlands-Indonesia. In 2000 the programme was restructured under a new name *Scientific Programme Indonesia – Netherlands* (SPIN). The aim of the programme is to facilitate long-term scientific collaboration between Dutch and Indonesian researchers, based on the principles of reciprocity and mutual benefit. SPIN is currently in its third five-year phase. Since 1995 the programme has been executed by the Royal Netherlands Academy of Arts and Sciences (KNAW) on behalf of the Minister of Education, Culture and Science (OCW) who has been the main funder of the programme from its beginning.

With the end of the programme looming (foreseen in 2017), the Ministry decided to organise an independent evaluation of how successful the SPIN programme has been. It asked EP-Nuffic to carry out this external evaluation. The evaluation consisted of five broad topics of investigation:

- effectiveness (were the objectives achieved);
- efficiency (how well were resources used);
- additionality (to what extent did results achieved depend on the SPIN programme);
- continuity (to what extent will results be maintained in the absence of the SPIN programme);
- interest for ongoing collaboration in the future.

The evaluation looked at the programme from the start in 1994 but focused on the second (2006 – 2011) and third phase (2012 – 2017) and on the transition between these two phases. The budget for the two phases combined is € 15.8 million and these funds have been provided by the Dutch Ministry OCW. In the third phase the Indonesian government is contributing 40 PhD scholarships. The evaluation has been carried out from 1 November 2014 to 1 April 2015 and included a visit to Indonesia in the first two weeks of February 2015.

Effectiveness

Based on the information gathered through desk research, interviews and questionnaires, the evaluators conclude that the SPIN programme can be regarded as a success in more than one respect. It has achieved its main objective of establishing long term scientific collaboration between researchers in the Netherlands and Indonesia and of building research capacity in Indonesia. Strong research groups and networks have been formed and high quality research has been conducted on themes which have priority for Indonesia's socio-economic growth and development and appeal to the research interests of the Netherlands (Economic Top Sectors and *Speerpunten*) and Dutch researchers.

The programme has also been successful in producing good scientific output, in quality as well as in quantity, although an exact number is difficult to establish. The vast majority of the PhD candidates (126 between 1994 and 2011) have successfully defended their thesis. In the same period more than 600 articles, 150 book chapters and 22 books have been published. Apart from these scientific outputs the Dutch universities have benefited from the spin-offs of their involvement in SPIN by expanding networks, successfully applying for funds from other sources and receiving increasing numbers of Indonesian students for study at their institution.

Although mutual benefits have been generated in programme activities, the benefits have been of a different nature for partners on both sides. Over the years the collaboration in the research groups has developed into more equal forms of scientific cooperation. Impact in non-research fields has been realized but is of incidental nature and has not systematically been recorded or reported.

As a model of bilateral scientific research collaboration SPIN is effective and efficient at the level of the research groups. The SPIN programme is not equipped to change the institutional environment of the research groups, nor the Indonesian higher education system, its funding arrangements and governing principles. This enabling environment determines to a great extent the success and sustainability of the SPIN projects. A more fundamental change of this environment is needed to create a favourable environment for research at Indonesian universities.

Efficiency

The efficiency of the programme is also assessed as positive. Although the projects which involved PhD tracks showed delays in finalizing results, on average projects have achieved their planned results. The programme has benefited from substantial contributions in kind from the project implementers which is a clear sign of their commitment to the projects and the programme. Contributions from other external sources vary, depending on the research topic, but seem to be modest. Overall, the programme has a good cost-benefit ratio if one compares the programme funds invested with the scientific output realized and research capacity built.

The programme for scientific research between Indonesia and the Netherlands has a long history but also an interesting learning curve and evolution. What started with the funding of small projects which did not have any connection with each other evolved into a well-conceived programme with sets of complementary projects in thematic clusters. This resulted in a clear focus, coherence in programmes and opportunities for multidisciplinary research. This certainly has had a positive influence on the scientific quality and relevance of the projects and the visibility of the programme as a whole.

The Open Science Meetings can be seen as a valuable component of the programme to promote, showcase and enrich the Dutch –Indonesian scientific cooperation. The Academy Professorships Indonesia (API) are an instrument to strengthen the research culture and lateral collaboration between Indonesian universities. It is an integrated approach to improve research cultures and capacities at selected institutions. The added value of the API for Dutch-Indonesian research collaboration still has to manifest itself.

The management structure has had a considerable positive influence on the evolution and success of the programme. The bilateral Joint Working Committee has been responsible for identifying relevant research themes for the programme. The Programme Committee has selected projects on quality criteria but also on their potential to contribute to the objectives of the programme as a whole. The Programme Co-ordinators organized the coherence among projects, monitored their implementation and the quality of the research being conducted.

KNAW has done a commendable job as administrator of the programme and interlocutor between the Dutch science community and the Indonesian government and Indonesian institutions. KNAW has been flexible and understanding in the administration of the programme and diplomatic in its interactions with a variety of stakeholders. Data management in the programme is a weaker aspect.

Additionality

The majority of respondents and interviewees are of the opinion that without SPIN many of the research partnerships would not have been developed, or not in the same successful way. The same applies to the outputs and outcomes of the collaboration. The programme set-up is regarded as unique as it enables long-term collaboration, combines capacity building with high quality research

and stimulates collaboration between researchers in and between both countries. Research networks have been built around research topics and in a number of cases have expanded from bilateral (Netherlands – Indonesia) to regional and global.

Continuity

The announcement by the Dutch Minister of OCW to discontinue the funding of SPIN has led to reactions of disappointment and disbelief among the immediate stakeholders and participants. They find it difficult to understand why a successful and influential programme has to stop at a moment when Indonesia is starting to become an important economic force in the Asian region. It is feared that the good relationships and the advantageous position of Dutch science could easily be lost. It may also lead to a loss of invested research potential which has been built over the years.

The need for research capacity building in Indonesia is still great in some disciplines, although levels are improving, and there is still work to do in the improvement of the Indonesian education and research system. Without SPIN funding it will be a challenge for many research groups to continue.

However, the opportunities to find funds for this in Indonesia are growing. Opportunities which are offered through multilateral and interregional cooperation programmes can provide extra funds and impetus to the bilateral collaborations. For well-established bilateral partnerships this is a logical avenue to explore. New opportunities may present itself by creating better links between research and the private sector (more emphasis on application of research results and applied research) on the one hand, and between research and education (interaction and exchange between the two domains) on the other.

Interest for continuation of the collaboration

The Ministry of Research and Technology and Higher Education, the Indonesian Academy of Sciences and the Indonesian universities are very much in favour of continuation of the scientific collaboration, preferably in the same mode. The Dutch universities which participate in the programme and for whom Indonesia is a focus country also strongly suggest to continue the scientific collaboration between the two countries to consolidate the networks and capacity that have been built and to further expand and deepen the research that can be done in and with Indonesia. The scientific collaboration is also an important source of talents for the Dutch universities and it helps to interest more Indonesians to study in the Netherlands.

In the bilateral relations between the two countries higher education and research play a key role. It is an important 'export product' and opens doors to the higher echelons in the government, the big universities and the private sector. The Netherlands Embassy is very aware of this particular role and added value it generates and strongly supports a continuation of the scientific collaboration.

In short, the participants and stakeholders spoken to and consulted find it important to continue the scientific collaboration with Indonesia for scientific, political and economic reasons. However, its set-up and funding need to be carefully discussed at the appropriate levels of both governments. Issues that need to be addressed are the objectives (or expected outcomes) of such collaboration, the mutual interests it should serve, which parties should or could contribute to the funding of the collaboration, and who should administer the collaboration.

There is also agreement on the principle of reciprocity and mutual benefit in the collaboration. This was the intention from the start of the programme but has only recently become a fact. The Indonesian economy is growing and the Indonesian government is giving higher priority to research in its development strategies. Budgets for research are rising but they are still scattered. Substantial numbers of scholarships are now available through DG Higher Education (DIKTI) and the Endowment Fund for Education (LPDP).